

The Sizewell C Project

9.52 Written Submissions Responding to Actions Arising from ISH5: Landscape and Visual Impact and Design (13 July 2021)

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APPENDICES

Appendix A: New Nuclear: Need and Urgency

Appendix B: High Court Judgment - Girling v East Suffolk Council [2020] EWHC 2579

(Admin)

Appendix C: Concrete Note

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Appendix D: Northern Borrow Pit Summary



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1 ISSUE SPECIFIC HEARING 5: LANDSCAPE AND VISUAL IMPACT AND DESIGN

1.1 Introduction

- 1.1.1 This document contains the Applicant's written submissions responding to actions arising from Issue Specific Hearing 5 (ISH5) on Landscape and Visual Impact and Design held on 13 July 2021.
- 1.1.2 This document corresponds to the Applicant's **Written Summaries of Oral Submissions made at ISH5** (Doc Ref. 9.52) submitted at Deadline 5.
- 1.2 The Urgent Need for the Sizewell C Project
- 1.2.1 Issues relating to need and urgency are addressed in the **Planning Statement** [APP-590] and the **Planning Statement Update** [REP2-043]. The issues arose again at the Hearing in the context of the strength of the need case, whether it was genuinely urgent and whether alternatives should be considered. As committed at the Hearing, SZC co. has prepared a summary note on Need and Urgency, which forms **Appendix A** to this submission.
- 1.3 Girling v East Suffolk Council
- 1.3.1 As requested, a copy of the High Court 's Judgment in the case of *Girling v East Suffolk Council* [2020] EWHC 2579 (Admin) is provided at **Appendix B**. This case examines the concept of exceptional circumstances in the context of AONB policy. The key points of relevance are to be found in paragraphs 29 to 30 of the Judgment:



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- the matter is left to the judgement of the decision-maker in all circumstances of the case;
- under AONB policy there is no notion of harm simply through development being treated as inappropriate in policy terms (unlike in the context of development in the Green Belt);
- c) instead, the issue is what harm to the AONB would actually be caused by the development in the location proposed; and
- d) AONB policy is also different from Green Belt policy in that:
- i. it explicitly requires consideration of whether the development would be in the public interest; and
- ii. it sets out some of the factors which should be addressed, where relevant, in the assessment of whether "exceptional circumstances" exist.
- 1.4 Policy Context of SZC designation regarding one vs two reactors
- 1.4.1 SZC Co.'s oral submissions on the policy context of the Sizewell C designation, including the assessment of one vs two reactors, is contained in the Applicant's **Written Summaries of Oral Submissions made at ISH5** (Doc Ref. 9.45) submitted at Deadline 5.
- 1.5 Additional Construction Period Visualisations
- 1.5.1 SZC Co. notes that ESC and SCC agree with SZC Co. that the parameters-based construction phase photowire visualisations produced to-date are appropriate to inform the LVIA and that the HPC report and photographs are helpful in understanding that nature of construction phase activity and plant that can reasonably be anticipated to be present at or near peak construction activity at SZC.
- 1.5.2 SZC Co. further notes that other Interested Parties, including the Suffolk Coast and Heaths AONB Partnership and the National Trust, have requested visualisations of construction phase activity (both during the day and at night) to illustrate the nature of views from specific locations in order to inform a better appreciation of the landscape and visual effects of the construction phase amongst non-technical audiences.
- 1.5.3 SZC Co. has given careful consideration to this request and proposes to produce illustrative day and night-time photomontage visualisations from the following Representative Viewpoints:

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- Representative Viewpoint 9: Sizewell Gap south of Greater Gabbard sub-station
- Representative Viewpoint 10: Suffolk Coast Path and Sandlings Walk east of Hill Wood
- Representative Viewpoint 14: Suffolk Coast Path at Minsmere Sluice
- Representative Viewpoint 17: National Trust Dunwich Coastguard Cottages
- 1.5.4 It is considered that these viewpoints, located at different distances and at different orientations to the main development site, represent the most visited publicly accessible locations from where the visual impacts of the construction phase would be experienced. From a practical perspective SZC Co. is also confident that the information needed to generate the visualisations in the field of view from these locations is available and that credible visualisations can be produced.
- 1.5.5 SZC Co. propose that the visualisations would be illustrative of the worst-case construction scenario, with all areas of the site active concurrently, and with for example the maximum number of cranes and other larger pieces of plant illustrated, up to the exceptional height parameters described.
- 1.5.6 SZC Co. will record the methodology for the production of the visualisations and highlight relevant limitations and assumptions made in their production, similar to information recorded in the Wylfa Newydd Nuclear Power Station visualisations document (see Wylfa Newydd Nuclear Power Station Examination Library [REP6-019].
- 1.5.7 The visualisations and supporting technical report will be submitted at Deadline 8.
- 1.6 Application Document Cover Sheet Context
- 1.6.1 The image shown on the front cover of the of the DCO Application documents is an illustrative aerial view of the Sizewell power station site approximately 15 years post operation. It shows the layout of the power station within the context of the existing built environment, the proposed restored EDF Energy Estate and adjoining lance parcels.



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1.7 Outage Car Parks: alternatives

- 1.7.1 The ExA referred to Paragraph 6.3.14 of ES, Volume 2, Chapter 6 [APP-190]. This refers to the Sizewell B outage car park. SZC Co. has subsequently confirmed that early consideration of an off-site park and ride as an alternative to Pillbox Field for the Sizewell B outage car park did take place. However the possibility of using such an approach was discounted because of the significant logistical difficulties to which this would give rise, resulting in unacceptable delays and a failure to minimise safety risk. No potential off-site location was identified. The outage car park for 576 spaces at Pillbox Field (comprising hardstanding as opposed to grass-crete at approved Sizewell C) has been under planning permission DC/19/1637/FUL.
- 1.7.2 No off-site alternative location to the Sizewell C outage car park has been identified by Interested Parties and no reasonable alternatives exist, for the principal reasons set out below.
 - There is no reasonable alternative location that is within walking distance of Sizewell C and its secure entrance into the power station site over the SSSI Crosssing.
 - A large number of buses would need to be available at the same time to support staff movement. The alternative suggestion by SCC would therefore require substantial development in the AONB. An off-site Sizewell C facility would still require development at Goose Hill: sheltered bus stops sufficient to provide shelter for the significant number of outage workers who would need to be transported to and from the sie by bus; a bus terminus area; potentially a welfare/amenity building; and provision of outage van parking for those that cannot feasibly carry equipment on a bus.
 - Outages typically run on an hour-by-hour timescale and so having a
 workforce that could be delayed from reaching site through waiting
 for buses could significantly impact a return to service timescale and
 prolong outages, resulting in higher costs to the consumer.
 - As set out in SZC Co.'s Response to First Written Questions
 LI.1.45 [REP2-100] the outage car park is part of the critical
 infrastructure required to operate and maintain the power station,
 therefore the adjacency of the outage facility to the power station is
 fundamental to the confidence which is necessary to delivering
 planned and unplanned maintenance without compromising the
 safety and efficiency of operation.

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- A forced outage is typically due to a breakdown. They are unplanned by nature and an emergency shutdown of all/part of the nuclear plant is required to ensure no increased safety risk. In that scenario it is inconceivable that a new nuclear power station would be planned on the basis that it would have to rely upon there happening to be outage car parking spaces available at Sizewell B when they are needed. On the balance of probability, there would be a clash on at least one in every 5 forced outages on any reactor if there was a single outage car park (further details on this are set out below).
- 1.8 Outage Car Parks: environmental assessment of a clash
 - a) Socio-economic
- 1.8.2 The combined effect of Sizewell B outages and Sizewell C outages were not assessed as part of the Socio-economic assessment at **Volume 2**, **Chapter 9** of the **ES** [APP-195]. Sizewell B outages have been occurring for decades and are considered part of the baseline.
- 1.8.3 The likelihood of two or three outages occurring simultaneously, and causing a significant effect, is considered low, although it cannot be ruled out – planned outages for SZB and SZC outages will not be undertaken concurrently - and they will be planned to predominantly occur outside of the peak tourist season. Since around 63% of the non-home-based (NHB) outage workforce use tourist accommodation (see Volume 2, Chapter 9, paragraph 9.7.261 of the ES [APP-195], during this time occupancy rates for tourist sector accommodation are well below the peak, meaning substantially more local accommodation is available (see Volume 2, Chapter 9, of the ES para 9.5.52 [APP-195]. For example, March has 10% more rooms and beds available than the peak (approx. 2,600 rooms across the 60 minute zone). In addition, outage workers will demand different types of accommodation – they can receive higher subsistence rates so some of the accommodation that is assumed to be unaffordable to SZC workers (and therefore not included in the main assessment) will be affordable to them.
- 1.8.4 Most NHB outage workers share accommodation further reducing the potential for impacts the main assessment at Volume 2, Chapter 9 of the ES [APP-195] is based on room occupancy which is highest in the summer (85%) whereas bed occupancy at that point is only 62%.
- 1.8.5 Sizewell C outages will only begin after the construction phase. Given that the **draft Deed of Obligation** (Schedule 3) (Doc Ref 8.17(E)) requires reasonable endeavours for the Housing Fund to have provided c. 1,000

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bedspaces in the first six years of construction (i.e. pre-peak), to mitigate the peak NHB construction workforce for Sizewell C, who will not be in the area at the time of the first Sizewell C outage, it is reasonable to consider that the area would retain a residual stock of higher quality bedspaces than a regular outage workforce could use. Given that this is additional to the pre-existing SZB outage workforce (included in the baseline), the effects of a double outage could be easily accommodated.

1.8.6 The prospect of three outages every 18 months actually has positive socio-economic effects, whether they overlap or not. SZC Co and the Councils recognise the socio-economic benefit of this (outages every 6 months) for workforce skills development, spending and supply chains – there is an opportunity for a permanent, high skilled resident workforce – as identified in the Councils Joint Local Impact Report [REP1-045 at paragraphs 25.18 and 29.52. As a consequence, NHB elements of future outages would be much lower than current outages.

b) Transport

- 1.8.7 With regards to forecasting demand generated by projects or schemes, paragraphs 2.2.8 and 2.2.9 of TAG Unit 1 on Principles of Modelling and Forecasting states:
 - "The main basis for appraisal of major transport schemes should be the core scenario, based on unbiased and realistic assumptions.
 TAG Unit M4 – Forecasting and Uncertainty gives guidance about preparing this scenario.
 - Forecasts are, by nature, uncertain. Even when using unbiased assumptions (as in the core scenario) there is no guarantee that the outturn result of the implementing the scheme will match the forecast. It is also not sufficient to use a "worst case scenario", or a lower or upper bound, as there are risks associated with both lower and higher levels of demand or supply than forecast."
- 1.8.8 Paragraph 5.3.2 goes on to state:
 - "Transport schemes often have both positive and negative impacts, both of which are usually augmented as demand for the transport schemes increase. It is therefore not possible to create a universal "worst-case" scenario that takes into account all risks. Instead, the primary basis of evidence should be the core scenario, which should be developed using unbiased and realistic assumptions."
- 1.8.9 The **Consolidated Transport Assessment** [REP4-005] seeks to assess a core scenario for the Sizewell C Project for different stages of the project.



