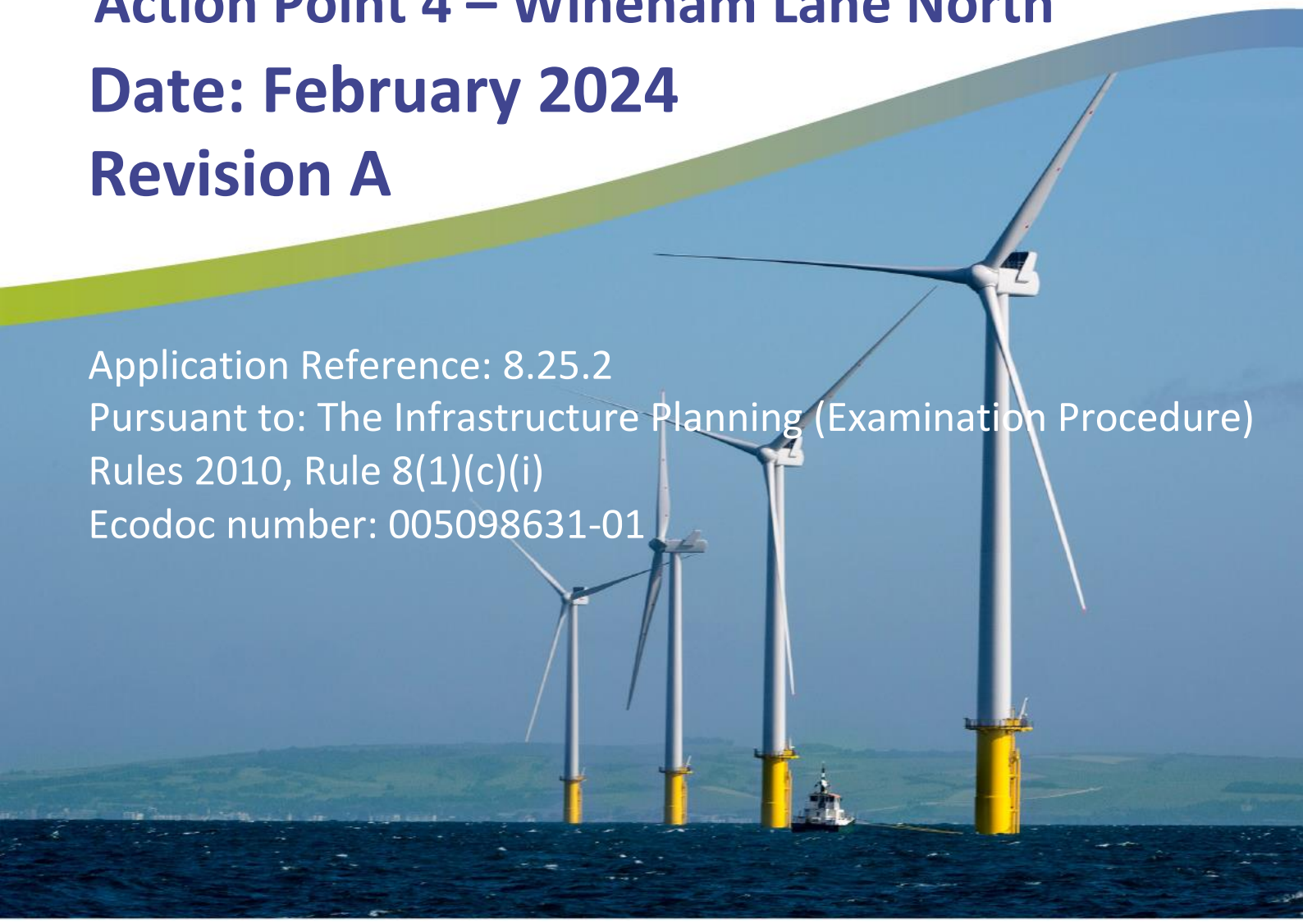
Rampion 2 Wind Farm
Category:
Examination Documents

Applicant's Post Hearing Submission – Issue Specific Hearing 1
Appendix 2 - Further information for Action Point 4 – Wineham Lane North

Date: February 2024
Revision A



Application Reference: 8.25.2
Pursuant to: The Infrastructure Planning (Examination Procedure) Rules 2010, Rule 8(1)(c)(i)
Ecodoc number: 005098631-01

Document revisions

Revision	Date	Status/reason for issue	Author	Checked by	Approved by
A	28/02/2024	Final for Deadline 1	WSP	RED	RED

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1. Introduction

1.1 Overview

1.1.1 Rampion Extension Development Limited (hereafter referred to as 'RED') (the 'Applicant') is developing the Rampion 2 Offshore Wind Farm Project ('Rampion 2') located adjacent to the existing Rampion Offshore Wind Farm Project ('Rampion 1') in the English Channel.

