



The Sizewell C Project

5.10 Shadow Habitats Regulations Assessment Volume 3: Stage 4 Imperative Reasons of Public Interest

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1. Executive Summary

1.1 Introduction

1.1.1 This report presents SZC Co.'s¹ Imperative Reasons of Overriding Public Interest (IROPI) case for the Sizewell C Project, in line with requirements of The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) (Ref. 1.1). It is the first part of Stage 4 of SZC Co.'s Shadow Habitats Regulations Assessment (HRA) process. SZC Co.'s Stage 3 HRA Report (**Shadow HRA Report, Volume 2: Stage 3 – Assessment of Alternative Solutions** (Doc Ref. 5.10)) has determined that there are no alternative solutions that would meet the Sizewell C Project need and objectives and have a lesser effect on European sites. The second part of Stage 4 of the Shadow HRA process relates to the provision of compensatory measures (**Shadow HRA Report, Volume 4: Compensatory Measures** (Doc Ref. 5.10)).

1.1.2 It is important to recognise that the Government has already established an IROPI case for the identification of Sizewell C as a potentially suitable site for new nuclear power generation in National Policy Statement (NPS) EN-6.

1.2 The HRA process

1.2.1 The HRA process follows a four-stage approach, as detailed in the Planning Inspectorate's (PINS) Advice Note 10 (Ref 1.2), namely:

- Stage 1: Screening for Likely Significant Effects (LSE).
- Stage 2: Appropriate Assessment.
- Stage 3: Assessment of Alternative Solutions.
- Stage 4: Demonstration of IROPI and the provision of compensatory measures.

1.2.2 The relationship between the various documents that comprise SZC Co.'s HRA process is as follows:

¹ NNB Generation Company (SZC) Limited; referred to in this document as 'SZC Co'.

- Shadow HRA Report, Volume 1: Stages 1 and 2 - Screening and Appropriate Assessment (Doc Ref. 5.10).
- Shadow HRA Report, Volume 2: Stage 3 – Assessment of Alternative Solutions (Doc Ref. 5.10).
- Shadow HRA Report, Volume 3: Stage 4 - Imperative Reasons of Overriding Public Interest (IROPI) (Doc Ref. 5.10) (this document).
- Shadow HRA Report, Volume 4: Compensatory Measures (Doc Ref. 5.10).

1.3 Stage 1 LSE

- 1.3.1 The Shadow HRA (Doc Ref. 5.10) concluded that LSE could arise due to the Sizewell C Project for 19 European sites that were scoped in to the Shadow HRA. Therefore, a Stage 2 Appropriate Assessment was undertaken.

1.4 Stage 2 Appropriate Assessment

- 1.4.1 Following Appropriate Assessment, the Shadow HRA has reached the conclusion that an adverse effect on the integrity of the Minsmere-Walberswick Special Protection Area (SPA) and Ramsar site cannot be excluded due to potential noise and visual disturbance effects on the breeding marsh harrier population *Circus aeruginosus* during the construction phase. Therefore, based on the established HRA process, Stages 3 and 4 need to be undertaken.

1.5 Stage 3 Assessment of Alternative Solutions

- 1.5.1 The Stage 3 Assessment of Alternative Solutions (**Shadow HRA Report, Volume 2: Stage 3 – Assessment of Alternative Solutions** (Doc Ref. 5.10)) concludes that there are no feasible 'alternative solutions' to the Sizewell C Project proposals in the context of the Habitats Regulations that would lessen the predicted effects on the breeding marsh harrier population of the Minsmere-Walberswick SPA and Ramsar site.

1.6 Stage 4 IROPI

- 1.6.1 This report presents the IROPI case for the Sizewell C Project. The delivery of appropriate compensation is addressed in (**Shadow HRA Report, Volume 4: Compensatory Measures** (Doc Ref. 5.10)).

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- 1.6.2 Nuclear power can play a vital role in meeting the challenge of maintaining secure energy supplies for the UK. It can also help to tackle the global threat of climate change by contributing to cutting greenhouse gas emissions by at least 80% by 2050, compared to 1990 levels (as required by the Climate Change Act 2008 (Ref. 1.3)) (noting that the UK Government has committed to a more stringent target of at least 100% of 1990 levels (net zero) by 2050 (via the Climate Change Act 2008 (2050 Target Amendment) Order 2019).
- 1.6.3 The Government's 2017 Ministerial Statement (Ref. 1.4) confirmed its commitment to new nuclear power, stating that *"new nuclear power generation remains key to meeting our 2050 obligations"*. Additionally, a Government Ministerial Statement of October 2019 confirmed that nuclear technology will play an important, continuous role as the entire UK transforms to a carbon neutral economy (Ref. 1.5).
- 1.6.4 NPS EN-1 (Ref. 1.6) reflects the requirement to maintain security of energy supply while also meeting greenhouse gas emission commitments, acknowledging that in the shorter term the UK will require an additional 59GW of new build electricity capacity by 2025 relative to the 2011 baseline. The National Audit Office (NAO) (Ref. 1.7) has updated the EN-1 predictions and now predicts a generation shortfall of 95GW by 2035.
- 1.6.5 The need for the Sizewell C Project, therefore, is summarised as the urgent need for new nuclear power, in order to contribute to addressing the UK's predicted shortfall in energy generation capacity of 95GW by 2035 through low carbon technology which can provide a reliable and secure supply of energy. This need is imperative and overriding.

2. Introduction

2.1 Purpose and scope of this document

2.1.1 This document forms part of SZC Co.'s Shadow HRA which supports an application for a Development Consent Order (DCO) for the Sizewell C Project from the Secretary of State for The Department for Business, Energy and Industrial Strategy (BEIS). SZC Co. is making parallel applications for permits from the Environment Agency to:

- dispose of radioactive waste, known as the Radioactive Substances Regulation (RSR) permit;
- discharge cooling water effluents, known as the operational Water Discharge Activity (WDA) permit; and,
- operate the emergency diesel generators, known as the Combustion Activity (CA) permit.

2.1.2 This report presents SZC Co.'s IROPI case for the Sizewell C Project; it is the first part of Stage 4 of SZC Co.'s Shadow HRA process, prepared in accordance with the requirements of the Habitats Regulations (Ref. 1.1).

2.1.3 Significantly, in NPS EN-6 the Government has already established an IROPI case for the identification of Sizewell C as a potentially suitable site for new nuclear power generation. The Government's assessment is of fundamental importance to the IROPI for the development of Sizewell C.

2.2 The Sizewell C Project

2.2.1 For ease of reference, text from chapter 2 of the Shadow HRA (Doc Ref. 5.10) is reproduced to describe the Sizewell C Project.

2.2.2 Fundamentally the Sizewell C Project consists of:

- the power station: comprising two UK European Pressurised Reactor™ (EPR) units of reactor and associated buildings, turbine halls and electrical buildings, the cooling water pumphouses and associated infrastructure, an Interim Spent Fuel Store (ISFS), an Equipment Store.
- other on-site development such as an access road to join the B1122, car parking, ancillary buildings, a causeway/culvert to provide access

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to the power station across the Sizewell Marshes Site of Special Scientific Interest (SSSI), flood and sea defences, internal roads and a National Grid 400 kilovolts (kV) substation.