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The assessment includes a reasonable level of robustness but, in accordance with WebTAG guidance, does not seek to create a 'universal worst-case scenario that takes into account all risks'.

- 1.8.10 An outage at Sizewell B has been included in the Reference Case traffic flows for the early years, peak construction and operational year scenarios. This is considered to be robust given than a planned outage at Sizewell B only occurs circa 11% of the time.
- 1.8.11 A scenario of an outage at Sizewell B and C occurring concurrently during the 2034 operational scenario has not been assessed as the outages would be planned to not coincide. The **Consolidated Transport Assessment** [REP4-005] was scoped with Suffolk County Council as the local highway authority and an assessment of an unplanned outage with a planned outage was not required by SCC. In any event, of course, the scale of traffic generated by coincident outages would be significantly less than the peak construction impacts which have already been assessed.

1.9 Pylons

Option Export Connection Options summary

- 1.9.1 A full explanation of the option evaluation process for the power export connections is given in the **Technical Recommendation Report**, which was presented in **Appendix 5E** of SZC Co's **Response** to **ExQ1s** [REP2-108]. Responses to the questions raised specifically on the potential suitability of Gas Insulated Lines (GIL) are detailed in SZC Co's response to ExQ1 LI.1.50 at Deadline 3 [REP3-046].
- 1.9.2 GIL was considered in detail as an alternative to pylons and overhead lines within the Sizewell C site, but would not be a feasible technical solution for this situation due to unacceptable impacts on the operability and security of the site. The security issue relates specifically to the sterile zone which runs around the perimeter of the site inside the fence. GIL could not be installed along this sterile zone either above ground or below ground without compromising its security functions. These are described in detail in the Technical Recommendation Report (section 4.3.3).
- 1.9.3 The potential to employ a "hybrid" solution by combining overground and underground installation techniques for GIL was also considered. This does not make the option more feasible, as the GIL would always need to traverse parts of the site where both overground and underground constraints prohibit installation without unacceptable impacts on operations or security.



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- 1.9.4 The insulating gas traditionally used in GIL (sulphur hexafluoride) is a very damaging greenhouse gas, but alternatives are now coming onto the market which are more environmentally friendly. However, these alternative gases would not make GIL more acceptable at Sizewell C, as the choice of insulating gas does not materially influence the option evaluation for the power export connections.
- 1.9.5 SZC Co.'s landscape consultants were involved in supporting the selection of the pylon proposals having regard to AONB and LVIA matters,
- 1.9.6 Pylons are an existing feature of the AONB landscape. The proposed pylons are within the Sizewell C platform and are not part of the wider grid connection.
- 1.9.7 With reference to Natural England's comments (Nature England's Written Representations at Deadline 2 [REP2-153]) regarding the clean lines and simple forms of the main buildings being 'marred' by the need for pylons and overhead cables, it should be noted that the pylons are sited to the rear of the turbine hall structures in coastal views and as such the main axial alignment and dominance of the main structures is retained. Accepting that the overall impact assessment has significant effects, it is important to note that SZC alters views of the existing infrastructure for example, from the north along coastline at VP17 screening existing pylons and cables. Environmental Statement Volume 2, Figure 13.10.66 and 13.10.67 [APP-223].
- 1.9.8 The pylons proposed to be built within the footprint of the Sizewell C operational site differ slightly in design to those present at Sizewell due to differences in how the conductors are arranged. Both types are steel lattice towers, but the existing pylons are each required to carry two electrical circuits (each circuit consisting of three conductor bundles, held in a vertical formation down each side of the pylon). The proposed pylons are each required to carry just one electrical circuit (consisting of three conductor bundles, held in a horizontal formation). The proposed pylons are the standard solution for a single circuit connection, and the horizontal configuration of the conductors allows the overall height of the pylons to be minimised.

<u>Differences between SZC Co. and SCC on pylons</u>

1.9.9 Detailed discussions between SZC Co. and SCC throughout the presubmission and pre-examination period have facilitated agreement that several potential alternatives to pylons are clearly unsuitable for the Sizewell C site. In particular, SCC agrees in its **Written Representation** at Deadline 2 [REP2-189] that underground cables are not an appropriate solution for the power export connection in any form (Appendix 4d,

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paragraph 7, table row 8), and that accommodating GIL in underground galleries (i.e. tunnels) would be unfeasible (Appendix 4d, paragraph 7, table row 17)).

- 1.9.10 SCC has challenged the position taken by SZC Co. that the only solution for the power export connection is by means of overhead cables and pylons, and submits that this could instead be achieved by some combination of above-ground and below-ground GIL installation to connect the turbine halls to the National Grid substation. SZC Co. considered this option and provided full details of why this would not be an acceptable solution for the Sizewell C site in the Technical Recommendation Report, which was presented in **Appendix 5E of** SZC Co's **Response** to **ExQ1** [REP2-108].
- 1.9.11 A full response to the outstanding questions raised by SCC on the content of the Technical Recommendation Report is provided in SZC Co's response to ExQ1 LI.1.50 at Deadline 3 [REP3-046].
- 1.10 Heritage Assessment of Coastguard Cottages
- 1.10.1 ESC has accepted SZC Co.'s valuation of the Coastguard Cottages in Volume 2, Chapter 16 of the ES [APP-272] as a heritage asset of medium significance in the Local Impact Report; National Trust (NT) and the AONB Partnership follow ESC in setting out their disagreement with the assessment of the magnitude of effect. Therefore, SZC Co. understands that this valuation is common ground and any challenge is to the assessment of the magnitude of effect. It is also common ground that the proposed development would appear with varying degrees of prominence over the course of its construction and operation.
- 1.10.2 It is very clear that issues raised by ESC, the AONB and NT all focus on the valued views from Coastguard Cottages; this was explicit in the AONB Partnership's evidence, where the view from Coastguard cottages was described as an iconic view from the AONB (06:59-08.02 EV-115/EV-120). It is common ground between all parties that this effect has been appropriately considered and accurately assessed in the LVIA assessment set out in the ES. Similarly, ESC's position in the LIR rests on the visual effect undermining the 'undeveloped' nature of the area [REP1-045], a view which is followed by NT in their response to ExQ1 HE.1.18, HE.1.19 and HE.1.20 [REP2-149].
- 1.10.3 In effect, the AONB partnership, ESC and NT have equated a visual change in the setting of the asset without considering how that change would affect the asset's heritage significance, which is a critical stage (Step 3) of the 5-



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step assessment process defined in GPA3¹. This approach is inappropriate and has resulted in a significant overstatement of the effects of the scheme.

1.10.4 SZC Co's understanding of the significance of the asset and the contribution of its setting is clearly set out in **Volume 2**, **Chapter 16 of the ES** (16.4.141-16.4.143) [APP-272], and the effect considered in terms of how the heritage interests of the asset would be affected. This understanding has been expanded upon in the response to the Local Impact Report [REP3-044] and the Examining Authorities First Written Questions [REP2-100] and unlike the consultee responses, addresses the influence of the increased visibility of electricity generation and transmission infrastructure in the view south from Coastguard Cottages on how this asset is valued for the heritage interests defined in NPS.

1.11 Maintenance of the Concrete Dome

1.11.1 It was noted at the Hearing that some additional information be provided on the description of the concrete and how it is maintained. A note is provided at **Appendix C** of this document.

1.12 Colour Considerations and Finishes

1.12.1 An external stakeholder meeting was conducted in June 2019 to explain the colour choices adopted to be brought forward in the DCO submission.

Turbine Halls / OSC / Sky bridges

- 1.12.2 Material choice was discussed and the requirements to have long lasting durable materials.
- 1.12.3 Anodised aluminium selected due to its proven longevity in coastal environments.
- 1.12.4 The Architecture and Landscape teams used the Sizewell AONB "Guidance on the selection and use of colour" document to aid the colour selection of for the cladding for all buildings. From this guidance document the "Sand dunes and shingle ridges" colour palette was used to inform the appropriate anodised aluminium colour palette with specialist advice from Jem Waygood the original author of that study to inform the colour selection. The approach to colour is detailed in the **Design and Access Statement: Section 6** Site Response Delivering Good Design and **Section 7** Building Proposals Main Platform (Doc Ref. 8.1(A)).

¹ Historic England 2017 Good Practice Advice in Planning 3: The Setting of Heritage Assets (GPA3) 2nd Edition https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/



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1.12.5 Bronze anodised aluminium was selected through a rigorous process of testing samples on site as recorded in the **Design and Access Statement** (Doc Ref. 8.1(A)).

Concrete buildings (including reactor domes)

- 1.12.6 Colour of Concrete is Influenced by finer particles, grey colour primarily from iron content.
- 1.12.7 Addition of colour pigments is not recommended by the concrete specialists CIEDRE/TEGG who analysed the impacts of pigments on the strength of the concrete and concluded that that there would be an adverse effect in the structures
- 1.12.8 Other options were considered including white Portland cement to achieve light/whiter grey colours, this can result in high levels of heat from hydration, which can lead to cracking and defects.
- 1.12.9 CEIDRE/TEGG advise that given the extent of concrete work across the development it would be very difficult to achieve an absolute uniform colour with additives and pigments.
- 1.12.10 In addition to the concrete colour options, consideration was given to colour of the proposed ventilation stack which is anchored to the roof of the fuel building adjacent to the reactor domes. It was and it was concluded that these should be painted a similar grey to the concrete of the domes to reduce their visual impact.
- 1.13 Night-time Lighting Effects
- 1.13.1 Please refer to **section 1.4** for further detail regarding night-time lighting effects.
- 1.14 Design and Location of the Beach Landing Facilities
- 1.14.1 A query was raised at the hearing with regards to why the temporary and permanent BLFs could not be brought closer together. There needs to be sufficient navigation clearance for the loaded Thames barge and a tug to navigate across the sand bar and into the BLF. The separation distance between the temporary BLF and the permanent BLF centreline to centreline is 158m.
- 1.14.2 A Thames barge could be up to 100m in length. The generally accepted "rule of thumb" is that a navigation width or turning circle of 1.5 x ship length should be provided. This gives us a minimum separation distance of approximately 150m.

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1.14.3 It was also queried at the hearing whether an assessment has been made on the vehicle numbers in the AONB linked to the temporary BLF. The import of bulk materials via the temporary BLF results in substantially less traffic arriving from the A12 and travelling into the site through the AONB than would otherwise have occurred in the absence of the temporary BLF. There are small increases in traffic due to construction and decommissioning of the temporary beach landing facility itself, but it is considered that these are outweighed by the benefits achieved.

1.15 Navigational Lighting

- 1.15.1 Full details of navigation lighting for the enhanced permanent BLF and proposed temporary BLF are subject to discussions with Trinity House. However, in the assessment of landscape and visual effects that has undertaken of the proposed development, consideration has been given to navigational lighting to and in the vicinity of the beach permanent beach landing facility and temporary beach landing facility.
- 1.15.2 The assessment of night-time effects presented in Appendix 13B of Volume 2, Chapter 13 of the ES [APP-216] includes consideration of point source lights during the operation of the beach landing facility. Whilst this does not overtly reference navigation lighting, this was intended to be covered as part of the consideration of point source lighting.
- 1.15.3 **Volume 1, Chapter 2** of the **ES Addendum** [AS-181] records that the enhanced permanent beach landing facility would occasionally operate at night and lighting may be required for safety reasons during its operation. The assessment makes no specific reference to navigation lighting. However, the assessment considered that some form of navigational lighting would be necessary to mark the location of the structure in the marine environment.
- 1.15.4 **Volume 1, Chapter 2** of the **ES Addendum** [AS-181] notes that the temporary BLF would be able to operate at night and as such views would be possible to standard navigation lighting on mooring dolphins and on nearby navigation markers and buoys.

