Department for
Energy Security
& Net Zero

Department for Energy Security & Net Zero

Overarching National Policy Statement for Energy (EN-1)

Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008

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- be unlawful
- result in adverse impacts from the development outweighing the benefits
- be contrary to regulations about how its decisions are to be taken

1.1.5 Applicants should therefore ensure that their applications, and any accompanying supporting documents, are consistent with the instructions and guidance in this NPS, any relevant technology specific NPS and any other NPSs that are relevant to the application in question.

1.1.6 This NPS, in particular the policy and guidance on generic impacts in Part 5, may also be helpful to local planning authorities (LPAs) in preparing their local impact reports.

1.1.7 Part 5 of the Planning Act 2008[4] sets out the requirements for consultation and publicity before any application for a Development Consent Order is made, including a duty to consult the local community[5].

1.2 Role of this NPS in the wider planning system

1.2.1 In England, this NPS, in combination with any relevant technology specific NPSs, may be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).

1.2.2 Whether the policies in this NPS are material and to what extent, will be judged on a case-by-case basis and will depend upon the extent to which the matters are already covered by applicable planning policy. For the purposes of applications made under the Planning Act 2008, this NPS in conjunction with any of the relevant technology specific NPSs are the primary policy for Secretary of State decision making.

1.2.3 The Secretary of State may also receive applications for variations to existing consents for energy infrastructure under section 36C of the Electricity Act 1989 for which this NPS, in combination with any relevant technology specific NPSs, may be a relevant consideration.

1.2.4 Under the Marine and Coastal Access Act 2009, the Marine Management Organisation (MMO) will determine applications under section 36 and section 36A of the Electricity Act 1989 where they relate to a generating station in English waters provided that the application does not exceed the capacity threshold set out in the Planning Act 2008.

[4] See https://www.gov.uk/government/publications/guidance-on-the-pre-application-process-for-major-infrastructure-projects
[5] See https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

1.2.5 The MMO will determine applications in accordance with the MPS and any applicable marine plans, unless relevant considerations indicate otherwise.

1.2.6 This NPS, in combination with any relevant technology specific NPS, should be a relevant consideration for the MMO when it is determining such applications.

1.2.7 The MMO may also receive applications for a marine licence for other energy infrastructure that falls outside the scope of the Planning Act 2008 or the Electricity Act 1989 for which the NPSs may be a relevant consideration. The MMO will determine applications in accordance with the MPS and any applicable marine plans, unless relevant considerations indicate otherwise.

1.2.8 The NPSs may also be a relevant consideration in the preparation of relevant marine plans.

1.2.9 The role of the MPS and marine plans in relation to Secretary of State decisions is set out in Section 4.5.[6]

1.3 Scope of the Overarching National Policy Statement for Energy

1.3.1 This Overarching National Policy Statement for Energy (EN-1) is part of a suite of NPSs issued by the Secretary of State for Energy Security and Net Zero. It sets out the government's policy for delivery of major energy infrastructure.

1.3.2 A further five technology specific NPSs for the energy sector cover:

- natural gas electricity generation (**EN-2**)
- renewable electricity generation (both onshore and offshore) (**EN-3**)
- gas supply infrastructure and gas and oil pipelines (**EN-4**)
- the electricity transmission and distribution network (**EN-5**)
- and nuclear electricity generation (**EN-6**)

1.3.3 Further technology specific NPS may be designated and added to the suite if it becomes appropriate to do so. These should be read in conjunction with this NPS where they are relevant to an application.

[6] Welsh Ministers are responsible for marine licences for operations carried out in both inshore and offshore Welsh waters, under the Marine and Coastal Access Act (2009). With the exception of the enforcement function this power has been delegated to Natural Resources Wales. Welsh Ministers are also responsible for determining applications under section 36 and section 36A of the Electricity Act 1989 where they relate to a generating station that does not exceed the capacity threshold set out in the Planning Act 2008

3 The need for new nationally significant energy infrastructure projects

3.1 Introduction

3.1.1 This Part of the NPS explains why the government sees a need for significant amounts of new large-scale energy infrastructure to meet its energy objectives and why the government considers that the need for such infrastructure is urgent.

3.1.2 However, it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts. These effects will be minimised by the application of policy set out in Parts 4 and 5 of this NPS. See also Part 2 of each technology specific NPS.

3.2 Secretary of State decision making

3.2.1 The government's objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with net zero emissions in 2050 for a wide range of future scenarios, including through delivery of our carbon budgets and Nationally Determined Contributions.

3.2.2 We need a range of different types of energy infrastructure to deliver these objectives. This includes the infrastructure described within this NPS but also more nascent technologies, data, and innovative infrastructure projects consistent with these objectives.

