



Department for
Business, Energy
& Industrial Strategy

GOVERNMENT RESPONSE: CONSULTATION ON THE SITING CRITERIA AND PROCESS FOR A NEW NATIONAL POLICY STATEMENT FOR NUCLEAR POWER WITH SINGLE REACTOR CAPACITY OVER 1 GIGAWATT BEYOND 2025



July 2018

The consultation response can be found on the BEIS section of GOV.UK:
<https://www.gov.uk/government/consultations/national-policy-statement-for-new-nuclear-above-1gw-post-2025-siting-criteria-and-process>

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Chapter 1: The Consultation

Introduction

- 1.1 The consultation on the siting criteria and process for a new National Policy Statement for nuclear power with single reactor capacity over 1 gigawatt beyond 2025 was the first step to designating a new National Policy Statement for Nuclear Power between 2026-2035.
- 1.2 The consultation was published on 7 December 2017 and closed on 15 March 2018.

National Policy Statements

- 1.3 National Policy Statements (“NPS”) establish the case for Nationally Significant Infrastructure Projects, as defined in the Planning Act 2008 (“the Act”), and set out the framework within which the Examining Authority of the Planning Inspectorate (“PINS”) will make a recommendation to the Secretary of State, in turn, to make related planning decisions.
- 1.4 An overarching National Policy Statement for Energy (“EN-1”), in conjunction with five technology-specific NPSs¹ including one on Nuclear Power (“EN-6”), was published in 2011 and sets out Government policy for the delivery of major energy infrastructure. EN-6, taken together with EN-1, provides the framework for development consent decisions on applications for new nuclear power stations which are capable of deployment by the end of 2025.
- 1.5 The sites listed in EN-6 were originally nominated to Government in 2009 and were assessed at a strategic level (via the Strategic Siting Assessment²) against exclusionary and discretionary criteria prior to being listed as potentially suitable sites in the draft EN-6³. Draft EN-6 underwent public consultation as well as parliamentary scrutiny prior to designation.
- 1.6 The eight sites listed in EN-6 as potentially suitable for the deployment of new nuclear power stations in England and Wales are: Hinkley Point C, Wylfa, Moorside (originally nominated as Sellafield), Sizewell, Bradwell, Oldbury, Hartlepool and Heysham. The listing of a site as potentially suitable in EN-6 does not guarantee that applications for development consent on that site will be granted but provides a clear framework within which PINS should make its recommendation before the Secretary of State takes the eventual DCO decision.
- 1.7 EN-6 has successfully facilitated the granting of a DCO for a new nuclear power station at Hinkley Point C in March 2013. Horizon Nuclear Power submitted a DCO application for

¹ <https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure>

² ‘Government response to consultations on the Strategic Siting Assessment process and siting criteria for new nuclear power stations in the UK; and to the study on the potential environmental and sustainability effects of applying the criteria’ <http://webarchive.nationalarchives.gov.uk/+//http://www.berr.gov.uk/files/file49865.pdf>

³ <http://webarchive.nationalarchives.gov.uk/20110302182042/https://www.energynpsconsultation.decc.gov.uk/nuclear>

Wylfa Newydd on 1 June 2018 and further nuclear projects are planning to make applications for DCOs.

1.8 Government continues to believe nuclear has an important role to play in the UK's energy future as we transition to the low-carbon economy. As such, it is necessary to designate a new NPS to facilitate nuclear power stations at sites capable of deployment between 2026 and the end of 2035.

1.9 A timeline detailing the steps to designation of the new NPS is at page 6.

Siting consultation

1.10 The consultation was the first step in the process towards designating the new NPS. In it Government proposed:

- a) **Clarification on the scope of the new NPS**, making clear that it applies to sites which will host at least one nuclear reactor, with each reactor having an electricity generating capacity of above 1 GW and being deployable before the end of 2035⁴.
- b) **The proposed strategic siting criteria** that Government proposes to use to assess whether sites listed in EN-6 should continue to be listed in the new NPS. These are those criteria used in the original strategic siting process in April 2009 which have been updated to be consistent with current law and policy.
- c) **The proposed process for assessing and designating potential sites, including:**
 - **Carrying the list of potentially suitable sites from EN-6 through to the new NPS**⁵, subject to them meeting the updated siting criteria and updates of their environmental assessments.
 - **No new site nominations window** until the 2020s
 - **Hinkley Point C is not carried forward** as a designated site as it already has its development consent
- d) **2035 as a new 'capable of deployment by' date** to focus on those sites that can help meet the need for nuclear as soon as possible

1.11 The consultation asked the following questions:

⁴ Government will consider planning issues related to smaller reactors separately to this process

⁵ The sites to be carried forward are Moorside, Wylfa, Sizewell, Bradwell, Oldbury, Hartlepool and Heysham

Consultation Questions

1.	Chapter 2 Do you agree that the proposed exclusionary and discretionary criteria are appropriate for the assessment of a site's suitability at a strategic level?
2.	Chapter 2 If not, how should the criteria be changed to achieve this objective and, specifically, are there any additional criteria that should also be used?
3.	Chapter 3 Do you have any comments on the process to designate potentially suitable sites in the new NPS for nuclear set out in paragraphs 3.1-3.14?
4.	Chapter 4 Do you have any comments on the process for future site nominations set out in paragraphs 4.4-4.18?

Structure of the consultation response

1.12 Government responds to comments received in response to the consultation in Chapter 2. A number of clarifications and improvements have been made both to the siting criteria and the process for assessing and designating sites in the new NPS. Broadly the main aspects of the process to designate potentially suitable sites in the new NPS and the process for future site nominations are as proposed in the Consultation. Therefore:

- a)** The finalised strategic siting criteria are at Annex I.
- b)** The process for assessing and designating potential sites, is set out at Annex II. This includes:
 - i. Carrying the list of potentially suitable sites from EN-6 (excluding Hinkley Point C as it already has development consent) through to the new NPS, subject to them meeting the updated siting criteria and updates of their environmental assessments.
 - ii. 2035 as a new 'capable of deployment by' date
- c)** The process for a future nominations window in the 2020s is laid out at Annex III.

1.13 Government also received comments covering topics that did not directly relate to issues covered by the consultation questions. The Government position on these topics is set out at Chapter 3.

Next Steps

1.14 The expected timeline towards designating the new NPS for nuclear deploying between 2026-2035 is:

Stage 1 (summer/autumn 2018)

- Following the publication of this response Government will write to developers⁶ of the sites listed in EN-6 asking them to confirm that they wish the sites to remain listed in a new NPS and to provide information in line with the finalised criteria.
- Government will assess sites against the exclusionary and discretionary criteria.
- An Appraisal of Sustainability (AoS) and Habitats Regulation Assessment (HRA) will be undertaken (including one for each site).

Stage 2 (estimated spring/summer 2019)

- Government will consult on a draft list of sites, as part of a consultation on a draft Nuclear NPS.
- Government will consult on the draft AoS.

Stage 3 (estimated spring 2020)

- Government will publish the final list of potentially suitable sites as part of the final nuclear NPS.
- Government will lay the final NPS in parliament, as per sections 5(4) and 9 of the Planning Act 2008.

⁶ For the purposes of this consultation developer should be read as referring to current developers or site owners as applicable. This mirrors the approach used for the development of EN-6.

Chapter 2: Government response to consultation comments

Summary of consultation responses received

- 2.1** Government received 316 responses, of which 91 were unique responses received from members of the public, local resident groups, local authorities, nuclear industry bodies, statutory bodies (including regulators), NGOs and conservation bodies. The Department also received 225 responses as part of co-ordinated mail-ins making a number of similar points. The Department is grateful to all those who took the time to respond to the consultation. All comments received were carefully considered and have resulted in a number of useful clarifications and improvements to both the siting criteria and the process for assessing and designating sites in the new NPS.
- 2.2** The majority of the comments received focused on the strategic siting criteria. Many respondents commented on the level of detail to be included in the strategic assessment and the exclusionary or discretionary designation assigned to each criterion. The criteria attracting the most interest were those covering flooding, environmental protection and demographics. Respondents also suggested additional criteria, with a particular focus on transmission infrastructure, socio-economic impacts and public acceptability.
- 2.3** Government also received a number of helpful responses on the proposed process for designating sites in the new NPS and the proposed process for inviting nominations for new nuclear sites in the 2020s. Respondents focused on the proposal for carrying forward the sites currently listed in EN-6 into the new NPS as well as the process for assessing those sites against the siting criteria. Many respondents agreed with Government proposals but others disagreed with both carrying forward sites and the process for assessing those sites. Respondents also highlighted the need for adequate public consultation in any new nominations window.

Summary of comments received on the suitability of the strategic siting criteria and Government's response

Consultation Questions 1 and 2

1.	Chapter 2 Do you agree that the proposed exclusionary and discretionary criteria are appropriate for the assessment of a site's suitability at a strategic level?
2.	Chapter 2 If not, how should the criteria be changed to achieve this objective and, specifically, are there any additional criteria that should also be used?

General comments on the level of detail included in a strategic assessment

2.4 A number of respondents agreed with the Government's approach of a strategic sift of potential sites followed by the more detailed assessments at DCO and Nuclear Site Licensing stage.

2.5 However, there were also a number of responses that either directly or indirectly questioned the level of detail included in the assessment against the strategic siting criteria. Generally, these respondents suggested that Government should develop the criteria such that they produced much more detailed assessments of sites rather than the strategic, high-level assessments that were proposed. These responses related to a broad selection of the criteria and included comments such as civil aviation should include an assessment as to whether a nuclear power station can be protected, demonstration of emergency arrangements should be included as a criterion, size of site should include all land requirements associated with the project, suitability of developers and access to transmission infrastructure should be included as a criterion.

2.6 Finally, a number of respondents also asked about the length of time over which waste is expected to be stored on-site at new nuclear power stations and questioned how this is considered in the assessments underpinning the new NPS.

Government's response

2.7 Government notes support was received for the strategic approach adopted by the siting criteria.

2.8 The 2008 White Paper on Nuclear Power⁷ set out both the need for new nuclear power and the facilitative actions which government would undertake to meet this need. This included a commitment to undertake a Strategic Siting Assessment. The purpose of this process was to assess, at a high-level, those technical safety, environmental and operational issues associated with siting which can be assessed at a national level thereby providing a level of confidence in the potential suitability of nominated sites to both investors and members of the public. The process acted as a preliminary sift of

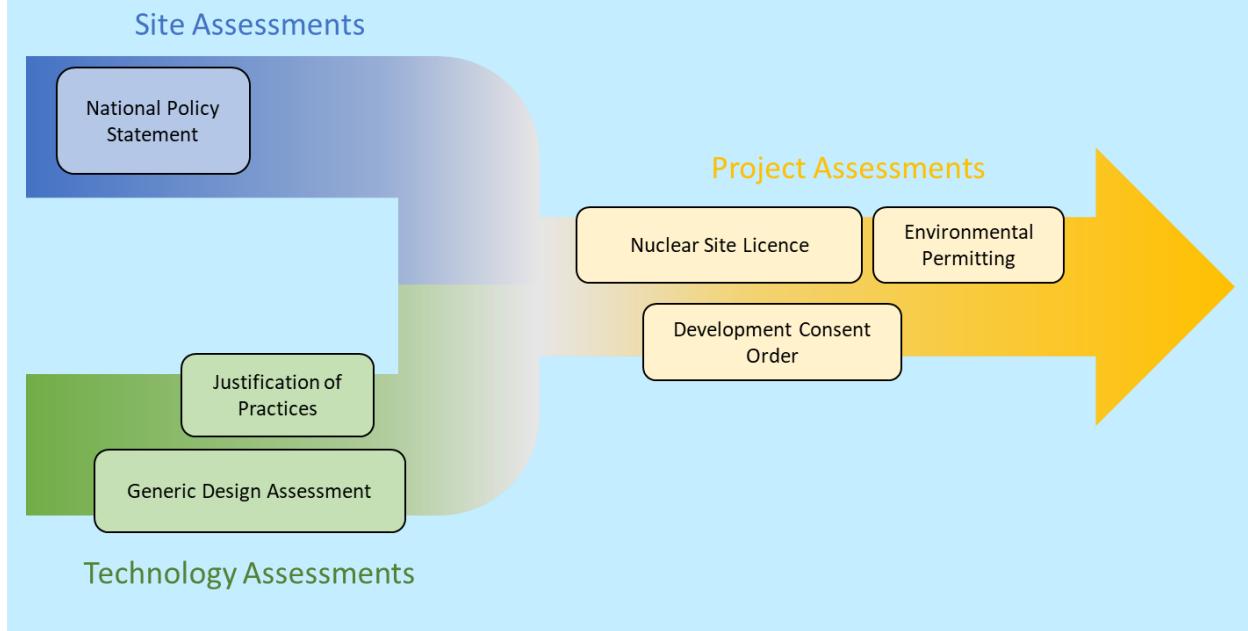
⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228944/7296.pdf

sites to focus development at locations most likely to be suitable for deployment of a nuclear power station and provide an opportunity for national consultation and parliamentary scrutiny of potential sites in addition to the local consultation which comes later in the project development.

- 2.9** In this way, the strategic siting assessment was intended to supplement, but not replace, the mandatory processes and assessments (e.g. Nuclear Site Licensing, Environmental Permitting, Development Consent, Environmental Impact Assessment etc) which must take place prior to deploying a nuclear power station and which examine the suitability of the proposed development in detail.
- 2.10** The consultation document set out the purpose of the new National Policy Statement for Nuclear Power with single reactor capacity over 1 gigawatt beyond 2025 (the new NPS). Government considers that the need for nuclear remains and that the overarching process to assess the potential suitability of sites at a national strategic level prior to statutory licensing and permitting continues to be appropriate.
- 2.11** When deciding the level of detail to be included in the strategic assessment of sites, Government considers it is important to recall the original intent of the Strategic Siting Assessment. Box 1 outlines the steps before a nuclear power station can be constructed and operated in the UK.

Box 1 – Route to construction for a nuclear power station

The general steps to construct and operate a nuclear power station in the UK, and the approximate order in which they are expected to be met, are shown in the figure below. The route is illustrative and is not intended to fully represent the timescales or sequencing of the various steps.



National Policy Statement

National Policy Statements establish the case for Nationally Significant Infrastructure Projects, as defined in the Planning Act 2008⁸, and set out the framework within which the Examining Authority of the Planning Inspectorate (“PINS”) will make a recommendation to the Secretary of State, in turn, to make related planning decisions. The new NPS will set out the need for new nuclear as well as identifying the sites which are potentially suitable for the deployment of a nuclear power station between 2026 – 2035. The NPS will be subject to an Appraisal of Sustainability and Habitats Regulations Assessment, which will assess at a strategic level the environmental and sustainability impacts and impacts to European Sites.

Justification of Practices

The Justification of Practices Involving Ionising Radiation Regulations 2004⁹ require that any activity involving exposure to ionising radiation must be Justified. This means that before carrying out a class or type of practice that is “new”, such as the decision to construct and operate a new design of nuclear power station, the practice must go through a Regulatory Justification process. This process will involve an assessment of the individual or societal benefit associated with the practice as against the health detriment it may cause. If the assessments find that the benefits outweigh the detriments, then a Regulatory Justification decision will be made that the practice is Justified.

Generic Design Assessment

Generic Design Assessment (“GDA”) is the process by which the Office for Nuclear Regulation (“ONR”) and the Environment Agency (“EA”) assess the safety, security and environmental aspects of a generic nuclear technology. GDA enables the nuclear regulators to get involved at an early stage where they can have most influence. Design changes required to address regulatory expectations are more easily implemented while the plant is still at the proposals stage rather than when construction has begun, or expensive plant items have been manufactured. This increases regulatory effectiveness and efficiency and, for developers, helps reduce their commercial risks on costs and timescales.

Nuclear Site Licence

Under the Nuclear Installations Act 1965¹⁰ an organisation wishing to use a site for the purpose of installing or operating a nuclear reactor or any other installation of a “prescribed kind” under the Act must obtain a nuclear site licence (“NSL”) before it starts construction. A site licence puts the licence holder under strict legal obligations to ensure that construction, commissioning, operation and decommissioning of nuclear facilities are carried out safely. A NSL will only be granted if ONR is satisfied that the prospective licensee’s safety documentation demonstrates that the site will be suitable for the proposed activities. The licence applicant must also demonstrate that it has adequate organisational capability and arrangements in place to manage nuclear safety and security and to comply with the site licence conditions when the licence is granted.

Development Consent Order

Before commencing development forming part of a Nationally Significant Infrastructure Project, the developer must obtain a Development Consent Order (“DCO”). This is a statutory process under the Planning Act 2008 and requires developers to undertake formal consultation prior to submitting an application. In

support of their application, developers are expected to submit information including but not limited to an Environmental Impact Assessment, Habitats Regulations Assessment, a Construction Environment Management Plan, and a Transport Strategy, which are expected to have been informed by the formal consultation. The Planning Inspectorate will consider the application, representations received from interested parties, and the relevant NPS where one has effect before making a recommendation to the Secretary of State. The Secretary of State will review the recommendation before ultimately deciding whether or not to grant a DCO.

Environmental Permitting

Prior to undertaking certain activities associated with the construction and operation of a nuclear power station a developer must obtain an environmental permit. Types of activities which require a permit include works on or near a sea defence, discharges of non-radioactive chemicals and turbine condenser cooling water as well as any planned discharges and disposals of radioactive wastes. Environmental permits and their conditions help ensure that any impacts on people and the environment associated with these activities are minimised and acceptable. In deciding whether or not to grant a permit and if so what conditions should be applied the environment agencies (The Environment Agency in England or Natural Resources Wales (“NRW”) in Wales), will carefully scrutinise the proposals taking into account all relevant legislation and policies. The environment agencies also consider the responses they received from any public consultations they carry out.

2.12 Given the intent of the NPS siting assessment, and in light of the detailed steps which occur between identification of a site as potentially suitable in the NPS and commencement of construction, Government considers that an appropriate strategic siting criterion is one which is:

- a) Capable of assessment at a national level, that is in principle any area of the country could be assessed against it without the need for detailed site investigations,
- b) Site-based rather than dependent on a specific technology or project,
- c) Meaningfully related to the later steps, i.e. meeting the criteria for the NPS must provide confidence that a site could achieve the later stages (for example, DCO or Nuclear Site Licence), and
- d) Capable of distinguishing between sites, i.e. the criteria must be sensitive to variations across England and Wales.

2.13 Government has applied these principles to the drafting of the criteria and when considering the comments received on the strategic criteria in the following sections.

2.14 In assessing site nominations for the new NPS, Government’s baseline assumption is that the full lifetime of a new nuclear power station, including interim storage of waste, could be up to 160 years. In practice, the duration of safe and secure on-site interim storage required is contingent on a number of factors, not least of which are the

⁸ <https://www.legislation.gov.uk/ukpga/2008/29/contents>

⁹ <http://www.legislation.gov.uk/ksi/2004/1769/contents/made>

¹⁰ <https://www.legislation.gov.uk/ukpga/1965/57>

availability of a GDF and the length of cooling time required before waste can be packaged for disposal. A lifetime of 160 years is considered to be a conservative estimate and it is noted that the current indicative schedule for the GDF shows the ability to emplace spent fuel from new reactors by approximately 2145¹¹, which could substantially reduce the overall site lifetimes. While the full potential lifetime of 160 years will be considered in the assessment of site strategic suitability, Government recognises that, in practice, predictions for the effects of climate change become less certain over long timeframes. Therefore, as well as considering the foreseeable effects of climate change, Government will also consider the potential adaptability of the site to accommodate more onerous scenarios and longer-term effects of climate change.

General comments on exclusionary vs. discretionary criteria

2.15 A common theme in responses was that a greater number of criteria should be exclusionary. A number of respondents felt that whether criteria were categorised as exclusionary or discretionary was reflective of the importance attached by Government and expressed concern that certain criteria were not exclusionary. These respondents also felt that sites would not be ruled out for failing a discretionary criterion. Discretionary criteria which were frequently identified in this way included flooding, tsunami and storm surge, internationally designated sites of ecological importance, size of site to accommodate operation and access to suitable sources of cooling.

Government's response

2.16 Government defined exclusionary and discretionary criteria in the consultation document. **Exclusionary criteria** are those that, if breached, will categorically exclude a site from further consideration. **Discretionary criteria** are those criteria that the Government considers could, either singly or in combination, make all or part of a site unsuitable for a new nuclear power station but which need to be carefully considered in order to come to a conclusion as to the site's strategic suitability.