1.16 Alternative Reactor Design

1.16.1 The applicant has had regard to the statutory purposes of the AONB and given substantial weight to the conservation of natural beauty of the landscape and countryside in designing the Sizewell C Project, in accordance with Paragraph 5.9.9 on NPS EN-1. This is evidenced in the Written Summary of Oral Submissions for ISH5 submitted at Deadline 5.

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- 1.16.2 The type of reactor has a direct effect on the reactor buildings and their domes. It is not the reactor design itself that can impact on the AONB, but the effect it has on these buildings.
- 1.16.3 Mr Kratt set out in his oral submission that the white Sizewell B reactor dome is the design focus of the power station and the many ancillary buildings present are less memorable. Sizewell C is designed differently and it is the Turbine Halls that are the focal point of the design. The Sizewell C reactor buildings and domes are physically set back much further from the beach than the Sizewell B dome and are recessive in colour and tone.
- 1.16.4 The two orthogonal forms of the turbine halls will fall within the primary line of sight along the coast in direct alignment with the dome of Sizewell B. These prominent geometric forms of the coastal foreground are deliberately emphasised in contrast to the reactor domes. This is illustrated in **Figures 7.2 and 7.52** of the **Design and Access Statement** (Doc Ref. 8.1(A)). The turbine halls have been deliberately and sensitively designed to be the focal point of Sizewell C.
- 1.16.5 The reactor domes, and the rest of the nuclear island, are subject to the UK EPRTM Generic Design Assessment (GDA) and must fully comply with the approved safety requirements.
- 1.16.6 The GDA process requires companies to submit information on their reactor designs to the UK's Nuclear Regulators, who assess this information before a full application is made to build a nuclear power station at a particular site. The process involves a rigorous and structured examination of detailed design information by the regulators. At the end of their assessment (and at key stages during it), the regulators will issue reports on their findings, confirming whether they judge a design to be satisfactory.
- 1.16.7 The reactor buildings and their domes are fixed in design terms. The buildings have specialist structural requirements and the form of each element is driven by its function in accordance with the approved safety requirements.
- 1.16.8 Paragraph 5.9.10 of NPS EN-1 requires the decision maker to take account of Section 4 of EN-1 when considering alternatives. Paragraph 4.4.3 of Section 4 is clear that:
 - for an alternative to be relevant it would need to have "a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development".



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- "Alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the IPC's decision."
- "where an alternative is first put forward by a third party after an application has been made, the IPC may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the IPC should not necessarily expect the applicant to have assessed it."
- 1.16.9 An alternative reactor building and dome design would require a new application for development consent and, depending on the type of reactor design, potentially a new GDA process. It would not therefore deliver the same infrastructure capacity in the same timescale as the proposed development and would have major commercial implications.
- 1.16.10 The proposal put forward by Together Against Sizewell C was vague and inchoate and no details have been put forward by the Interested Party to evidence the suitability of an alternative design in a manner that delivers the same infrastructure capacity in the same timescale as the proposed development.
- 1.16.11 In the circumstances, the suggestion that an alternative based on a different reactor technology should be treated as an important and relevant consideration is not appropriate. There is no legal or policy obligation to consider such an alternative, and in any event it is one to which no significant weight could reasonably be given having regard to the principles set out in section 4.4 of EN-1.

1.17 Coastal Defences - Sheet Piling

1.17.1 At the Hearing the height of the sheet piling was confirmed at 7.3m AOD and a request was made to confirm the length, following discussions about the reduction of its length. In the previous details provided the temporary sea defence sheet piling had an overall length was 1,233m and within the revised proposed temporary sea defence it has been reduced to an overall length is 788.m.

1.18 Borrow Pits

1.18.1 A note has been prepared to provide Mr and Mrs Dowley will additional information regarding the borrow pits with regards to the nature of the work and what would be left after construction. A note is provided at **Appendix D** of this document.



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1.19 Definition of Unit 1

1.19.1 At the Hearing the wording of Requirement 14 (Main development site: landscape works) was discussed and a request was made to amended the requirement to clarify that the landscape works would be approved by either Unit 1 or Unit 2 entering operation, whichever the sooner. Unit 1 and 2 has also been defined by making reference to the Work No. to which they relate, Work No. 1A(a).

1.20 Requirements 22A and 24 of the draft DCO

- 1.20.1 It was confirmed at the Hearing that Requirement 22A would be amended so that a detailed landscape scheme would be submitted to and approved by ESC before the relevant works would commence. This would secure the detailed design of the landscape of the two village bypass and the Sizewell link road, along with the implementation of the measures set out in the Sizewell link road Landscape and Ecology Management Plan and the two village bypass Landscape and Ecology Management Plan, submitted as part of Deadline 5.
- 1.20.2 Requirement 24 (Associated development sites: removal and reinstatement) has been updated to require a land restoration scheme to be submitted to and approved by ESC and for the restoration works to be carried out in accordance with those approved details.



SIZEWELL C PROJECT

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APPENDIX A: NEW NUCLEAR NEED AND URGENCY



New Nuclear: Need and Urgency

Introduction

- The established need for new nuclear power generation and the urgency of that need is a central consideration in the determination of the application for the Sizewell C DCO. It is already extensively explained in Chapter 3 of the Planning Statement [APP-590] and in the Planning Statement Update [REP2-043]. This note does not seek to repeat that analysis or to set out lengthy extracts from national policy. Its purpose is to explain and support the emphasis given in the Issue Specific Hearings to the exceptional nature of the need, the urgency of that need and the weight to be given to those issues. These matters have importance in their own right but they were specifically discussed in relation to:
 - matters (including suggestions for restrictions on phasing of the authorised development) which would result in delay to the delivery of the project; and
 - the weight to be given to questions of need where a planning balance has
 to be struck, for example, in relation to considering exceptional
 circumstances and weighing questions of need against impacts in the
 AONB, or elsewhere.

Need identified in the NPS

- The emphasis given to the need for new low carbon electricity generation, including new nuclear in the NPS, and the particular urgency of that need, is unusual, possibly un-precedented. It is not normal for national policy to emphasise repeatedly that any particular need is "urgent" or that the scale of the need may justify impacts which would not otherwise normally be acceptable.
- 3. The way in which the need for new nuclear generation affects policies relating to landscape and visual impact, for example, is dealt with in the Written Summaries of SZC Co.'s Oral Submissions arising at ISH5 (Doc. Ref 9.45).
- 4. At the risk of potentially under-stating the extent to which the urgent need for new nuclear generation is stated within the NPS, these matters can be summarised under a few short headings.

Need is established:

5. NPS EN-1 and EN-6 are clear that the need for new energy infrastructure, including the need for new nuclear generation has been established and the application should be examined on that basis (NPS EN-1 paragraphs 3.1.3 and EN-6 paragraph 2.2.1).



EN-1 explains at paragraph 4.1.2 that the reason the decision maker should start with a presumption in favour of granting consent to applications for energy NSIPs is "the level and urgency of need for infrastructure of the types covered in the energy NPSs".

Substantial weight:

- 6. NPS EN-1 states that substantial weight should be given to the contribution which projects would make to satisfying this need when considering applications for development consent (EN-1 paragraph 3.1.4). The decision maker should give substantial weight to considerations of need and the weight which is attributed to considerations of need in any given case should be proportionate to the anticipated extent of the project's actual contribution to satisfying the need for a particular type of infrastructure (EN-1 paragraph 3.2.3). The application of this policy is further addressed in the **Planning Statement Update** [REP2-043] at paragraphs 3.1.19 to 3.1.21 in light of the Court of Appeal's judgment in the *Drax* case.
- 7. The reasons why the Government believes there is an urgent need for new electricity NSIPs are set out following paragraph 3.3.1 of EN-1 and they include:
 - the need to meet forecast demand. In this context, NPS EN-1 states (at paragraph 3.2.1) that "it is difficult to over-estimate the extent to which our quality of life is dependent on adequate energy supplies";
 - the need to replace closing electricity capacity;
 - the need to achieve energy diversity and security; and
 - the need to de-carbonise the economy.
- 8. New nuclear has a particular role to play.
- 9. NPS EN-1 makes clear that there is an urgent need for new (and particularly low carbon) energy NSIPs to be brought forward "as soon as possible" (paragraph 3.3.15). In this context, NPS EN-1 explains the role of nuclear electricity generation in Section 3.5, including the urgency of the need for new nuclear power (at paragraphs 3.5.9 and 3.5.10).
- 10. Nuclear power "is a low carbon, proven technology, which is anticipated to play an increasingly important role as we move to diversify and de-carbonise our sources of electricity." (EN-1 paragraph 3.5.1). New nuclear power, therefore, forms "one of the three key elements of the Government's strategy" for moving towards a de-carbonised diverse electricity sector by 2050 (with the others being renewable energy and CCS EN-1 paragraph 3.5.6).



11. In this context, new nuclear should "start generating as soon as possible" (paragraph 3.5.9) because new nuclear "will play a vital important role in the de-carbonisation of the electricity system." (paragraph 3.5.10).1

New nuclear should contribute as much as possible:

- 12. As a result of the above, the NPS is clear that it sets no targets or limits for the amount of generation from different technologies (EN-1 paragraph 3.1.2) and that new nuclear should be free to contribute as much as possible to meeting the need (EN-1 paragraphs 3.3.22, 3.5.2 and Annex A paragraph 4.1).
- 13. Eight sites are listed as potentially suitable for new nuclear power stations but the sites are not alternatives to each other (Annex A, paragraph 4.6) and EN-1 paragraph 3.5.2 makes clear:

"It is Government policy that new nuclear power should be able to contribute as much as possible to the UK's need for new capacity. Although it is not possible to predict whether or not there will be a reactor or more than one reactor at each of the eight sites included in EN-6, a single reactor at each of the eight sites would result in 10-14 GW of nuclear capacity, depending on the reactor technology chosen."

14. Annex A to NPS EN-6 explains why there are Imperative Reasons of Over Riding Public Interest (IROPI) for new electricity generation (paragraph 2.12), for new nuclear generation (paragraph 3.7) and for the eight sites listed in NPS EN-6. In this context, paragraph 4.7 explains:

"Enabling the (decision maker) to permit the development of nuclear power stations on any or all of the eight sites is considered necessary to achieve our objective of ensuring security of electricity supply while minimising carbon emissions."

15. Paragraph 8.57 of Annex C to NPS EN-6 confirms that the principle of IROPI extends to Sizewell C.

Urgency

16. The sites listed in EN-6 as potentially suitable for new nuclear power stations are sites which the Government considered to be capable of deployment by the end of 2025. It is apparent, however, that the failure to deploy by 2025 does not negate policy support, it increases it. The delays in deploying the

¹ These paragraphs include an expectation that new nuclear generation will start by 2025 – see further in this note from paragraph 17.



new nuclear power stations that are needed have added to the urgency with which deployment should now take place.