1.1.2 Rampion 2 will be located between 13km and 26km from the Sussex Coast in the English Channel and the offshore array area will occupy an area of approximately 160km^2. A detailed description of the Proposed Development is set out in **Chapter 4: The Proposed Development, Volume 2** of the Environmental Statement (ES) **[APP-045]**, submitted with the Development Consent Order (DCO) Application.

1.2 Purpose of this Document

1.2.1 This document provides further information requested in response to Action Point 4 which states "*Applicant to provide additional evidence and justification to explain why the Wineham Lane North site was discounted for the onshore substation, with a focus on the engineering and environmental constraints of site.*"

1.3 Response to Action Point 4

1.3.1 This Appendix provides the response to Action Point 4 (**AP4**) from Actions Points arising from Issue Specific Hearing 1 **[EV3-020]** regarding the provision of additional evidence and justification to explain why the Wineham Lane North site was discounted for the onshore substation. The oral evidence provided on this matter during Issue Specific Hearing 1 (ISH1) is summarised under Agenda Item Reference 2 (iii) in the **Applicant's Post Hearing Submission – Issue Specific Hearing 1 (Document reference 8.31)** submitted at Deadline 1. This document provides further detail on why Wineham Lane North was discounted and where necessary draws on the oral evidence from ISH1 to consider matters holistically. It also expands up the evidence provided in **Chapter 3: Alternatives, Volume 2** of the ES **[APP-044]**.

1.3.2 The Applicant notes there is no set framework to guide decision making on alternatives beyond the requirements of legislation and policy including:

- The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, Schedule 4 (2) which requires an indication of the main reasons for selecting the chosen option and a comparison of the effects; and
- National Policy Statement (NPS) EN-1 which state at paragraph 4.4.1 (NPS EN-1, Department of Energy and Climate Change (DECC), 2011) and 4.3.9 (NPS EN-1, Department for Energy Security and Net Zero (DESNZ), 2023) there is no general requirement for assessing alternatives, nor is it necessary for the project to choose the best option from a policy perspective.

1.3.3 NPS-EN-1 does note however that where there is a specific requirement in the policy or legislation to consider alternatives this should be done with relevant policy considered on a topic basis within the site selection process.

1.3.4 The appraisal of each site was undertaken using a multi-disciplinary analysis to consider engineering, environment, landowner matters and cost following a rating system of Black, Red, Amber and Green (BRAG). This included consideration of data collected by the Applicant and information provided via consultation.

1.3.5 With regards engineering, this included consideration of constructability, operational and maintenance requirements and the overall ability to deliver the necessary infrastructure. For environment this accounted for the sensitivity of each receptor associated with the site and the potential impact and applied a weighted scoring. For example, greater weight was given where impacts could arise to features afforded protection under legislation and in the National Policy Statements. Lower scores were assigned where features are absent or there would be no impact arising from the proposals. Landowner impacts were also considered, including the direct effects on the land, the area of land affected, and the likelihood of being able to secure the interest by private treaty and without reliance on powers of compulsory acquisition. Human rights and the application of the Equalities Act 2010 were also taken into account, and a cost evaluation was included.

1.3.6 The outcomes of the BRAG analysis were reviewed by the project team and informed a balanced decision to find a site that could deliver the planned project and its associated benefits. The specific considerations for the onshore substation site selection are described further below.

1.3.7 Both Wineham Lane North and Oakendene were included in the first statutory consultation as the two options for the onshore substation site. Following the review of the responses to the consultation to account for additional information obtained, each site was reviewed in detail from a multi-disciplinary perspective in a series of workshops.

1.3.8 To inform this process, outline engineering layouts were developed to provide further detailed consideration of how the sites could meet the engineering technical requirements within the identified site areas shown on Figure 3.10a of **Chapter 3: Alternatives – Figures, Volume 3** of the ES **[APP-044]**. These were used to inform the initial assessment of potential environmental impacts and allow development of achievable embedded environmental measures to seek to avoid, reduce or minimise these.