2.17 In principle any criteria could be categorised as exclusionary or discretionary depending on the limit applied; this is illustrated in Figure 1. The primary purpose of identifying exclusionary criteria is to rule out the sites for which it will be impossible or completely impractical to meet the relevant policy, regulatory or statutory requirements or mitigate the adverse impacts of a development. In this way exclusionary criteria are an effective tool to ensure that undue focus and attention is not applied to unsuitable sites, but they do not reflect a more important or stringent test than discretionary criteria.

¹¹ <https://rwm.nda.gov.uk/publication/geological-disposal-generic-disposal-facility-designs/>

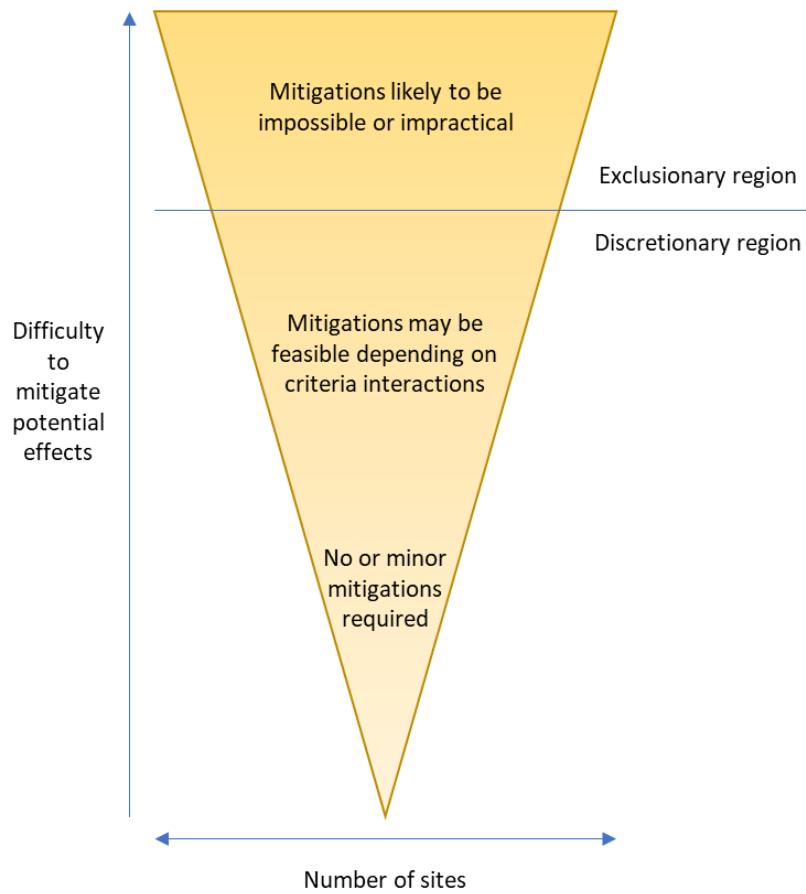


Figure 1 Relationship between exclusionary and discretionary criteria.

2.18 Discretionary criteria provide Government and the independent regulators (and where appropriate nominators themselves) the ability to consider at a strategic level any practical solutions which could avoid or mitigate potential adverse effects. This ensures that sites can be considered across a range of issues and allows identification of cumulative impacts across criteria¹². In this way discretionary criteria provide a fair, holistic and transparent assessment of a site's strategic suitability. This in turn provides greater opportunity for public engagement and consultation on site specific issues during the consultation on the draft NPS.

2.19 The use of discretionary criteria does not mean that sites will be allowed to 'fail' an unlimited number of criteria and still be included in the NPS. The sites which pass the exclusionary criteria will be assessed against all the discretionary criteria. If it is considered that any individual shortfall against a criterion, or a combination of shortfalls against multiple criteria, are strategically unacceptable and impossible or impractical to mitigate then the site will be excluded from the NPS.

Summary of comments related to the criterion flooding, tsunami and storm surge

2.20 A relatively large number of comments were received regarding this criterion. Of those who commented on it, many respondents felt that flooding should be an exclusionary

¹² For example, the use of cooling towers may have positive interactions with criteria related to ecology due to the reduced impacts on marine wildlife and negative interactions with criteria related to areas of amenity due to the potential impacts on setting.

criterion, with some respondents suggesting this should be limited to zones designated as high flood risk. Many of these respondents also suggested the risk of climate change as a cause for concern.

2.21 One respondent highlighted differences between the planning frameworks in England and Wales and interpreted the approach outlined in Technical Advice Note (“TAN”) 15¹³ to require flooding to be considered as exclusionary in C2 flood zones in Wales. Another respondent questioned the recommendation that nominators use the Long Term Risk of Flooding Map, and suggested instead that the Flood Map For Planning¹⁴ should be used given its relevance to planning applications.

Government’s response

2.22 Recognising the potential risks associated with flooding, the aim of planning policy in England and Wales is generally to steer the development of infrastructure towards zones of low flood risk. It is recognised, however, that there are sometimes overriding reasons as to why development in high flood risk zones is required.

2.23 In the case of nuclear power stations, it is important to ensure access to sufficient cooling water; sites are therefore often in coastal locations where there could be a risk of flooding. Regardless of the flood risk associated with a site, regulation in the UK requires nuclear power stations to be protected against all credible flood risks¹⁵, including allowance for climate change, which may involve the construction of sea defences or raising of the site platform.

2.24 This is consistent with the approach set out in Section 10 of the National Planning Policy Framework (“NPPF”)¹⁶ and the corresponding guidance¹⁷. That is, at any site for which Development Consent is sought, a Sequential Test must be carried out to demonstrate that there are no suitable alternative locations within a lower flood risk zone. Should the site be proposed in a zone of high flood risk, and the Sequential Test demonstrate that there are no lower risk alternatives, then an Exception Test is required to demonstrate that the development provides wider sustainability benefits to the community that outweigh flood risk and that the development will be safe for its lifetime without increasing flood risk elsewhere and, where possible, reduce flood risk overall¹⁸.

2.25 Similarly, while current Welsh guidance outlines an expectation that ‘highly vulnerable’ development in areas designated as C2 flood zones should be avoided, it is accepted in paragraph 5.3 of TAN 15 that exceptions may be necessary. In these cases, an assessment of the consequences of flooding must be undertaken in accordance with section 7 of TAN 15. This is broadly comparable to the Exception Test used for sites in England described above. This interpretation is consistent with the approach outlined in

¹³ <http://gov.wales/docs/desh/publications/040701tan15en.pdf>

¹⁴ <https://flood-map-for-planning.service.gov.uk/>

¹⁵ See <http://www.onr.org.uk/documents/2017/principles-for-flood-and-coastal-erosion-risk-management.pdf> for a summary of the principles that the ONR and EA apply to flood risk regulation in the UK.

¹⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

¹⁷ <https://www.gov.uk/guidance/flood-risk-and-coastal-change>

¹⁸ See <https://www.gov.uk/guidance/flood-risk-and-coastal-change> for further information on the Sequential Test and Exception Test.

both the current version of Planning Policy Wales¹⁹ and the draft version currently undergoing consultation²⁰.

2.26 Based on the comments received and response above, Government does not consider that any substantial changes to the criterion are required. Among other things, nominators will be required to outline why it is reasonable to conclude that the site can be protected against flooding including the effects of climate change and, in particular, why it should be able to meet the relevant tests in the planning framework applicable at that time as part of the planning application. This will be assessed by the independent environment agencies and the Office for Nuclear Regulation.

2.27 Nonetheless, Government has taken the opportunity to clarify the guidance provided to nominators. In particular, the differences between the relevant planning policy in England and Wales have been clarified as outlined above. Also, reference to the Flood Map for Planning has been added given its relevance to planning applications. However, Government considers that the Long Term Risk of Flooding Map remains an appropriate tool for nominators to describe the flood risk of the site more generally so it remains in the guidance to nominators.

Summary of comments related to the criterion coastal processes

2.28 Many of those who responded on this point felt that the coastal processes criterion should be exclusionary, with one stating that a requirement for engineered sea defences should automatically exclude a site due to the potential for knock-on environmental effects.

Government's response

2.29 Government recognises that erosion could be a risk to coastal infrastructure, particularly over the timescales associated with a nuclear power station or at sites without existing protection. Government believes it is reasonable that sites could be protected through the implementation and maintenance of countermeasures, but recognises that this can have knock-on effects on the local environment. Therefore, Government will expect nominators to outline any measures they consider appropriate to protect against coastal erosion, the potential knock-on effects of these countermeasures and any mitigations against these effects. The criterion has been updated to make this latter requirement explicit.

2.30 Therefore, Government's view remains that this criterion should be discretionary at this stage with assessment based on the independent advice of the environment agencies and the Marine Management Organisation. This assessment will consider the feasibility of nominator's proposals and the potential for any knock-on effects. When ultimately deciding whether to include a site in the NPS, Government will consider the assessment against this criterion as well as the assessments against any potentially related criteria such as flooding, tsunami and storm surge and the environmental protection criteria.

¹⁹ <http://gov.wales/docs/desh/publications/161117planning-policy-wales-edition-9-en.pdf>

²⁰ https://beta.gov.wales/sites/default/files/consultations/2018-02/ppw-restructure-draft-ppw_en.pdf

2.31 For sites which are judged potentially suitable, and are therefore included in the new NPS, a more thorough assessment is required at the DCO or NSL stages which would include consideration of detailed project proposals for mitigations from the nominator.

Summary of comments related to the criterion proximity to major hazard sites and major accident hazard pipelines

2.32 Of the responses received regarding this criterion, the most common comments related to the risks posed by an adjacent nuclear site. Several respondents questioned whether adjacent nuclear sites were considered as major hazard sites; some respondents stated that new nuclear development should be excluded in the vicinity of existing nuclear installations, while others expressed a preference for new nuclear development in the vicinity of existing nuclear installations.

Government's response

2.33 This criterion is closely linked to the Control of Major Accident Hazards (“COMAH”) Regulations 2015. Under hazardous substance planning regulations²¹, the Health and Safety Executive (“HSE”) and relevant environment agencies must be consulted on certain planning applications for development within the consultation distance of a COMAH establishment. In this context, a COMAH establishment is one containing a substance above the quantities listed in Schedule 1 of the COMAH Regulations, and the consultation distance is defined by HSE on the basis of the quantity and nature of hazardous substances present.

2.34 When assessing sites for inclusion in the NPS, Government will consider the location of the site in relation to any COMAH establishment, and will receive advice from HSE, ONR and the environment agencies regarding the potential to mitigate any arising impacts. The purpose of including this criterion as part of the strategic assessment of site suitability is to provide confidence that any sites listed in the NPS should pass this test once a development consent application is brought forward.

2.35 Regarding existing nuclear installations, it is important to note that substances creating a hazard from ionising radiation if present on a licensed nuclear site are exempt from the COMAH Regulations as these are covered by specific provisions under the Nuclear Installations Act 1965. In particular, before any site can host radioactive material it must first be granted a NSL by the ONR. The ONR impose conditions upon the granting of a NSL which, among others, require Licensees to consider the risks of adjacent sites as part of the safety and security assessments, as well as setting an expectation that Licensees will liaise with one another during the development of emergency arrangements. Given the complexity of these assessments, and the dependency on specific technology and materials involved, Government does not consider it appropriate to assess these aspects at a strategic level.

2.36 Existing nuclear installations may be considered COMAH establishments if they contain a substance above the quantities listed in Schedule 1 of the COMAH Regulations. However, in view of the exemption in the COMAH Regulations regarding

²¹ The Planning (Hazardous Substances) Regulations 2015 and The Planning (Hazardous Substances) (Wales) Regulations 2015.

substances creating a hazard from ionising radiation if present on a licenced nuclear site, they are not considered by default in the assessment of this criterion.

Summary of comments related to the criterion proximity to civil aircraft movements

2.37 A limited number of respondents commented on this criterion, primarily suggesting that it be made exclusionary to address any risk of aircraft impact. There was also a comment noting that the Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2007 were superseded in 2016.

Government's response

2.38 The nature of any risk posed to a nuclear power station by civil aviation will depend on the nature of the local aviation activities and the feasibility of any mitigations. For that reason, at the strategic level Government considers that this should be a discretionary assessment. For example, it may be possible to modify flight or holding patterns in the vicinity of a proposed nuclear development. Conversely if a feature cannot be practically mitigated, and the risk is judged to be intolerable, then the site will be excluded on that basis.

2.39 For each site which is put forward for inclusion in the NPS, the Civil Aviation Authority (“CAA”) and ONR will review the proposed development and the local aviation environment. The risk will be considered giving due regard to feasible mitigations to the aviation activities or reasonably practicable engineering means which the developer could implement to reduce the risk in line with ONR’s guidance. If it is felt that an acceptable risk level could be demonstrated, then the site will pass this criterion.

2.40 Before construction on any nuclear power station commences, a detailed assessment of the risk associated with aviation will be required. Confirmation that the nuclear power station can be protected against an aircraft impact and that the probability of such an event is sufficiently low considering the local aviation features will be required at the GDA and NSL stages respectively.

2.41 Government has updated the criterion to refer to the Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2016.

Summary of comments related to the criterion demographics

2.42 A relatively large number of comments were received regarding the demographics criterion. The most common comments related to the clarity of the criterion and included questions as to how it would be applied in practice. Several respondents also questioned the population limits given in the demographic criterion, with a suggestion that they were unduly conservative and others suggesting they should be more stringent. One respondent questioned why the demographics criterion did not refer to routine emissions. It was also questioned whether the demographics criterion considered population growth or temporary populations.

Government's response

2.43 Government’s long-standing policy for the siting of new nuclear power stations is to adopt a cautionary approach with regards to local demographics. Siting represents the first step in the risk reduction process associated with the development of a nuclear

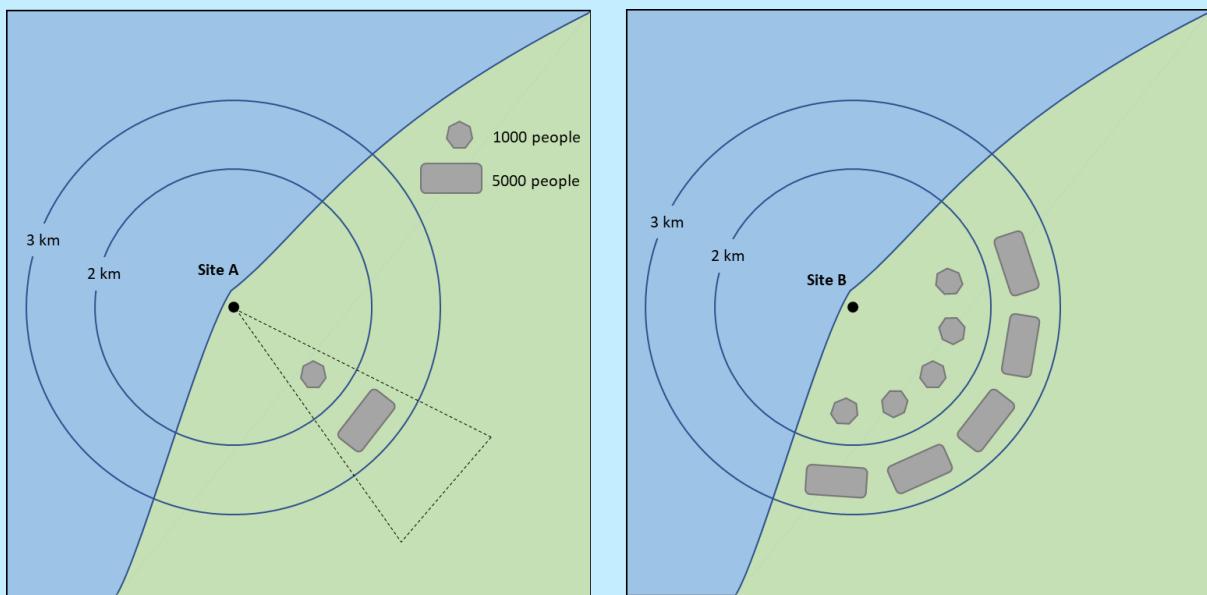
power station. The overall purpose of this process is, in the unlikely event of an accident, to minimise the risk to the public. In this way, the demographics criterion acts as a preliminary sift to eliminate sites which are most likely to be unsuitable. It does not preclude the requirement for further assessment, and prior to granting a Nuclear Site License the ONR will require the prospective licensee to demonstrate that the nuclear facility will have robust defences against a range of local external hazards and that the location is suitable for the establishment of an adequate emergency plan.

2.44 At the strategic level, sites are considered to be potentially suitable for a nuclear power station only if they pass the demographics criterion. The demographics criterion assesses the characteristics of the population around a site of interest and compares it to limiting values. Government policy is to use the “semi-urban” demographics criterion as the limiting values for the siting of modern reactors. The basis of the semi-urban criterion, as well as the method by which this comparison is carried out in practice, has been clarified in ONR’s updated guidance²². An example application of the demographics criterion as defined in the consultation document, which is a simpler but broadly accurate presentation of the criterion, is given in Box 2 below.

Box 2 – Application of the demographics criterion

The consultation document defines the semi-urban demographics criterion in terms of a set of weighting factors and cumulative weighted population limits.

As an example²³, consider two sites: site A and site B as shown below. Site A has a population of 1,000 people within 2 km and a further 5,000 people within 2 to 3 km, all living within a single 30° sector. Site B has a population of 5,000 people within 2 km and a further 25,000 within 2 to 3 km, spread across multiple 30° sectors. For the purpose of this example it is assumed that neither site has any additional population in the subsequent distance bands.



²² <http://www.onr.org.uk/documents/2018/ns-lup-qd-001-land-use-planning-and-the-siting-of-nuclear-installations.pdf>

²³ For the avoidance of doubt, this example is for explanatory purposes only. Any resemblance to actual existing or proposed sites for nuclear power stations is purely coincidental.

The result of applying the demographics criterion to these sites is shown in the table below. Site A passes the demographics criterion as its cumulative weighted population is below the relevant sector and site limits for all distance bands. While Site B may also meet the sector limits, depending on how its population is distributed across sectors, it fails the demographics criterion overall because its cumulative weighted population all around the site at 2 to 3 km (535,000) is above the relevant limit (520,000).

Distance (km)	Weighting Factor	Cumulative Weighted Population Criteria for the semi-urban demographics	Cumulative Weighted Population²⁴ - Site A	Cumulative Weighted Population - Site B
Population all around site				
0-2	32.0	290,000	$32.0 \times 1,000 = 32,000$	$32.0 \times 5,000 = 160,000$
2-3	15.0	520,000	$32,000 + 15.0 \times 5,000 = 107,000$	$160,000 + 15.0 \times 25,000 = 535,000$
Population in 30 deg. Sector				
0-2	26.0	96,000	$26.0 \times 1,000 = 26,000$	-
2-3	12.0	170,000	$26,000 + 12.0 \times 5,000 = 86,000$	-

In practice, for each nominated site the cumulative weighted population is calculated for all distance bands up to 30 km from the site, for all 30° sectors and all around the site. If any of these values exceed the relevant limit, and it is not considered that the site can be reasonably arranged in such a way that areas which contain radiological material can be restricted to areas which meet the limits, then the site is considered to fail the demographics criterion and is excluded from the NPS.

2.45 Given the enhanced safety standards associated with modern reactors, Government notes that continued use of the semi-urban criterion which was initially selected for the siting of AGRs could be considered conservative. However, there is a strong precedent associated with the semi-urban criterion, in particular the successful licensing and operation of a fleet of stations over multiple decades which has included the demonstration of adequate emergency arrangements. Therefore, Government does not consider changes are required to this criterion for the new NPS.

2.46 For the exclusionary assessment of demographics, the population data used does not take account of temporary populations such as holidaymakers or planned growth. Under the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (“REPPIR”), operators of licensed nuclear sites are required to undertake a Hazard Identification and Risk Evaluation (“HIRE”), which is expected to consider the population that could be affected in the event of a radiation emergency including temporary

²⁴ The cumulative weighted population for a given distance band is given by the sum of (i) the population within that distance band multiplied by the relevant weighting factor and (ii) the cumulative weighted population in the preceding distance band.

populations, and to review the HIRE at least every three years. Similarly, local authorities are required to put in place detailed off-site emergency planning arrangements giving due consideration to the operator's HIRE. Once these arrangements are in place, ONR will advise the local authority regarding the implications of any planned developments. Given these measures and the general conservatism built into the demographics criterion, Government does not consider it appropriate to include allowance for either temporary or predicted populations in the exclusionary assessment.