- Offshore works, comprising:
 - a Beach Landing Facility (BLF);
 - cooling water infrastructure consisting of two intake tunnels and one outfall tunnel;
 - Fish Recovery and Return (FRR) outfalls; and
 - a combined drainage outfall.
- A temporary construction area - the area located primarily to the north and west of the proposed Sizewell Marshes SSSI crossing, which would support construction activity on the main power station platform.
- Land East of Eastlands Industrial Estate (LEEIE) - the area to the north of Sizewell Halt, which would be used to support construction of the main power station platform and temporary construction area.
- Additional facilities associated with the Sizewell C Project:
 - a marsh harrier habitat improvement area at Westleton (if required);
 - fen meadow compensation land to the south of Benhall and to the east of Halesworth; and,
 - off-site sports facilities at Leiston to be used during construction.
- Associated developments: two temporary park and ride facilities, a permanent bypass off the A12 (referred to as 'two village bypass'), a road linking the A12 with the B1122 (referred to as 'Sizewell link road'), a new roundabout to replace the existing priority junction at the A12/Yoxford junction and other permanent highway improvements, a temporary 'freight management facility' at Seven Hills, a temporary extension of the existing Saxmundham to Leiston branch line and other permanent rail improvements on this line.

2.3 Report structure

- 2.3.1 Following this introduction to the Sizewell C Project and the purpose and scope of this report (**Chapter 2** of this volume), **Chapter 3** of this volume provides an overview of the outcome of SZC Co.'s Shadow HRA process and introduces Stage 4 (IROPI and compensation). **Chapter 4** of this volume establishes the legislative and guidance framework for SZC Co.'s Stage 4 IROPI case.
- 2.3.2 **Chapter 5** of this volume sets out why the UK needs electricity.
- 2.3.3 **Chapter 6** of this volume sets out why the UK needs new low carbon generating capacity.
- 2.3.4 **Chapter 7** of this volume sets out why nuclear generating capacity is urgently required as part of the low carbon energy mix.
- 2.3.5 **Chapter 8** of this volume sets out why new nuclear is relevant at Sizewell.
- 2.3.6 **Chapter 9** of this volume provides a conclusion regarding the extent to which the Sizewell C Project meets the IROPI test.

3. The Shadow HRA

3.1 The Habitats Regulations

3.1.1 The Habitats Regulations implement Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) (Ref. 2.1) in England and Wales. The Habitats Directive requires Member States to schedule important wildlife sites throughout the European Community as Special Areas of Conservation (SAC) and to give protection to habitats and species listed in the Directive as being threatened or of Community Interest

3.1.2 The EU meets its obligations for birds through Council Directive 2009/147/EC on the conservation of wild birds (the Birds Directive) (Ref. 2.2). This provides a framework for the conservation and management of wild birds in Europe through the classification of Special Protection Areas (SPAs). The Habitats Regulations incorporate all SPAs into the definition of European sites and, consequently, the protections afforded to European sites under the Habitats Directive apply to SPAs designated under the Birds Directive.

3.1.3 The HRA process helps meet the requirements of Article 6(3) of the Habitats Directive (replicated in Regulation 63(1) of the Habitats Regulations) which states that any plan or project, which is not directly connected with or necessary to the management of an European site, but would be likely to have a significant effect on such a site, either on its own or in-combination with other plans or projects, will be subject to an 'appropriate assessment' of its implications for the European site in view of the site's 'conservation objectives'

3.2 Overview of the process

3.2.1 The HRA process follows a four-stage approach, as detailed in the PINS Advice Note 10 (Ref. 1.2):

- Stage 1: Screening for LSE.
- Stage 2: Appropriate Assessment.
- Stage 3: Assessment of Alternative Solutions.
- Stage 4: Demonstration of IROPI and the provision of compensatory measures.

3.2.2 This chapter summarises the outcome of SZC Co.'s Shadow HRA Stages 1, 2 and 3.

3.3 Stage 1 LSE

3.3.1 The Shadow HRA (Doc Ref. 5.10) concluded that LSE could arise due to the Sizewell C Project for 29 European sites that were scoped in to the Shadow HRA. Therefore, a Stage 2 Appropriate Assessment was undertaken.

3.4 Stage 2 Appropriate Assessment

3.4.1 Following Appropriate Assessment, the Shadow HRA concluded that an adverse effect on the integrity of the Minsmere-Walberswick Special Protection Area (SPA) and Ramsar site cannot be excluded due to potential noise and visual disturbance effects on the breeding marsh harrier population *Circus aeruginosus* during the construction phase.

3.4.2 Where an adverse effect on site integrity cannot be excluded, a plan or project can only be approved or granted consent if:

- it is demonstrated that there are no alternative solutions which would have no or a lesser effect on the integrity of the European site(s) (Stage 3); and,
- IROPI can be shown and necessary compensation measures can be secured (Stage 4).

3.4.3 It should be noted that the above conclusion is drawn on a highly precautionary basis with regard to the following:

- the noise threshold at which marsh harrier may exhibit a disturbance response which could have an impact at a population level;
- the predicted peak noise generation during the construction phase;
- the duration over which peak noise emissions would occur; and,
- the zone of sensitivity to visual disturbance.

3.4.4 Collectively, these various elements of precaution lead to a highly precautionary prediction of the effect of the extent of potential foraging

resource that could be 'lost' to marsh harriers. Furthermore, it should be noted that there is a lack of direct effect on the SPA and Ramsar site itself.

3.5 Stage 3 Assessment of Alternative Solutions

- 3.5.1 The Stage 3 Assessment of Alternative Solutions (**Shadow HRA Report, Volume 2: Stage 3 – Assessment of Alternative Solutions** (Doc Ref. 5.10)) concludes that there are no feasible 'alternative solutions' to the Sizewell C Project proposals in the context of the Habitats Regulations that would lessen the predicted effects on the breeding marsh harrier population of the Minsmere-Walberswick SPA and Ramsar site.

3.6 Stage 4 IROPI and compensation

- 3.6.1 Once IROPI has been established – the subject matter of this report – the HRA process requires that an assessment of compensatory measures must be provided by the Applicant and *"the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected"* (Ref. 1.1).
- 3.6.2 **Shadow HRA Report, Volume 4: Compensatory Measures** (Doc Ref. 5.10) demonstrates that compensation can be provided within the Sizewell C Project programme and before the main construction phase begins.

4. Stage 4 IROPI

4.1 Legislation

4.1.1 In accordance with Regulation 64 of the Habitats Regulations (Ref. 1.1), if the competent authority is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest, it may agree to the plan or project notwithstanding a negative assessment of the implications for the European site.

4.1.2 In such circumstances, in accordance with Regulation 68 of the Habitats Regulations, necessary compensatory measures must be secured to ensure that the overall coherence of the *Natura 2000* network is protected.

4.2 Relevant guidance

4.2.1 This assessment of IROPI has been undertaken in accordance with the following:

- the European Commission's (EC) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive (Ref. 4.1);
- the EC's Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC (Ref. 4.2);
- Defra guidance on the application of Article 6(4) Alternative solutions, imperative reasons of overriding public interest and compensatory measures (Ref. 4.3); and,
- PINS Advice Note 10: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects (Ref. 1.2).

4.2.2 PINS Advice Note 10 (Ref. 1.2) provides that, where adverse effects on the integrity of European site(s) are predicted to arise as a result of the project (alone or in combination with other plans or projects), and *"it can be demonstrated that there are no alternative solutions to the project that would have a lesser effect or avoid an adverse effect on the integrity of the European site(s), the project may still be carried out if the competent authority is satisfied that the scheme must be carried out for IROPI"*.

4.2.3 For European sites designated under the Habitats Directive, the IROPI grounds on which a plan or project can proceed depend on the nature of the site that would be affected. In cases where priority natural habitats or

species (a 'priority feature')² would be affected by the development, the IROPI justification must relate to either:

- human health, public safety or beneficial consequences of primary importance to the environment; or
- having due regard to any opinion from the European Commission, any other imperative reasons of overriding public interest.