- 17. NPS EN-6 is clear that deployment should take place "as soon as possible" and sets out the Government's belief that new nuclear power stations need to be developed significantly earlier than the end of 2025 (paragraph 2.2.2) with increased weight being given to any proposals than can deploy sooner (paragraph 2.2.4). In other words, the urgency is absolute and not conditional on a particular date being met.
- 18. This was made clear in the Government's 2017 Ministerial Statement (Ref HLWS316) which explained that:

"Government is confident that both EN-1 and EN-6 incorporate information, assessments and statements which will continue to be important and relevant for projects which deploy after 2025, including statements concerning the need for nuclear power..."

19. The Statement also confirmed that:

"The new NPS, once designated will 'have effect' for the purposes of Section 104 of the Act for development which forms part of a project able to demonstrate expected deployment after 2025 and before the end of 2035."

- 20. In its 'Response to consultation on the siting criteria and process for a new National Policy Statement' in July 2018 (Ref 1.69) the Government confirmed its view 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 station by 2035."
- 21. As explained in the Issue Specific Hearings, the Government's indication that the new National Policy Statement will only have effect for sites assessed as being capable of deployment by 2035 is of considerable significance. The stated intention to identify 2035 as a 'cut-off' date for the applicability of the new National Policy Statement necessarily reflects the importance that the Government attaches to the public interest benefits of deployment of new nuclear power stations by at least that date, and the development of those sites which can "deploy the soonest".
- 22. The background to the established importance of 2035 is explained in the **Planning Statement Update** [REP 2-043] at paragraph 2.1.24 which reports that the "Balanced Net Zero Pathway" identified as a central scenario in the Sixth Carbon Budget published by the Committee on Climate Chante in December 2020 now assumes that it will be necessary for the power sector to reach zero emissions by 2035, thereby de-carbonising electricity generation



entirely. Similarly, 2035 is treated as an important milestone towards 2050 in the Energy White Paper (Ref 1.71), and that from that date, electricity will need to become an increasing source of supply for sectors of the economy previously dependent on fossil fuels (Energy White Paper Fig 3.2).

- 23. The **Planning Statement Update** identifies that the CCC's Balanced Net Zero Pathway would require nuclear power to be restored to current levels by 2035 though the construction of 8GW of new build nuclear reactors (providing a total capacity of 10GW at 2035)². This is consistent with the BEIS modelling published alongside the Energy White Paper which identifies two "net zero scenarios" which would also require new build nuclear to replace retiring capacity by 2035 (**Planning Statement Update** paragraph 2.1.25 and Appendix A paragraph A.1.24).
- 24. Whilst the expressions of urgency are absolute in the NPS, if anything, the urgency has increased since their publication, alongside the importance of the contribution that would be made by Sizewell C.
- 25. Annex A to NPS EN-6 (which explains why IROPI is established for new nuclear) reports that electricity demand could double by 2050 from then present levels (paragraph A.2.9) but that the need for low carbon energy by 2050 may be triple current capacity (A.2.10).
- 26. Since that time, forecast energy and electricity requirements have increased and the Energy White Paper (page 42) reports a forecast requirement to increase generation in the clean energy sector, including nuclear by four-fold.
- 27. The likelihood of deployment of new nuclear power generation at the other sites listed in NPS EN-6 by 2035 now falls to be considered having regard to the extent of progress, or otherwise, of plans for the development of those sites.
- 28. An aim and commitment of the Energy White Paper is to bring "at least one large-scale nuclear project to final investment decision by the end of this parliament" (Energy White Paper pages 16 and 48). As the Planning Statement Update [REP2-043] explained, the Government issued a press release at the same time as the Energy White Paper confirming the work that it is doing with EDF on funding and financing arrangements for Sizewell C. SZC Co. is not aware of similar discussions taking place in relation to any other large-scale new nuclear proposal at this time. Sizewell C is therefore unique in its ability to meet a critical component of the Government's energy and climate change strategy, with a consequence that paragraph 3.2.3 of NPS EN-1 should apply with particular force, i.e:

For the Sixth Carbon Budget CCC developed four 'exploratory' scenarios for reaching net zero emissions in different ways (including different levels of potential nuclear capacity). These were used to identify the Balanced Net Zero Pathway as a recommended pathway to reach net zero by 2050.





"The Decision Maker should therefore give substantial weight to considerations of need. The weight which is attributed to considerations of need in any given case should be proportionate to the anticipated extent of a project's actual contribution to satisfying the need for a particular type of infrastructure."

29. There can be no more important objective of government policy than achieving its commitment to net zero.



SIZEWELL C PROJECT

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APPENDIX B HIGH COURT JUDGMENT - GIRLING V EAST SUFFOLK COUNCIL [2020] EWHC 2579 (ADMIN)



[2020] EWHC 2579 (Admin)

Case No: CO/5052/2019

IN THE HIGH COURT OF JUSTICE QUEEN'S BENCH DIVISION PLANNING COURT

Royal Courts of Justice Strand, London, WC2A 2LL

Date: 01/10/2020

Parties

Before:

THE HON. MR JUSTICE HOLGATE

Between:

Joan Girling
- and East Suffolk Council
- and
(1) EDF Energy Nuclear Generation Limited

Claimant
Defendant
Interested

- and -

(2) NNB Generation Company (SZC) Limited

David Wolfe QC and Ashley Bowes (instructed by Leigh Day) for the Claimant Andrew Tait QC and Isabella Tafur (instructed by East Suffolk Council) for the Defendant Hereward Phillpot QC (instructed by Herbert Smith Freehills LLP) for the Interested Parties

Hearing date: 8 September 2020

Judgment Approved by the court for handing down

Covid-19 Protocol: This Judgment was handed down remotely by circulation to the parties' representatives by email and released to Bailii.

Mr Justice Holgate:

Introduction

- 1. The Sizewell B ("SZB") power station in Suffolk is expected to continue in operation until 2035. It may then be licensed to operate for a further 20 years. It currently generates about 3% of the UK's electricity. The adjacent Sizewell A ("SZA") station is in the process of being decommissioned.
- 2. For a number of years there have been proposals to develop a further nuclear power station, Sizewell C ("SZC"). At the time of the decision under challenge it was envisaged that, subject to obtaining all necessary consents, construction on this project would begin in 2022 and last for some 9 to 12 years. An application for a development consent order under the Planning Act 2008 ("PA 2008") for SZC was submitted to the Planning Inspectorate on 27 May 2020. On 24 June 2020 the Secretary of State accepted the application for examination. Once the Examining Authority makes its initial assessment of the principal issues arising on the application and holds a preliminary meeting in public under s. 88 of PA 2008, it will be under a duty to complete the examination process within 6 months of the date of that meeting and to make its report to the Secretary of State within a further 3 months (s.98). The Secretary of State must then determine the application within the following 3 months (s.107).
- 3. The SZC project would involve the use of land currently needed for the operation of SZB, namely a substantial outage store, laydown area and associated facilities. Every 18 months or so it is necessary for a planned outage to take place at SZB for maintenance. This lasts for about 2 months. The reactor is taken off-line, fuel rods are removed or installed, and other essential works carried out. A typical planned outage requires between 600 to 1300 workers on site in addition to the 500 or so who routinely work there. Before these parts of the SZB site may be used for the SZC project, it is necessary for the facilities to be relocated, so that the normal operational cycle of SZB is maintained and the conditions of the nuclear site licence satisfied. These facilities are also necessary for dealing with any unplanned outages that may occur.
- 4. The first Interested Party, EDF Energy Nuclear Generation Limited, is the owner and operator of SZB. The second Interested Party, NNB Generation Company (SZC) Limited, is the promoter of SZC. Both interested parties form part of the EDF Energy Group.
- 5. On 18 April 2019 the first Interested Party applied to the Defendant, East Suffolk Council ("the Council"), for planning permission to provide replacement facilities for SZB. The development related to the demolition of the existing outage store, laydown area, operations training centre, technical training centre, visitor centre and a garage, the removal of some 676 parking spaces and the provision of a new outage store (2,778 sq. m.), laydown area (11,990 sq. m.), training centre (4,032 sq. m.), and 688 parking spaces, access roads and landscaping. The proposal is for the relocation works for these facilities at SZB to begin in advance of a decision on whether to grant development consent for SZC, so as to reduce the delay to the SZC project that would occur if these relocation works could not be carried out until the whole scheme is consented. This was said to be in the national interest because national policy supports the development and deployment of additional nuclear power capacity as soon as possible. EDF informed

the Council that these advance relocation works needed to start at the beginning of 2020 and would take 4 to 4.5 years.

- 6. It was common ground that the application relating to the relocation works was properly made under the Town and County Planning Act 1990, It was not required to be dealt with under PA 2008.
- 7. The Claimant is a resident of Leiston and lives about 2 miles from SZB. She is the Secretary and a member of an unincorporated association, "Together Against Sizewell C" ("TASC"), which comprises about 300 supporters. The group was formed because of concerns about the sensitive nature of the environment around Sizewell and the effects of the SZC project, to which it is opposed.
- 8. It is important to emphasise that although the proposals for the advance works permitted by the Council and for the SZC project give rise to strongly held views, both in favour and against, this court is only concerned with whether the decision being challenged was flawed by any error of law. These proceedings are not concerned with the merits, the pros and cons, of the proposals.
- 9. The existing SZA and SZB stations have frontages to the North Sea. SZB lies to the north of SZA. SZC would lie to the north of SZB. The application site has an area of nearly 31 hectares. It is a long site running north south and generally to the west of the buildings on SZA and SZB but it also continues further north and south beyond those two stations. The site lies within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty ("AONB") and the Suffolk Heritage Coast. The Sizewell Marshes Site of Special Scientific Interest ("SSSI") lies immediately west and north of the site. Within the western boundary of the site lies Coronation Wood, a mixed plantation just over 100 years old, mainly comprising semi-mature and mature pines, with some mature broadleaf trees. The proposal would involve the loss of 229 trees, but there would be a substantial amount of new planting, albeit much younger specimens.
- 10. The key policy for the protection of the AONB is to be found in paragraph 172 of the National Planning Policy Framework ("NPPF"), which states: -

"Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding National Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

a) the need for development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated."

It is common ground that the Council correctly treated the proposal as involving "major development" in the AONB.

- 11. The application was considered by the Strategic Planning Committee on 9 September 2019. The officer's report to the members was a very careful and detailed document which helpfully summarised the views of consultees and those who made representations. It set out the various policy and technical issues in clear terms. The committee discussed the application at some length after having had the benefit of presentations from officers and interested parties, including the Claimant. The approved minutes provide a detailed and helpful record of the process.
- 12. The committee resolved to approve the application in the following terms: -

"That **AUTHORITY TO APPROVE** be granted subject to:

- receipt of additional bat survey information including impacts and mitigation measures;
- receipt of a Shadow Habitat Regulation Assessment (HRA) report providing sufficient detail for this Authority to undertake the necessary assessment in accordance with the habitats regulations;
- the signing of a section 106 legal agreement requiring a payment in relation to residual impacts on the AONB; and
- the inclusion of appropriate conditions including those detailed below."
- 13. The additional bat survey information and a "shadow" HRA were provided by the developer to the Council. Mr Meyer the Council's ecologist confirmed that the Council was satisfied with those materials. A s.106 agreement was entered into with which the Council was satisfied. Accordingly, on 13 November 2019 the Council granted planning permission for the relocation development. The Council considered the possibility that this development might be carried out but the application for development consent in respect of SZC refused. To address that potential outcome Condition 16 provides: -

"In the event that Sizewell C Nuclear Power Station is not permitted by the Secretary of State, a scheme of restoration in accordance with details first submitted to and agreed in writing by the Local Planning Authority will occur at Pillbox Field and any other areas previously vacated by Sizewell B buildings and not to be re-used.