2.47 However, as some comments received in response to the consultation pointed out, there is a potentially long development time between designation of the NPS and deployment of a nuclear power station at that site during which changes in the local demographics could occur. Therefore, for any site which passes the exclusionary demographics assessment, Government will consider the effects of local population growth up to 2035 in accordance with local authority plans or historical average growth rates where applicable as part of the discretionary assessment. The date of 2035 aligns with the 'capable of deployment by' date to be used in the new NPS. Once a site has deployed, the ONR will provide advice to local planning authorities on any proposed local developments²⁵. This change has been reflected in the updated criteria.

2.48 The demographics criterion is not intended to explicitly account for routine emissions from the operation of a nuclear power station. Radioactive discharges into the environment and other disposals of radioactive wastes from nuclear power stations arising from normal operation are regulated by the relevant environment agency (the Environment Agency in England and Natural Resources Wales). In their applications to the agencies for permits or authorisations to discharge and dispose of radioactive waste, operators must demonstrate that the impact on people and the environment are acceptable and minimised. The assessments carried out take into account the local environment and must show that doses to the most exposed people are below statutory limits and constraints. Similarly, the dose impact of direct exposure (shine) from a site is regulated by the ONR with demonstration that the dose to the most exposed person is acceptable and minimised prior to undertaking any activity involving ionising radiation. The levels associated with each of these pathways will depend largely on the chosen technology. Therefore, this aspect is not considered as part of the demographics criterion, nor more generally as a strategic criterion. Government is confident that the nuclear and environmental regulatory frameworks robustly control all routine emissions.

Summary comments related to the criterion proximity to military facilities

2.49 Relatively few respondents commented regarding this criterion. Of the responses received, one suggested that the criterion should be solely exclusionary while others agreed with the discretionary and exclusionary categorisation. Based on the comments received, Government does not consider any changes to the criterion are required.

²⁵ <http://www.onr.org.uk/land-use-planning.htm>

Summary of comments related to the environmental criteria (Internationally designated sites of ecological importance, nationally designated sites of ecological importance, and areas of amenity, cultural heritage and landscape value)

- 2.50** A number of respondents questioned the presentation of the criteria related to areas of amenity, cultural heritage and landscape value, and suggested that government considered the ecological criteria a higher priority.
- 2.51** It was suggested that the environmental impacts of construction or associated infrastructure, such as transmission, should be included in the assessment. Respondents stated this was necessary because these aspects are a critical part of any project and that the cumulative environmental impact could render some sites unsuitable.
- 2.52** There were separate suggestions to update the ecological criteria to include Areas Including Ancient Woodland and Veteran Trees and Local Wildlife Sites. In the latter case it was stated that, while they are neither statutory nor managed nationally, Local Wildlife Sites are of national significance and should be considered at a strategic level. Similarly, there was a suggestion to update the cultural heritage criterion to include areas of archaeological importance.
- 2.53** Some respondents questioned the extent to which the mitigation hierarchy was considered in the environmental criteria (Internationally designated sites of ecological importance, nationally designated sites of ecological importance, and areas of amenity, cultural heritage and landscape value), with one respondent questioning whether compensation would be considered for nationally designated sites of ecological importance. The actions related to net gain in Government's recently published 25 Year Environment Plan²⁶ were highlighted and it was questioned how these were considered in the criteria.
- 2.54** Several respondents also questioned whether it was possible to sufficiently mitigate the ecological impacts associated with development of a nuclear power station and argued that the ecological criteria should be exclusionary.
- 2.55** Some respondents questioned the involvement of regulators in the nominations process, querying why it was expected that nominators consult regulators prior to submitting a nomination and whether it was appropriate for regulators to advise developers rather than Government.

Government's response

- 2.56** Government does not consider it appropriate to assign any ranking or weighting amongst the discretionary criteria. These criteria are often qualitative and by their nature require discretion in assessment. The decision as to whether to include sites as potentially suitable in the new NPS will ultimately be made based upon the assessment of all criteria, as well as the findings of the Appraisal of Sustainability ("AoS") and Habitats Regulations Assessment ("HRA"). However, Government appreciates that it is important to ensure that the presentation of the criteria reflects this approach. The non-

²⁶ <https://www.gov.uk/government/publications/25-year-environment-plan>

ecological environmental criteria were presented separately in the consultation document to reflect their importance:

- a) Cultural heritage
- b) Areas of amenity and landscape value

2.57 The intent of a strategic assessment has been set out at the start of this section. The strategic criteria should be technology-neutral and capable of assessment at a national level. On this basis, Government does not consider it possible to include in detail the impacts of construction or associated infrastructure as part of the strategic environmental criteria. These aspects are generally technology-specific and in the case of transmission, the level of assessment and potential site investigations required is not compatible with the intent of a strategic assessment as it requires detailed examination of the proposed project. Nevertheless, the AoS which will both inform the development of the new NPS and be published alongside the draft NPS for consultation will consider the generic environmental effects of a nuclear power station and associated infrastructure. Where appropriate, the NPS will make recommendations to be considered by PINS as part of the detailed assessment of any DCO applications.

2.58 Following the suggestion to include Areas Including Ancient Woodland and Veteran Trees, Government has reviewed the ecological criteria and agree that it fits within the criterion nationally designated sites of ecological importance. These are nationally significant features, and we consider that it is important for nominators to outline measures that could be taken to avoid, minimise and mitigate impacts to them at a strategic level where there is potential for an adverse effect. Similarly, while they do not offer specific protection under planning legislation, Government agrees that it would be undesirable for nominators to propose the development of a nuclear power station in an area likely to cause significant adverse impact to an Area of Archaeological Importance; this has been reflected in the updated criteria.

2.59 Conversely, we do not consider it appropriate to include Local Wildlife Sites as part of a strategic assessment. These areas are designated on the basis of specific local features, and it is not reasonable for nominators to assess the impact on these features at a strategic level. Instead, Local Wildlife Sites will be considered as part of the Environmental Impact Assessment produced in support of a DCO application.

2.60 Government agrees that, as a last resort, compensation is an important part of any large-scale infrastructure project where it is not possible to fully avoid, minimise or mitigate environmental impacts. This is reflected generally in the NPPF and specifically in the case of European Sites by the requirement under the Habitats Directive to take compensatory measures where a Natura 2000 site could be adversely affected but the plan or project must nevertheless be carried out for Imperative Reasons of Overriding Public Interest. Given the nature of a strategic assessment, Government considers that the focus should be identifying adequate avoidance, minimisation and mitigation. However, it is recognised that at a strategic level it will not always be possible to rule out adverse impacts. In these cases as stated in the consultation document, Government will consider the feasibility of compensation should it ultimately prove necessary as part of the discretionary assessment of a site's suitability.

2.61 The 2011 Natural Environment white paper²⁷ set out an ambition to achieve net gain for biodiversity as opposed to net loss. The recently published 25 Year Environment Plan identified actions to both strengthen the commitment to biodiversity net gain and expand the approach over time to natural capital net gain and ultimately wider environmental net gains as appropriate metrics become available. The NPS will establish the need to consider the potential to achieve biodiversity net gain and will set the context for achieving this at a strategic level without analysis of impacts on individual sites. More detailed assessment, for example based on the Defra biodiversity metric, will be undertaken as part of the DCO application.

2.62 More generally, the Government's view is that it would be undesirable to propose the development of a new nuclear power station in an area likely to cause significant adverse impact on an area covered by these environmental designations. However, it is also recognised that at a strategic level it can be difficult to determine fully the extent of potential impacts. Therefore, Government's conclusion is that this criterion should remain discretionary to allow flexibility in the assessment and account for detailed consideration of mitigations at a later stage. Notwithstanding this, any site which is brought forward under the new NPS will be subject to detailed environmental assessments, including an Environmental Impact Assessment, as part of the development consent process.

2.63 Prior to nominating a site, developers are able to engage regulatory bodies should they wish to discuss aspects of their nomination. This step is intended to increase the efficiency of the process by allowing early identification and discussion of potential issues and is comparable to the statutory consultation required during the pre-application step of a DCO application. However, unlike the DCO application, this step is not mandatory for the NPS process and there is no obligation on developers or regulators to engage in this way. The criteria have been updated to clarify this. Regardless of whether or not developers choose to engage regulators prior to nominating a site, independent regulators will be involved in the assessment of nominations and will advise Government when coming to an overall conclusion as to a site's strategic suitability.

Summary of comments related to the criterion size of site to accommodate operations

2.64 Of the responses received relating to this criterion, the majority requested that additional clarity was provided regarding what is included in the criterion, such as number of reactors, spent fuel storage and construction, and how nominations will be assessed. A small number of respondents also felt that this criterion should be exclusionary.

Government's response

2.65 Consideration of size of site as a strategic criterion is intended to guide development towards sites which have sufficient space to provide flexibility during design, construction, operation and decommissioning including the safe and secure interim storage of spent fuel and intermediate level waste. The aim of considering size at this early stage is to ensure that sufficient space is available to achieve adequate 'defence-

²⁷ <https://www.gov.uk/government/publications/the-natural-choice-securing-the-value-of-nature>

in-depth'. That is, the size of site should not restrict the options available on how best to meet the stringent safety, security and environmental expectations at the project stage.

2.66 To facilitate the assessment of this criterion, Government considers that an area of approximately 30 ha is sufficient to accommodate a nuclear power station comprising a single reactor and all related operational ancillaries. This area is based on the size of the most recently constructed site in the UK, Sizewell B, which has an operational footprint of approximately 26 ha. In preparation of this consultation, ONR reviewed this criterion given developments in relevant good practice since construction of Sizewell B and consider that it remains an appropriate size.

2.67 While Government considers that 30 ha is sufficient to operate a nuclear power station and will carefully scrutinise any nominations for a site of a smaller area, it is not considered appropriate to make this criterion exclusionary. As an example, Sizewell B demonstrates that it is possible to safely operate a nuclear power station with a smaller area than this. Therefore, the size of a site will be considered alongside all other discretionary criteria to determine whether overall the site is potentially suitable.

2.68 It is recognised that over the full lifecycle of a nuclear power plant a greater area of land may be required to accommodate laydown, construction and, eventually, decommissioning. However, Government does not consider that these aspects affect the strategic suitability of a site as they will depend strongly on the project that is brought forwards. It is also likely that mitigations against the impacts of additional land requirements can be developed at the project stage, for example by adopting appropriate construction techniques. These aspects are not included in the strategic criteria but are specifically flagged as a matter for local consideration by PINS.

2.69 If a developer plans to bring forward a proposal for multiple units at a single site an area greater than 30 ha is likely to be needed. Project-specific proposals are not considered as part of the strategic assessment of a site's suitability but will be considered as part of the Development Consent Order and Nuclear Site License stages. This has been clarified in the strategic siting criteria.

Summary of comments related to the criterion access to suitable sources of cooling

2.70 Two key themes were identified in the responses received regarding this criterion. A selection of respondents expressed concern over the environmental impacts of direct cooling technology, namely the potential impingent and entrainment of fish and thermal and chemical discharges, suggesting that it should be prohibited. A number of respondents also felt that this criterion should be exclusionary, highlighting the significance of adequate cooling in the safe operation of a nuclear power station.

Government's response

2.71 As a contracting party to the Convention for the Protection of the Marine Environment of the North East Atlantic (the OSPAR convention), the UK is obliged to apply Best Available Techniques ("BAT") in relation to the prevention and elimination of pollution of the "maritime area" (as defined in the Convention) and the protection of the maritime area against the adverse effects of human activities. In practice this obligation is met by the granting of and regulation under environmental permits by the environment agencies. The Environment Agency's published evidence on cooling technologies for

new nuclear power stations²⁸ concludes that direct cooling technology can be considered an example of BAT, but that this will depend on both the conservation objectives of the site in question and detailed design of the cooling technology. Therefore, Government does not believe it is appropriate at a strategic level to be prescriptive and prohibit the use of direct cooling technologies. Instead, nominators are expected to outline the types of cooling technology that may be suitable for use at their site and how any environmental impacts can be managed or mitigated. For any site which is judged potentially suitable in the NPS, a detailed assessment of the cooling technology and impact on the environment will be carried out before an environmental permit is granted.

2.72 While Government agrees with respondents that access to cooling is a critical aspect in the safe and efficient operation of a nuclear power station, we do not believe it is appropriate as an exclusionary criterion. There are different ways in which adequate cooling can be achieved, and each method will have its own benefits and drawbacks including implications for the local ecology, landscape setting and size of site. It is appropriate that access to suitable sources of cooling remains discretionary so that it can be considered in combination with other relevant criteria. If it is concluded that a site cannot achieve access to suitable sources of cooling, for example due to an absence of a sufficient body of water or prohibitive and unmitigable environmental implications, then the site will be excluded from the NPS.

Comments on matters flagged for detailed consideration at the planning and licensing stage

Summary of comments related to seismic risk (vibratory ground motion)

2.73 Relatively few responses were received regarding this matter. Of those who did comment, there was a suggestion that seismic risk should be included as a strategic siting criterion and prioritised over other man-made risks. Other respondents highlighted hydraulic fracturing (fracking) as a risk and suggested it should be considered as a criterion.

Government's response

2.74 Seismic hazard levels across the UK are generally low and, while there are local variations, characterisation at a specific site requires extensive ground investigation. Therefore, management of the residual risk is best achieved through engineering means rather than as part of the strategic site selection. Prior to commencing construction on any nuclear power station, developers will be required to accurately characterise the site seismic hazard level and provide evidence that their design would include robust defences against seismic disturbances as part of the licensing application.

2.75 In the UK, strong controls are in place to mitigate seismic risks associated with hydraulic fracturing. Operators have to use all available geological information to assess the location of faults before wells are drilled, to avoid hydraulically fracturing near faults. They must then monitor seismic activity in real time, before, during and after operations and halt if seismic activity exceeds a predefined level. Our regulations ensure that the risk of seismic activity during hydraulic fracturing is assessed and that operations are

²⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291077/scho0610bsot-e-e.pdf

monitored to allow action to be taken where necessary, as set out in an agreed Hydraulic Fracture Plan.

2.76 Large scale injection of waste water in the US has been linked to significant earthquakes, but this has not been proposed in the UK and is unlikely to be permitted. Currently the Environment Agency will not permit the re-injection of waste flowback fluid for disposal into any formation during shale gas operations.

2.77 Earth tremors associated with fracking processes under the controls outlined above are much smaller than those taken into account by the design of nuclear power stations. Therefore, the presence of hydraulic fracturing is not judged to affect the strategic suitability of sites and is not included as a criterion. Notwithstanding this, consideration will be given to all sources of seismic risk as part of the licensing process described previously.

Summary of comments related to emergency planning

2.78 A number of respondents suggested that emergency planning should be included as a criterion at the strategic stage given that some locations may allow more straightforward plans than others. There was also a comment that reference to emergency planning across the criteria and matters flagged for detailed consideration at the planning and licensing stage should clarify the relevant responsibilities of operators and local authorities under the REPIR regulations.

Government's response

2.79 The local authority and operator of a nuclear site are required to develop an adequate off-site emergency plan and on-site emergency plan respectively under the REPIR regulations. The requirement on operators is also a condition imposed as part of the decision to grant a Nuclear Site License. It is expected that both plans will be developed in collaboration and include consultation with organisations such as HSE and the local emergency services as well as the public in general.

2.80 In developing these emergency plans, it is critical that the potential risks associated with the nuclear power station are understood so that appropriate mitigatory actions can be identified and consulted on. These risks will depend strongly on the specific technology that is brought forwards, and therefore emergency planning cannot be considered in detail at a strategic level.

2.81 Despite this, Government recognises the importance of emergency planning and considers that only sites which are likely to be able to implement adequate emergency arrangements should be included in the NPS. To achieve this the demographics criterion is used as an initial sift to exclude sites at which it is most likely to be difficult to implement emergency arrangements. For sites which pass this exclusionary assessment, nominators are expected to give a high-level description of the practicality of developing appropriate emergency planning arrangements at any site that they nominate. This evidence will be considered by Government when deciding whether to include sites in the NPS.

Comments on suggested additional criteria or assessments

Summary of comments related to Socio-economic factors

2.82 A number of responses commented on the socio-economic benefits or disbenefits which a nuclear power station could bring to a local area. It was suggested Government add a criterion relating to socio-economic impacts.

Government's response

2.83 The Government acknowledges that the siting of a new nuclear power station can have an impact on employment opportunities, skills, new infrastructure or regeneration in an area. Government works closely with new nuclear developers and industry to develop initiatives to maximise the benefits to the UK. Government also works closely with local communities to ensure regions capture the economic benefits arising from new nuclear plants, to maximise employment, business development and inward investment opportunities and to create a lasting legacy. For example, it is estimated that Hinkley Point C will provide around 25,000 new employment opportunities with a total of almost £4bn going into the regional economy over the lifetime of the project.

2.84 New nuclear power stations are, though, large scale construction projects and there will be a changing influx of workers during the different construction, operation and decommissioning phases of the infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste).

2.85 At the strategic level (without project, technology or local community specifics) Government does not consider it possible to assess potential socio-economic effects to a sufficient extent that it would be possible to define a suitable national criterion. However as part of the Appraisal of Sustainability for the new NPS, Government will consider generic socio-economic effects including issues such as employment, effects upon material assets or sustainability. This will be published alongside the draft NPS for consultation.

2.86 Furthermore, prior to Development Consent the applicant will need to undertake and include in their eventual application a full assessment of socio-economic impacts for that project and this is likely to require consideration of the creation of jobs and training opportunities, the provision of additional local services and improvements to local infrastructure, the effects on tourism and the impact of a changing influx of workers.

Summary of comments related to Transmission

2.87 Many respondents commented that access to transmission infrastructure should be considered as a criterion at a national level. Of these a number noted the potential effects of transmission infrastructure and the importance of environmental and landscape protection. A number of respondents felt that a specific assessment of the potential effects of associated transmission infrastructure at this stage, before a site was identified as potentially suitable would be a more holistic approach.

2.88 Some respondents commented that the potential for cumulative effects with the transmission requirements for other energy infrastructure should be assessed. Others

suggested that opportunities for joining up transmission infrastructure with other energy projects should not be overlooked.

Government's response

2.89 Government notes that in many areas, connection to the grid may require new infrastructure or upgrades to both existing transmission and distribution grid infrastructure. However, Government also recognises that there could be multiple ways in which a site could be connected to the Grid and specific decisions on this can only be considered fully as projects develop, taking into account the state of Grid infrastructure at that time, along with any other proposed infrastructure (including upgrades) and environmental factors such as protected sites. Assessment at the NPS strategic siting stage needs to be consistent across proposed sites and for many of those sites, at this time, it is likely to be difficult for a developer to provide specific detail about the location of Grid connections, the technology needed and the potential for any deeper system upgrades.

2.90 Given the intent of the siting assessment is to act as a preliminary, non-project specific, sift of sites, Government does not consider it appropriate to introduce a strategic siting criterion in relation to 'access to transmission infrastructure'. However, as part of the Appraisal of Sustainability at the NPS stage, Government will consider any generic effects of transmission infrastructure to consider whether there are any potential constraints at a site and this will be published alongside the draft NPS for consultation. Government also continues to recognise the importance of access to transmission infrastructure.

2.91 In bringing forward a development consent application, a new nuclear developer will need to work together with the relevant transmission owner and system operator to ensure any cumulative effects between generation and transmission infrastructure can be considered (or, if relevant, cumulative effects with the transmission requirements of any other associated energy infrastructure). Government notes that a single development consent application for transmission network and related generating station/s, or separate applications but submitted in tandem, may not always be possible. This could be, for example, because of the differing lengths of time needed to prepare applications for development consent (applications are likely to come from two different legal entities and/or be subject to different commercial and regulatory frameworks) or because an electricity network application relates to multiple generation projects.

2.92 Separate development consent processes for generation and transmission are not unusual. In this situation, a new nuclear developer must ensure that a development consent application provides sufficient information to comply with the Environmental Impact Assessment ("EIA") Directive including specifying any indirect, secondary and cumulative effects which will necessarily encompass information on grid connections. In deciding whether or not to grant a DCO, the Secretary of State must be satisfied that there are no obvious reasons why the necessary future approvals for a grid connection are likely to be refused. Furthermore, the granting of a DCO for a generating station should not in any way fetter the subsequent decisions on any related projects.