4.2.4 The above provisions do not apply in the case of the Sizewell C Project because the Sizewell C Project is not predicted to have an adverse effect on a site designated under the Habitats Directive (and, therefore, no adverse effect on a priority feature). This means that (as stated in Article 6(4) of the Habitats Directive), the competent authority can consider IROPI that include those relating to social or economic benefit, in addition to those matters set out above. Nevertheless, by providing a low carbon source of energy, the Sizewell C Project would have 'beneficial consequences of primary importance to the environment' by helping to contribute to a reduction in greenhouse gas emissions.

4.2.5 Defra guidance (Ref. 4.3) – which itself is based on the EC's guidance (Ref. 4.2) on Article 6(4) of the Habitats Directive – identifies that consideration of the objective of the plan or project is central to the determination of IROPI. The objective of [need for] the Sizewell C Project is defined in the Stage 3 Assessment of Alternative Solutions as: *the urgent need for new nuclear power, with Sizewell C representing a source of additional generating capacity, and one that can be brought forward now, in order to help meet the requirement for 95GW of additional electricity generating capacity by 2035.*

4.2.6 Defra guidance (Ref. 4.3) also states that when identifying 'IROPI' a competent authority should consider the different defining elements of the term as follows:

- **Imperative:** it must be essential (whether urgent or otherwise), weighed in the context of the other elements below, that the plan or project proceeds.

² Some Annex I habitats and Annex II species are defined as being of 'priority' because they are considered to be particularly vulnerable and are mainly, or exclusively, found within the European Union. The importance of these priority habitat types is emphasised at several places in the Directive (Articles 4 and 5 and Annex III), not only in terms of the selection of sites, but also in the measures required for site protection (Article 6) and surveillance (Article 11). However, for the Sizewell C Project, an adverse effect is not predicted on a site designated under the Habitats Directive and, by extension, a priority feature.

- **Overriding:** the interest served by the plan or project must outweigh the harm (or risk of harm) to the integrity of the site(s) identified in the appropriate assessment.
- **Public Interest:** a public benefit must be delivered rather than a solely private benefit. This can occur at a national, regional or local level and should be long term. Plans and projects which enact or are consistent with national policy statements are more likely to show a high level of public interest.

4.3 NPS EN-6

4.3.1 As set out in the **Planning Statement** (Doc Ref. 8.4) the site for Sizewell C has been identified by the Government as one of eight sites in the UK considered to be potentially suitable for the development of a new nuclear power station. In the development of its policy, the Government recognised that it could not rule out the potential for adverse effects on the integrity of European Sites adjacent to, or at a distance from, each of the sites listed in NPS EN-6. Accordingly, the Government presented a case for IROPI which sets out why the plan (the Government policy set out in NPS EN-1 and EN-6) should proceed. That assessment is included as Annex A to NPS EN-6 and it establishes that the IROPI which justify the plan relate to:

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

4.3.2 That assessment provides a background of fundamental importance to this assessment and is relied upon for the purposes of this assessment. In particular, the Government's assessment explained:

- why new generating capacity is needed;
- why there is a need for nuclear power as part of the generating mix;
- why it is necessary for the sites assessed as potentially suitable to be listed in the Nuclear NPS and why not sites at different locations;
- why the Nuclear NPS (EN-6) is needed; and

- why there are Imperative Reasons of Overriding Public Importance.

4.3.3 It would not be appropriate to repeat that assessment here, but its terms are of central importance to the IROPI for the development of Sizewell C.

4.3.4 Chapter 3 of the **Planning Statement** (Doc Ref. 8.4) explains that there have been no material changes which would undermine the strength of the need for new nuclear power generation or the suitability of the Sizewell C site. This need could be considered to be stronger than at the time of the NPS designation, not least because other proposed new nuclear projects referred to in NPS EN-6 have not proceeded as planned, whilst government policy in relation to carbon reduction has strengthened.

4.4 Approach to IROPI

4.4.1 As did this Government's assessment, this Stage 4 assessment has assessed the IROPI for the Sizewell C Project in the context of:

- social or economic benefit; and/or
- human health and public safety; and/or
- overriding beneficial consequences of primary importance for the environment.

4.4.2 The IROPI argument in respect of the Sizewell C Project is premised on:

- its social and economic benefits;
- the fact that it would provide a consistent and reliable energy supply, which is essential to maintaining a good standard of human health and public safety; and
- nuclear power constitutes a source of low carbon energy, which is of significant benefit to the environment generally by contributing to a reduction in greenhouse gas emissions.

4.4.3 The following matters establish that the Sizewell C Project has long-term benefits which are imperative and overriding, and that there is a public interest in it proceeding despite the predicted adverse effect on the integrity of the Minsmere-Walberswick SPA and Ramsar site:

- the urgent need for electrical energy;
- the need for new low carbon generating capacity;
- the urgent need for nuclear generating capacity as part of the UK's renewable energy mix; and
- the need for new nuclear be provided at Sizewell.

4.4.4 These topics are considered in turn in chapters 5 to 8.

5. The Need for Electricity

5.1 Introduction

5.1.1 Electrical energy underpins almost every aspect of life in the modern world. It provides heat and light; it powers the production, storage and transport of food; it powers the distribution of essential water supplies and safely removes our waste; and it allows us to safely travel around the world (by providing power for air traffic control, lighting and pumping fuel), amongst many other contributions.

5.1.2 In the UK, electricity is generated through the operation of a number of geographically dispersed power stations of various types and technologies that are situated around the UK. Currently the main sources of electric power generation in the UK are from nuclear, fossil fuels (natural gas and coal), hydro (pump storage) and renewables (offshore and onshore wind, tidal stream, biomass and solar). Other mixed sources make up a tiny proportion of overall generation and include oil (a fossil fuel), hydro (stream) and wave energy.

5.2 Increasing demand

5.2.1 The demand for electrical energy continues to grow, and pathway modelling undertaken by the former Department of Energy and Climate Change (DECC) in 2010 suggested that this trend would continue (Ref. 5.1). This is despite efforts to promote better energy conservation and improvements in energy efficiency. The NPS on Energy (EN-1) (Ref. 1.6) explicitly identifies the urgent need for new (and particularly low carbon) electricity NSIPs in the UK within the next 10-15 years, i.e. 2011 – 2025 (paras 3.3.1 to 3.3.5). EN-1 also states:

“3.3.14 [...] [E]ven with major improvements in overall energy efficiency, we expect that demand for electricity is likely to increase, as significant sectors of energy demand (such as industry, heating and transport) switch from being powered by fossil fuels to using electricity. As a result of this electrification of demand, total electricity consumption (measured in terawatt hours over a year) could double by 2050.”

and:

“2.2.22 Looking further ahead, the 2050 pathways show that the need to electrify large parts of the industrial and