3.2.3 It is not the role of the planning system to deliver specific amounts or limit any form of infrastructure covered by this NPS. It is for industry to propose new energy infrastructure projects that they assess to be viable within the strategic framework set by government. This is the nature of a market-based energy system. With the exception of new coal or large-scale oil-fired electricity generation[36], the government does not consider it appropriate for planning policy to set limits on different technologies but planning policy can be used to support the government's ambitions in energy policy and other policy areas.

3.2.4 It is not the government's intention in presenting any of the figures or targets in this NPS to propose limits on any new infrastructure that can be consented in accordance with the energy NPSs. A large number of consented projects can

[36] A further exception to this is EfW plants where the primary function is to treat waste and planning decision will be made on the demand for waste infrastructure. See EN-3 for further detail.

help deliver an affordable electricity system, by driving competition and reducing costs within and amongst different technology and infrastructure types. Consenting new projects also enables projects utilising more advanced technology and greater efficiency to come forward.[37] The delivery of an affordable energy system does not always mean picking the least cost technologies. A diversity of supply can aid in ensuring affordability for the system overall and relative costs can change over time, particularly for new and emerging technologies. It is not the role of the planning system to compare the costs of individual developments or technology types.

3.2.5 The government has other mechanisms to influence the delivery of its energy objectives and imposing limits on the consenting of different types of energy infrastructure would reduce competition, increase costs, and disincentivise newer, more efficient solutions coming forward. This does not reduce the need for individual projects to demonstrate compliance with planning and environmental requirements or mean that everything that obtains development consent will get built.

3.2.6 **The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part.**

3.2.7 **In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008.**

3.2.8 **The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS.**

3.2.9 This NPS, along with any technology specific energy NPSs, sets out policy for nationally significant energy infrastructure covered by sections 15-21 of the Planning Act 2008.

3.2.10 Other novel technologies or processes may emerge during the life of this NPS, and can help deliver our energy objectives. Where these contribute towards the objectives set out in paragraph 3.2.1, the Secretary of State should determine that there is a need for such technologies and that substantial weight should be given to this need.

3.2.11 Where an energy infrastructure project is not covered by sections 15-21 of the Planning Act 2008 but is considered to be nationally significant, there is a power under section 35 of the Planning Act 2008 (which applies in England, English

[37] An exception to this is EfW plants where the primary function is to treat waste and planning decisions will be made based on the demand for waste infrastructure. See EN-3 for further detail.

The role of electricity storage

3.3.25 Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated.

3.3.26 Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher. There is currently around 4GW of electricity storage operational in GB, around 3GW of which is pumped hydro storage and around 1GW is battery storage.

3.3.27 Storage can provide various services, locally and at the national level. These include maximising the usable output from intermittent low carbon generation (e.g. solar and wind), reducing the total amount of generation capacity needed on the system; providing a range of balancing services to the NETSO and Distribution Network Operators (DNOs) to help operate the system; and reducing constraints on the networks, helping to defer or avoid the need for costly network upgrades as demand increases.

3.3.28 Whilst important in providing balancing services, many of the storage facilities currently being deployed provide storage over a period of hours but cannot cost effectively cover prolonged periods of low output from wind and solar. There are a range of storage technologies that may be able to provide storage over longer periods of low wind and solar output (e.g. days, weeks or months) but many of these technologies are not yet available at scale or have an upper limit on deployment due to geographical constraints.

3.3.29 The Infrastructure Planning (Electricity Storage Facilities) Order 2020 removed all forms of electricity storage, other than pumped hydroelectric storage, from the definition of nationally significant energy generating stations under the Planning Act 2008.

3.3.30 Applications for adding electricity storage to an existing generation station which has consent under the NSIP regime or under section 36 of the Electricity Act 1989 may also be consented outside of the Planning Act 2008 process, unless the Secretary of State directs otherwise under section 35 of the Planning Act 2008.

3.3.31 Applications for pumped hydro storage facilities below 50MW in England, or 350MW in Wales, will continue to be consented outside of the Planning Act 2008 process, unless the Secretary of State directs otherwise under section 35 of the Planning Act 2008. Those above 50MW in England, or 350MW in Wales, will continue to be defined as NSIPs, requiring consent from the Secretary of State.

3.3.53 As outlined in the British Energy Security Strategy[60], the government is increasing our plans for deployment of civil nuclear power by 2050s. To facilitate this, government has set out a number of nuclear ambitions, including developing an overall siting strategy for the long term, which could include both GW-scale and advanced fission technologies. This will inform the development of a new Nuclear NPS for the deployment of nuclear power stations after 2025.