1.3.9 The site selection process was informed by considering the constraints in the round and driven by three main factors as follows.

1. Engineering

1.3.10 There was a clear preference for Oakendene in terms of being able to achieve the engineering and technical requirements necessary to deliver the objectives of the planned project – to deliver likely potential capacity of 1,200MW of clean renewable energy to the electricity transmission network. The engineering assessment of Wineham Lane North concluded the site would be unsuitable due to the more confined space, particularly on the north – south axis. The Examining

Authority requested the total area of each site during the hearing and these are given approximately as follows:

- Wineham Lane North: 15.8 hectares (ha); and
- Oakendene: 21ha.

1.3.11 Though the Wineham Lane site was over the initial 9ha criteria used to identify potential substation sites including the construction compound (see paragraph 3.6.5 in **Chapter 3: Alternatives, Volume 2** of the ES **[APP-044]**), the shape of the area was confined and narrowed with the application of a 25 metre stand-off from Ancient Woodland (Commitment C-216 of the **Commitments Register [APP-254]** provided at Deadline 1 submission). The resulting space presented significant challenges for site access and associated construction and operation and maintenance logistics. The site would be at risk of not complying with National Grid's standards.

1.3.12 The following provides further information with regards the engineering considerations.

Health and Safety

1.3.13 The Wineham Lane North site is in close proximity to a National Grid 400kV overhead line tower. Any construction activities in the proximity to the overhead line or the tower would have presented an additional level of health and safety risk, irrespective of mitigation and precautionary actions.

Access Requirements

1.3.14 For preliminary design of the substation layout, advice from the National Grid Technical Specification 2.01 (National Grid, 2018) requires that for all foreseeable activities appropriate level of access and egress for equipment and plant need to be appropriately considered in the design. This aligns with the Applicant's health and safety rules encompassing Safety-In-Design and the HSE Construction (Design and Management) Regulations. Related to this, the following aspects need to be considered even in the early design stages:

- Appropriate access space for large plant such as lifting equipment to be considered for construction as well as operation and maintenance phases.
- Access for abnormal indivisible loads, such as transformers, must be considered to facilitate a potential asset replacement, which means that logistics, turning circles and crane lifts need to be factored into the design.

1.3.15 These aspects appeared unfavourable at the Wineham Lane site during the technical evaluation of the site, principally due to the narrow shape of the site, providing insufficient space for these access requirements.

Earthworks

1.3.16 From an initial site assessment, the amount of required earthworks for levelling the site by cut and fill method was assessed to be substantially greater at the

Wineham Lane North site. This has also factored as additional construction time and cost into the site selection process.

Conformity with Standard Layout Design

1.3.17 Typically, substation layouts share elements of a standardised design layout, which is also reflected in the market available standard equipment. Deviations from the standard layouts are typically triggered by constrained or irregular land profiles. Such changes require bespoke engineering solutions and thereby have a commercial impact. Equally, bespoke design is usually less space efficient and often drives the overall site design towards a larger or more regular shaped site footprint overall.

1.3.18 Due to the narrow shape, the Wineham Lane North site was assessed to require an irregular design with the consequence of requiring non-linear busbars and a layout with assets that are mis-aligned with each other.

1.3.19 This has a visual impact, but also has unfavourable implications for prescribed physical separation requirements, inter-site cabling, operational activities (safe working), maintenance and construction scheduling. As mentioned above, the Wineham Lane North site is also in close proximity to a National Grid 400kV overhead line tower and the design would need to take any possible interaction with this existing asset into consideration.

Equipment Unit Commonality

1.3.20 A regular substation design will include an element of design commonality across multiple types of equipment and units, allowing compatibility of inter site services and thereby providing a level of redundancy. The review of the concept design layout for the Wineham Lane North site indicated that a deviation from regular substation design was likely, and therefore inter site asset commonality would be more challenging to achieve. To mitigate this, individual equipment units would have had to provide for some redundant operational systems. This would in turn need additional land, construction time and equipment cost.

1.3.21 As the Oakendene site location does not have such irregular design requirements due to a wider, more regular shape in N-S and E-W direction, it was assessed as the preferred option during the site selection process.

2. Landowner engagement

1.3.22 Landowner engagement had identified that a large proportion of Wineham Lane North site was subject to potential developments which were entering the planning stage.