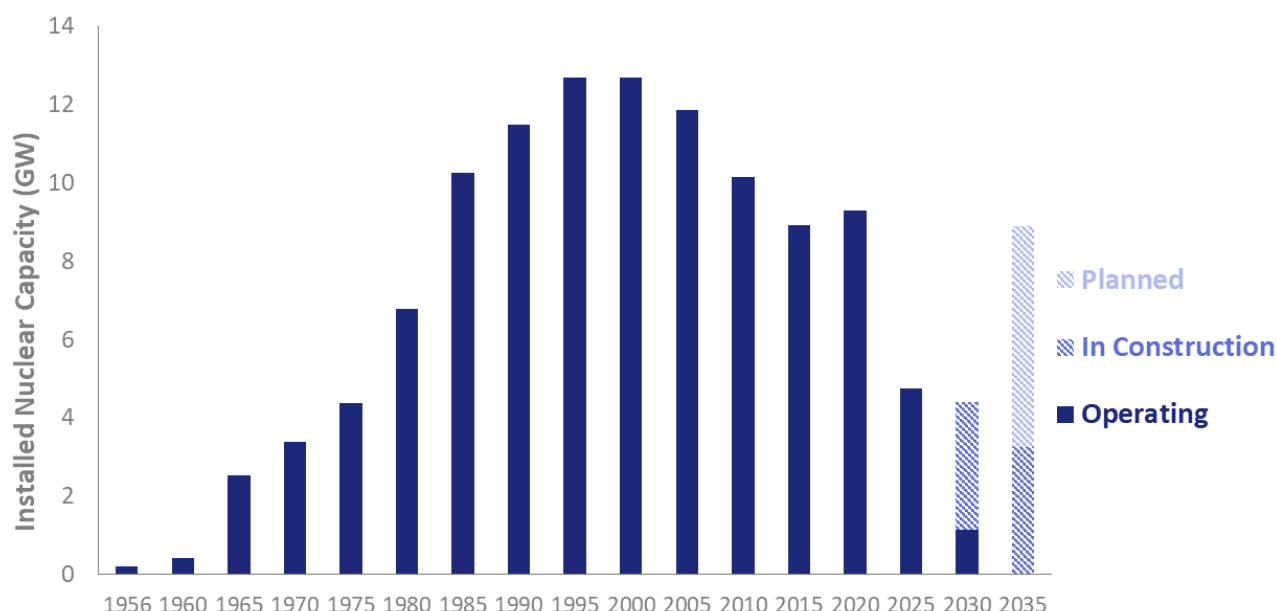
domestic heat and transport sectors could double demand for electricity over the next forty years. It makes sense to switch to electricity where practical, as electricity can be used for a wide range of activities (often with better efficiency than other fuels) and can, to a large extent, be scaled up to meet demand. To meet emissions targets, the electricity being consumed will need to be almost exclusively from low carbon sources.”

- 5.2.2 The current BEIS forecast is that electricity consumption will increase by approximately 22% by 2035 (Ref. 5.2), partly because it is imperative to move to electricity (generated from low carbon sources) as opposed to fossil fuels if decarbonisation targets are to be met (see **Section 6.2** of this volume)

5.3 Decreasing supply

- 5.3.1 A significant amount of electricity capacity is set to be retired by 2035, including almost 90% of existing coal and all of the UK's current nuclear capacity (Ref. 5.4). Specifically, under UK Government policy, all coal plants will be closed by 2025 (Ref. 5.5).
- 5.3.2 The UK currently has eight operational nuclear plants with a combined capacity of 8.9GW, and all but one of these is scheduled to close by 2030, with the other (Sizewell B) due to close in 2035. According to the projections presented by the NAO (Ref. 1.7), only 3.6GW of existing nuclear capacity will remain operational in 2030.
- 5.3.3 A more recent publication by BEIS in 2019 (Ref. 5.6) (**Figure 5.1**) predicts that installed nuclear capacity will just exceed 4GW in 2030; this figure includes a predicted (approximately) 1GW of capacity from power stations that are currently operational, with the balance of the capacity being provided by Hinkley Point C.

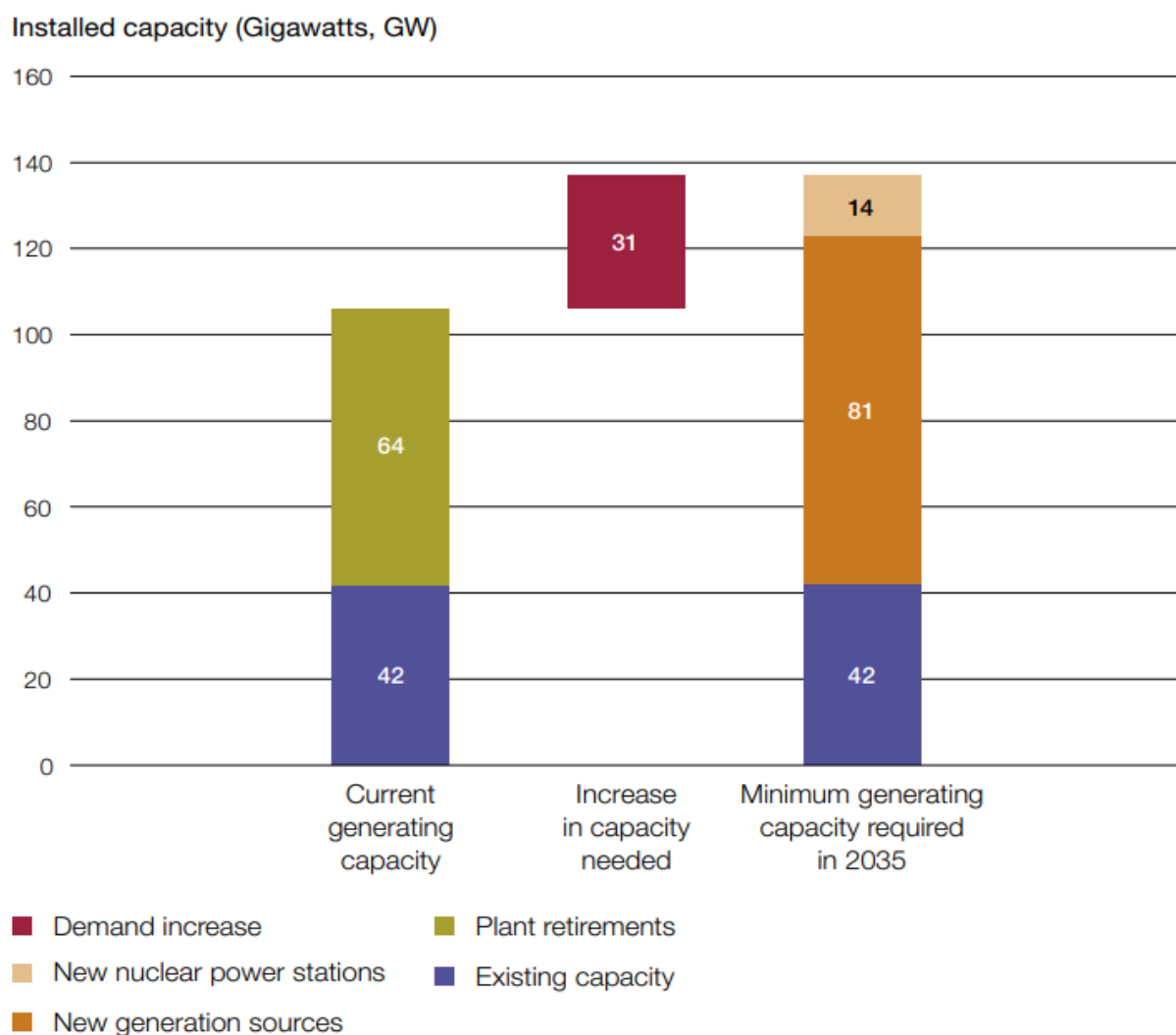
Plate 5.1: UK installed nuclear capacity: operating, under construction and planned plants, 1956-2035 (Ref. 5.6)



5.3.4 In the period 2016 to 2035, the NAO (Ref. 1.7) estimates that approximately 64GW (i.e. over 60% of current UK generating capacity) will be lost due to plant retirements (**Figure 5-2**). Looking to 2035, the NAO has analysed the expected generation capacity shortfall arising from increased demand in the context of shrinking supply. **Figure 5-2** illustrates that, before account is taken of lost capacity, at least 31GW of additional capacity over and above existing resources will be needed to meet the minimum generating capacity required in 2035.

5.3.5 Consequently, there will be a generation shortfall which, according to the NAO, will amount to 95GW by 2035 (i.e. 64GW due to plant retirements plus a 31GW increase in required capacity over current generating capacity), or 70% of the UK's forecast energy needs in 2035 (Ref. 1.7).