The Scheme shall be submitted to and approved in writing within 18 months of the date of the final decision by the Secretary of State to refuse consent for the Sizewell C Nuclear Power Station (or, if later, the date that any legal challenge to such decision is finally resolved).

All restorative works shall be carried out in accordance with a Restoration Scheme, including a timeframe for the restoration works, in accordance with details first submitted to and approved in writing by the Local Planning Authority."

The claim for judicial review

- 14. The Claimant asks for an order quashing the grant of planning permission. At a hearing on 3 June 2020 Andrews J (as she then was) granted permission to apply for judicial review on ground 2 but refused permission on grounds 1(a) and (b). On 9 July 2020 Lewison LJ granted the Claimant permission to apply for judicial review additionally under ground 1(b). No further application was made in respect of ground 1(a) and Mr David Wolfe QC accepted that that could not be pursued. In other words, he did not seek to argue that the Council had erred in law by treating the designation in the National Policy Statement for Nuclear Power Generation ("EN-6") of SZC as a potentially suitable site for a nuclear power station as amounting in itself to "exceptional circumstances" justifying major development in the AONB.
- 15. The two grounds now raised in this challenge are therefore: -

Ground 1(b)

The Council unlawfully failed to consider the need for, and alternatives to, the proposal for the purposes of paragraph 172 of the NPPF in addressing whether there were exceptional circumstances to justify development;

Ground 2

The Council failed to reach a lawful conclusion that the environmental information was "up to date" contrary to regulation 26 of the Town and County Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017 No. 571) ("the 2017 Regulations).

- 16. It is common ground between the parties that if the Claimant succeeds on either of these two grounds then the planning permission must be quashed. Section 31(2A) of the Senior Courts Act 1981 is not relied upon.
- 17. Bearing in mind the terms of the resolution passed by the Council, I should record that Mr Wolfe accepted that no complaint arises in relation to the way in which the Council applied the Conservation of Habitats and Species Regulations 2017 (SI 2017 No. 1012).

General legal principles

18. The principles on which the Court deals with an application for judicial review of a decision by a local planning authority to grant planning permission have been

established in a number of cases and are well-known. Relevant authorities include *R* (*Mansell*) v *Tonbridge and Malling Borough Council* [2019] PTSR 1452 [42]; *R* (*Luton Borough Council*) v *Central Bedfordshire Council* [2014] EWHC 4325 (Admin) at [90] to [95].

19. Where, as in this case, the members of the committee voted to accept the recommendation in the officer's report, it is a reasonable inference that they accepted the reasoning in the officer's report, in the absence of evidence to the contrary (*R (Palmer) v Herefordshire Council* [2017] 1 WLR 411 at [7]). Here, there is no contrary evidence. The parties agreed that this principle extends to include material in the minutes of the meeting. This is also relevant to the Court's assessment of the "main reasons and considerations on which the decision" was based (regulation 30(1)(d) of the 2017 Regulations).

Ground 1(b)

A summary of the submissions

- 20. Mr Wolfe QC submits that the Council was required by paragraph 172 of the NPPF to make an assessment of the matters referred to in sub-paragraphs (a), (b) and (c). He accepts that the Council discharged that obligation in relation to (a) the impact of granting or refusing the application on the local economy, (b) the cost of, and scope for, carrying out the development outside the designated area or meeting the requirement for the scheme in some other way and (c) any detrimental effect upon the environment, landscape and recreational facilities. But he submits that the Council failed to meet the requirement to assess the need for the advance works, as an essential component of the balance which they had to strike in order to determine whether there were "exceptional circumstances" and the development was in the public interest to justify granting the permission.
- 21. Mr Wolfe rightly submits that the need for the development was a relevant consideration which the planning authority was mandated by national policy to take into account. This legal concept has recently been explained by the Supreme Court in Samuel Smith Old Brewery (Tadcaster) Limited v North Yorkshire County Council [2020] PTSR 221 at [29] to [32] and encapsulated by the Court of Appeal in Oxton Farm v Harrogate Borough Council [2020] EWCA Civ 805 at [8] as follows: -

"In R (Samuel Smith Old Brewery (Tadcaster)) v North Yorkshire County Council [2020] PTSR 221 the Supreme Court endorsed the legal test in Derbyshire Dales District Council [2010] 1 P & CR 19 and CREEDNZ Inc v Governor General [1981] 1 NZLR 172, 182 which must be satisfied where it is alleged that a decision-maker has failed to take into account a material consideration. It is insufficient for a claimant simply to say that the decision-maker did not take into account a legally relevant consideration. A legally relevant consideration is only something that is not irrelevant or immaterial, and therefore something which the decision-maker is empowered or entitled to take into account. But a decision-maker does not fail to take a relevant consideration into account unless he was under an obligation to do so. Accordingly, for this type of allegation it is

necessary for a claimant to show that the decision-maker was expressly or impliedly required by the legislation (or by a policy which had to be applied) to take the particular consideration into account, or whether on the facts of the case, the matter was so "obviously material", that it was irrational not to have taken it into account."

- 22. The facilities required for SZB already exist. So, it is common ground that there is no need for the proposed works to enable SZB to continue to operate unless development consent is granted for SZC. However, the SZC proposal was not before the Council. Instead, the Council properly had regard to national policy statements on the importance of developing new nuclear power capacity as soon as possible and identifying a number of potential sites including Sizewell (subject to consent being obtained). Accordingly, the specific need for the works proposed in the application before the Council was to reduce delay in the carrying out of the SZC project in the event of that being authorised by a development consent order pursuant to national policy.
- 23. Paragraph 172 of the NPPF requires the need for "major development" in an AONB to be assessed but does not stipulate how that assessment is to be carried out, other than by the partial explanation in limb (a). The word "need" is an ordinary English word and it would be inappropriate in this case for it to be the subject of judicial interpretation. Mr Wolfe QC did not suggest otherwise. It is one of those broad expressions which are to be understood at a high level of abstraction, given the wide range of circumstances to which such policy is to be applied across the country.
- 24. In this case we are dealing with the *application* of policy. The application of the word "need" to the circumstances of each case is essentially left to the judgment of the planning authority. That judgment can only be challenged on the grounds of irrationality.
- 25. Mr. Wolfe QC relied upon the dictum of Lord Diplock in *Tameside Metropolitan Borough Council v Secretary of State for the Environment* [1977] AC 1014 at 1065B:

"... the question for the court is, did the Secretary of State ask himself the right question and take reasonable steps to acquaint himself with the relevant information to enable him to answer it correctly."

However, he also accepted that the apparent width of that statement has been qualified by the principle established in, for example, *R* (*Khatun*) *v Newham London Borough Council* [2005] QB 37 at [35] and *Flintshire County Council v Jayes* [2018] EWCA Civ 1089 at [14]. Accordingly, it was for the Council to judge how far to go into the question of need and to obtain information on that aspect. That judgment is only open to challenge on the grounds of irrationality. In the light of the *Samuel Smith* case, the question for the Court is whether the amount of time which would be saved in the construction of SZC by carrying out the advance works was an "obviously material" consideration, such that it was irrational not to take it into account.

26. The Claimant has to accept that, when applying the "exceptional circumstances" test, the officer's report did rely upon reduction in delay to the completion of the SZC project

as the need for the advance works. However, it is submitted that because the focus of the enquiry had to be why those works are needed now, rather than as part of the SZC scheme if consented in future, it was "obviously material" for the Council to consider the implications of the advance works on the timings for the SZC project. Thus, it is said that it was necessary for the Council to know about the developer's timeline for the construction of SZC and how the carrying out of the advance works would impact on those plans. How much time would they save in the development of SZC?

- 27. Mr Wolfe QC submitted that it was legally insufficient for the Council merely to have proceeded on the basis that some time would be saved, without having an assessment of how much that would be. He argued that without that information the Council could not rationally decide how much weight to give to this highly specific form of need so as to see whether the claimed benefits of the proposal outweighed any harm to the AONB identified, "great weight" being required to be given to that harm in accordance with paragraph 172 of the NPPF (see paragraph 50 of the Claimant's skeleton).
- 28. It is common ground that no such estimate of the amount of time that would be saved was supplied by the developer to the Council or was estimated by the latter. There was, for example, no quantitative analysis of the effect of the advance works on the schedule for the construction of SZC. Instead the Council and the Interested Parties submit that the authority's decision was based upon a "qualitative" appreciation of the benefit claimed in the context that it is national policy, and therefore in the national interest, that additional nuclear power capacity be developed as soon as possible. They also submit that because the Council's overall assessment was that there would be no material adverse impact upon the AONB rather the proposal would be beneficial there was no legal requirement for a quantitative or numerical assessment of the time savings to be made so that the "exceptional circumstances" test could be lawfully applied. In the circumstances of this case, a quantitative assessment was not an "obviously material" consideration such that it was irrational for the Council to decide to grant planning permission for the advance works without it.

Discussion

- 29. The parties referred to *Calverton Parish Council v Nottingham City Council* [2015] EWHC 1078 (Admin) and *Compton Parish Council v Guildford Borough Council* [2019] EWHC 3242 (Admin), both of which were concerned with the "exceptional circumstances" test in paragraphs 136-7 of the NPPF for the alteration of a Green Belt boundary. The relevant principles were analysed and summarised in *Keep Bourne End Green v Wycombe Council* [2020] EWHC (Admin) at [146] to [155]. Thus, the concept of "exceptional circumstances" is deliberately broad and not susceptible to dictionary definition. The matter is left to the judgment of the decision-maker in all the circumstances of the case. In *R (Luton Borough Council) v Central Bedfordshire Council* [2015] 2 P&CR 19 Sales LJ pointed out at [56] that the "exceptional circumstances" test for the alteration of a Green Belt boundary is less onerous than the "very special circumstances" test for development control in relation to "inappropriate development" within the Green Belt.
- 30. Here we are dealing with the "exceptional circumstances" test in paragraph 172 of the NPPF for "major development" in an AONB. Nonetheless, I accept that in broad terms the approach summarised in *Keep Bourne End Green* at [146] may be read across to the present context. However, it should be remembered that in development control,

"inappropriate development" in the Green Belt is treated as being harmful in itself to Green Belt policy by reason of its inappropriateness (see paragraph 144 of NPPF), quite apart from any additional harm that would be caused by the impact of the particular proposal on the Green Belt and its purposes in that location. It is common ground between the parties that under AONB policy in the NPPF there is no notion of harm simply through development being treated as inappropriate in policy terms. Instead, the issue is what harm to the AONB (if any) would actually be caused by the development in the location proposed. AONB policy is also different from Green Belt policy in that (a) it explicitly requires consideration of whether the development would be in the public interest and (b) it sets out some of the factors which should be addressed, where relevant, in the assessment of whether "exceptional circumstances" exist.