1.3.23 Firstly, there was a land option agreed between one landowner with Welsh Power for grid stability infrastructure on the site. This had been subject to environmental impact assessment (EIA) screening with Mid-Sussex District Council at the time of site selection under planning reference DM/21/4285.

1.3.24 Secondly, engagement identified that the land on the eastern half of the site was also subject to a land option agreement for a battery energy storage system. This was also subject to EIA screening at the time of site selection under reference:

DM/22/0807. This subsequently came forward in March 2023 as the One Planet Battery Storage scheme under planning reference DM/23/0769.

1.3.25 At Oakendene, engagement at the point of site selection had shown the landowner was considering the potential expansion of the adjacent Oakendene industrial estate and the area for the onshore substation site including use for solar panels. Though some consultation had taken place, there was no application in the planning system at the time of site selection and this remains so to date.

1.3.26 In summary, Wineham Lane North had demonstrated developer interest for solar and battery storage schemes covering much of the intended site. At the point when the decision was taken to proceed with Oakendene substation site, there was an option agreement in place for a Grid Stability scheme on the western part of the Wineham Lane North site, which had been screened for EIA. This scheme would have conflicted with the Rampion 2 proposed substation land requirements. Furthermore, a land 'option' had been agreed between the freehold owner of the eastern part of the Wineham North land and a renewable energy development company (Ancleggan). All of the Ancleggan option land on the east and adjoining Grid Stability scheme option land on the west would have been required for the Wineham Lane North substation and therefore this requirement would have wholly conflicted with the proposed battery storage scheme on the option land.

1.3.27 When considering the status of potential development at Oakendene, at the time of the site selection it was considered there was the possibility of avoiding compulsory acquisition at the Oakendene site subject to further landowner engagement. These discussions have been ongoing since the site selection and have now progressed to the point exchanging of contracts on a voluntary agreement between the landowner and the Applicant in late January 2024, thereby avoiding the need for compulsory acquisition.

3. Environmental constraints

1.3.28 The third key consideration was the environmental constraints identified at the Wineham Lane North and Oakendene sites and the potential impacts which could lead to significant effects. In parallel, a review of the potential for onsite mitigation by employment of embedded environmental measures was also undertaken in the context of the initial engineering layouts.

1.3.29 Prior to site selection, data gathering and site specific surveys were undertaken to inform the decision making. The following text notes the data available and how it informed decision making.

Ecology

1.3.30 During ISH1, Mrs Meera Smethurst questioned whether each site had been subject to ecology surveys at the time of site selection. The Applicant can confirm that both desk based data collection and surveys following industry guidelines had been undertaken on the sites and the information used to inform decision making. The consideration between the two potential substation options was informed by the ecological desk study (including data gathered as part of the Rampion 1 project when that project considered its connection to the National Grid Bolney substation), extended Phase 1 habitat survey, hedgerow survey, great crested newt survey, bat activity survey (including walked transects and static detectors),

badger survey, otter survey and water vole survey, reptile survey and breeding bird survey.

1.3.31 For terrestrial ecology, there was no material difference in the likely significant effects between the Wineham Lane North site and Oakendene when considering this survey information and the standard industry measures required as embedded environmental measures applied to manage impacts on ecology. This includes those identified to manage impacts during construction including section 5.6 'Terrestrial Ecology and Nature Conservation' in the **Outline Code of Construction Practice (CoCP)** **[APP-224]** and secured through Requirement 22 in the **Draft Development Consent Order** **[PEPD-009]**.

1.3.32 The design principles established in the **Design and Access Statement (DAS)** **[AS-003]** such as retaining and strengthening the existing tree lines around the borders of the site and an overall increase in the extent of habitat for a number of species as a result of the planned landscaping and ecological enhancement measures committed to in the DAS.

1.3.33 The Applicant notes that presence of hazel dormouse on the Oakendene site was confirmed in surveys that followed site selection and further embedded environmental measures including provision of a 15m strip of advance woodland planting along the north-western edge of the substation site have been added to provide mitigation for the loss of habitat within the maximum substation footprint (see Oakendene Onshore Substation – Indicative Landscape Plan in Appendix D of the **DAS** **[AS-003]**). This is secured by the **Draft Development Consent Order** **[PEPD-009]** Requirement 8 (2) which states that the detailed design must accord with the principles set out in the **DAS** **[AS-003]**.