Plate 5.2: UK installed nuclear capacity: operating, under construction and planned plants, 1956-2035 (Ref. 5.6)³



5.4 The need

5.4.1 A regular, reliable and guaranteed supply of electrical energy throughout the day is essential to maintain the full range of critical services that modern society relies upon. Moreover, to reduce climate change impacts and the environmental consequences arising from these, it is increasingly

³ 'New generation sources' refers to future capacity met by sources other than nuclear power stations, such as wind farms, solar, interconnectors, etc.

necessary that this energy supply comes from low carbon sources. In recent years, this has been thought of in terms of the “energy trilemma”.

- 5.4.2 The UK will continue to need baseload generation (that is, power that can be guaranteed to provide the minimum levels of electricity required, such as that provided by nuclear plants) as well as flexible power supply to manage demand more effectively at times of lower generation and provide extra supply at times of greater demand, as more power from renewable energy comes on stream. A future increased reliance on renewable, but intermittent, generating technologies means that the UK’s total generating capacity will need to be even greater, to ensure that peak demand can always be met (see **Section 6** of this volume below in relation to the variable nature of renewable technologies).
- 5.4.3 In the immediate timeframe, as outlined in NPS EN-1 (Ref. 1.6) and reinforced by the NAO (Ref. 1.7), and reflecting the requirement to maintain security of supply while also meeting greenhouse gas emission commitments, the UK will require significant additional electricity generating capacity (i.e. 95GW by 2035, according to the NAO). This translates to at least 137GW of total electricity generating capacity (see **Figure 5.2**).
- 5.4.4 This provides the context within which the Sizewell C Project should be considered; particularly given its intent to deliver power within this timeframe (i.e. 2035). That is, the Sizewell C Project would generate up to 3.3GW of low carbon energy for decades once operational. This is enough energy to power 6,000,000 homes.
- 5.4.5 As domestic and economic life in the UK relies very largely on electricity, it is difficult to overstate the extent to which human health and public safety, the quality of the environment and our quality of life is dependent on having long-term access to adequate and secure electrical energy supplies. This is reflected in NPS EN-1 (Ref. 1.6) and EU and national energy policies (Ref. 1.3).

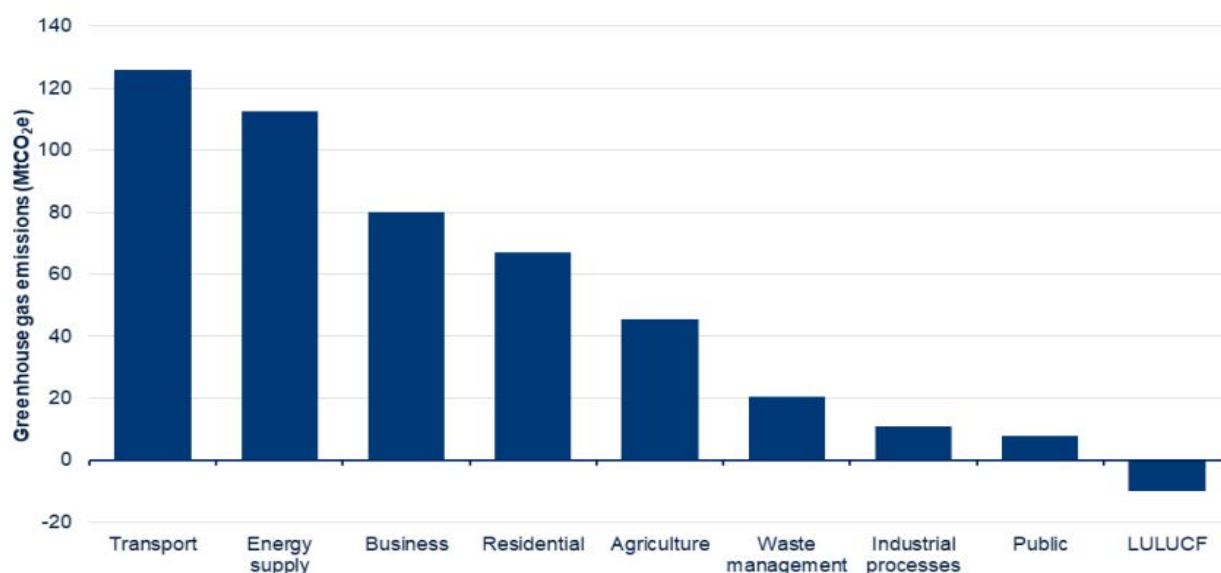
6. The Need For New Low Carbon Generating Capacity

6.1 Introduction

6.1.1 Notwithstanding the substantial progress that can be (and has been) made with energy efficiency and demand management, the UK clearly still needs significant new generating capacity to be provided. In addition, to achieve carbon commitments and renewable energy targets, there must be a further step change in the power that is obtained from low carbon sources.

6.1.2 In response to the Climate Change Act 2008 (which requires the UK to reduce its emissions by at least 80% on 1990 levels by 2050), and based on recommendations by the Committee on Climate Change (Ref. 6.1), the UK Government has committed to reducing its greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050 (via the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which was brought into force in June 2019). It is therefore necessary for the UK to reduce its use of fossil fuels, particularly in the four largest sectors for emissions: transport, energy supply, business, and residential (Ref. 6.2) provided in **Figure 6.1** of this chapter.

Plate 6.1: Greenhouse gas emissions by source sector, UK (2017) (MtCO₂e) (Ref. 6.2)⁴



⁴ The land use, land use change and forestry (LULUCF) sector acted as a net sink in 2017, so emissions were effectively negative (Ref. 6.2).

6.1.3 Switching away from fossil fuels in these sectors is expected to be achieved, in part, through electrification, such as increased use of electric vehicles (EVs). According to the National Grid Electricity System Operator (ESO) (Ref. 5.3) *“the total annual energy demand for road transport is currently around 500 TWh. By 2050 it has reduced, in all scenarios, to below 200 TWh. This is due to the shift from petrol/diesel vehicles to electric vehicles, which use less energy per mile; causing a significant drop in total energy used for transport”*.

6.1.4 To ensure that electrification does reduce overall emissions, electricity has to be generated from low carbon sources. DECC, in NPS EN-1 (Ref. 1.6), considers the increase in the supply of low carbon electricity as an ‘essential prerequisite’ to meeting the UK’s emissions targets, and the continued need for low-carbon electricity is further stressed in the 2016 Paris Agreement⁵.

6.1.5 The provision of low-carbon energy also has a bearing on the environment and biodiversity, and implications for human health and public safety, as unfettered climate change is predicted to have far-reaching effects.

6.2 Policy to decarbonise

6.2.1 NPS EN-1 (Ref. 1.6) explains the two key policy goals that drive the need for new electricity generation. The first is the need to decarbonise the economy. The second is that it is critical that the UK continues to have secure and reliable supplies of electricity as it makes the transition to a low-carbon economy.

6.2.2 NPS EN-1 states that “Continuation of global emissions, including greenhouse gases like carbon dioxide, at current levels could lead average global temperatures to rise by up to 6°C by the end of this century. This would make extreme weather events like floods and droughts more frequent and increase global instability, conflict, public health-related deaths and migration of people to levels beyond any recent experience. Heat waves, droughts, and floods would affect the UK. To avoid the most dangerous impacts of climate change, the increase in average global temperatures must be kept to no more than 2°C, and that means global emissions must start falling as a matter of urgency. To drive the transition needed the Government has put in place the world’s first ever legally binding framework to cut emissions by at least 80% by 2050⁶, that will

⁵ The United Nations Framework Convention on Climate Change Paris Agreement (entered into force in 2016).

⁶ The UK Government has since committed to reducing its greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050 (Ref. 6.1).

deliver emission reductions through a system of five-year carbon budgets that will set a trajectory to 2050”.