The role of hydropower and marine technologies

3.3.54 Hydropower can provide relatively predictable and, in some cases, flexible low carbon generation but total capacity is limited by the topography of the UK. Wave and tidal can also provide relatively predictable low carbon power and could play a role in future if their costs can be reduced. However, total capacity is limited for tidal power and wave power is very closely correlated with wind.

3.3.55 These technologies, as with most other renewables, help provide security of supply as they are not reliant on fuel for generation and can improve reliability where they are not correlated with wind and solar.

3.3.56 However, due to limitations on the total capacity that could be installed, as they may not always be able to provide electricity when there is low output from wind and solar and their current costs, further additional forms of generating capacity will be required to meet our energy objectives.

The need for electricity generating capacity

3.3.57 Government has committed to reduce GHG emissions by 78 per cent by 2035 under carbon budget 6.[61] According to the Net Zero Strategy[62] this means that by 2035, all our electricity will need to come from low carbon sources, subject to security of supply, whilst meeting a 40-60 per cent increase in demand.

3.3.58 Given the urgent need for new electricity infrastructure and the time it takes for electricity NSIPs to move from design conception to operation, there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its economy.

3.3.59 All the generating technologies mentioned above are urgently needed to meet the government's energy objectives by:

- providing security of supply (by reducing reliance on imported oil and gas, avoiding concentration risk and not relying on one fuel or generation type)

[60] See https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy
[61] https://www.gov.uk/guidance/carbon-budgets#setting-of-the-sixth-carbon-budget-2033-2037
[62] See https://www.gov.uk/government/publications/net-zero-strategy

- providing an affordable, reliable system (through the deployment of technologies with complementary characteristics)
- ensuring the system is net zero consistent (by remaining in line with our carbon budgets and maintaining the options required to deliver for a wide range of demand, decarbonisation and technology scenarios, including where there are difficulties with delivering any technology)

3.3.60 Known generation technologies that are included within the scope of this NPS (and would be classed as an NSIP if above the relevant capacity thresholds set out under the Planning Act 2008) include:

- Offshore Wind (including floating wind)
- Solar PV
- Wave
- Tidal Range
- Tidal Stream
- Pumped Hydro
- Energy from Waste (including ACTs) with or without CCS
- Biomass with or without CCS
- Natural Gas with or without CCS
- Low carbon hydrogen
- Large-scale nuclear, Small Modular Reactors, Advanced Modular Reactors, and fusion power plants
- Geothermal

3.3.61 The need for all these types of infrastructure is established by this NPS and a combination of many or all of them is urgently required for both energy security and Net Zero, as set out above.

3.3.62 Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. Section 4.2 states which energy generating technologies are low carbon and are therefore CNP infrastructure.

3.3.63 Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation

hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible.

3.3.64 Other novel technologies or processes may emerge during the life of this NPS, which are nationally significant and can help deliver our energy objectives. Where these deliver on our objectives, then such technologies or processes can be regarded as needed, and as such should be given substantial weight. See section 3.2 above.

The need for new electricity networks

3.3.65 There is an urgent need for new electricity network infrastructure to be brought forward at pace to meet our energy objectives.

3.3.66 The security and reliability of the UK's current and future energy supply is highly dependent on having an electricity network which will enable new renewable electricity generation, storage, and interconnection infrastructure that our country needs to meet the rapid increase in electricity demand required to transition to net zero while maintaining energy security. The delivery of this important infrastructure also needs to balance cost to consumers, accelerated timelines for delivery and the minimisation of community and environmental impacts.

3.3.67 The need to connect to new sources of electricity generation and new sources of demand is not the only driver for new electricity network infrastructure. As the electricity system grows in scale, dispersion, variety, and complexity, work will be needed to protect against the risk of large-scale supply interruptions in the absence of sufficiently robust electricity networks. While existing transmission and distribution networks must adapt and evolve to cope with this reality, development of new lines of 132kV (and over 2km) and above will also be necessary to preserve and guarantee the robust and reliable operation of the whole electricity system.

3.3.68 The volume of onshore reinforcement works needed to meet decarbonisation targets is substantial. National Grid ESO forecasts that over the next decade the onshore and offshore transmission network, some of which is located offshore will require a doubling of north-south power transfer capacity due to increased wind generation in Scotland; substantial reinforcement in the Midlands to accommodate increased power flows from Scotland and the North of England; substantial reinforcement in London and the South of England to allow for Europe-bound export of excess wind generation from Scotland and the North of England, as well as the importation of energy from Europe to increase resilience during any periods which may be affected by intermittent energy generation mix and as part of the country's transition to increased energy security; and substantial reinforcement in East Anglia to handle increased power flows from