Department for
Energy Security
& Net Zero

Department for Energy Security & Net Zero

National Policy Statement for Renewable Energy Infrastructure (EN-3)

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

November 2023

1 Introduction

1.1 Background

1.1.1 There is an urgent need for new electricity generating capacity to meet our energy objectives.

1.1.2 Electricity generation from renewable sources is an essential element of the transition to net zero and meeting our statutory targets for the sixth carbon budget (CB6). Our analysis suggests that demand for electricity is likely to increase significantly over the coming years and could more than double by 2050. This could require a fourfold increase in low carbon electricity generation, with most of this likely to come from renewables.[1]

1.1.3 In the Net Zero Strategy[2], published in October 2021, government committed to action so that by 2035, all our electricity will come from low carbon sources, subject to security of supply, whilst meeting a 40-60% increase in demand.

1.1.4 The British Energy Security Strategy[3], published in April 2022, accelerates this plan and sets out a series of bold commitments to deliver a more independent, more secure energy system and support consumers to manage their energy bills. More low-cost renewables on the system will reduce household electricity bills and help to increase security of supply through domestic energy production.

1.1.5 This National Policy Statement (NPS), taken together with the Overarching National Policy Statement for Energy (EN-1), provides the primary policy for decisions by the Secretary of State on applications they receive for nationally significant renewable energy infrastructure defined at Section 1.6 of this NPS.

1.1.6 The way in which NPSs guide Secretary of State decision-making, and the matters which the Secretary of State is required by the Planning Act 2008 to take into account in considering applications, are set out in Sections 1.1 and 4.1 of EN-1.

1.1.7 Applicants should, therefore, ensure that their applications and any accompanying supporting documents and information are consistent with the instructions and guidance in this NPS, EN-1

[1] See https://www.gov.uk/government/publications/modelling-2050-electricity-system-analysis
[2] See https://www.gov.uk/government/publications/net-zero-strategy
[3] See https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy

and any other NPSs that are relevant to the application in question.

1.1.8 This NPS may be helpful to local planning authorities (LPAs) in preparing their local impact reports.

1.2 Role of this NPS in the wider planning system

1.2.1 Section 1.2 of EN-1 provides details on the role of this NPS in the wider planning system.

1.3 Relationship with EN-1

1.3.1 This NPS is part of a suite of energy infrastructure NPSs. It should be read in conjunction with EN-1.

1.3.2 This NPS does not seek to repeat the material set out in EN-1, which applies to all applications covered by this NPS unless stated otherwise.

1.4 Geographical coverage

1.4.1 This NPS, together with EN-1, is the primary decision-making policy document for the Secretary of State on nationally significant onshore renewable electricity generating stations in England and Wales, and nationally significant offshore renewable electricity generating stations in waters in or adjacent to England or Wales up to the seaward limits of the territorial sea, or in the UK Renewable Energy Zone (REZ) (defined in section 84 (4) of the Energy Act 2004), except any part of a REZ in relation to which Scottish Ministers have functions.

1.4.2 The Secretary of State will only examine applications for electricity generating stations in Wales, in territorial waters adjacent to Wales or the Welsh zone of the REZ if their capacity is greater than 350 megawatts (MW).

1.4.3 The Secretary of State has no functions in relation to planning applications in Wales that do not relate to nationally significant infrastructure.

1.4.4 In Scotland, the Secretary of State will not examine applications for nationally significant electricity generating stations.

2.9 Pumped Hydro Storage

Introduction

2.9.9 Electricity storage is essential for a net zero energy system, it stores electricity when it is abundant for periods when it is scarce, as well as providing a range of services to help maintain the resilience and stability of the grid.

2.9.10 The need for electricity storage is rising as we increase the volume of variable renewables and increase peak demand through the electrification of heat and transport. It will be critical to maintaining energy security as we shift away from gas over the 2020s-30s.

2.9.11 Pumped hydro storage (PHS) is a form of electricity storage that uses the difference in height between two reservoirs or other bodies of water to store energy. By transferring water from the upper reservoir to the lower reservoir through a turbine, power can be generated. Later, the water must then be pumped back to the upper reservoir using power from the grid or elsewhere.

2.9.12 This section of EN-3 refers specifically to PHS, not hydroelectric power generation (for example where the upper reservoir is filled naturally from a watercourse or rainfall, or a run-of-the-river scheme).

2.9.13 Opportunities for NSIP hydroelectric power generation are currently limited, but if such an application is made then the information in this section may be relevant.

2.9.14 Unlike hydroelectric power generation, PHS is not typically a net generator of electricity: any power generation must subsequently be balanced by consumption to return the water to the upper reservoir.[78] However, the storage capability is useful to the electricity grid as it helps to correct for imbalances in electricity supply and demand, as well as providing a range of other services to the grid, including inertia.

2.9.15 In general, PHS is likely to consume electricity when there is excess renewable generation on the system, and to generate electricity when renewable electricity is scarce. This helps to decarbonise the energy system by integrating more renewable electricity and providing greater flexibility.

[78] In some cases some natural replenishment of the upper reservoir may occur, for example due to rainfall run-off, which may allow the PHS scheme to generate a small amount of electricity and thus be considered a net generator. However the amount of electricity generation arising from this is likely to be minimal compared to the overall station output.