Summary of comments related to access to, and impacts on, other related infrastructure

2.93 Similar to responses which suggested that the potential effects of transmission infrastructure should be considered, a number of responses suggested that the potential effects of any wider infrastructure required to support a development (e.g. road or rail infrastructure) should be included as a criterion. Some responses also suggested that the potential effects of a development on existing infrastructure (e.g. health or educational infrastructure or Source Protection Zones) should be considered.

Government response

2.94 The consultation document recognised that access to relevant infrastructure will be an important factor for developers in making their assessments of the practicality of site development. It noted however that to understand the potential impact of a new nuclear power station on existing infrastructure there would need to be detailed project-specific assessments. This is the case also for the potential effects of any required new infrastructure. As explained at paragraphs 2.23-2.26 of this response, Government considers strategic siting criteria should be site-based rather than dependent on a specific technology or project.

2.95 Generally, Government considers that at this strategic level it would not be appropriate to require the level of project specific information which would be needed to enable pass / fail assessments to be made on the potential effects of a new nuclear station on wider infrastructure. This is something which is more appropriately assessed in detail at the planning and licensing stages and it therefore continues to be flagged as an issue for detailed consideration by PINS. The Appraisal of Sustainability will also contain a high-level assessment of potential sustainability implications as far as is possible with the information available. The output of this could include suggestions of potential mitigations where it is possible to identify potential effects at a strategic level.

2.96 In the specific case of groundwater Source Protection Zones, Government recognises that these are strategically important and sensitive areas with the potential to be impacted by large scale infrastructure projects such as nuclear power stations. Government's view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in areas that are unlikely to cause an adverse impact on designated areas of groundwater protection. Therefore, and given that the impact on Source Protection Zones is considered to meet the intent of a strategic criterion as set out in paragraph 2.12, a new criterion has been added – Areas of Groundwater Protection. Where a nomination might cover an area that includes or is likely to impact a Source Protection Zone Government will expect nominators to comment on the likely level of impact and set out why, at a strategic level, it should be possible to avoid or mitigate any such impacts.

Comments specific to Welsh issues

2.97 A number of responses flagged issues specific to any proposed sites within Wales such as the need to have regard for the Well-being of Future Generations (Wales) Act 2015 and in particular the importance of supporting the Welsh language.

Government response

2.98 Government notes that the Welsh Government are revising Planning Policy Wales (PPW) to reflect and comply with the requirements of the Well-being of Future Generations (Wales) Act 2015 (WBFGA). PPW will be material to planning applications in Wales and as such the associated provisions of the WBFGA will be reflected in any future Development Consent applications for projects in Wales. Furthermore, as part of the consideration of socio-economic effects of the NPS at a strategic level, it is expected that the Appraisal of Sustainability will consider the aspirations of the WBFGA for any potential sites in Wales.

Summary of comments related to property blight

2.99 A number of respondents raised concerns that proposals for, and construction of, new nuclear power stations may lead to a reduction in residential property values. Comments were also made on the need for financial support schemes to be in place at the development consent stage and that these should be similar to other NSIPs, such as the Heathrow expansion and HS2 projects.

Government's response

2.100 The Government notes that the designation of a National Policy Statement (NPS) can trigger statutory blight insofar as the NPS identifies land as suitable for a particular type of development (see paragraph 25 of Schedule 13 to the 1990 Town and Country Planning Act²⁹). The Government's response to the consultation on the revised draft EN-6 in June 2011 noted that the majority of land at the sites nominated in EN-6 was owned by the respective nominator. Where it was not owned by the nominator, it was noted that it was not likely that land values would decrease as a result of EN-6, where EN-6 had described it as potentially suitable for a new nuclear power station, given the relatively small number of suitable sites and the premiums on land which have been sold for nuclear development.

2.101 Promoters of infrastructure projects may choose to offer discretionary, ex-gratia compensation schemes for the depreciation in the value of property (sometimes referred to as "generalised blight") which may be attributed to their project, but which is not covered by the statutory blight provisions in the 1990 Act. Local residents should engage with the promoters of the new nuclear power stations on any matters of concern.

2.102 In terms of the provisions to protect the local population from any property blight from the Heathrow expansion project the non-statutory compensation schemes will be for the developer to consider. In the case of the HS2 project, Government has a direct relationship to the project in that High Speed Two (HS2) Limited, the company responsible for developing and promoting the scheme, is an executive non-departmental public body, sponsored by the Department for Transport. In this instance, as with a promotor who chooses to offer discretionary, ex-gratia compensation schemes, Government has developed a unique package of compensation and assistance schemes in relation to the project.

²⁹ <https://www.legislation.gov.uk/ukpga/1990/8/schedule/13>

Summary of comments related to public acceptability

2.103 A number of responses suggested that public acceptability of new nuclear power stations should itself be a strategic siting criterion. Other responses stressed the importance of appropriate public consultation throughout the development, permitting and licensing process. This included comments on ensuring clear and understandable documentation, a wide range of engagement methods, appropriate promotion and engagement opportunities and appropriate periods of response. There were a few suggestions that there could be some form of local public referendum prior to final decisions on a project.

Government response

2.104 Sites will be assessed against the strategic siting criteria, outlined in Chapter 2 of the consultation document (the finalised version of which is at Annex I). The assessment will also cover whether a site is capable of deployment by 2035. Sites which, after these assessments, are deemed potentially suitable for the deployment of nuclear between 2026-2035 will be listed in a draft NPS.

2.105 The draft NPS and proposed sites, supported by site specific Appraisals of Sustainability and Habitats Regulations Assessments, will be subject to national consultation as well as local engagement with site-specific events being held to engage the local community. The draft NPS will also be presented to Parliament for scrutiny, this will happen in parallel to the public consultation and will continue for a number of weeks after the consultation has closed in order to allow Parliament to take account of the consultation outputs, to carry out evidence sessions and to write their report on the NPS and any recommendations. Before the final NPS and site list is designated it will also need to be laid before Parliament for approval.

2.106 The Government appreciates that the criteria and process to designate potential sites as part of an NPS are complicated and that associated documents are often long and cover a wide range of information. There is, however, a need to find a balance between making the consultation and supporting documents accessible but also fit for purpose to guide the separate Development Consent process. As noted above, all Government consultations are carried out in line with the Cabinet Office Consultation Principles.

2.107 Including sites as potentially suitable in the NPS is a preliminary sift to focus development at locations most likely to be suitable for deployment. Prior to any construction the public will have the opportunity to make their views known on specific project proposals as part of the pre-examination stage of the Development Consent Order application process. Applicants are expected to consult widely on their proposals and have a duty to take into account all responses to their statutory consultation at the Pre-application stage. They must summarise all responses in a Consultation Report which must be submitted with an application. The Consultation Report must explain how the Applicant has had regard to consultation responses. Furthermore, if an application is accepted by the Planning Inspectorate, members of the public are able to register as an interested party and make a Relevant Representation, which is a summary in writing of a person's views on the application. Interested parties will also be invited to make further written representations and can take part in any hearings as part of the Planning Inspectorates examination process.

Summary of comments received in response to Government's proposed process to designate potentially suitable sites in the new NPS and Government's response

Consultation Question 3

Chapter 3

Do you have any comments on the process to designate potentially suitable sites in the new NPS for nuclear set out in paragraphs 3.1-3.14?

2.108 The finalised process for assessing the suitability of sites to be listed in the new NPS is at Annex II.

Proposal to carry forward sites listed in EN-6 and process for assessing those sites against the siting criteria

Summary of key responses

2.109 Many of the comments on Chapter 3 of the consultation focused on the principle of carrying the sites currently listed in EN-6 forward and assessing those sites against the siting criteria. Many respondents who responded directly to this question supported the proposed process, noting that, subject to their meeting the siting criteria, carrying forward sites listed in EN-6 into the new NPS is a sound and sensible approach. It was noted that this could provide longer-term certainty of ongoing policy support. There were also comments agreeing that carrying forward sites listed in EN-6 allowed a focus on those sites most likely to deploy soonest and general support to involving statutory bodies in the assessment of sites against the siting criteria.

2.110 A number of respondents highlighted the importance of the Government allowing appropriate time for developers to submit information against the updated siting criteria. Of those responding on this point, there was agreement that the re-assessment of sites should make use of the best available data, including any information gathered as part of any pre-application work in advance of development consent applications. It was suggested that developers should have the opportunity to submit further evidence of potential mitigating actions during Government assessment of sites. It was also requested that the information submitted by developers be made public.

2.111 There were a number of comments on the extent to which sites listed in EN-6 should be re-assessed, including the suggestion that they should be subject to a streamlined assessment, focusing only on points where the criteria changed, or where there has been a material change in circumstances.

2.112 Other respondents, however, disagreed with aspects of Government's proposed process. It was suggested that Government should review its proposal to carry forward sites from EN-6 on the basis that industry was asked to nominate sites that were deployable by 2025, not 2035. It was also suggested that Government should set out its

plans for a new Alternative Sites Study to aid the Government in its consideration of alternative sites to those listed in the new NPS³⁰ in more detail and there was a comment that if any site was assessed as unsuitable for inclusion in the new NPS it should be ruled out of consideration for all future nuclear NPS.

Government response

2.113 Government notes the support received for carrying forward sites listed in EN-6, subject to their meeting the updated siting criteria.

Assessments of sites currently listed in EN-6 against the siting criteria

2.114 Following publication of this consultation response, Government will invite developers of sites currently listed in EN-6 which have yet to be granted development consent to indicate whether they wish the sites to be considered for inclusion in the draft new NPS. The developers will also be asked to provide information to demonstrate that the sites continue to meet the updated criteria. The assessment of the sites against the criteria will be undertaken by Government, based on the advice of the relevant nuclear, environmental and other regulators.

2.115 Noting comments that sites were originally nominated to be deployable by 2025, the consultation set out that if developers wished a site to remain listed in the new NPS it would need to be demonstrated that it was capable of deployment by 2035. In parallel to sites being assessed against the updated criteria, Government will therefore also assess whether a site is capable of deployment by 2035. Developers will be required to submit information in line with paragraph II.10 of Annex II demonstrating why it is reasonable to conclude that the site can be licensed, constructed and deployed by 2035.

2.116 Government reserves the right to go back to developers to request clarifications or further information at any point in the assessment process, should this be required. Government will make developer submissions public alongside the draft NPS except information where there is a particular need to maintain confidentiality (for instance due to data protection, security or commercial confidentiality).

2.117 There were some comments on the extent to which sites listed in EN-6 should be reassessed. Given that the strategic siting criteria have been updated to be consistent with current law and policy and that the new NPS is required to be supported by a new Appraisal of Sustainability and Habitats Regulations Assessment, Government considers that the assessment of sites must be a new assessment. However, developers may submit any information from previous assessments or from any other relevant work undertaken by a developer in support of a project since EN-6 was designated if they think it relevant to support the assessment of their site against the strategic criteria.

2.118 In response to comments that there should be ample time for developers to submit information, Government notes that the updated criteria are broadly similar to those used previously and that, although an assessment will be new, any information

³⁰ An [Alternative Sites Study](#) was carried out for EN-6.

previously submitted which is still relevant may be taken into account if a developer re-submits it to Government. Government will allow three weeks for developers to indicate whether they wish sites to remain listed in the new NPS and to submit information against the finalised criteria. Government will consider extending this in the event that a developer provides good reasons for needing additional time. Government will also be available to developers during this time to assist with any questions on the requirements of the criteria.

Assessment of alternatives

2.119 Government will give due consideration to the best means by which to consider alternatives in order to satisfy the requirements of the SEA Directive/Regulations and Habitats Directive/Regulations.

Position of sites not listed in the new NPS

2.120 If, after assessment against the strategic siting criteria and the 2035 capable of deployment date, a site is not deemed potentially suitable it will not be listed in the new NPS. However, Government does not consider that not meeting the assessments for inclusion in the new NPS should permanently rule out a site from being listed in a future, beyond 2035, Nuclear NPS. The matters assessed by the siting criteria are subject to change over time (for example, an aviation Public Safety Zone may change or a military facility may change designation) and therefore sites may be able to meet the strategic siting criteria during a future nominations window. There also remains the possibility that the ability to mitigate a particular issue develops over time or that a developer is in a better position to propose appropriate mitigations in future. Government recognises the potential for uncertainty surrounding the potential inclusion of sites in future nuclear NPS on local residents but notes the extensive public consultation that must take place before the development of a nuclear power station can commence.

Process for additional assessments of sites as potentially suitable for deployment of nuclear power between 2026-2035

Summary of key responses

2.121 There was agreement amongst several respondents with the position set out in the consultation, that planning for projects at some of the sites currently listed in EN-6 is more developed than when originally nominated and thus a letter of support from a Credible Nuclear Power Operator (CNPO)³¹ should not be required when a developer confirms that it wishes an existing site to remain in the process. Some respondents noted that in some instances a letter from a CNPO could still add weight to a site's credibility during the assessment.

³¹ Credible Nuclear Power Operator (CNPO) is defined in the 2008 White Paper on Nuclear Power as one that currently operates a nuclear power plant anywhere in the world; and currently operates an electricity generating station subject to UK health, safety and environmental regulation, or, that has made a public commitment to become an operator of an electricity generating station (with a capacity in excess of 50MW) in a market subject to UK health, safety and environmental regulation. <http://webarchive.nationalarchives.gov.uk/+http://www.berr.gov.uk/files/file43006.pdf>

2.122 Other respondents disagreed, suggesting that CNPO status should be a specific requirement for a site proposed for inclusion in either the new NPS or in any future nomination, and whatever the stage of maturity of the project.

2.123 The consultation proposed that Government would ask developers if they wished to propose any modifications to site boundaries as part of confirming that they wish for a site to remain listed. A number of those that commented on this noted that it seemed a sensible and pragmatic approach. Some suggested that any such change should be subject to consultation with any affected parties and one requested Government indicate what it expects to be a reasonable variation of the site boundary contained in EN-6.

2.124 There was broad support for Government's proposal that the new NPS for nuclear should have 'a capable of deployment date' of 2035. Respondents commented that focusing the new NPS on sites that are capable of deploying before 2035 provides clarity and certainty for developers and local communities. It was also highlighted that the period through to 2035 provides sufficient time for proposed technologies to clear regulatory approval, licensing and multi-unit construction. Respondents noted this timescale allows the Government to substantially complete the decarbonisation of electricity generation required if 2050 targets for greenhouse gas abatement are to be achieved.

2.125 However, other respondents questioned whether 2035 is an achievable deployment date for any site currently listed in EN-6. Some respondents stressed the importance of reviewing the need for nuclear to be delivered before 2035.

Government response

Credible Nuclear Power Operator letter

2.126 As outlined in the consultation document, Government does not believe it is necessary for confirmation from a developer that it wishes an EN-6 site to remain in the process for the new NPS to be supported by a letter from a CNPO. Government's preference is that future site nominations however should be from, or accompanied by a letter from, a CNPO.

Boundary changes

2.127 Government notes the general support for the proposal to allow some boundary modifications where the detailed planning of a project, and a developer's subsequent understanding of a site, has moved on since a site was originally nominated in 2008. As set out in the consultation document, Government's view is that the sites listed in EN-6 are the only sites capable of deployment by 2035 and in carrying them forward for the new NPS, Government considers that the site boundary should remain largely the same. However, Government also recognises that this may be a useful opportunity to improve a site boundary based upon enhanced understanding of the site and projects that might be brought forwards. Therefore, Government will consider proposals for modifications to the site boundary from those nominated under EN-6.

2.128 Should a developer propose any modifications to the site boundary listed in EN-6, Government expects nominators to identify these modifications and clearly explain the need for the change. Government will also require developers to provide updated

information in respect of any such modification so they can form part of the assessment against the updated siting criteria. Nominators should also inform any affected landowners and other relevant stakeholders. Government will include any modifications to site boundaries in the public consultation and other engagement undertaken on the publication of the draft NPS. This will give local communities the opportunity to scrutinise the proposed site.

2035 deployment date

- 2.129 Government notes the support for 2035 as a ‘capable of deployment’ date. Government continues to believe nuclear has an important role to play as the UK transitions to a low-carbon economy. Government will therefore focus on those sites which could potentially deploy the soonest and having a ‘capable of deployment by’ date of 2035 helps focus on those sites that will meet the need for nuclear as soon as possible.
- 2.130 As outlined in the consultation, Government’s preliminary view is that the sites listed in EN-6 are likely to be those which can deploy the soonest and are the only sites capable of deploying a nuclear power station by 2035. In order to be listed in the new NPS sites will be assessed against the strategic siting criteria and will be required to demonstrate that they are capable of deployment by 2035. In line with paragraph II.10 of Annex II, developers will be requested to submit evidence to demonstrate that each site is capable of deployment by 2035. Government will expect an indication of the likely timescales and progress to date in relation to commissioning and site planning as well as information on the potential timing of any transmission and distribution infrastructure needed to make the site operational and an explanation of the reasoning behind any estimates. Government expects developers to focus on the characteristics of a particular site, rather than any generic expectation of deployability, and give as much practical detail on dates and timelines as is possible. The assessment will seek to confirm whether it is reasonable to conclude that each site can be deployed by 2035. It will focus on the main hurdles to deployment, and conclude whether there is a reasonable amount of time to clear them.
- 2.131 The public will have an opportunity to comment on the ongoing need for nuclear as part of the forthcoming consultation on the draft NPS.

Summary of comments received in response to Government’s proposals for future site nominations and Government’s response

Consultation Question 4

Chapter 4

Do you have any comments on the process for future site nominations set out in paragraphs 4.4-4.18?

2.132 The finalised process for inviting future site nominations is at Annex III.

Summary of key responses received on Question 4

2.133 There was agreement from a number of respondents that additional site nominations would not be necessary until the 2020s. Respondents noted that it is sensible to focus the new NPS on sites currently listed in EN-6 and it was also noted that this approach brings welcome clarity to both industry and local communities. It was suggested that when deciding on the timing of a nominations window Government should do this based on a reconsideration of the need for nuclear and any associated transmission infrastructure requirements.

2.134 In terms of a future nomination window Government proposed that it would publicise a window at least one month prior to opening and it would remain open for 8 weeks. Several respondents noted this should be extended to ensure sufficient engagement with local communities and other stakeholders. It was also suggested that nominators should consult sector specific consultees and those who would be a prescribed consultee in the development consent order process, such as local authorities and landowners. Respondents suggested nominators could produce a ‘consultation report’, setting out who they have consulted, and how the views of those consulted have informed their nomination.

2.135 There were a number of questions on the Government process for inviting new site nominations in the 2020s. Respondents questioned how far the Government expects sites listed in the new NPS to have progressed before a new nomination window; whether any sites identified in a 2020s nomination window would then be listed in a separate NPS; and if any sites identified in a 2020s nomination window would be considered alternatives to the sites identified in the new NPS.

Government response

2.136 Government notes the support for a 2020s nomination window.

2.137 Government recognises the importance of adequate engagement with local authorities and local communities living in the vicinity of any potential nominated site, and ensuring potential developers have sufficient time to conduct the preliminary work necessary for an infrastructure project of this size. Government therefore intends that, for the next nomination window for potential sites for the deployment of nuclear power stations, the time from first publicising a new nomination window to that nomination window closing will be a minimum of four months.

2.138 As set out in the consultation, developers or, where applicable, a third party must take appropriate steps to raise awareness of any nomination with local communities living in the vicinity of the site. As a minimum, nominators should make the local authority, relevant land owners and any existing relevant community groups aware of their nomination, and take steps to publicise their nomination through advertisements in local newspapers and in public places such as community centres, libraries etc as well as considering specific events to raise awareness within the wider local community.

2.139 If, in Government’s view, the steps taken to raise the awareness of the proposed nomination with local communities living in the vicinity of the site are insufficient (or suitable evidence is not provided) it may not be possible for a particular site to be

considered further. Furthermore, any nominated site which meets the strategic criteria and is listed in a draft NPS will undergo public consultation at a national level as well as Parliamentary Scrutiny.

2.140 Government agrees that the need for nuclear should be an important consideration in relation to any decision on the timing of a future nominations window.

2.141 The Government position on transmission infrastructure in relation to listing sites in a new NPS is set out at paragraphs 2.89-92.

2.142 At this time it would not be appropriate to set out the precise timing and process to be applied for a future nominations window, as this will depend on the relevant policy and legislation at the time. Government has set out an initial process for a future nominations window in Annex III. This is substantially the same as the proposed process included in the consultation document. As stated in the consultation, the exact process will be determined at the point of a nomination window in the 2020s.