31. I summarise first how the officer's report approach the issue of need. For example, paragraph 8.1.8 of the officer's report summarised the national policy position as follows: -

"National Policy Statement EN-1 – Energy and EN-6 – Nuclear Power identify a need for new nuclear power generation in England and Wales, EN-6 identifies Sizewell as a potential site for new nuclear development. Parts of the Sizewell B generating station are on the identified site for Sizewell C. In order to facilitate the efficient development of Sizewell C, it is of national importance for the B Station facilities to be moved to enable the B Station to continue operating and to avoid greater delay to the construction timetable for Sizewell C. EN-1 refers to there being an 'urgent need for new electricity generation plant, including new nuclear power' and EN-6 refers to there being an 'urgent need for new nuclear power stations'. Once published the draft new NPS will also be a consideration – no timetable for this has yet been released by Government."

No criticism is made of that summary.

- 32. National Policy Statements ("NPSs") on nationally significant infrastructure projects are designated by the Secretary of State subject to strategic environmental assessment, sustainability appraisal, consultation, and consideration by Parliament. In July 2011 the Secretary of State designated the "Overarching National Policy Statement for Energy" (EN-1), along with the "National Policy Statement for Nuclear Power Generation" (EN-6). These policies remain extant, although the Government has undertaken consultation on "the siting criteria and process" for a new NPS on nuclear power.
- 33. There is no dispute that if SZC were to go ahead, the facilities at SZB the subject of the planning permission would need to be relocated and the Council accepted that they would need to be sited in the vicinity of the present station. Paragraph 8.1. of the officer's report explained why the facilities could not be relocated to the site of SZA.
- 34. The officer's report accepted that to meet the current construction programme for SZC, work on the relocation of the facilities at SZB would need to begin at the start of 2020 (paragraph 3.1). It was also accepted that the early delivery of these works (a) could lessen the impact of the construction programme in relation to SZC and (b) would reduce the cumulative impacts of SZC and the nearby development proposed by

Scottish Power Renewables in connection with the East Anglia One North and East Anglia Two offshore windfarms (paragraphs 8.14.1 to 8.14.2, 9.3 and 9.6). The minutes also record that a representative of EDF Energy explained that the advance relocation of SZB facilities would allow a faster delivery of SZC if the latter were to be approved.

- 35. I now summarise how the officer's report addressed harm to the AONB. To put the matter into context, an AONB may be designated for the purpose of "conserving and enhancing the natural beauty of the area" (s.82(1) of the Countryside and Rights of Way Act 2000). In this context, "the conservation of the natural beauty of an area" includes a reference to "the conservation of its flora, fauna and geological and physiographical features" (s.92(1)). This broad approach, which Mr Wolfe QC emphasised, is reflected in paragraph 172 of the NPPF.
- The officer's report discussed in some detail the loss of 229 trees in Coronation Wood, 36. of which 73% were assessed as being of low quality, that is plantation trees with a limited life expectancy and limited amenity value. It was judged that this loss would be "balanced" by the planting of over 2500 juvenile woodland trees, including a mixture of broadleaf and coniferous species appropriate for the prevailing soil and coastal conditions (paragraph 8.3.14). In the short to medium term, the loss of the wood would have a moderate adverse effect, but taking into account the species and habitat present, the loss was judged to be "minor" and "not significant" following mitigation (8.3.15). EDF Energy had increased the amount of planting proposed since the application was made and the Council's officers concluded that "the balance is in favour of the scheme on this matter" (emphasis added) (paragraph 8.3.16). Officers considered that the wood had limited public amenity value, its principal value being for users within the Sizewell complex (8.4.3). Coronation Wood was not considered to be in a sustainable condition and much of it was judged to be unsuited to the local landscape character (8.4.5). Increased planting on Pillbox Field provided by EDF would "fully compensate for the loss of woodland" (8.4.6).
- 37. The effect of the proposal on the landscape was assessed in section 8.5 of the officer's report. Not surprisingly, the officer's report identified some negative impacts during the demolition and construction phase lasting 4 to 4.5 years. More generally at paragraph 8.5.15 officers concluded: -

"With regard to the high-level designated landscape of the AONB and its natural beauty indicators and special qualities, long term permanent effects, where they occur, do so over a very limited area of the AONB. The greatest rated scale of effect is a Small effect on landscape quality through the removal of Coronation Wood, the conversion of part of Pillbox field to outage carpark, and the partial visibility of the proposed new structures. Other AONB special qualities such as wildness, scenic quality, and tranquillity are already considered to be compromised by the presence of the existing power station site."

and at 8.5.17: -

"it is concluded that the proposed development would have a negligible magnitude of effect on the natural beauty and special qualities of the AONB. Factoring in the medium sensitivity of the AONB in this location, the effects are judged to [be] of minimal significance and on balance neutral."

These passages referred not only to the landscape but also "natural beauty".

38. Mr Wolfe QC placed emphasis on one particular paragraph of the officer's report (8.6.4) in the section dealing with effects on the AONB: -

"However, it is important to acknowledge that the proposal will move existing development from one area of the AONB to another, and the footprint will be increased. As such, there is a residual impact on permanent loss of the AONB that cannot be addressed through mitigation."

It is important to note the words "as such" and the fact that this passage was only dealing with the increase in the area of the footprint. Plainly, that increase would represent a permanent loss of the area involved. But that formed only part of the overall assessment of the effect of the advance works on the AONB and it is necessary to read the report as whole.

- 39. Mr Wolfe QC also relied upon an earlier part of the detailed assessment in the officer's report, namely paragraph 8.3.26, which had stated that the proposed development would result in an overall net loss of habitat for breeding birds in Coronation Wood, Pillbox Field and hedgerows, after taking into account the replacement planting. However, paragraph 8.3.27 went on to say that given the small amount of habitat impacted "there is unlikely to be any significant change in the breeding bird assemblage" and there are also methods for supporting net biodiversity gain which should be addressed in planning conditions. Paragraph 8.3.33 explained that EDF was then undertaking further work on biodiversity gain and how a net gain could be achieved by various measures, including the use of native species in the replanting proposals to provide better food sources for birds.
- 40. The minutes of the committee meeting record further information given to the members. They were told by officers that trees in Coronation Wood were not suited to the soil and there were signs of blight which would lead to future decline in the state of the wood through wind blow. The members were also advised that the proposals for new planting in Pillbox Field, the current condition of Coronation Wood and the suitability of the new species to be planted, "meant that overall the proposals could be considered a benefit to the AONB landscape; it would provide more appropriate species, provide an improved layout and offer more long-term prospects for landscape and wildlife than Coronation Wood." Subsequently, some members speaking in the debate endorsed the view that the proposed mitigation planting would result in a net gain.
- 41. Accordingly, I accept the submission of Mr Andrew Tait QC for the Council that, read as a whole, the officer's report and the minutes show that the Council considered that the overall impact of the proposal would not be materially harmful. As the report itself recognised, there are many people who disagree with particular parts of the assessment and/or with the overall conclusion. It is necessary to repeat that it is not for the court to adjudicate on the correctness of the rival views. The key point here is that the Claimant does not contend that it was *unlawful* for the Council to reach any of these judgments. I agree.

- 42. In other cases there might be force in Mr Wolfe's submission that where it is necessary for a planning authority to consider whether there are exceptional circumstances and public interest sufficient to outweigh harm to an AONB, and the developer relies upon a need to carry out advance works in order to speed up the subsequent delivery of the main project, then it may well be "obviously material" for the authority to consider some quantitative information so as to be able to understand approximately how much time would be saved and to decide how much weight to give to that factor as against the net harm actually resulting from those works. However, in the circumstances of this case, where the Council was legally entitled to conclude that, viewed overall, there was no material harm to the AONB, but rather benefits to the AONB, I do not accept that the Council acted irrationally by not requiring a quantitative assessment of the time saving for the SZC project or to consider that matter. I am reinforced in that conclusion by the combination of other factors which the Council accepted as forming part of the overall "exceptional circumstances" case for the proposal, notably the urgent national need for new nuclear power generation endorsed in the NPSs, the identification of the SZC site as potentially appropriate for an additional nuclear power station, the public interest in reducing the risk of overlapping construction programmes for SZC and other substantial infrastructure projects in the area, and the lack of suitable sites outside the AONB (paragraph 8.6.3 of the officer's report).
- 43. For all these reasons, ground 1(b) must be rejected.

Ground 2

A summary of the submissions

- 44. Regulation 3 of the 2017 Regulations prohibits a planning authority from granting planning permission for EIA development "unless an EIA has been carried out in respect of that development." The planning permission granted by the Council was for EIA development. Regulations 2(1) and 4 define "EIA" as the process consisting of the preparation of an environmental statement, any consultation, publication and notification required in respect of EIA development and "the steps required under regulation 26."
- 45. Regulation 26 of the 2017 Regulations provides (in so far as is material): -
 - "(1) When determining an application or appeal in relation to which an environmental statement has been submitted, the relevant planning authority, the Secretary of State or an inspector, as the case may be, must-
 - (a) examine the environmental information;
 - (b) reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account the examination referred to in sub-paragraph (a) and, where appropriate, their own supplementary examination;
 - (c) integrate that conclusion into the decision as to whether planning permission or subsequent consent is to be granted; and

- (d) if planning permission or subsequent consent is to be granted, consider whether it is appropriate to impose monitoring measures.
- (2) The relevant planning authority, the Secretary of State or the inspector, as the case may be, must not grant planning permission or subsequent consent for EIA development unless satisfied that the reasoned conclusion referred to in paragraph (1)(b) is up to date, and a reasoned conclusion is taken to be up to date if in the opinion of the relevant planning authority, or the Secretary of State or the inspector, as the case may be, it addresses the significant effects of the proposed development on the environment that are likely to arise as a result of the proposed development."
- 46. By schedule 4 to the 2017 Regulations, the Environmental Statement was required to include "a description of the relevant aspects of the current state of the environment (baseline scenario) ..." (paragraph 3) and "a description of the likely significant effects of the development on the environment..." (paragraph 5).
- 47. The Claimant contends that the Council concluded that parts of the ecological survey work available were "not up to date" and therefore regulation 26(2) was not satisfied. Mr Wolfe QC submits that it follows that by regulation 3 the Council was prohibited from granting the planning permission which was *ultra vires*.
- 48. He bases his argument firstly on guidance from the Chartered Institute of Ecology and Environmental Management ("CIEEM") which was accurately explained in paragraph 8.3.1 of the officer's report

"Guidance on survey validity from the Chartered Institute of Ecology and Environmental Management (CIEEM) states that reports of more than 3 years old are 'unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by a professional ecologist)' (Advice note on the lifespan of ecological reports and surveys, CIEEM, April 2019). Such an assessment must be based on a number of criteria as set out in the advice note, and a clear statement setting out appropriate justification must be provided. EDF Energy considers that they have provided a comprehensive suite of deskstudy and field survey data for the estate, collated over the last 12 years. Surveys in 2018-19 have confirmed that habitat conditions on site have remained similar throughout the period under consideration and species present are unlikely to be changed. There is also ongoing monitoring of habitat conditions undertaken by both Suffolk Wildlife Trust and EDF Energy."