- 6.2.3 The long-term decarbonisation of the economy (Ref. 6.3) and a reduction in greenhouse gases is critical to securing ecosystem resilience and, thereby, providing beneficial consequences of primary importance for the environment. The strength with which these objectives are expressed in NPS EN-1 is reinforced by the even more challenging implications of the Government’s subsequent commitment to net zero carbon emissions by 2050.

6.3 Energy security

- 6.3.1 Nuclear power is the largest source of low carbon electricity in the developed world and the UK Government recognises that new nuclear power stations will form a prominent part of the country’s transition to a more resilient and diverse low carbon energy system. Whilst renewable energy will continue to play an important role in the growth of low carbon alternatives, the variable nature of wind and solar (and tidal) means that these sources of energy cannot be adjusted to meet demand. Even with technological advancements in, for example, the storage of electricity, there will remain a need for sufficient baseload capacity to ensure that supply meets demand and security of supply. To meet the UK Government’s objective to maintain or enhance levels of energy security (Ref. 1.6), while meeting carbon reduction targets, there is a clear need to deploy low carbon and renewable technologies. Furthermore, the carbon footprint of nuclear generation is approximately equivalent to that of offshore and onshore wind and has a significantly lower physical footprint for the amount of power produced.
- 6.3.2 Further, in order to replace electricity generating capacity due to plant retirements and meet expected increases in demand, thereby maintaining security of energy supply and reducing potential impacts on human health and public safety resulting from interruptions to electricity supply, it is important that no viable low carbon technology is ruled out⁷.
- 6.3.3 However, greater reliance on renewable, but intermittent, generating technologies (such as wind and photovoltaics) in the future means that total generating capacity may need to be even greater, to ensure that peak demand can always be met. The NAO (Ref. 1.7) notes that: “an increasing

⁷ Noting that on the 25 June 2018, BEIS ruled out the potential for tidal lagoon generated energy in the UK at the current time on a value for money basis (Ref. 6.5).

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proportion of generation coming from intermittent sources such as wind and solar power [means that] the total generating capacity needs to be higher to ensure that there is sufficient capacity to meet demand”.

- 6.3.4 Energy security also means reduced reliance on imported fossil fuels (NPS EN-1 paragraph 3.3.11) so that reliance on overseas power generation is not an alternative to meeting the UK’s energy requirements.
- 6.3.5 The Government sees nuclear power as being a significant part of a necessary balanced power generation mix, as it provides the UK with a home grown reliable, secure supply of low carbon baseload electricity (Ref. 1.7).

7. The Urgent Need For Nuclear Generating Capacity As Part Of The Low Carbon Energy Mix

7.1 The Government commitment

- 7.1.1 There is strong legislative and policy support for new nuclear power in the UK. In 2008, the Department for Business, Enterprise and Regulatory Reform (BERR) announced that nuclear energy should have a role to play in the generation of electricity, alongside other low carbon technologies (Ref. 7.1).
- 7.1.2 The principle of the need for new nuclear power stations, and that this need is urgent, is firmly established in NPS EN-1 (Ref. 1.6) and NPS EN-6 (Ref. 7.2).
- 7.1.3 NPS EN-1 (Ref. 1.6) establishes the urgent need for new energy infrastructure to meet energy security and carbon reduction objectives, to replace closing electricity generating capacity, and to support an increased supply from renewables and future increases in electricity demand.
- 7.1.4 The required scale of nuclear new build was confirmed by the Energy Research Partnership, which shows that 20GW–25GW of nuclear is required to meet the UK's emission targets, even if the National Renewable Energy Action Plan target for wind is met (Ref. 7.3).
- 7.1.5 NPS EN-6 (Ref. 7.2) specifically sets out the Government's policy on the urgent need for nuclear power⁸. Annex A of EN-6, for example, states that a significant number of existing power stations will be coming to the end of their natural operating lives around the end of 2025 (paragraph A.2.3). Acting as a policy influence alongside this reduction in supply is the lack of proven alternatives to new nuclear generation that can be deployed at the required scale to meet the capacity shortfall, while remaining consistent with the Government's commitment to decarbonisation and ensuring security of supply (Ref. 5.4).
- 7.1.6 According to industry research by Bloomberg (Ref. 7.4), weather conditions in the UK are such that solar could perhaps account for only 8% of the UK's generation by 2040. Moreover, while wind speeds in the UK appear 'favourable', the proportion of electricity demand that needs to be met by generation sources other than wind and solar by 2040 is still forecast to be as high as 50% (and up to 80% at certain times of the year) (Ref. 7.4). The

⁸ Section 7.2 discusses the development of a new nuclear NPS.

same research also predicts that *“70GW of dispatchable resources (generation, storage, flexible demand, interconnectors) are needed in 2040 to meet peak demand during periods of low wind and solar generation”*. The NAO has consequently drawn attention to the reliability of nuclear power, stating that it is a ‘firm’ source of electricity that can be relied upon to deliver during periods of high demand (Ref. 7.5).

- 7.1.7 The UK’s draft Integrated National Energy and Climate Plan (NECP) (Ref. 7.6), published in January 2019, confirms the Government’s commitment to maintaining a robust climate framework and its support for low carbon electricity generation through the Contracts for Difference (CfD) scheme. The draft NECP also specifically refers to the BEIS’ nuclear innovation fund, supporting low carbon electricity generation.

7.2 Urgency

- 7.2.1 It is equally important to note that the UK Government has set out the clear need for new nuclear power stations to be developed much earlier than the end of 2025 (paragraph 2.2.2 of NPS EN-6⁹ (Ref. 7.2)) and critically by 2035.

- 7.2.2 The urgent need for nuclear power also features in industry research. For example, the Energy Research Partnership has stated that: *“A significant amount of new zero carbon firm capacity is essential to decarbonisation but leading technologies such as nuclear and CCS [carbon capture and storage] require long lead times. Therefore, meeting emissions targets for 2030 requires action today”* (Ref. 7.3).

- 7.2.3 To this end, the Government consulted on the proposed siting criteria and the process for the development of a new NPS applicable to nuclear power plants deployed after 2025 and capable of deployment by the end of 2035 (Ref. 7.7). The consultation stated that: *“Currently all but one of the existing fleet of nuclear reactors are due to cease generating before 2030¹⁰, so the need for new nuclear power remains significant [...] it is important that there is a strong pipeline of new nuclear power to contribute to the UK’s energy mix and security of supply in the future”*.

- 7.2.4 The consultation document (Ref. 7.7) went on to say that, subject to the outcome of the consultation, the Government proposes to carry forward the sites listed in NPS EN-6 (that have not yet applied for a DCO, amounting to

⁹ Where NPS EN-6 was drafted for the period to 2025.

¹⁰ And the remaining one is due to cease operating within five years of 2030.

seven) into the new NPS. In its response to this consultation, the Government confirmed this proposal, subject to confirmation from the current developers associated with each potentially suitable site that they wish it to remain listed in future and to those sites meeting the strategic criteria, as well as demonstrating they are credible for deployment by 2035 (Ref. 7.8).

7.2.5 The Statement on Energy Infrastructure (the ‘Ministerial Statement’) (Ref. 1.4), issued on the same date as the consultation document (Ref. 7.7), makes it clear that the Government continues to support new nuclear power generation – “[n]ew nuclear power stations have an important role to play [...] nuclear is a vital part of our [UK] energy mix [...] it is important that there is a strong pipeline of new nuclear power to contribute to the UK’s future energy system”. It also gives the Government’s strong in principle support to project proposals at those sites listed in NPS EN-6.