Chapter 3: Government response to topics outside the scope of the consultation

3.1 A number of themes have also been identified from the comments received which were not specifically related to questions asked in the consultation and were therefore outside the scope of the consultation. Despite this, Government considers that it would be helpful to provide clarification on these topics and its position is set out below. For the avoidance of doubt, Government's comments on these issues are provided for information purposes only and do not form part of Government's formal response to the consultation.

Comments on the scope of the new NPS

3.2 The consultation questions did not directly request comments on the scope of the new NPS outlined in Chapter 1. Comments received on this topic were therefore outside the scope of the consultation. However, there were a number of points raised on the scope of the new NPS that Government considers it would be helpful to clarify.

Summary of key comments

3.3 Several respondents commented that Government should clarify the role of the new NPS and the siting criteria in relation to reactors of less than 1GW electricity generating capacity.

3.4 Several respondents suggested Government should consider a review of EN-1, in light of any changes to energy policy since 2011. Similarly there were also a small number who suggested that if the new nuclear NPS stands alone from the energy NPS suite, Government should consider the broader and related issues covered in EN-1, including the overall need for low carbon energy and the role of nuclear within that.

3.5 Some respondents requested further information as to the relationship between EN-6 and the new NPS, in particular for sites listed in both EN-6 and the new NPS, including being clear which NPS would provide the framework for development consent decisions.

3.6 Finally, a number of respondents suggested that the siting criteria as drafted appeared to guarantee sites currently listed in EN-6 will be able to demonstrate their suitability against the criteria. Some suggested that they believe that the Government position on this policy had been decided prior to publication of the consultation.

Government comments

Reactors under 1GW

3.7 The new NPS applies to sites which will host at least one nuclear reactor, with each reactor having an electricity generating capacity of above 1 GW and being deployable before the end of 2035. The new NPS will not have effect (for the purposes of Section 104 of the Planning Act 2008³²) for development consent decisions for sites hosting reactors of less

³² Section 104 of the Planning Act 2008. It could incorporate information, assessments and statements which could be important and relevant to the Secretary of State's development consent decision.

than 1GW although it may contain information which could be important and relevant to any decision under Section 105 of the Planning Act 2008. Government considers that reactors of less than 1GW could represent a different asset class of nuclear reactor with different environmental footprints, waste outputs and deployment profiles and as such is considering planning issues related to smaller reactors separately to the new NPS process.

Review of the overarching NPS

- 3.8** EN-1 is based on a wide range of modelling outputs and is written with future economic and technological changes in mind. Given the substantial uncertainties in modelling the energy and emissions system to 2050, the Government considered a wide range of possibilities in developing EN-1 (including those with and without nuclear). This analysis remains valid. Government does not intend to review EN-1 at the present time but will continue to monitor each NPS to decide when a review may be appropriate.
- 3.9** Government continues to believe nuclear has an important role to play in the UK's energy future as we transition to the low-carbon economy. The public will have an opportunity to comment on the ongoing need for nuclear as part of the consultation on the draft new nuclear NPS.

Continuing application of EN-6

- 3.10** EN-6 remains in force in its entirety for use in development consent applications for new nuclear power stations on sites listed in EN-6 that are capable of deployment before the end of 2025. Sites listed in EN-6 on which a new nuclear power station is anticipated to deploy after 2025 will continue to be considered appropriate sites and retain strong Government support during the designation of the new NPS.
- 3.11** The owners of such sites are able to make development consent applications, and a decision on whether to grant consent will be made under section 105 of the Planning Act 2008. Government is confident that both EN-1 and EN-6 incorporate information, assessments and statements which will continue to be important and relevant to the Secretary of State's development consent decision for projects which will deploy after 2025. This includes statements of the need for nuclear power, as well as environmental and other assessments that continue to be relevant for projects which will deploy after 2025. As such, in deciding whether or not to grant consent to such a development the Secretary of State would, under section 105(2)(c) of the Planning Act 2008 , have regard to the content of EN-1 and EN-6. Where there is no relevant change in circumstances it is likely that significant weight would be given to the policy in EN-1 and EN-6.
- 3.12** When designated, the new NPS will have effect for the purposes of section 104 of the Planning Act 2008 for listed sites capable of deploying between 2026-2035. Furthermore, a published new NPS in draft form would be an important and relevant consideration under section 105(2)(c) of the Planning Act 2008 in relation to any a decision is taken on an application for Development Consent before the new NPS is designated.

Consultation exercise

- 3.13** All Government consultations are carried out in line with the Cabinet Office principles of consultations. Government carefully considered its drafting of the consultation with the aim of ensuring respondents were able to understand the often technical issues under consultation.

- 3.14** The proposed siting criteria were based on those that were used to assess the sites listed in EN-6 and were developed with reference to international experience and guidance; the advice of the independent regulators; the views of Government departments with responsibility for policies underpinning the criteria; professional technical advice; relevant environmental data; literature reviews and were subject to extensive public consultation. Those criteria were updated to be consistent with current law and policy working with the independent nuclear regulators and other statutory bodies, including the environmental regulators, prior to this consultation.
- 3.15** Government is committed to open, transparent consultation. The suitability of the siting criteria and process for listing sites in the new NPS has been reconsidered in light of the comments received in response to the consultation questions. Further detail on the assessments of sites against the finalised criteria will be available as part of the consultation process, including site specific events, that will be undertaken following the publication of the draft new NPS.

Views expressed on the proposed Appraisals of Sustainability and Habitats Regulations Assessments

- 3.16** The consultation document included a high-level description of the Appraisal of Sustainability (“AoS”) and Habitats Regulations Assessment (“HRA”) processes. These aspects were not explicitly included in the scope of this consultation as they were the subject of a statutory consultation on the AoS Scoping Report carried out in parallel³³. Nonetheless, some comments were received as part of the NPS consultation regarding the AoS and HRA and these have been considered as set out below.
- 3.17** On both the AoS and HRA some respondents questioned whether the level of detail available at a strategic level would allow a meaningful assessment of sites.
- 3.18** Regarding the AoS, some respondents questioned whether the nuclear NPS would be able to meet the sustainability objectives related to ecological enhancement and, on that basis, suggested it was misleading to include them as sustainability objectives. Other respondents approved of the inclusion of sustainability objectives related to socio-economic factors.
- 3.19** Regarding the HRA, one respondent thought that Articles 12 through 16 of the Habitats Directive, referring to the strict protection required for the species listed in Annex IV of the Directive, needed to be considered further. A number of respondents also expressed a concern that the derogation under the Habitats Directive related to Imperative Reasons of Overriding Public Interest (“IROPI”) would be used to justify inclusion of any sites regardless of the potential impact to European Sites.

Government position

- 3.20** The level of detail that Government considers is appropriate for a strategic assessment is outlined in paragraph 2.24 of this response. While it is recognised that there is uncertainty at this level particularly in terms of the specific project that will be brought forward at a site, Government considers that both a strategic AoS and HRA remain useful and important

³³ The methodologies for the AoS and HRA have been updated in response to representations received during the [statutory consultation on the AoS Scoping Report](#) and will be included in the draft environmental reports published alongside the draft NPS for consultation.

exercises. These exercises allow identification of potential environmental impacts which may influence the potential suitability of a site for inclusion in the NPS as well as early identification of such impacts to ensure that they are considered thoroughly by developers and PINS. However, these assessments are not intended to duplicate or replace the later project-level assessments. Aspects which are better undertaken as part of a project-level assessment such as site surveys to identify specific instances of protected species will not be included.

- 3.21** The sustainability objectives have been derived from a review of relevant plans, programmes and environmental protection objectives. In accordance with the Environmental Assessment of Plans and Programmes Regulations 2004 (the “SEA Regulations”), the sustainability objectives represent environmental protection objectives which have been established at an international, European, or national level. While they should be relevant to the plan being appraised (in this case the new NPS), they are intended to allow a fair and robust appraisal of the plan and should not be automatically passed. Government considers that the sustainability objectives remain suitable for this purpose, although minor amendments have been made in light of responses received from the statutory consultation on the AoS Scoping Report.
- 3.22** In line with the requirements of the Habitats Directive and the Conservation of Habitats and Species Regulations 2017 (the “Habitats Regulations”), the NPS will be subject to HRAs which will assess at a strategic level the potential impact of the plan on European Sites. If it cannot be concluded that the NPS will not have an adverse effect on the integrity of European Sites, including consideration of mitigations, then the HRA will consider whether there are any alternative solutions to the plan. Should there be no suitable alternatives, then the plan could nonetheless be carried out in compliance with the Habitats Directive and the Habitats Regulations on the basis of Imperative Reasons of Overriding Public Interest (“IROPI”) and subject to taking all compensatory measures necessary to ensure that the overall coherence of European sites is protected. Overall this is a stringent process intended to provide a high level of protection for the environment. Although at a strategic level, it can be difficult to conclusively demonstrate the absence of adverse impacts, it should be noted that any consideration of IROPI at this stage would relate to proceeding with the NPS rather than any specific project. The subsequent DCO application for any site listed in the NPS would require a project-specific HRA which would contain a much more detailed assessment of the environmental impacts.

Views expressed on the need for new nuclear power stations

- 3.23** A large number of responses, primarily campaign responses, commented on the need for new nuclear power stations and, by extension, the need for a new NPS. Specific reasons put forward included reductions in the cost of renewables combined with developments in technologies to manage intermittency, questions as to whether electricity demand projections have been overestimated and questions as to whether nuclear power remains a low carbon source of energy when the full fuel cycle is taken into account.

Government position

- 3.24** Nuclear power currently provides around 20% of the nation’s electricity needs but over the coming decades many of our existing nuclear plants are scheduled to close, alongside the phase out of coal fired stations. This comes at a time when we are likely to need significant additional low carbon capacity as we seek to electrify more of our transport and heating.

Government considers that nuclear has an important role to play in our future energy mix, provided that it can be achieved at the right price.

3.25 A key way in which Government intends to facilitate new nuclear power stations is through the designation of a new NPS for the deployment of nuclear power stations between 2026 and 2035. Under the Planning Act 2008, NPSs establish the case for Nationally Significant Infrastructure Projects. Therefore, the need for new nuclear power stations will be set out as part of the draft of the new NPS.

Views expressed on the waste from nuclear power stations

3.26 A large number of responses, primarily campaign responses, commented on the waste from nuclear power stations. A common theme from the responses received was that no new nuclear power stations should be built until a long-term solution for the management of waste from existing and potential nuclear power stations is available.

Government position

3.27 Government policy is that before development consents for new nuclear power stations are granted, the Government will need to be satisfied that effective arrangements exist or will exist to manage and dispose of the waste they will produce. In 2011, the Government set out in the National Policy Statement for Nuclear Power Generation why it was satisfied that such arrangements will exist. The Government considered these conclusions in the production of the 2014 Implementing Geological Disposal White Paper and the draft National Policy Statement for Geological Disposal Infrastructure and continues to be satisfied that they apply.

Views expressed on the safety and security of nuclear power stations

3.28 A common theme among the responses received was the safety of nuclear power stations. A number of generic statements that nuclear is unsafe were received, in addition to specific concerns regarding the possibility of an event in the UK similar to the accidents at Fukushima Dai-ichi in 2011 or Chernobyl in 1986. A small number of respondents also expressed concern regarding the risk of a terrorist attack at nuclear power stations.

Government position

3.29 The UK has a robust nuclear safety and security regime overseen by an independent regulator, the ONR. The ONR holds the nuclear industry to account to ensure that it controls its hazards effectively, has a culture of continuous improvement and maintains high standards of safety and security. ONR adopts a modern enabling approach to all aspects of our regulation. Assessment and inspection activity is undertaken by ONR to judge whether licensees are maintaining the expected high standards of safety and security. The standards used for inspection and assessment are set out in ONR's Safety Assessment Principles and Security Assessment Principles.³⁴ These principles are aligned with international standards, including those published by the International Atomic Energy Agency and the Western European Nuclear Regulators' Association, and are updated as

³⁴ See <http://www.onr.org.uk/saps/saps2014.pdf> and <http://www.onr.org.uk/syaps/security-assessment-principles-2017.pdf>

appropriate in order to capture developments in good practice as well as learning from incidents and events.

3.30 As explained in Annex I, the siting criteria have been designed to include the safety and security matters which are judged to be strategically important and capable of assessment at a national level. By considering these matters at the siting stage, early assurance in the safety and security of potential new nuclear sites can be gained. However, this process does not replace or pre-judge the stringent regulatory processes that must be followed to construct and operate a nuclear power station in the UK.

3.31 Therefore, Government is satisfied that suitable arrangements exist to ensure the safety and security of new nuclear power stations in the UK.

Views expressed on sites listed in EN-6 and the publication of the consultation

3.32 A large number of responses, primarily campaign responses, stated they were keen to have the opportunity to comment on the suitability of a site currently listed in EN-6 and this included commenting on potential site specific issues. For this reason it was also suggested that the consultation should have been more widely publicised, particularly amongst those local to sites currently listed in EN-6.

Government position

3.33 As well as publishing it on gov.uk, Government publicised this consultation to local authorities, local resident groups, non-governmental organisations, industry bodies, statutory bodies and conservation organisations. Letters were also sent to MPs who represent constituencies hosting sites currently listed in EN-6.

3.34 The purpose of this consultation was specifically to seek views on the process and criteria for designating sites in an NPS covering nuclear power stations deploying between 2026-2035. It was not about consulting on specific sites or their potential suitability. Following assessment of any site a developer wishes to remain in the process, those sites deemed potentially suitable for the deployment of nuclear power by the end of 2035 will be listed in a draft NPS. This draft NPS will be subject to public consultation and parliamentary scrutiny and comments on any site-specific issues will be considered at that time. There will also be public events to discuss the sites listed in the new NPS.

3.35 Further, as stated in paragraphs 2.23-2.29 of this response, listing sites in a new NPS is intended to supplement, but not replace, the mandatory processes and assessments (e.g. Nuclear Site Licensing, Environmental Permitting, Development Consent, Environmental Impact Assessment etc) which must take place prior to deploying a nuclear power station and examine the suitability of the proposed development in detail. These processes and assessments will examine the suitability of individual sites in detail and provide further opportunities for public consultation.

Annex I: Finalised strategic siting criteria

- I.1 This annex sets out the strategic criteria Government will use to assess whether sites listed in EN-6 should continue to be listed in the new NPS. It is also expected these criteria would be used to assess sites nominated in any future nominations window as potential locations for new nuclear power stations³⁵.
- I.2 The strategic criteria set out at paragraph I.14 represent matters which have been identified as strategically important and capable of assessment at a national level. These criteria identify key matters to consider when deciding potential sites for nuclear power stations and to determine if they are potentially suitable for development. They do not pre-judge the stringent planning and regulatory processes that developers must undertake before beginning development, but act as an initial and high-level sift to ensure sites are broadly suitable from a safety, environmental and operational perspective.
- I.3 The strategic criteria are based on those used in the original strategic siting assessment process in April 2009³⁶. They have been updated to be consistent with current law and policy and taking into account the views received as part of this consultation.
- I.4 This annex also identifies, matters to be flagged for more detailed consideration by PINS and the Office for Nuclear Regulation (“ONR”). These are matters identified through the original strategic siting assessment process in April 2009 which (usually due to the need for detailed site-specific investigations and data) are more appropriately assessed at the project level. They are a representation of some of the important issues that will be assessed in depth at the planning and licensing stage by PINS and ONR. Further information on these matters is set out at paragraph I.13.

Assessment of sites against the strategic criteria

- I.5 All assessments against the strategic criteria, both for the new NPS and in a future nominations window, will cover the lifetime of the site. That is the operation and decommissioning and the safe and secure storage of all the spent fuel and intermediate level waste produced from operation and decommissioning until it can be sent for final disposal in a geological disposal facility (“GDF”).

Use of the strategic criteria in a nomination window

- I.6 The criteria make clear that the regulations and guidance that nominations will be assessed against at the time of a nominations window should be the most recent at that time. Therefore, nominators within a nomination window will need to have regard to the most up to date documentation or regulations. Similarly, nominators should be aware that data sets underpinning the assessment of the strategic criteria may change in the intervening period between strategic site assessment and the planning and licensing stages. This will not

³⁵ See

http://webarchive.nationalarchives.gov.uk/20110302182042/https://www.energynpsconsultation.decc.gov.uk/nuclear/nominated_sites for information on how nominated sites were assessed in 2009/10 for inclusion in EN-6.

³⁶ See

<http://webarchive.nationalarchives.gov.uk/20090609060348/http://www.berr.gov.uk/whatwedo/energy/sources/nuclear/consultations/closed-response/page47749.html> for information on how the strategic siting assessment criteria were originally developed.

mean the strategic site assessment needs to be reopened as it will be something which will necessarily be assessed in greater detail during the planning and licensing stages.

Exclusionary and discretionary criteria

I.7 As in 2009, to assess the strategic suitability of sites, Government defines two types of criteria, exclusionary and discretionary, and these are grouped into three themes; nuclear safety and security, environmental protection and operational requirements.

I.8 **Exclusionary criteria** are those that, if breached, will categorically exclude a site from further consideration. **Discretionary criteria** are those criteria that the Government considers could, either singly or in combination, make all or part of a site unsuitable for a new nuclear power station but which need to be carefully considered in order to come to a conclusion as to the site's strategic suitability.

I.9 In principle any criteria could be categorised as exclusionary or discretionary depending on the limit applied. The primary purpose of identifying exclusionary criteria is to rule out the sites for which it will be impossible or completely impractical to meet the relevant policy, regulatory or statutory requirements or mitigate the adverse impacts of a development. In this way exclusionary criteria are an effective tool to ensure that undue focus and attention is not applied to unsuitable sites, but they do not reflect a more important or stringent test than discretionary criteria.

I.10 In reaching a decision on whether to include a site that relates to one or more discretionary criteria in the new NPS site list, the Government will consider, for example:

- whether the nominator has demonstrated that there is a reasonable prospect of appropriately mitigating (wholly or in part) any potential adverse impacts in relation to the relevant discretionary criterion or criteria;
- where any potential adverse impact(s) cannot be appropriately mitigated, whether the potential adverse impact should prevent the site from being considered suitable at a strategic level, taking account of the overall need for nuclear.

I.11 The Government does not expect to form a conclusive view as to the viability of detailed proposals for mitigation or the precise extent of any potential adverse impact. This will be a matter for PINS to assess and the Secretary of State decide when it receives a specific application for development consent to build on sites listed in the new NPS.

I.12 The Government will also consider the cumulative impact of the discretionary criteria in relation to a nominated site. Where a site significantly breaches a large number of discretionary criteria, it may be appropriate to exclude it from the new NPS.

Matters flagged for detailed consideration by PINS and/or ONR

I.13 The Government also identified important matters which are more appropriately assessed at the planning and licensing stages because of the need for detailed site-specific investigations and data. These will be highlighted as important considerations in the new NPS. They do not represent a less onerous test for the nominator to satisfy but their inclusion in this way recognises that assessment at a strategic level is not capable of adequately addressing these issues. It is not an exhaustive list but a representation of some the issues that will be considered in detail at the Development Consent stage.

Strategic siting criteria

I.14 The strategic siting criteria are set out in the table and accompanying text below.

National Criteria		
Nuclear Safety and Security	Flooding, tsunami and storm surge*	Discretionary
	Coastal processes*	Discretionary
	Proximity to major hazard sites and major accident hazard pipelines	Discretionary
	Proximity to civil aircraft movements	Discretionary
	Demographics	Exclusionary + discretionary
	Proximity to military activities	Exclusionary + Discretionary
Environmental Protection	Internationally designated sites of ecological importance	Discretionary
	Nationally designated sites of ecological importance	Discretionary
	Cultural heritage	Discretionary
	Areas of amenity and landscape value	Discretionary
	Areas of Groundwater Protection	Discretionary
Operational requirements	Size of site to accommodate operation	Discretionary
	Access to suitable sources of cooling	Discretionary

*As well as nuclear safety and security these criteria also include important elements of environmental protection.