49. Mr Wolfe QC relies in particular upon two paragraphs of the officer's report, first, paragraph 8.3.2 which stated: -

"There is a suite of desk study and field survey data provided with the application, much of it is more than 3 years old,

including some surveys which relate to mobile species (such as breeding and wintering birds). Whilst the habitat baseline used in the environmental statement is likely to be broadly similar now compared to the time of survey, the baseline for some species may have altered and therefore the assessment provided may under assess the impact of the proposed development. This is an area of professional disagreement between the statutory consultees, our own ecologist and EDF Energy's ecologists, with regards to the suitability and age of survey material supporting the application. However, in taking a balanced approach and mindful that some surveys are currently being undertaken (bat) and others can be updated pre-commencement (badger etc.), on balance it is considered that is difficult to object to the proposal on these grounds as the identified impacts are likely to be the same as already identified. To ensure appropriate mitigation a condition is proposed requiring further survey work to be undertaken where required, in particular in relation to the outline elements of the proposal prior to those works starting."

I have italicised the words which were emphasised by Mr Wolfe QC.

50. Second, paragraph 8.3.27 stated in relation to breeding birds: -

"The most recent survey work provided for this group dates from 2015 and therefore there is the potential that the range of species and the number of pairs, present may have changed since that time, however, as referenced earlier we are content that the 2015 bird survey along with the precautionary approach and ability to carry out further surveys if required under the CEMP, that we are content with this approach. EDF Energy considers that given the small amount of habitat to be impacted by their proposal there is unlikely to be any significant change in the breeding bird assemblage. There are methods to support biodiversity net gain that could be employed to mitigate adverse impact and it is suggested that these be required via planning condition."

- 51. Reading paragraphs 8.3.2 and 8.3.27 together, Mr Wolfe QC invites the court to infer that the Council's ecologist, and hence the committee acting in agreement, concluded that the survey information provided on breeding birds was out of date and therefore did not meet the requirements of regulation 26(2) of the 2017 Regulations. He submits that this was the response of the Council to a concern raised by RSPB that the developer was relying upon an absence of material changes in local habitat rather than carrying out fresh surveys of the species present.
- 52. Plainly, a good deal of survey work was carried out in relation to a wide range of species and habitats, but no legal challenge is raised in relation to any other aspect of that material. Nor can it be said that this is a case where a subject which the authority was legally required to assess was not surveyed or addressed at all as part of EIA process.
- 53. Ultimately, Mr Wolfe QC accepted, as became apparent at the permission hearing (see the judgment of Andrews J at [26] to [27]), that his argument depends on whether the

- officer's report to the committee is to be read as stating that the Council's ecologist disagreed with the developer's team on whether the survey material relating to breeding birds was sufficiently up-to-date.
- 54. The Defendant submitted firstly, that regulation 26(2) is dealing with the up to datedness of the Council's "reasoned conclusion" in regulation 26(1)(b) on "the significant effects of the proposed development on the environment." It is not dealing with the up to datedness of the environmental information. Secondly, and in any event, the issue of whether the surveys were sufficiently reliable, given the date when they were carried out, was a separate issue involving a matter of judgment. This was raised by (inter alia) the advice of CIEEM and was addressed by the officer's report relying on advice from the Council's ecologist. On a fair reading of that report, the ecologist concluded that the bird surveys were sufficiently reliable for the purposes of the Council reaching a "reasoned conclusion", such that fresh surveys were not required. In that sense they were up to date. A judgment of this kind may only be challenged on the ground of irrationality, which is not made out.

Discussion

- 55. Regulation 26 of the 2017 Regulations transposes Article 8a of Directive 2011/92/EU, which was inserted by Article 1(9) of Directive 2014/52/EU. Article 1(2)(g)(iv) refers to the "reasoned conclusion" of the competent authority on the significant effects of the project on the environment, taking into account its examination of the environmental information. Article 8a(1) requires that that conclusion be incorporated into the decision to grant development consent. Article 8a(5) requires relevant decisions to be taken within "a reasonable period of time." That has been transposed by regulation 26(4) of the 2017 Regulations.
- 56. Article 8a(6) then requires that the competent authority be satisfied that its reasoned conclusion under article 1(2)(g)(iv) is up to date when taking a decision to grant development consent. To that end, Member States may set time frames for the validity of such a conclusion or any of the other decisions referred to in Article 8a(3). This provision has been transposed by regulation 26(2). It is therefore plain that regulation 26(2) is dealing with whether the competent authority is satisfied that its "reasoned conclusion" under regulation 26(1)(b) on the significant environmental effects of the proposal is up to date. The legislation, in particular regulation 3, does not make the validity of the development consent depend upon a formal conclusion by the authority that all the environmental information is up to date. The deeming provision in the second half of regulation 26(2) does not indicate otherwise. A "reasoned conclusion" of the authority is taken to be up to date if the authority judges that its conclusion addresses the likely significant environmental effects. Here the Council judged that the surveys relating to breeding birds were sufficiently reliable for present purposes. The object of regulation 26(2) is straightforward, namely to prevent a planning permission being granted if there has been a delay since the time when the authority's "reasoned conclusion" was reached without the authority being satisfied that it may still be relied upon. This deals with the risk of a material change of circumstances occurring between an authority reaching its "reasoned conclusion" and the grant of planning permission.
- 57. It is impossible to read the officer's report as indicating that the Council was not satisfied that its "reasoned conclusion" under regulation 26(1) was up to date, whether in relation to the whole or any part of the environmental information. The collective

views of officers on the environmental assessment were brought together and included in the officer's report, which was considered by the committee not long afterwards. The decision was issued about 2 months after the committee's resolution. The Council did not consider that its reasoned conclusion, expressed through the officer's report and minutes, had become out of date during that period, and the Claimant suggest otherwise.

- 58. Quite apart from the construction of regulation 26(2), the issue of whether the survey information on breeding birds (which formed only one aspect of the overall ecological information) was "up to date", taking into account the more recent surveys of habitats, was a matter of judgment for the Council going to the *quality* of that information. It may therefore only be challenged in the courts if that judgement was irrational (*R* (*Blewett*) *v Derbyshire County Council* [2004] Env. L.R 29 at [41]; *R* (*Plan B Earth*) *v Secretary of State for Transport* [2020] EWCA Civ 214 at [136-144]; *Gathercole v Suffolk County Council* [2020] EWCA Civ 1179). This is the correct legal context in which ground 2 falls to be considered.
- 59. As regards the preparation of the officers' report on ecology matters, the sequence of events was that Mr. Meyer, the Council's ecologist, produced a note dated 20 June 2020 raising a number of concerns. The developer produced a response dealing with those matters dated 29 July 2020. In relation to breeding birds, EDF relied in part on the considerable extent of the survey work undertaken over a long period of time as well as the more recent habitat surveys.
- 60. In paragraphs 4 and 5 of his witness statement Mr. Meyer explains that this additional material led him to conclude that no further surveys were required, save on one aspect which was addressed before the grant of planning permission and is not the subject of this challenge. He says that he relayed his views orally to the officer responsible for the preparation of the report to committee before it was finalised, making it clear that he had no outstanding concerns in respect of the age of the survey data or information on ecological effects (save in that one immaterial respect).
- 61. On a fair reading of the officer's report, it can be seen that the document addressed ecology topics one by one, referring to concerns which had been raised and relying upon the responses from EDF set out in summary form. Reading paragraphs 8.3.2 and 8.3.27 as a whole, it is plain that the Council's ecologist did accept that the impacts on breeding birds were "likely to be the same as already identified" and therefore did accept EDF's case on this point. The committee did likewise. Paragraphs 8.3.2 or 8.3.27 cannot be read as identifying an outstanding concern on the adequacy of the bird surveys. That paragraph did not depart from the clear statement by the officers that it was appropriate for the Council to rely *inter alia* on the 2015 surveys. The reference to further surveys being possible under the "CEMP" (Construction Environmental Management Plan) acknowledged that conditions might change during the construction period of 4 to 4.5 years so as to make further surveys appropriate *for that reason*, not to assess the current baseline adequately. Mr. Meyer's witness statement is therefore consistent with a fair reading of the officer's report.
- 62. For these reasons, ground 2 must be rejected.

Conclusion

63. For the reasons given above, this application for judicial review is dismissed.



SIZEWELL C PROJECT

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APPENDIX C: CONCRETE NOTE



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APPENDIX C: CONCRETE NOTE

C.1. Concrete structures

- C.1.1. The concrete structures have very specific performance requirements that require highly controlled high quality site produced concrete.
- C.1.2. As set out in the Design and Access Statement [APP-586], the design approach to the industrial buildings within the nuclear islands, the cooling water pumphouse and associated buildings expresses the large bold forms based on their engineering requirements of the UK EPR™ generic design. Their external material is pre-defined by the UK EPR™ generic design as robust reinforced concrete structures.
- C.1.3. The concrete structures are safety critical structures and their design, including the exposed concrete form, is fixed by the Generic Design Assessment (GDA) for this type of nuclear plant. Through discussion with the Councils and other consultees the SZC design team were asked to explore other options with the ONR and EDF Energy experts in the use of concrete. Options explored included adding cladding to the structure and adding pigments to the concrete. Incorporating dyes in the concrete mix was technically explored but rejected due to lack of confidence about impact on long-term performance of the concrete structures. (Concrete pigments are more prone to solar weathering).
- C.1.4. In these circumstances it is not practicable to erect cladding directly onto the concrete as this would prevent inspection of the concrete surface for any signs of cracking or other deterioration. It should be noted that inspection of the outer surface of the Sizewell B secondary containment dome is not required for the safety case, and hence the Sizewell B dome was able to be clad.
- C.1.5. Concrete specifications are complex requiring laboratory level rigorous sensitivity testing to prove stability and non-reactive status before full scale testing within the production batching plant. Even small mix variations can have a significant impact on the compliance of the concrete make up and therefore an unpredictable impact upon performance. Quality control is critical to this including the correct Nuclear Safety Behaviours with all involved with the manufacturing process.
- C.1.6. The conclusion was that it is not feasible to amend the external appearance of these nuclear safety structures. The purpose of the external concrete is to protect the plant, as it would be necessary to inspect the concrete on a regular basis to ensure its integrity is maintained and they must replicate the Hinkley Point C structures. The four factors that are likely to affect the appearance of concrete are, aggregates used, mix proportioning, formwork type and to a lesser extent weathering.