7.2.6 National Grid ESO’s analysis (Ref. 5.3) reveals that the need for new nuclear generation is acute if the 2050 emissions targets are to be met. Its ‘Two Degrees’ and ‘Community Renewables’ scenarios (the only scenarios included in the Future Energy Scenarios report where the 2050 emissions targets are met¹¹) assume 16.6GW and 7.9GW of nuclear new build by 2050 respectively¹² (with nuclear supplying approximately 20% and 11% of peak demand in 2050 respectively). Since Hinkley Point C will provide only 3.2GW of capacity and all existing nuclear generation is expected to close by 2035, a significant amount of new nuclear capacity is urgently needed to meet the 2050 emissions targets.

7.2.7 The need for new nuclear power may prove to be greater and more urgent in light of predictions that imply a very significant shortfall in required low carbon capacity. Specifically, the ‘Two Degrees’ and ‘Community Renewables’ scenarios assume that 102GW and 109GW respectively of low carbon generation will be available by 2030¹³ (Ref. 5.3). However, a recent publication from HM Treasury (Ref. 7.9) indicates that only 48GW of

¹¹ Noting that Ref. 5.3 states that a scenario is compliant if it meets the 2050 carbon reduction targets mandated by the Climate Change Act 2008 (which requires the UK to reduce its emissions by at least 80% on 1990 level by 2050), as opposed to the Government’s more stringent commitment to achieve net zero by 2050.

¹² Data from tab 5.7 of the supporting *Data Workbook* to Ref. 5.3 (this data contributes to Figure 5.7 in Ref. 5.3).

¹³ Data from tab 5.1 of the supporting *Data Workbook* to Ref. 5.3 (this data contributes to Figure 5.1 in Ref. 5.3). The data for carbon capture, usage and storage (CCUS), solar, wind, other renewables and storage are included (interconnectors and nuclear are excluded to allow better comparability with Ref. 7.9 and Ref. 7.10).

low carbon generation will be available by 2025, while BEIS (Ref. 7.10) predicts that 70GW of low carbon generation will be available by 2030¹⁴.

- 7.2.8 Projections produced by DECC for its '2050 pathways calculator' in 2013 (Ref. 7.11) showed that, if new nuclear power plants are not installed, the UK is expected to miss its 2050 emissions targets by at least 3% and by up to 24%¹⁵. This position is exacerbated by the Government's subsequent commitment to meet the more stringent target of net zero under the Climate Change Act 2008 (2050 Target Amendment) Order 2019.

¹⁴ Includes renewables and storage; based on BEIS' 'reference scenario' (interconnectors and nuclear are excluded to allow better comparability with Ref. 5.3 and Ref. 7.9).

¹⁵ Noting that the Ref. 7.11 assumes that emissions targets are met based on the statutory requirement of the Climate Change Act 2008 (which requires the UK to reduce its emissions by at least 80% on 1990 level by 2050), as opposed to the Government's commitment to achieve net zero by 2050.

8. The Need For New Nuclear At Sizewell

8.1 Policy Support

8.1.1 There is strong legislative and policy support for new nuclear power in the UK. The Sizewell C Project **Planning Statement** (Doc. Ref 8.4) provides further details and NPS EN-1 (Ref. 1.6) and NPS EN-6 (Ref. 7.2) set out the Government's policy on the urgent need for nuclear power.

8.1.2 NPS EN-6 identifies Sizewell as a potentially suitable site for the deployment of a new nuclear facility before the end of 2025, subject to certain matters that require further consideration through the DCO application (see Annex C: Site Assessments in Volume II of EN-6). The UK Government (in including Sizewell C in NPS EN-6) concluded that none of these factors were sufficient to prevent the site from being considered potentially suitable.

8.2 EN-6 site assessment

8.2.1 The site assessments included in Annex C of Volume II of EN-6 set out in detail why the selected sites, including Sizewell C, have been found to be potentially suitable. They set out the analysis and conclusions drawn against the Government's Strategic Siting Assessment (SSA) criteria and reflect advice received from specialists and the regulators. They also reflect key points made during the opportunity for public comment in Spring 2009, consultation on the original draft Nuclear NPS from November 2009 to February 2010, and consultation on the revised draft Nuclear NPS from October 2010 to January 2011 [Ref. 7.2 – Annexes]. **Table 8.1** summarises the outcomes of the site assessment for Sizewell [derived from [Ref. 7.2] Annex C, Sizewell].

Table 8.1 Sizewell assessment of suitability against SSA criteria (derived from Ref. 7.2)

SSA Criteria	Assessment outcome	Notes
Demographics	Pass	Relates to the proximity of the site boundary to an area which exceeds the semi-urban criterion.
Proximity to military activities	Pass	-
Flooding, storm surge and tsunami	Pass	Takes in to account advice from the Environment Agency in relation to any new nuclear power station on the site being protected against flood risks throughout its lifetime.

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SSA Criteria	Assessment outcome	Notes
Coastal processes	Although the current inundation and erosion threat at Sizewell is low, the coastal processes are complex. Mitigation of any effects from a new development may be possible through appropriate defences, or the positioning of different elements on site.	An assessment of the effects on the surrounding area will need to be carried out.
Proximity to hazardous industrial facilities and operations	Pass	-
Proximity to civil aircraft movements	Pass	-
Size of site to accommodate operation	Pass	Concluded that there was sufficient land to safely and securely operate at least one single unit nuclear power station, including the safe and secure storage of all the spent fuel and intermediate level waste produced through operation.
Access to suitable sources of cooling	Pass	It was assumed that detailed modelling as part of the permitting process would give greater clarity about the acceptability of impacts in the light of the cooling technology that is proposed.
Internationally designated sites of ecological importance	As for the majority of proposed new nuclear sites examined, the Appraisal of Sustainability (AoS) site report, based on the HRA for Sizewell, identified that the potential for adverse effects on sites and species of European nature conservation importance existed. The HRA proposed a suite of avoidance and mitigation measures to be considered as part of any project level HRA. Given that the HRA did not rule out adverse effects, the Government carefully considered (against this criterion) whether it was appropriate to include this site in this NPS.	Potential adverse effects on the integrity of the nine European sites through potential impacts on water resources and quality, habitat and species loss and fragmentation, and disturbance (noise, light and visual) could not be ruled out at this stage. A suite of avoidance and mitigation measures were suggested to be considered for the project level HRA. It was acknowledged that effective implementation of the proposed suite of avoidance and mitigation measures may help address adverse effects on European site integrity, however, a more detailed HRA was determined to be required. The Government's conclusion took into account the need for suitable

SSA Criteria	Assessment outcome	Notes
	The Government concluded that there is an IROPI that favours the inclusion of Sizewell in EN-6 despite the inability to rule out adverse effects on European Sites.	sites for new nuclear to be available for potential deployment by the end of 2025, the lack of alternatives, and the consideration given to the availability of compensatory measures.
Nationally designated sites of ecological importance	The AoS identified potential impacts on nationally designated sites of ecological importance and highlighted the potential for direct impacts on the Sizewell Marshes Site of Special Scientific Interest (SSSI). Given the scope for mitigation of the biodiversity effects identified, however, the Government concluded that it may be possible to avoid or mitigate impacts to an extent. Given the need to ensure sufficient sites are available for development to meet the Government's energy policy objectives, as described in Part 2 of NPS EN-6, it concluded that the site met this criterion.	In view of the need for sites set out in Part 2 of NPS EN-6 and the limited number of potentially suitable sites, the Government concluded that the issues in relation to this criterion were not sufficient to justify not including the site in the NPS. The Government also noted that there would be further assessment of any proposal for the site at project level.
Areas of amenity, cultural heritage and landscape value	Given the likely scale of the development and the fact that the site is wholly within an Area of Outstanding Natural Beauty (AONB), the AoS found that there are likely to be some long lasting adverse direct and indirect effects on landscape character and visual impacts on the AONB. Given the need to ensure sufficient sites are available for development to meet the Government's energy policy objectives, as described in Part 2 of NPS EN-6, it concluded that the site met this criterion.	To further understand the potential effects, it was acknowledged that a detailed assessment at project level would be required. The AoS suggests that this could be through the provision of an integrated landscape, heritage and architectural plan. In view of the limited number of potentially suitable sites, the Government did not think the issues in relation to this criterion were sufficient to justify not including the site in the NPS.