Matters flagged for detailed consideration by PINS and/or ONR / Environment Agencies	
Nuclear Safety and Security	Seismic risk (vibratory ground motion)
	Capable faulting
	Non-seismic ground conditions
	Meteorological conditions
	Proximity to civil aircraft movements
	Proximity to mining, drilling and other underground operations
Societal Issues	Emergency planning
	Significant infrastructure / resources
Operational requirements	Access to transmission infrastructure
	Size of site to accommodate construction and decommissioning

Criteria related to nuclear safety and security

I.15 The Government believes that the UK has an effective and robust regulatory framework. Within the strategic criteria, the Government has aligned the proposed safety criteria to relevant international standards and best practice. The strategic criteria will consider those aspects of siting that can, at a national level, avoid hazards to nuclear facilities and to public health. This includes reducing accident risk as a result of external hazards and utilising an established approach to identifying safe distances between new nuclear power stations and existing populations. This helps to avoid risks to human health³⁷.

I.16 The UK has strict independent regimes covering safety and environmental protection for nuclear power. In the UK, the ONR regulates the safety and security of civil nuclear

³⁷ The criteria under the nuclear safety and security section will also be assessed from an environmental perspective by the Environment Agency, Natural Resources Wales and any other relevant regulators and statutory bodies.

facilities. Any new nuclear power station will be subject to safety licensing conditions and the operator will have to comply with the safety, security and environmental conditions set by the regulators. The strategic criteria are not intended to replace the conditions of the nuclear site licence or the powers of the ONR. Sites considered to be potentially suitable in the NPS will need to undergo much more detailed assessments before development consent can be granted and construction can begin.

Flooding, tsunami and storm surge

Discretionary

I.17 Sites nominated in this process may be considered unsuitable, if at a strategic level nominators are not able to:

- a. confirm that they can protect the site against flood-risk throughout the lifetime of the site, including the potential effects of climate change, without increasing flood risk elsewhere;
- b. outline the countermeasures they would take to protect the site and its occupants from flood risk, so far as is reasonably practicable³⁸;
- c. take into account the wider impacts of their flood protection countermeasures on areas surrounding potential power station sites; and
- d. Outline how they will meet the requirements of the Sequential Test for sites in England (and the justification test set out in section 6 of TAN 15 for sites in Wales).

I.18 Based on advice from the Environment Agency, Natural Resources Wales (“NRW”) and ONR, and using relevant information including the Environment Agency flood maps in England and Development Advice Maps in Wales, Government will assess nominated sites at a strategic level and will apply the relevant policy tests as set out in the relevant planning framework at that time (currently National Planning Policy Framework (“NPPF”³⁹) in England and Planning Policy Wales⁴⁰ and Technical Advice Note (“TAN”) 15⁴¹ for Wales) where practical.

Information from nominators/points to note:

I.19 Nominators will be expected to outline:

- a. the protection measures they believe would be appropriate to protect the site against flooding and confirmation that these are adaptable over the lifetime of the site to accommodate uncertainties in future projections of the effect of climate change;
- b. whether the protection measures would affect other designated ecological areas;
- c. the assumptions that have been made about off-site flood protection and water management and, in particular, the reliance on flood protection measures which are in the control of other parties, such as neighbouring landowners or government bodies;

³⁸ This is a legal requirement under the Health and Safety at Work etc. Act 1974.

³⁹ The NPPF does not contain specific policies for NSIPs but is a relevant and important document when making planning decisions.

⁴⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁴¹ <http://gov.wales/topics/planning/policy/tans/tan15/?lang=en>

- d. the potential for flooding to impede access to the site in respect of both normal operations and emergency services;
- e. whether the development of a new nuclear station on the site (including any likely mitigation measures) is likely to increase flood risk elsewhere, and if so potential mitigation to the increased flood risk; and
- f. the predicted effects of the development and any flood protection measures on coastal and fluvial processes and subsequent impacts on communities and the environment.

I.20 For nominations in England, nominators will be expected to use the relevant publicly available information to provide a strategic overview of flood risk for the site. This may include the flood risk from rivers or the sea, surface water, and reservoir maps (all part of the Long Term Risk of Flooding⁴²) and any relevant Strategic Flood Risk Assessments. For the purpose of providing evidence against the Sequential and Exception Tests (see paragraph I.23), nominators should refer to the flood map for planning⁴³.

I.21 Nominators in Wales should also provide the publicly available flood maps for the site at that time, and copies of the development advice map published by NRW on behalf of the Welsh Government, both of which are currently available on the NRW website.

I.22 Consideration of flooding and storm surges as discretionary criteria does not take away the responsibility of PINS, when considering a specific application for development consent, to consider risks based on detailed site-specific plans and mitigation measures and consult relevant regulators as detailed in 2.19. In doing this, the Government expects PINS to take into account any statements made in the new NPS and Government planning policy on flood risk and development at that time, currently [Section 10 of the NPPF](#) and supporting [Planning Practice Guidance](#) for England and Planning Policy Wales and TAN 15 for Wales.

I.23 Planning policy in England currently requires a Sequential Test (paragraph 101 of the NPPF) to be carried out for all sites seeking Development Consent. This requires developments to be located in areas with the lowest probability of flooding, unless there are no reasonably available alternative sites appropriate for the proposed development. Therefore, nominators should explain why it is reasonable to conclude that the nominated site is likely to pass this test. If the nominated site is in an area with a high probability of flooding then the Exception Test (paragraph 102 of the NPPF) will also be required. This requires demonstration that the development provides wider sustainability benefits to the community that outweigh flood risk and that the development will be safe for its lifetime without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. In these cases, nominators should also explain why it is reasonable to conclude that the nominated site is likely to pass the Exception Test.

I.24 For sites in Wales, TAN 15 provides guidance on how the risk and consequences of flooding should be considered as part of any planning application. Section 6 includes tests which should be met where new development is proposed within areas of flood risk, and Section 7 provides guidance on how the consequences of flooding should be assessed. Appendix A1 (C) to the TAN sets out the acceptability criteria for flooding consequences. Welsh planning policy sets a general expectation that developments in areas of high flood

⁴² <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

⁴³ <https://flood-map-for-planning.service.gov.uk/>

risk should be avoided. Therefore, where a nominated site includes an area of flood zone C2, nominators should identify the nature and extent of any development to be located within the flood zone, and justify its location against TAN15 tests. At the project stage, nominators will be expected to prepare and submit a flood consequences assessment (as described in TAN15) where any part of the development is located within flood zone C.

I.25 Nominators should consider the most up to date UK climate projections and guidance as available at nomination. Currently this is UK Climate Projections 2009 (UKCP09) and associated guidance⁴⁴ but the Government has announced the UK Climate Projections 2018 (UKCP18) project to upgrade the UK Climate Projections. The capacity of new nuclear power stations to withstand the potential impacts of climate change will be reviewed in more detail as part of any site licensing process and as part of the Flood Risk Assessment (for Wales, a Flood Consequence Assessment) that applicants will undertake in conjunction with any development consent applications to PINS. Nominators should identify the potential effects of the credible maximum scenario in the most recent projections of marine and coastal flooding. Nominators must then be able to demonstrate that they could achieve further measures for flood management at the site in the future, if future climate change predictions show they are necessary.

Tsunami and storm surges

I.26 The UK's regulatory practice requires the tsunami risk to be included in the design-basis risk consideration for a nuclear facility.

I.27 For all sites on or near the coast, we will expect nominators to indicate how their site can be protected against the risks of tsunami and storm surges, including the potential effects of climate change, for the duration of the life of the station. In particular, nominators should outline:

- a. the coastal protection measures that they believe would be appropriate to protect the site against these risks;
- b. the dependencies on coastal protection measures which may currently be out of the nominator's control; and
- c. the potential for these hazards to impede access and egress to/from the site in respect of both normal operations and emergency services.

Coastal processes

Discretionary

I.28 The strategic criteria will consider whether it is reasonable to conclude, at a strategic level, that the nominated site can be protected against coastal erosion and other landscape change scenarios, including the potential effects of climate change, for the lifetime of the station, taking into account possible countermeasures and mitigating actions. It will also

⁴⁴ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances-and>
<https://www.gov.uk/government/publications/adapting-to-climate-change-for-risk-management-authorities-and>
<http://gov.wales/topics/planning/policy/policyclarificationletters/2016/cl-03-16-climate-change-allowances-for-planning-purposes/?lang=en>

consider, at a strategic level, effects that a development of a nominated site could have on coastal processes and communities elsewhere.

I.29 Government will assess nominated sites at a strategic level against the most up to date UK climate projections as available at nomination. Currently this is UKCP09. Government will also assess nominations against the planning framework in force at that time (currently, NPPF for England and TAN 15 for Wales). Environment Agency and NRW flood and coastal erosion maps will also be used.

I.30 An assessment will also be based on the advice of the Environment Agency, and NRW for sites in Wales, and the Marine Management Organisation on the risk of coastal erosion at sites, of historical coastal events in the region and the most current Shoreline Management Plan policy. For any nominated sites which are adjacent to existing licensed sites, there will also be a considerable wealth of information on the prevailing coastal performance and local management arrangements which will inform the judgements made. Estimates for the coastal erosion in the vicinity of nominated sites will also be considered for their reasonableness.

Information from nominators/points to note:

I.31 Nominators should outline:

- a. the countermeasures that could be taken to protect any new nuclear power station within the nominated site from the effects of coastal erosion or other landscape change scenarios, and the likely impact of these on flood risk and coastal processes elsewhere;
- b. the dependencies on coastal protection measures that may be under the control of other parties, such as neighbouring landowners or government bodies; and
- c. the potential for these risks to impede access and egress to/from the site in respect of both normal operations and emergency services;
- d. the potential impacts of site development on coastal processes and existing coastal management arrangements, and possible measures that could be taken to limit these impacts;

I.32 The practicability of the proposed mitigation measures will be reviewed along with the implications for areas beyond the immediate site boundary where reliance was placed on defences potentially without the control of the site.

I.33 In addressing these points, or otherwise, nominators should demonstrate that they have taken account of:

- a. the wider impacts of any coastal protection countermeasures on areas surrounding the development of a new nuclear power station in particular any designated habitats;
- b. interaction with the local and regional plans for coastal change management and protection and watercourse management; and
- c. any reliance on third party schemes for protection that is being assumed.

Proximity to major hazard sites and major accident hazard pipelines

Discretionary

- I.34 Based on the advice of the Health and Safety Executive (“HSE”), the ONR and the Environment Agency or NRW, Government will assess a nominated site to ensure it could be protected against potential risk arising from proximity to major hazard sites throughout its lifetime, taking into account suitable counter measures and mitigating actions.
- I.35 The assessment will give regard to major hazard sites and pipelines as subject to the most current regulations and practice at the time of nomination. Currently these are establishments subject to the Control of Major Accident Hazards (“COMAH”) Regulations 2015 and sites in possession of Hazardous Substance Consent⁴⁵ for which HSE and the Environment Agency or NRW are statutory consultees. HSE sets consultation distances (“CD”) around major hazard sites and major accident hazard pipelines and then must be consulted on certain proposed developments within that zone. HSE has a methodology for assessing development near to such sites, this gives guidance to planning authorities in considering the suitability of domestic, institutional and industrial developments within the CD.⁴⁶ Planning Authorities considering a development within the CD of a major hazard site or major accident hazard pipeline must consult HSE using the Planning Advice Web App.
- I.36 A nominated site may be unsuitable for the development of new nuclear power stations if it is within the CD of an existing or proposed hazardous facility or major accident hazard pipeline. Government will also consider any combined effects at local level. This will be a discretionary criterion and evidence of how suitable countermeasures could mitigate the risks from this will be taken into account in reaching any such decisions.
- I.37 A nominated site may be unsuitable if it is found that the risks (alone/in combination with other relevant sites in the area) would pose a serious risk to human health and the environment.
- I.38 Existing nuclear power stations or sites undergoing decommissioning, may be major hazard sites, depending on the nature of the existing site, including the presence of hazardous materials. Whether a site requires hazardous substances consent is a matter for the site operator to agree with the Hazardous Substances Authority (“HSA”). Where it has been determined by the operator and the HSA that the site is indeed a major hazard site, HSE will determine the level of consultation zone that may be appropriate. This will depend on the nature of the existing site, including the presence of hazardous materials. It is unlikely that such proximity will rule out a nominated site from further consideration, provided that appropriate mitigation measures can be put in place. Assessment could also include strategic consideration of any potential security implications to existing nuclear facilities⁴⁷. The Government will draw on advice from HSE, Environment Agency or NRW and ONR in considering the level of hazard and whether, recognising that these criteria are at a strategic level, suitable counter measures should be able to mitigate any risk.

Information from nominators/points to note:

- I.39 Nominators will not be requested to provide any further information, beyond the description and location of the site, to support the consideration of this discretionary
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⁴⁵ The Planning (Hazardous Substances) Regulations 2015 and The Planning (Hazardous Substances) (Wales) Regulations 2015

⁴⁶ <http://www.hse.gov.uk/landuseplanning/methodology.pdf>

⁴⁷ Although more likely this will be a matter for more detailed local consideration at any future licensing stage

criterion. They will, however, be encouraged to check the proximity of hazardous facilities to any nominated site, which are available in the public domain and may wish to put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Proximity to civil aircraft movements

Discretionary

I.40 Issues related to the proximity of proposed sites for new nuclear power stations to civil aircraft movements will be considered as discretionary criteria. An assessment will consider whether it is reasonable to conclude that:

- a. any likely nuclear power station development within the nominated site boundary can be protected against risks from civil aircraft movement⁴⁸; and
- b. the effects on air traffic and aerodromes can potentially be mitigated.

I.41 Nominators will be asked to assess proximity to Public Safety Zones (“PSZ”)⁴⁹. Inside these zones, current planning guidance, issued to local planning authorities by the Department for Transport, makes a general presumption against new developments⁵⁰. The guidance would probably rule out approval of a new nuclear site within a PSZ. Aerodrome safeguarding plans could be used to define limits for the construction of nuclear power stations in the environs of an aerodrome as planning applications must meet the aerodrome safeguarding requirements. Any planning applications are also subject to an independent collision risk assessment.

I.42 Unlicensed aerodromes that have not lodged aerodrome safeguarding plans will be flagged as an issue for detailed local consideration by PINS and any relevant regulators.

I.43 Nominators should have regard to the fact that a number of aerodromes in the UK have surrounding areas where traffic is controlled into and out of that aerodrome and potentially others in the immediate area. It may be that a site for a proposed nuclear power station is in an area of high density flying because of the way aircraft are directed into and out of the surrounding aerodromes. Such a location would increase the risk to the nuclear power station from an aircraft crash. Furthermore, air exclusion zones around nuclear power stations would affect the safe operations of the aerodrome. Air exclusions zones are those established by the Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2016, or the most recent set of regulations.

Information from nominators/points to note:

I.44 The Government recognises that not all the information for this criterion will be in the public domain and therefore it will not be reasonable to require nominators to provide this themselves; rather the assessment of this criteria will be undertaken by the ONR and the Civil Aviation Authority (“CAA”) for the area within the site provided by the nominator.

⁴⁸ This may involve a consideration of the application of the Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2016, or more recent regulations, to the nominated site.

⁴⁹ or the equivalent zones in place at the time of nomination

⁵⁰ Department for Transport (July 2002), Control of Development in Airport Public Safety Zones <http://www.dft.gov.uk/pgr/aviation/safety/controlofdevelopmentinairpor2984> or more recent guidance.

I.45 Nominators will not need to provide any further information, beyond the description and location of the site, to support the consideration of this discretionary criterion. However, they will be encouraged to check the proximity of civil aircraft movements to the nominated site, where information is available in the public domain. This information can be obtained from the CAA and UK Aeronautical Information Service. Nominators may also put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Demographics

Exclusionary

I.46 The Government has a longstanding policy regarding local demographics for the siting of new nuclear power stations which would limit the radiological consequences to the public in the unlikely event of an accident involving the spread of radioactive materials beyond the site boundary. The ONR provides advice to local planning authorities on any planning applications for developments around existing nuclear power stations.⁵¹

I.47 Sites will be assessed against the “semi-urban” demographic criterion that was used to assess the sites listed in EN-6. This is assessed as follows:

Distance (km)	Weighting Factor	Cumulative Weighted Population Criteria for the semi-urban demographics
Population all around site		
0-2	32.0	290,000
2-3	15.0	520,000
3-5	7.7	870,000
5-8	4.0	1,300,000
Population in 30 deg. Sector		
0-2	26.0	96,000
2-3	12.0	170,000
3-5	5.6	290,000
5-8	2.8	430,000

I.48 These values provide an example of the demographics criterion but are not intended to fully capture the complexity of the calculation. The method by which this calculation is carried out in practice is described in a guide recently published by ONR⁵².

I.49 Given the complexity of this calculation it is not reasonable to expect nominators to carry it out themselves; rather the calculations will be undertaken by the ONR for the area of the nominated site.

I.50 ONR consider that modern reactor designs which are consistent with IAEA safety expectations and the ONR’s Safety Assessment Principles should present a sufficiently low level of public risk to allow the application of the semi-urban criterion. The demonstration of

⁵¹ For details of the ONR’s implementation of the Government’s demographic siting policy and the subsequent control of development around nuclear sites see: <http://www.onr.org.uk/land-use-planning.htm>

⁵² <http://www.onr.org.uk/documents/2018/ns-lup-gd-001-land-use-planning-and-the-siting-of-nuclear-installations.pdf>

the acceptability of that public risk would be confirmed as part of ONR's detailed assessment of a site licence application based on a specific design.

I.51 Where areas of a nominated site might exceed the cumulative weighted population criteria for the semi-urban demographics further advice from the regulators will be considered to see whether the site remains viable. Such flexibility is possible as regulators will need to be satisfied that only those parts of the power station which contribute a radiological hazard can be located in areas which do not exceed the semi-urban criterion during the licensing process. If the area that exceeded the semi-urban criterion would be required for siting those elements which have a direct potential to cause radiological hazard, the site would be excluded.

I.52 Areas that meet the semi-urban criteria will, for the purposes of the strategic criteria, be considered suitable, subject to meeting all other relevant criteria. It should be noted that although a site may meet the semi-urban criterion as part of the strategic criteria, this does not guarantee that the demographic features of a site will be acceptable to the ONR following its detailed regulatory assessment at the time of considering a nuclear site licence application. It is therefore possible that a site which meets the proposed strategic demographic criteria could be rejected at a later stage in the development process.

Information from nominators/points to note:

I.53 Nominators will not be asked to provide any further information, beyond the description and location of the site, to support the assessment of this exclusionary criterion. However, for new nominations, they will be encouraged to consider demographic and proximity to population issues when deciding where to locate the site that they nominate.

Discretionary

I.54 Safety is the Government's overriding priority and emergency planning, which is closely linked with demographics, will be a critically important consideration at the site licensing and development consent stages. Therefore, based on their experience as nuclear operators, we would expect nominators to give a high-level description of the practicality of developing appropriate emergency planning arrangements at any site that they nominate for the strategic criteria.

I.55 Given the potential for a long development time between designation of the NPS and deployment of a listed nuclear power station, there is a risk that changes in local demographics could impact the strategic suitability of a site. As part of the discretionary assessment for any site which passes the exclusionary demographics assessment, Government will consider the effects of local population growth up to 2035 in accordance with local authority plans or historical average growth rates where applicable and what effect this could have on the potential suitability of the site.

Proximity to military facilities

Exclusionary

I.56 Based on the advice of the Ministry of Defence and the ONR, Government will assess any nominated sites to:

- a. seek to avoid the external hazards to nuclear power station safety that could be

created by neighbouring military activities; and

- b. ensure that the capabilities of the armed forces to carry out essential training and operations are not adversely affected by the siting of new nuclear power stations.

I.57 Sites will be rejected (in whole or in part) if the site is:

- 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)⁵³;
- 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)⁵⁴;
- d. within or affects the use of the areas used for live firing or other military training activities; and
- e. within the explosive safeguarding zones surrounding Ministry of Defence explosive storage facilities.

Discretionary

I.58 More broadly, any nominated sites will be assessed against their proximity to other Ministry of Defence assets or activities and whether it is reasonable to conclude, at a strategic level, that such proximity should or should not rule out the site for consideration for a new nuclear power station. Consideration will be given to whether there is evidence that impacts could potentially be adequately mitigated without compromising the Ministry of Defence facility or the nuclear installation.

I.59 This will include consideration of whether any likely nuclear power station development within the nominated site boundary would adversely affect the capabilities of the armed forces to carry out essential training and operations throughout its lifetime and whether it could be protected against the risk of external hazards created by neighbouring military activities. Ministry of Defence assets or activities to be considered under this criterion include (but are not limited to) technical sites and transmitters, offshore danger areas and nuclear facilities (including ports used by military vessels).