SIZEWELL C PROJECT - CONCRETE NOTE



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- C.1.7. The exposed concrete is to have a natural consistent pale grey finish as far as reasonably practicable. Careful on-site attention is given through an exacting quality control process to each successive batch of aggregates and to the setting-out of day joints to ensure a consistent even finish can be achieved. Pigments are avoided as they can result in variability. Strict quality control to ensure consistency of source materials is key.
- C.1.8. At Hinkley Point C, of the concrete structures cast to date, the outer visual elements used extensive across the buildings show very little natural shade variation.
- C.1.9. The Design and Access Statement includes the Design Principles for the main development site proposals, which have been informed through consultation with the relevant local authorities and will help to define and establish how the project will fulfil the criteria of 'good design' where it is possible to alter designs without compromising safety. The project commits to the Design Principles and as such includes the following 3 design principles in respect of the concrete structures:
 - DP62 The structural concrete of the safety related buildings will be exposed, without additional finishes and will be easily accessible without obstruction for ease of maintenance and inspection, in accordance with operational requirements.
 - DP63 Exposed concrete will have a consistent pale grey finish as far as reasonably practicable. Careful on-site attention will be given to the change in batch of aggregates and setting-out of day joints to ensure a consistent even finish can be achieved, subject to operational requirements.
 - DP64 The reactor stack will be a recessive colour appropriate to the backdrop of sky that it will be visible against. The colour palette shall be discussed and agreed with East Suffolk Council.

C.2. Quality Control Process

- C.2.1. The project has numerous BTS (Books of Technical Specifications) to which all contractors work. These set the requirements for all elements of compliance and the quality control checks that all technical elements need to undergo. Operational procedures, together with the generation of detailed Inspection and Test Plans (ITPs) provide the necessary governance arrangement to ensure the requirements are met.
- C.2.2. Sizewell C (SZC) would replicate Hinkley Point C for the safety critical concrete structures. At Hinkley Pont C, all of the supplying units in the design and construction of the plant, have worked hard to ensure the required behaviours and understanding of quality rigour required to

SIZEWELL C PROJECT - CONCRETE NOTE



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enhance and support all supplying constituents going into Nuclear concrete production on Hinkley. This common understanding of treating materials differently, operational procedures and the use of detailed ITPs and stock release systems have ensured consistency in the concrete product at Hinkley Point C which meet the project specifications. Identification of suitably high-grade source materials involved a rigorous testing and sampling process, which took nearly 5 years. Those same sources are to be used to supply concrete making materials for Sizewell C.

- C.2.3. The project has led the UK in all aspects of production consistency and quality control for the last 4 years.
- C.2.4. The quality rules and controls are set out within the various operational procedures and ITPs, which include the following:
 - Source Files of all constituents' quarry and factories.
 - Unit ITPs for all of the project inspection and test requirements including intermediate transfer locations (Source stocks/Avonmouth docks/terminal silos).
 - ITPs for delivered constituents as they are transferred and loaded into the batching plants.
 - ITPs for manufactured concrete with batching tolerances, water control, consistence, and strength with 100% technical cover for all permanent works concrete.
 - Monthly rolling statistical reporting to demonstrate all aspects of compliance.
- C.2.5. Industry leading preventative maintenance is provided by the Bylor inhouse maintenance teams to ensure the plants are kept in peak condition. This includes full third-party checks of weights and calibration measurements to ensure the plant structures and standards are not drifting, and to ensure high levels of consistency and compliance.
- C.2.6. Currently Hinkley Point C has produced almost 830,000 m3 of Quantitative Risk Analysis (QRA) concrete with very tight UK leading standard deviations. The same sources, controls and expertise will be involved at SZC. The following table details the ITP controls.



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Constituent	Mix Reference	Dome Element	ITP Quality Control Measures	
CEMI Normal Heat	Mix 5S and 2#b	Inner Containment and Outer Containment	Every Load Samples for Tests including colour shade against Reference samples On Line Cement Sampling Valve testing 100% of all deliveries)	
Cement Replacement	Mix 5S and 2#b	Inner Containment and Outer Containment	Every Load Samples for Tests including colour shade against Reference samples On Line Cement Sampling Valve testing 100% of all deliveries)	
CEM1 Low Heat	Mix 2#b	Inner Containment	Every Load Samples for Tests including colour shade against Reference samples (On Line Cement Sampling Valve testing 100% of all deliveries)	
4/10mm and 10/20mm	Mix 5S and 2#b	Inner Containment and Outer Containment	Coarse Aggregates have little impact in colour	
0/4mm Manufactured Sand	Mix 5S and 2#b	Inner Containment and Outer Containment	Sand Impact in colour and shade and colour part of quality control	
0/2mm Natural Sand	Mix 5S	Outer Containment	Very consistent Marine sand source, no variation in received colour	
0/4 Washed Natural Sand	Mix 2#b	Inner Containment	Very consistent land sand source, no variation in received colour	

SIZEWELL C PROJECT - CONCRETE NOTE



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C.3. Maintenance

- C.3.1. SZC Co. will be required to inspect the concrete regularly to fulfil its safety duty under the 'construction code' for the lifetime of the plant and report to the Office of Nuclear Regulation.
- C.3.2. The station will have an agreed inspection regime to an agreed programme, which SZC Co will be required to fulfil and report on to the ONR (who effectively 'police' it).
- C.3.3. The concrete would be inert and stable with regards to natural weathering. The high quality concrete surface will have a very dense surface with low permeability and weathering effects will be minimal. Orientation (shade) and water run-off effects are expected to be similarly low. Effects of other environmental interfaces will be monitored and managed as part of the maintenance regime, for example the build up of algae on surfaces.



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APPENDIX D: NORTHERN BORROW PIT SUMMARY



SIZEWELL C PROJECT – NORTHEN BORROW PIT SUMMARY

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1 NORTHERN BORROW PIT

The location of the Northern Borrow Pit and the haul road turning circle is shown in **Plate 1.1**. Reference should also be made to the **ES Addendum Vol 2 Chapter 2, Main Development Site Construction Phase 1 to 5** (specifically Figures 2.2.35 to 2.2.38, Rep2-038 and AS-190 to 193). The Environmental Statement should be read in conjunction with the Borrow Pit Strategy, for all matters concerning ecology and environment.

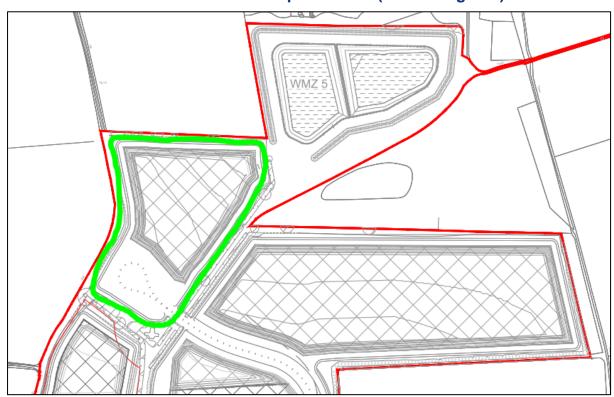


Plate 1.1: Northern borrow pit location (bordered green)

The northern borrow pit, will be excavated to win granular material for the re-use on site. It will also then permanently store other site-won material excavated as part of the Main Development. The haul road will be constructed to allow for the safe and segregated movement and turning of the haul vehicles and other earthworks plant.

The haul road itself will not have significant earthworks activities, other than the stripping of topsoil and sub-soil and levelling and platforming. The hand back of this area will be reasonably straight forward, and involve the removal of the haul road and its construction material, to be replaced with natural soils, underlying sub-soil and topsoil to pre-construction levels.

The earthworks activities associated with the borrow pit, are summarised below.

1.1 During construction – borrow pit

The purpose of the borrow pits is to provide an early source of engineering fill (approximately 1M m³), with the northern borrow pit winning approximately 180,000 m³. In addition, it will be backfilled as part of the restoration process with treated peat and alluvium. This will be excavated as part of the main construction.



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The existing topsoil and sub-soil, as much as reasonably possible, will be carefully stripped, segregated and appropriately stored on site. The peat and alluvium material are soft and compressible, which will likely require stabilisation with cement and/or lime, for it to be safely placed in the borrow pits. The borrow pit and the material it holds will be capped with a 5-metre-high mound during construction. This will allow for the compression (shrinkage) of the soft material.

The depth of this borrow pit is approximately 7 metres below existing ground level. The depth has been selected to ensure the base is 2 metres above the groundwater table (groundwater level approximately 2mAOD, base of borrow pit approximately 4.5mAOD). Groundwater monitoring (both levels and quality) will be carried out during construction, at frequencies commensurate with the concurrent earthworks activities. The frequencies will be adaptable and the testing suits adjustable, depending on the previous results and prevailing conditions and concurrent activities (i.e. periods of heavy rainfall, during backfilling operations etc.).

The excavation, filling and capping of the borrow pits will be carried out with standard earthmoving and earthworks plant and machinery (i.e. bulldozers, trucks, excavators). The works will be carried out commensurate with standard construction practices, is excavation and filling only, so no pollution due to the works expected. Plant and equipment storage, refuelling and maintenance being carried out in a central location at a dedicated facility.

Some noise and visual impacts should be expected, although this will be controlled with noise attenuation and visual screening measures by retention of existing vegetation as defined. The activities will also generate dust, although again, will be controlled with standard measures (i.e. wetting down of dry materials, dust-suppression systems etc.). Working hours are expected to generally be standard and established site hours (i.e. daylight with some extension into dark hours in winter months), and as per the Construction Code of Practice (AS-273), which allows for 24-hour working.

1.2 Post construction – borrow pit

At the end of construction, it is intended to reinstate the land so that it can be farmed as arable land, as per the hand back plan (Ref 1). The area will be restored to its existing status, Grade 4, as shown in Plate 1.2.



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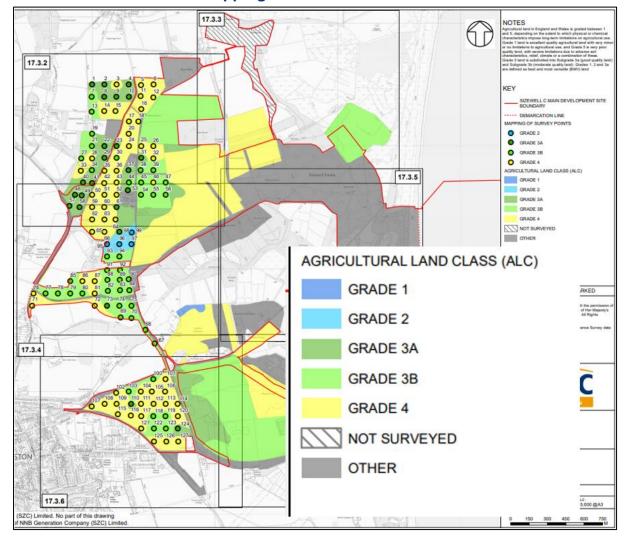


Plate 1.2: ALC mapping

This will involve removing of the capping material above the borrow pit area. Depending on the chemical characteristics of the material left *in situ*, the return process may include:

- Removal of upper borrow pit material and replacement with fill/soils suitable to underlay sub-soil.
- Capping of the peat and alluvium material with clay, or geosynthetic material, to allow for the root systems of future crops and vegetation to be unaffected.

Once the area is ready to be returned to arable land, suitable depths of sub-soil, and topsoil will be placed above the borrow pit, as part of returning the area to its pre-construction levels and conditions. It is currently envisaged that this sub-soil and topsoil will be, as much as reasonably possible, the material that was stripped from this site at the start of construction.



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REFERENCES

1. Main Development Site, Proposed Landscape Masterplan, PINS Ref AS-117, plan SZC-SZ0701-XX-000-DRW-100141