8.2.2 The conclusion of the Government's site assessment for Sizewell C was that the site was potentially suitable. This conclusion was based on the site meeting the SSA criteria, and the evidence from, inter alia, the public,

regulators, AoS and HRA site reports. The assessment outlined a number of areas that would need further consideration by the applicant and/or the regulators should an application for development consent come forward, including (amongst other things) coastal inundation and erosion (coastal processes), effects on biodiversity (including on the Sizewell Marshes SSSI) and visual effects on the AONB. However, the Government concluded that none of these factors were sufficient to prevent the site from being considered as potentially suitable.

8.3 Beyond 2025

8.3.1 The Government's response to the consultation on the siting criteria and process for a new NPS for nuclear power beyond 2025 was published in July 2018 (Ref. 7.8). This confirmed that, subject to the outcome of the consultation and provided the sites meet the final criteria, the Government proposes to carry forward all of the sites listed in NPS EN-6 (that are not yet developed, including Sizewell).

8.3.2 The Ministerial Statement of December 2017 (Ref 1.4) confirms that new nuclear power generation remains key to meeting our 2050 obligations, that the government continues to give strong support to the sites listed in NPS EN-6 and that *"it is important that there is a strong pipeline of new nuclear power to contribute to the UK's future energy system."*

8.4 Sizewell C Project need

8.4.1 The need for the Sizewell C Project, therefore, can be summarised as the urgent need for new nuclear power to help meet the UK's requirement for new low carbon energy generation. This need is imperative and overriding.

9. Conclusion: IROPI

9.1.1 This report sets out SZC Co.'s IROPI case for the Sizewell C Project in accordance with the requirements of the Habitats Regulations (Ref. 1.1).

9.1.2 This assessment draws from and relies upon the IROPI assessment undertaken by the Government to demonstrate the imperative reasons of over-riding public interest for the designation of the nuclear NPS, including the identification of Sizewell C as a potentially suitable site for new nuclear generation.

9.1.3 The Sizewell C Project is demonstrably:

- **Imperative** - it is both essential and urgent that it proceeds. This report demonstrates that all of the factors relied upon by the Government in its own assessment of IROPI for new nuclear generation remain relevant today but are reinforced by a number of factors, including the fact that new power stations have not been developed as quickly as anticipated and that the Government has since committed to more stringent carbon reduction targets. The importance and urgency of the need for new nuclear power generation remains up to date and is evidenced in this report by reference to the following:
 - the demand for electricity in the UK continues to grow (with a 20% increase in demand forecast by 2035 (Ref. 5.2)), despite energy conservation and efficiency; while significant electricity capacity is set to be retired by 2035.
 - consequently, there will be a generation shortfall which will amount to an estimated 95GW by 2035 (Ref. 1.7).
 - the required scale of nuclear new build has been confirmed by a number of sources, including the Energy Research Partnership, which has shown that 20GW–25GW is required, even if the National Renewable Energy Action Plan target for wind is met (Ref. 7.3).
 - under the Climate Change Act 2008, the UK committed to reducing its greenhouse gas emissions by at least 80% by 2050 relative to 1990 levels (Ref. 1.3). The Government's projections (Ref. 7.11) have shown that, without new nuclear power plants, the UK is expected to miss this 2050 emissions targets by up to 24%. The Government has since committed to a more stringent

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target of reducing emissions by at least 100% of 1990 levels (net zero) by 2050.

- continuity and reliability of supply – which nuclear energy delivers – are important considerations for energy security, which requires a diverse energy mix.
- the urgent need for new nuclear power stations in this mix was firmly established in NPS EN-1 (Ref. 1.6) and EN-6 (Ref. 7.2). The Government's continued commitment to nuclear energy is confirmed in the Clean Growth Strategy (October 2017) (Ref. 6.3), the Ministerial Statement of December 2017 (Ref. 1.4) and the Government's response to the consultation on the siting criteria and process for a new NPS for nuclear power beyond 2025 (Ref. 7.8).
- the Government proposes to carry forward the sites listed in NPS EN-6 (that are not yet developed, including Sizewell C) into the new NPS (Ref. 7.8) and has confirmed that the UK needs a strong pipeline of new nuclear power to contribute to the UK's energy system.
- there is an urgent need for new nuclear power in the UK, including at Sizewell.
- these matters are nationally important.
- **Overriding** - the national, regional and local interests served by the Sizewell C Project outweigh the harm (or risk of harm) to the integrity of the Minsmere-Walberswick SPA and Ramsar site identified in the Shadow HRA (Stage 2 Appropriate Assessment).

9.1.4

Of particular relevance when considering the risk of harm to the SPA and Ramsar site associated with the Sizewell C Project, is the fact that the conclusions of the Shadow HRA are made on a highly precautionary basis in a number of respects (i.e. the noise threshold at which marsh harrier may exhibit a disturbance response which could have an impact at a population level is precautionary, the predicted peak noise generation during the construction phase is precautionary, the duration over which peak noise emissions would occur and the zone of sensitivity to visual disturbance are also precautionary). Collectively, together with the fact that there is a lack of direct effect on the SPA and Ramsar site itself, these various elements of precaution lead to a highly precautionary prediction of the effect of the extent of potential foraging resource that could be 'lost' to marsh harriers.

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- **In the Public Interest** - the provision of nuclear generating capacity as part of the low carbon energy mix required by the UK clearly would be in the public interest. That is:
 - it would deliver up to 3.2GW of energy for the UK, enough to power around 6 million homes.
 - it can be delivered in a relatively short timeframe in the context of the clear and urgent need.
 - it would provide reliable baseload, low carbon energy, which would complement the development of renewable energy and play an important part in enabling the UK to meet its greenhouse gas emissions reduction commitments, with highly beneficial consequences of primary importance for the environment.
 - wider economic benefits would arise during construction and operation for Suffolk and the East Anglia Region.
 - the Assessment of Alternative Solutions undertaken concludes that there are no feasible 'alternative solutions' to the Sizewell C Project proposals and its predicted effects on the breeding marsh harrier population of the Minsmere-Walberswick SPA and Ramsar site.
 - the strategic case for a new nuclear power station at Sizewell has already been thoroughly assessed by the UK Government. The site at Sizewell was included within NPS EN-6 (Ref. 7.2) as a potentially suitable location for new nuclear power, having satisfied the Strategic Siting Assessment process. The Ministerial Statement on Energy Infrastructure (Written Statement December 2017) (Ref. 1.4) says that the Government continues to give its strong in principle support to proposals at those sites listed. The Government proposes to carry forward the sites listed in NPS EN-6 not yet developed (including Sizewell) into the new NPS (Refs. 7.7 and 7.8).

9.1.5 This report demonstrates that, in respect of the Sizewell C Project, there are imperative reasons of overriding public importance in favour of allowing the Sizewell C Project to proceed despite the precautionary assessment of potential harm to the Minsmere - Walberswick SPA and Ramsar site. The Sizewell C Project would deliver social and economic benefits UK-wide and support good human health and public safety through the provision of baseload electricity. It would have a vital role in the provision of safe and

secure low-carbon electricity supplies for which there is a nationally recognised and urgent need with far reaching environmental benefits.

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