Information from nominators/points to note:

I.60 No specific information will be required from nominators about the proximity of the site to military activities as it will be assessed by the Ministry of Defence on the basis of the description of the site and nominated site boundary as outlined in the site nomination.

I.61 However, if a nominator is aware that the site is in close proximity to or may affect any other Ministry of Defence assets or activities, which are in the public domain and not covered in the exclusionary list above, the Government will expect nominators to indicate why, at a strategic level, this proximity should not rule out the site for consideration for a

⁵³ Or an equivalent designation being used in future.

⁵⁴ Or an equivalent designation being used in future.

new nuclear power station. Nominators may wish to put forward arguments for countermeasures or mitigations, if they think that the nominated site may be affected.

Criteria related to environmental protection

I.62 Protecting the natural environment, areas of amenity, cultural heritage and landscape are important considerations when developing new nuclear power stations. We expect developers to avoid, minimise or mitigate any impacts and, where possible, to enhance the environment.

I.63 The high-level environmental effects of nuclear power stations, during construction, operation or decommissioning can include adverse impacts upon:

- hydrology and hydrogeology;
- landscape;
- historic environment;
- air quality and climate;
- soils, geology and geomorphology;
- surface water quality and drainage;
- ecology – estuarine and marine, terrestrial and freshwater;
- coastal ecology and geomorphology; and
- groundwater.

I.64 At the strategic level, it is inappropriate to provide siting criteria for many of these issues as they are more appropriately addressed at the development consent stage when Environmental Impact Assessments (“EIA”) are undertaken. The focus of the siting criteria is on nationally and internationally designated features, rather than on-design or site-specific matters. The strategic criteria will, through the application of the following criteria, seek to ensure that developers minimise the adverse impact of new nuclear power stations on the UK’s most environmentally sensitive features.

Internationally Designated Sites of Ecological Importance

Discretionary

I.65 The Government’s view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in areas unlikely to cause an adverse effect on the integrity of any internationally designated sites⁵⁵ of ecological importance. However, proximity to internationally designated sites should not rule out nominated sites from consideration and where there is potential for an adverse effect the nominator will need to set out what they are able to do to avoid, minimise or mitigate these effects and to respect the integrity of these sites.

I.66 Habitats Regulations Assessment and Appraisal of Sustainability reports will be undertaken on any nominated site at a strategic level to assess whether European Sites (defined below) would be directly or indirectly affected by the deployment of a new nuclear power station on the site; the likely significant effect and, in light of appropriate assessment,

⁵⁵ This includes both candidate and proposed sites

whether it would be reasonable to conclude, at a strategic level, that the plan would or would not have an adverse effect on the integrity of designated sites⁵⁶ (including a consideration of whether it should be possible to avoid or mitigate any effects) in line with the standards set by the Habitats Directive and the conservation objectives for the sites concerned.

I.67 European Sites, or Natura 2000 sites⁵⁷, are a network of internationally important sites designated for their ecological status⁵⁸ to protect habitats and species of European nature conservation importance. They comprise of Special Protection Areas⁵⁹ (“SPAs”), Special Areas of Conservation (“SACs”), candidate Special Areas of Conservation (“cSAC”), and Sites of Community Importance (“SCIs”) designated and defined under the Habitats and Birds Directives. It is also Government policy to treat Ramsar sites, designated by the Ramsar Convention on Wetlands (1971) and potential SPAs (pSPAs) and SACs as if they are fully designated European Sites for the purpose of considering any development proposals that may affect them⁶⁰.

I.68 In line with the requirements of the Habitats Directive, the assessment of this criterion will consider whether it is possible to deliver the plan in ways that mitigate or avoid any adverse impacts on the integrity of the European Sites considered in the Habitats Regulations Assessment process. If it is not possible at the strategic level of the Habitats Regulations Assessment to rule out potential adverse effects on the integrity of European Sites it will be necessary to comply with the requirements of Article 6(4) of the Habitats Directive, and to consider whether there is an absence of alternative solutions for delivering the plan or project and whether there are Imperative Reasons of Overriding Public Interest (“IROPI”) for still progressing the plan or project. In such circumstances there also needs to be compensation measures for the adverse impacts on the adversely affected site. Where the site does not host priority habitats types or species, then the case for Imperative Reasons of Overriding Public Interest may include those of a social or economic nature. Conversely, if a site does host priority natural habitats types or species, the case for IROPI is limited to the following criteria (unless an opinion is sought from the Commission on other, wider, grounds):

- the protection of human health;
- public safety; and
- overriding beneficial consequences of primary importance for the environment

I.69 Government will consult statutory consultees⁶¹ on the Habitats Regulations Assessment and Appraisal of Sustainability reports and their advice will inform the Government assessment.

⁵⁶ This includes both candidate and proposed sites

⁵⁷ More information can be found here: <http://www.magic.gov.uk/> and here: <https://data.gov.uk/dataset/sssi-impact-risk-zones>

⁵⁸ The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna.

⁵⁹ Classified under the EC Birds Directive 1979 (codified as amended in the European Directive 2009/147/EC).

⁶⁰ ODPM, Planning Policy Statement 9 Biodiversity and Geological Conservation; Government Circular: Biodiversity & Geological Conservation – Statutory Obligations and their impact within the planning system (ODPM, 2005); WAG, Technical Advice Note (TAN) 5 Nature Conservation and Planning (2009) or most recent guidance.

⁶¹ Natural England, Environment Agency, NRW

Information from nominators/points to note:

I.70 Nominators will be expected to identify any Natura 2000 and Ramsar sites (including their qualifying features and specific vulnerabilities) that have the potential to be either directly impacted (e.g. land take) or indirectly impacted (e.g. discharge of cooling water from river or sea on bird prey availability) by the development of a new nuclear power station on a nominated site. If Natura 2000 and Ramsar sites were impacted in this way, the Government would expect nominators to comment on the likely level of impact and indicate why, at a strategic level, it should be possible to avoid or mitigate any such impact in line with the standards set by the Habitats Directive.

I.71 Nominators will also be encouraged to share the results of discussions they might have had with statutory consultees and other nature conservation bodies responsible for overseeing the management of the European Sites in response to this criterion.

Nationally Designated Sites of Ecological Importance

Discretionary

I.72 The Government's view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in an area unlikely to cause adverse impact on any Nationally Designated Sites of Ecological Importance. However, proximity to Nationally Designated Sites of Ecological Importance should not rule out nominated sites from consideration and where there is potential for an adverse effect the nominator will need to set out what they are able to do to avoid, minimise or mitigate these effects.

I.73 Nominations will be assessed using in particular the Appraisal of Sustainability reports. The Government will assess the potential impact of deployment of a new nuclear power station on nationally designated sites of ecological importance, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact. Nationally designated sites of ecological importance include:

- Sites of Special Scientific Interest (“SSSI”), some of which are also Natura 2000 or Ramsar sites and are therefore covered by the Internationally Designated Sites of Ecological Importance criterion above;
- National Nature Reserves;
- Marine Nature Reserves;
- Marine Conservation Zones/Marine Protection Area;
- Areas of Special Protection Wales and Wildlife Refuges;
- Natural Heritage Areas;
- Areas subject to Limestone Pavement Orders; and
- Areas including Ancient Woodland and Veteran Trees.

I.74 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

I.75 Government will consult statutory consultees⁶² on Appraisal of Sustainability reports and their advice will inform the Government assessment.

Information from nominators/points to note:

I.76 Where a nomination might cover an area that includes, or is likely to impact, a nationally designated site of ecological importance, the Government will expect nominators to comment on the likely level of impact and indicate why, at a strategic level, it should be possible to avoid or mitigate any such impact. Government will also expect a nominator to have taken the views of any statutory bodies responsible for the management of these designations into account in considering the potential avoidance, minimisation and mitigation countermeasures.

Cultural Heritage

Discretionary

I.77 The Government's view is that it would be undesirable for nominators to propose the development of a new nuclear power station in an area likely to cause significant adverse impact on designated heritage assets and their setting, unless there are clear strategic reasons for doing so and the nominators can confirm that they are able to avoid, minimise or mitigate these effects.

I.78 The Government will assess the potential impact of deployment of a new nuclear power station on designated heritage assets, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact. Nominations will be assessed for an impact on designated heritage assets using the Appraisal of Sustainability reports, the current planning framework (at this time, the NPPF for England and Planning Policy Wales for Wales), and the relevant statutory provisions. Historic England and Cadw will be consulted on these reports and their advice will inform the Government's assessment.

I.79 For the purposes of the strategic criteria, designated heritage assets include:

- World Heritage Sites
- Scheduled monuments⁶³
- Listed buildings
- Registered parks and gardens
- Registered battlefields
- Protected wreck sites
- Conservation areas
- Registered landscapes of historic interest in Wales
- Areas of archaeological importance

I.80 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable. Further guidance is available as part of planning practice guidance that accompanies the NPPF in England or Planning Policy

⁶² Natural England, Environment Agency, NRW

⁶³ Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

Wales, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

Information from nominators/points to note:

I.81 If a site is nominated in an area which may affect a designated heritage asset, Government would expect nominators to outline how they could avoid, minimise or mitigate the possible effects of their site on that designated heritage asset and its setting, as well as the cumulative impacts on the area and any possible enhancement of the historic environment. Similarly, nominators would also need to consider adverse impacts, including cumulative impacts, on locally designated or non-designated heritage assets and their setting as well as any possible enhancements of these. Government will also expect nominators to outline how they intend to meet the relevant tests in the planning framework at the time of nomination. For heritage assets paragraphs 128 to 141 of the NPPF apply. For Wales TAN 24 and PPW applies. Prior to nomination, Government would also expect the nominator of a site to take into account the views of Historic England and Cadw in considering the potential countermeasures to avoid, minimise and mitigate the effects, as well as any possible enhancement of the historic environment.

I.82 Nominators may wish to engage with Historic England and Cadw at an early stage and will also be encouraged to share the results of any such discussions, as well as those they have had with other statutory bodies responsible for overseeing the management of the areas, and Local Authorities, in response to this criterion.

Areas of amenity and landscape value

Discretionary

I.83 The Government's view is that it would be undesirable for nominators to propose the development of a new nuclear power station in an area likely to cause significant adverse impact on designated sites of amenity and landscape value, unless there are clear strategic reasons for doing so and the nominators can confirm that they are able to avoid, minimise or mitigate these effects. The likely impact of the proposed site on any Geological SSSIs and whether nominators can confirm that they are able to avoid, minimise or mitigate these impacts will also be considered under this section.

I.84 The Government will assess the potential impact of deployment of a new nuclear power station on designated sites of amenity and landscape value, the likely level of impact and whether it is reasonable to conclude, at a strategic level, that it may be possible to avoid or mitigate such impact. Nominations will be assessed for an impact on designated sites using the Appraisal of Sustainability reports, the current planning framework (at this time, the NPPF and Planning Policy Wales), and the relevant statutory provisions. The statutory consultees⁶⁴ will be consulted on these reports and their advice will inform the government's assessment.

I.85 For the purposes of the strategic criteria, sites and structures of specific amenity and landscape value include sites protected by a variety of national and local designations. These sites are:

- National scenic areas

⁶⁴ Environment Agency, Natural England, Historic England, Defra, Northern Ireland, Cadw, Natural Resources Wales.

- National Parks
- Areas of Outstanding Natural Beauty
- Heritage Coast
- Local Landscape Designations
- National trails
- Coastal Paths (England and Wales)
- Geological Sites of Special Scientific Interest
- Areas of Best and Most Versatile land (BMV)
- Registered landscapes of historic interest in Wales

I.86 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable. Further guidance is available as part of the NPPF or Planning Policy Wales, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

Information from nominators/points to note:

I.87 If a site is nominated in an area which may affect a formally designated site of high amenity, historic or landscape value, Government would expect nominators to outline how they could avoid, minimise or mitigate the possible effects of their site on that designated area and setting as well as the cumulative impacts on the area and any possible enhancement of the natural and historic environment, including landscape. Similarly, nominators would also need to consider adverse impacts, including cumulative impacts, on locally designated or non-designated areas of landscape value, landscape character, tranquillity and distinctiveness and their setting, as well as any possible enhancements of these. Government will also expect nominators to outline how they intend to meet the relevant tests in the planning framework at the time of nomination. For National Parks and Areas of Outstanding Natural Beauty (“AONBs”) these are currently paragraph 116 of the NPPF in England and section 5.5.6 of PPW. Prior to nomination, Government would also expect the nominator of a site to take into account the views of any statutory bodies responsible for the management of these designations in considering the potential countermeasures to avoid, minimise and mitigate the environmental effects, as well as any possible enhancement of the natural and historic environment and setting, including landscape.

I.88 Nominators may wish to engage with statutory consultees at an early stage and will also be encouraged to share the results of any such discussions as well as those they have had with other environmental bodies responsible for overseeing the management of the areas, and Local Authorities in response to this criterion.

Areas of Groundwater Protection

Discretionary

I.89 The Government’s view is that where possible, taking into account all the strategic criteria, it would be preferable for sites to be nominated in areas that are unlikely to cause an adverse impact on designated areas of groundwater protection. The prevention of pollution of groundwater is important as it is a valuable resource for current and future generations. The Government seeks to avoid potentially polluting or disruptive activities being located in areas with a potential to impact the most sensitive locations for groundwater. Such

locations include, for example, areas in which groundwater is abstracted for public drinking water supplies.

I.90 However, proximity to designated areas of groundwater protection should not rule out nominated sites from consideration and where there is potential for an adverse effect the nominator will need to set out what they are able to do to avoid, minimise or mitigate the potential impacts.

I.91 Nominations will be assessed using in particular the Appraisal of Sustainability reports. The Government will assess the potential impact of deployment of a new nuclear power station on designated areas of groundwater protection. Designated areas of groundwater protection include groundwater Source Protection Zones⁶⁵ which provide additional protection for water sources. These are designated zones around public water supply abstractions and other sensitive receptors that signal there are particular risks to the groundwater source they protect. The Government will also consider whether it is reasonable to conclude at a strategic level that it may be possible to avoid or mitigate potential impacts.

I.92 It should be noted that an assessment will be at a strategic level and it will not always be possible to rule out potential adverse impacts at this stage. If this is the case, it will not necessarily result in a site being considered unsuitable, but Government might ensure certain matters will receive further consideration through guidance to PINS as part of the designated new NPS.

I.93 Government will consult the Environment Agency on the Appraisal of Sustainability reports and their advice⁶⁶ will inform the Government assessment.

Information from nominators/points to note:

I.94 Where a nomination might cover an area that includes or is likely to impact a Source Protection Zone the Government will expect nominators to comment on the likely level of impact and set out why, at a strategic level, it should be possible to avoid or mitigate any such impacts. Government will also expect a nominator to have taken the views of any statutory bodies responsible for the management of these designations into account in considering the potential avoidance, minimisation and mitigation countermeasures.

Criteria related to operational requirements

I.95 It is important that any site is of a suitable size and has the appropriate resources available to securely and safely host a new nuclear power station.

Size of site to accommodate operation

⁶⁵ The Groundwater Source Protection Zones can be found on Defra's Magic Map
<http://magic.defra.gov.uk/magicmap.aspx?chosenLayers=spaPIndex,spaIndex,backdropDIndex,backdropIndex,europeIndex,ymlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baselIndex&box=472738:131686:504962:149500&useDefaultbackgroundMapping=false>

⁶⁶ Which is expected to align with the Environment Agency's approach to Groundwater Protection
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf

Discretionary

- I.96 Sites will have to be large enough to safely accommodate the operation of a modern nuclear power station. The availability of land is also of particular relevance in the context of security arrangements required for nuclear power station sites. Operators are required to adopt the concept of “defence-in-depth” in protecting nuclear power stations⁶⁷. This will require them to make adequate land available so that effective control over activities and access may be exercised on and around each nuclear power station. Before construction may commence on land granted a nuclear site licence to install a reactor, the licensee will be required to have a security plan approved by the ONR.
- I.97 Both the size and the shape of the area will be considered, given that shape is particularly relevant in considering whether there is sufficient room for defence-in-depth elements of the facility.
- I.98 The Government will also consider whether the area nominated includes a provision for the safe and secure storage of all the spent fuel and intermediate level waste produced through operation and decommissioning.
- I.99 The nominated area does not have to include land for construction and decommissioning. While an Appraisal of Sustainability will contain a high level assessment of the potential impacts of construction and decommissioning at a site, it is appropriate that detailed assessment of the environmental impacts of construction takes place at the development consent stage. Therefore construction and decommissioning will be flagged for consideration by PINS and regulators (see paragraph I.107).
- I.100 It is assumed a rectangular area of adequate width (approximately 30 hectares for one unit⁶⁸) is required to provide the effective defence-in-depth necessary for the key operational elements of a power station (infrastructure such as the reactor building (including the associated turbine hall), spent fuel and intermediate level waste stores). The most recent nuclear power station to be developed in the UK (Sizewell B) has a total site area of 26 hectares for operational facilities including spent fuel and waste storage. The site will not necessarily need to be large enough for all of the current Generic Design Assessment designs.
- I.101 It would be unreasonable to assume that, between nominating land and proposing an application for development consent, the need for an element of additional land use may not occur. The new NPS is therefore expected to outline that should a development consent application be accepted for a site listed within the new NPS but at which it is proposed to locate any of the key operational elements (see paragraph I.96 above) outside the boundary identified, then this should be considered as an application for a non-listed site. However, the Government would expect the new NPS to be an important and relevant consideration in determining the application under section 105 of the Act. In particular, given that the application would include land which has been assessed by the strategic

⁶⁷ Defence-in-depth is defined by the International Atomic Energy Agency (IAEA) as “a concept used to design security systems that require an adversary to overcome or circumvent multiple obstacles, either similar or diverse, in order to achieve his objective”.

⁶⁸ Project proposals to bring forward more than one unit may require a larger site. Project-specific proposals are not considered as part of the strategic assessment of a site’s suitability but will be considered as part of the Development Consent Order and Nuclear Site Licence stages.

siting process, the Government would expect the conclusions reached in relation to that land to be important and relevant considerations in determining the application.

Information from nominators/points to note:

I.102 Nominators should describe the area nominated and where it is expected that additional areas will be required for construction and decommissioning should provide an indication of the additional work and assessments which will need to be undertaken prior to the development consent stage.

Access to suitable sources of cooling

Discretionary

I.103 Nuclear power stations require suitable cooling for safe and efficient operation. Feasible options for cooling include:

- direct use of sea, lake or river water without cooling towers;
- use of cooling towers, typically combined with lake or river sites and using considerably less water than direct cooling; and
- air-based cooling, with minimal water requirements but utilising large heat exchangers.

I.104 The environmental impacts of cooling depend largely on the environmental sensitivity of the area, the cooling requirements of the nuclear power station and the detailed design of the cooling system. Both abstraction and discharge of cooling water can affect the environment. Cooling towers can also have some visual impact.

I.105 An assessment will consider whether it is reasonable to conclude that there are suitable sources of cooling for a new nuclear power station at a nominated site, taking account of potential measures to counter impacts, and mitigating actions. Government's assessment will be based on advice from the relevant regulators. The findings of the Habitats Regulations Assessment and Appraisal of Sustainability will also be considered as these will appraise both the biodiversity and visual impacts of potential cooling technologies.

Information from nominators/points to note:

I.106 The Government will expect nominators to offer information about cooling technologies that are feasible for likely nuclear power station developments within the nominated site. Nominators will not need to specify particular reactor designs or the number of reactors to be developed on a nominated site but will be asked to cover:

- Whether there are suitable sources of cooling for a new nuclear power station at the nominated site;
- If water-based cooling is to be employed, the nominator believes that there is sufficient water for this purpose or other measures that need to be put in place;
- What impacts (including visual impact) there are likely to be from the need for cooling and why it is reasonable to conclude that these impacts are manageable or able to be mitigated;

- Whether, at a strategic level and subject to local considerations, it is reasonable to conclude that a new nuclear power station on the nominated site will be able to be operated within normal environmental and regulatory requirements;
- Any issues that may affect cooling over the lifetime of the new nuclear station (including changes in meteorology, climate etc);
- Potential impacts on the environment, including designated and non-designated sites.

Matters to be flagged for detailed consideration by PINS and ONR at the planning and licensing stage

I.107 These matters will be considered in the rigorous process through which NSIPs must obtain a DCO as set out within the Act. Government expects the new NPS will reflect these matters and make clear which are relevant to examination undertaken by PINS and which are relevant to the regulators.

The following are flagged as examples of matters for detailed consideration by PINS:

Proximity to Civil Aircraft Movements

I.108 Large aircraft crashes are a rare event in the UK and the risk across the country is not uniform. Certain higher risk areas and zones are defined to protect infrastructure and human casualties from such an event. These include Public Safety Zones, Aerodrome Safeguarding plans and Air Traffic Control Areas. Unlicensed aerodromes, such as some helicopter landing sites, are encouraged to lodge plans for an aerodrome safeguarding plan but cannot be forced to do so by the Civil Aviation Authority.

I.109 In considering nominated sites, the Government will consult with the relevant regulatory bodies to establish the potential impact of a nuclear power station development at a strategic level. In the case of unlicensed aerodromes that have not lodged aerodrome safeguarding plans, this will be flagged as an issue for detailed local consideration.

Significant Infrastructure

I.110 Access to relevant infrastructure (e.g. road and rail networks, airports, ports, gas and electricity networks) will be an important factor for developers in making their assessments of the practicality of site development. However, to understand the potential impact of a new development on this infrastructure, there will need to be detailed project-specific assessments. This is therefore flagged as an issue for detailed local consideration.

Access to Transmission Infrastructure

I.111 New nuclear power stations will require connections to the GB electricity system for the further distribution of the electricity that they generate. This may require new transmission and distribution assets to be constructed or require existing transmission and distribution networks to be moved or upgraded. This could create considerable environmental and planning issues. However, these issues are generic to any comparable capacity power station development and will not be specific to nuclear.

I.112 The Government recognises that at the strategic stage there may not be detailed information about the location of Grid connections, the technology needed and the potential for any deeper system upgrades which limits the nature of environmental assessment that can be undertaken at this stage. At the NPS stage, as part of the Appraisal of Sustainability, Government will consider any generic effects of transmission infrastructure to consider whether there are any potential constraints at a site. However it would be difficult for nominators to provide enough detail about a particular site's transmission and distribution requirements at a new nominations stage in order for it to be appropriate as a strategic criterion. Access to Transmission infrastructure will therefore be fully considered when detailed environmental assessment can be made at the planning stage.

Size of site to accommodate construction and decommissioning

I.113 Government will ask nominators to provide a description of the boundary of their proposed area as it recognises the importance of providing an appropriate level of certainty to the public, Parliament and PINS on the area of land that is assessed under the strategic criteria. However, Government recognises nominators will not have detailed plans for construction or decommissioning and will therefore not know what land, beyond that required for operations, they will need for these activities. An element of flexibility of site boundary may also be required to enable meaningful detailed discussion to take place with relevant parties at the local level.

I.114 The environmental effects of land use for construction can be significant. However, the environmental impacts of land use for construction will differ from that for operation and the land also has the potential to be restored to its original use within a relatively short timeframe. Size of site is a discretionary criterion, but it will only cover operation. The size of site for construction and decommissioning will be flagged for local consideration, and such land will form part of the main development consent, to be considered by PINS.

The following are flagged as examples of matters for detailed consideration by the ONR:

Seismic Risk (Vibratory Ground Motion)

I.115 Seismic risk is a critical issue in the siting and safety assessment of all nuclear facilities and it is a key feature of the UK and international regulatory regimes which ensure the safety of nuclear power stations. In assessing potential sites for new nuclear power stations, two types of seismic hazard will need to be considered:

- vibratory ground motions; and
- faults capable of rupture at the ground's surface⁶⁹ (see below).

I.116 Seismic risk, however, is assessed at site licensing stage when detailed site specific and reactor design information is available. The low seismic hazard in the UK means that ground motion due to earthquakes is unlikely to be a barrier in the selection of sites for new nuclear power stations.

⁶⁹ IAEA (2004), Safety Standards, Safety Guide No. NS-G-3.6 *Geotechnical aspects of site evaluation and foundations for nuclear power plants* or most recent publication.

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1195_web.pdf; EPRI NP-4726 (1989-1991), *Probabilistic seismic hazard evaluations at nuclear power plant sites in the central and eastern United States* or most recent publication.

Capable Faulting

I.117 Similar to seismic risk, capable faulting is a key feature of the regulatory regimes in the UK and internationally which ensure the safety of nuclear power stations. Active geological faults undergo repeated rupture over time as the stresses in the Earth's crust build up and are released by fault movement. Ground-breaking or "capable" faults are faults that have moved at or near the ground surface at least once within a significant period of time. Capable faults pose significant risk to the structural integrity of even the most robust structures.

I.118 The presence of an active or ground breaking capable fault running through a site may make it unsuitable for siting a nuclear power station.⁷⁰ The general professional view of earthquake specialists is that there is little evidence that capable faults exist in the UK. In order to ascertain the presence and status of any capable faults on a site, there would need to be extensive geological investigations and associated laboratory testing and this will be an important consideration at the local level.

Non-Seismic Ground Conditions

I.119 Within the UK there is a varied geology and earth-surface processes that create particular (non-seismic) hazards that could be considered in assessing the relative merits of nuclear power station sites. Some examples are consistent with the issues listed by the IAEA^{71 72} including:

- undulating terrain necessitating major cut and fill slopes;
- soft and compressible superficial deposits (e.g. river or coastal alluvium);
- naturally cavernous bedrock ("karst" in limestone, gypsum and rock salt deposits);
- complex bedrock conditions, for example, in some of the ancient rocks of the north and west of the UK

I.120 These are common considerations in the siting of a wide range of structures in the UK, and are generally amenable to resolution by appropriate design and construction works. Whilst the Government does not include a criterion related to non-seismic ground conditions in the national criteria, it is an important consideration for detailed site-specific investigations and for the planning/regulatory assessment processes.

Meteorological Conditions

I.121 National and international safety regulations consider various extreme meteorological conditions which can pose a threat to the safety of a nuclear installation. Such conditions include, for example:

- strong winds (e.g. hurricanes, tornadoes) and wind-blown debris;

⁷⁰ IAEA (2003), Site evaluation for nuclear installations, IAEA Safety Standards Series, Safety Requirements No. NS-R-3 http://www-pub.iaea.org/MTCD/publications/PDF/Pub1177_web.pdf or most recent publication.

⁷¹ IAEA (2004), Safety Standards, Safety Guide No. NS-G-3.6 Geotechnical aspects of site evaluation and foundations for nuclear power plants or most recent publication.

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1195_web.pdf

⁷² IAEA (2003), Site evaluation for nuclear installations, IAEA Safety Standards Series, Safety Requirements No. NS-R-3. http://www-pub.iaea.org/MTCD/publications/PDF/Pub1177_web.pdf or most recent publication.

- extreme rainfall/sleet;
- heavy snow;
- heatwaves;
- forest or wild-land fires;
- sandstorms; and
- drought.

I.122 Existing nuclear power stations operate globally, within areas which are exposed to extremes of weather far in excess of those experienced in the UK. For the purposes of national criteria it is not practicable, to distinguish meaningfully between different areas of the UK on the grounds of meteorological risk but this will be an important consideration at the local level.

Proximity to mining, drilling and other underground operations

I.123 Mining, drilling and other underground activities can pose a number of risks to nearby nuclear power stations. The potential for collapse, subsidence or uplift of the site surface needs to be evaluated at a local level and the planning process will need to assess these risks. If this evaluation shows that this activity could affect the safety of a nuclear installation, then practicable engineering solutions will need to be implemented. This is specifically noted as an important local consideration for the detailed site-specific investigations and planning and regulatory assessment.

Emergency Planning

I.124 All nuclear operators are required to make and implement adequate arrangements for dealing with an incident or emergency arising on the site and its effects. Development of appropriate emergency plans in accordance with the nuclear site licence requires a detailed understanding of the nature of the site location and access local residents and working population, the capability and redundancy of local infrastructure and the capability of local emergency services. Plans are prepared in consultation with local authorities, the police, health authorities and other bodies and are regularly tested.

Annex II: Finalised process for assessing sites as potentially suitable for deploying nuclear between 2026-2035

Planning horizon for the new NPS

- II.1** The Government continues to believe that it is right to focus on those sites which could potentially deploy the soonest and having a ‘capable of deployment by’ date helps focus on those sites that will meet the need for nuclear as soon as possible.
- II.2** Given the scale of the investment decisions to be taken, the estimated development period for new nuclear reactors and the number of potentially suitable sites in the current pipeline, Government confirms that for the purposes of the new NPS the ‘capable of deployment by’ date will be 2035.

Carrying sites forward and future nomination window

- II.3** Government’s view is that those sites listed in EN-6 continue to be those sites which can deploy the soonest and are likely to be the only sites capable of deploying a nuclear power station⁷³ by 2035.
- II.4** Government’s approach therefore is to carry the list of potentially suitable sites in EN-6 through to the new NPS. This will be subject to confirmation from the current developers⁷⁴ associated with each potentially suitable site that they wish it to remain listed in future and subject to those sites meeting the strategic criteria as well as demonstrating they are credible for deployment by 2035. The finalised strategic siting criteria at Annex I are based on the original Strategic Siting Assessment (updated to be consistent with current law and policy and to take account of the views received as part of this consultation).
- II.5** Assuming that Government’s preliminary view on the suitability of sites carried forward to the new NPS site list is correct, Government proposes to have a further site nomination window in the 2020s, once the sites initially listed in the new NPS have progressed further towards deployment.

⁷³ A station comprising at least one nuclear reactor, with each reactor having a generating capacity of above 1 gigawatt

⁷⁴ For the purposes of this consultation developer should be read as referring to current developers or site owners as applicable. This mirrors the approach used for the development of EN-6.

Proposed sites to be carried forward

II.6 Following publication of this response, Government will write to the current associated developers⁷⁵ of the following sites⁷⁶ to request they indicate if they wish the sites to be listed in the new NPS.

- Moorside⁷⁷ NuGen;
- Wylfa Horizon;
- Sizewell EDF Energy;
- Bradwell EDF Energy and China General Nuclear Power Group (CGN);
- Oldbury Horizon;
- Hartlepool EDF Energy;
- Heysham EDF Energy.

Hinkley Point C

II.7 Development Consent for the construction of a new nuclear power station at the Hinkley Point C site was granted in 2013 and as such Government considers it does not need to be included as a listed site in the new NPS. The site and the project's contribution to the country's future energy mix continue to be crucial to securing energy supplies to enable us to meet our obligations for 2050 and will continue to be taken into consideration in assessing the continuing need for nuclear power and sites.

How sites will be carried forward

II.8 Following publication of this response Government will write to the developers of the remaining EN-6 sites to ask if they wish them to remain listed in the new NPS and to ask them to submit the information required to update the assessment of their sites against the updated strategic criteria.

II.9 EN-6 recognised that after nomination the development of detailed layouts for proposed nuclear power station sites could alter the land required at a site⁷⁸. Government therefore intends to ask developers if they wish to propose any modifications to the site boundaries as part of confirming that they wish for a site to remain listed. Government will require developers to provide updated information in respect of any such modification so they can form part of the assessment against the updated siting criteria. Should a developer propose any modifications to the boundary of a site currently listed in EN-6, Government expects they should inform local landowners and other relevant stakeholders.

II.10 In confirming that there is a wish for a site to remain listed there should be an explanation of why it is reasonable to conclude that the site can be licensed, constructed and deployed

⁷⁵ Sites listed in the nuclear NPS are not nominator or developer specific.

⁷⁶ Full details, including maps, of potentially suitable sites are set out in 'the National Policy Statement for Nuclear Power Generation Volume II' https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47860/1943-nps-nuclear-power-annex-volII.pdf

Originally nominated as Sellafield.

⁷⁸ See paragraphs 2.3.3 and 2.3.4 of EN-6.

by 2035. There should be an indication of the likely timescales and progress to date in relation to commissioning and site planning. Information should also be provided in relation to the potential timing of any transmission and distribution infrastructure needed to make the site operational and an explanation of the reasoning behind any estimates. The evidence provided should, as far as possible, focus on the characteristics of a particular site, rather than any generic expectation of deployability, and give as much practical detail on dates and timelines as is possible.

II.11 Given that planning for projects at many of the EN-6 sites is likely to be more developed than when originally nominated, and the weight this might have in demonstrating that a site is credible for deployment by 2035, confirmation from the developer that the site wishes to remain in the process does not have to be from, or include a letter of support from, a Credible Nuclear Power Operator (“CNPO”). If developers consider a letter from a CNPO would add weight to a site’s credibility then this could be included. Likewise given the local engagement undertaken to nominate sites into the original EN-6 process and the ongoing engagement at many of the sites Government will not require developers to undertake further specific engagement at this point. Consultation will be undertaken on any sites included in a draft new NPS later in this process.

II.12 Government and relevant regulators will update the assessment of the remaining sites based on the strategic criteria for the new NPS set out at Annex I.

II.13 Developers should note that Government will maintain a dialogue with them as appropriate during the assessment. This may include discussing any aspects of the nomination and requesting further information or clarification.

II.14 Following this, Government will include a list of potentially suitable sites as part of a draft new nuclear NPS which will then undergo consultation and Parliamentary Scrutiny prior to designation as a final NPS⁷⁹, as required by the Act. The new NPS will also be supported by an update of the existing Appraisals of Sustainability (“AoS”) and Habitats Regulations Assessments (“HRA”).

⁷⁹ Paragraphs 3.10-3.12 outlines the position of sites that will not deploy before the end of 2025 but who wish to make applications for development consent before the designation of an NPS for deployment of nuclear power stations post-2025.

Annex III: Finalised process for future nomination windows

Future site nominations

- III.1** This Annex sets out the process for inviting, accepting and assessing nominated sites in any future nominations window.
- III.2** Government intends to have a new site nomination window in the 2020s, once the sites initially listed in the new NPS have progressed further towards deployment.
- III.3** The process is based on the original nomination process used in 2009/10 which had itself been designed taking into account comments received from public consultation. The process has been updated following the experience of the original round of nominations, the responses to the consultation on the siting criteria and process for a new national policy statement for nuclear power with single reactor capacity over 1 gigawatt beyond 2025 as well as to take into account the existing position in terms of current potentially suitable sites.
- III.4** As set out above, the Government's position is that there should not be a nomination window until the 2020s and as such this process will be subject to relevant changes in policy and regulation and the exact process will be determined at the point of a nomination window in the 2020s.

Future process for site nominations

Nomination window

- III.5** Government intends that the time from first publicising a new nomination window to that nomination window closing will be a minimum of four months. This will give nominators sufficient time to undertake local engagement and collate the relevant information to inform the strategic assessment of a proposed site.

Who can nominate a site

- III.6** Government will have to be satisfied that a site is credible for deployment by a date determined by Government. If the Government is not satisfied that the site is credible, this would result in a nomination not being included for assessment against the strategic criteria for a new NPS. For proposals which are in the early stages of development, Government's preference is that nominations should be from, or include, a letter of support from a Credible Nuclear Power Operator ("CNPO")⁸⁰ which demonstrates why the CNPO considers the site to be credible for deployment by the date specified by Government.

⁸⁰ Credible Nuclear Power Operator (CNPO) is defined in the 2008 White Paper on Nuclear Power as one that currently operates a nuclear power plant anywhere in the world; and currently operates an electricity generating station subject to UK health, safety and environmental regulation, or, that has made a public commitment to become an operator of an electricity generating station (with a capacity in excess of 50MW) in a market subject to UK health, safety and environmental regulation. <http://webarchive.nationalarchives.gov.uk/+//http://www.berr.gov.uk/files/file43006.pdf>

III.7 The CNPO nomination, or letter of support from the CNPO, should demonstrate the achievability of a timescale for deployment by the date specified by government. This statement should contain an explanation of why it is reasonable to conclude that a site can be licensed, constructed and deployed by the date specified by government. In considering this there should be an indication of the likely timescales and progress to date in relation to commissioning and site planning. Nominators should also provide information in relation to the potential timing of any transmission and distribution infrastructure needed to make the site operational and an explanation of the reasoning behind any estimates. The evidence provided should as far as possible focus on the characteristics of a particular site, rather than any generic expectation of deployability, and give as much practical detail on dates and timelines as is possible.

III.8 A nominator will not have to own a site, but, if the nominator is not the landowner, they will be required to demonstrate that they or third parties have raised awareness of the nomination with local communities living in the vicinity of the site, including the owner(s) of the nominated site.

Planning horizons

III.9 A site will need to be shown to be capable for deployment by a date specified by Government in order to be listed in a new NPS. By way of example, EN-6 was for sites that were capable of deployment by 2025 and the new NPS is proposed for sites capable of deployment by 2035. This helps focus any assessment on those sites most likely to meet the need for nuclear at that time as soon as is possible.

III.10 The assessment process will ensure that, as far as possible, sites which might be considered to be potential alternatives to those listed in the new NPS have also been identified and assessed at a strategic level. Being a nomination-driven process, it will be in the nominators' best interests to thoroughly consider alternative sites and to nominate those which it believes are feasible for deployment. Nominators will therefore have considered the strategic merits of a nominated site in comparison to others before deciding to put it forward. Government will therefore ask nominators how they decided which site to nominate and will give due consideration to the best means by which to consider alternatives in order to satisfy the requirements of the SEA Directive/Regulations and Habitats Directive/Regulations.

Site Boundary

III.11 Nominators will be expected to describe the boundary of their proposed area in words and to indicate the outline of their proposed sites using an Ordnance Survey map at the 1:10,000 scale. Nominators will be required to demonstrate that it is reasonable to conclude there is enough land within the boundary to cover the land required for the operation of one or more new nuclear power stations at the site specified for deployment by the planning horizon date specified by government, including the safe and secure storage of spent fuel and intermediate level waste produced on the site through operation and decommissioning of the station for several decades until it can be sent for disposal in a geological disposal facility.

III.12 To reduce the likelihood of further land being needed, and to increase the usability of the nominated site, nominators will be encouraged to ensure that the area nominated includes within it all likely site plans and all reasonable variations to those plans. The Government expects the key operational elements of the power station, and in particular the

infrastructure that has the potential to directly cause a radiological hazard such as the reactor building (including the associated turbine hall), spent fuel and intermediate level waste stores, to be located within the boundary of the site nomination. However, the Government recognises that the level of project definition may be limited at the point of nomination and that some flexibility may occasionally be required at the Development Consent application stage to enable the inclusion of land additional to the boundary of the listed site for other elements of the power station, such as car parks, access roads or marine landing facilities, or for the construction and/or decommissioning of the nuclear power station.

III.13 Following the nomination window and prior to any inclusion in the NPS, the Government reserves the right, in conjunction with nominators, to make changes to the area nominated, for instance so that it includes all likely actual site plans and all reasonable variations to those plans. The Government may also need to adjust the boundaries of areas nominated if two or more nominations overlap.

Local engagement at nominated sites

III.14 Government recognises the importance of any new decisions about the location of additional sites potentially suitable for the deployment of new nuclear power stations. A new nomination process will provide the opportunity for public consultation on the suitability of nominated sites at a national level as well as Parliamentary Scrutiny.

III.15 A nomination must demonstrate that the nominator or, where applicable, a third party have taken appropriate steps to raise awareness of the nomination with local communities living in the vicinity of the site, including the owner(s) of the nominated sites. There will be a number of ways in which this could be done. As a minimum, nominators should make the local authority, parish councils and any land owners aware of their nomination, and have taken recent steps to publicise their nomination to the wider community through advertisements in local newspapers and in public places such as community centres, libraries etc. Nominators should also raise awareness with any relevant existing community groups (in the case of existing nuclear sites, with any site stakeholder group) and consider specific events to raise awareness more generally within the local community. Nominators should notify Government of the steps they have taken to raise awareness of their nomination.

III.16 Nominators should keep relevant local authorities informed of their plans for raising awareness and should deposit a hard copy of their eventual nomination with the relevant local authority/authorities. As part of the public consultation and Parliamentary Scrutiny of a draft new NPS and site list, Government will make public all information provided by nominees as part of the nomination except information where there is a particular need to maintain confidentiality (for instance due to data protection, security or commercial confidentiality).

III.17 If, in the Government's view, the steps taken to raise the awareness of the proposed development with local communities living in the vicinity of the site, including the owner(s) of the nominated sites, are insufficient (or suitable evidence is not provided), it may not be possible for a particular site to be considered further.

Strategic criteria

III.18 Nominated sites will have to be assessed against the strategic criteria outlined at Annex I, subject to them being updated to reflect law and policy at the time of nomination.

III.19 Nominators should note that Government will maintain a dialogue with nominators as appropriate during the assessment. This may include discussing any aspects of the nomination and requesting further information or clarification.