Historic Environment and Landscape

1.3.34 Further environmental survey information from the Rampion 1 project was also provided for consideration. This included results of the archaeological investigations at Wineham Lane North that identified the presence of late Iron Age/Roman field system and associated pits (assessed as low to medium heritage significance), remains of medieval field systems (assessed as low heritage significance), and residual Bronze Age pottery (assessed as low heritage significance). Additionally geophysical surveys were undertaken at both sites, with no anomalies of definite archaeological interest at Oakendene. It was expected that archaeological impacts at both Oakendene and Wineham Lane North could be mitigated to an acceptable level through archaeological investigation and recording.

1.3.35 For landscape and heritage, walkovers by experts were also conducted. This included viewing the potential setting related impacts to Listed Buildings near each site. These include the two Grade II listed buildings, Coombe House and Twineham Court Farmhouse, at Wineham Lane North and the Grade II listed Oakendene Manor at Oakendene. The potential for significant effects on the setting of Oakendene Manor was highlighted at the time of decision making and given considerable importance and weight during this process in line with the protection afforded under policy in Section 5.9 of NPS EN-1(2011) and replicated in paragraph 5.10.32 of the NPS En-1 (2023). Comments from West Sussex County Council (WSCC) noted that if Oakendene was taken forward, a parkland

assessment should be undertaken to understand the significance of parkland and its contribution to significance of Oakendene Manor. This has been provided in **Appendix 25.5: Oakendene parkland historic landscape assessment, Volume 4** of the ES **[APP-211]**.

1.3.36 Additionally, comments were received from WSCC that design including effective screening should be a key part of the proposals. As per **AP6** arising from ISH1, further evidence is to be provided by the Applicant to corroborate the conclusions on the effects on setting of Oakendene Manor. This includes consideration of the screening and parkland style planting provided for by the principles in the **DAS [AS-003]** as secured by the **Draft Development Consent Order [PEPD-009]** Requirement 8 (2). This is shown on the Indicative Landscape Plan contained in Appendix D of the **DAS [AS-003]**.

Access and Public Rights of Way

1.3.37 Site surveys also showed that Wineham Lane North was less preferable from an access perspective due to the requirement to cross multiple adjacent private accesses, affecting the amenity of the adjacent residential properties plus the need for traffic management on the route due to pinch points for HGVs which is avoided with the access off the A272 for Oakendene. The likely need to permanently close and divert the section of footpath 1T / 36Bo that runs through the Wineham Lane North site was also identified. Where footpath 1786 runs through the south-west corner of the Order Limits at Oakendene, this will remain outside the footprint of the onshore substation itself and remain open during construction and operation as shown on Sheet 33 of the **Access, Rights of Way and Streets Plan [APP-012]**. The Applicant notes that the temporary closure and diversion of a different section of Footpath 1786 is associated with the temporary construction compound at Oakendene West and not the onshore substation works.

Embedded environmental measures

1.3.38 During the site selection process concepts were developed for each site to ensure that there was the available space to seek to avoid, reduce and minimise any impacts arising.

1.3.39 The ability to develop the required embedded environmental measures at each site was also considered during the site selection process. The Wineham Lane North site is bounded by Ancient Woodland along approximately one third of the northern boundary of the site, the application of a 25 metre stand-off from Ancient Woodland (see commitment C-216 in the **Commitment Register [APP-254]** which has been updated at Deadline 1) further constrained the north – south axis of the site described earlier. The Forestry Commission expressed a preference for the Oakendene site due to the proximity of ancient woodland to Wineham Lane North.

1.3.40 Both sites were in Flood Zone 1 and at risk of surface water flooding which required the allocation of additional space beyond the engineered footprint in order to provide the necessary space for drainage solutions. The Wineham Lane North site was markedly more restricted in terms of available space to provide a suitable drainage solution for runoff when compared to Oakendene (and the measures presented in the **Outline Operational Drainage Plan [APP-223]**).

1.3.41 In relation to operational noise, there was a likely need to increase the footprint of the substation itself at Wineham Lane North to account for the need for restrictions on layout, additional space requirements for acoustic screening as well as stringent restrictions on plant choice. This is because the existing noise environment is affected by the existing National Grid Bolney substation and the Rampion 1 substation which was likely to make it more onerous to meet the necessary levels to avoid adverse impacts at residential receptors.

1.3.42 The Applicant has given considerable weight and importance in the decision to proceed with Oakendene to including the ability to provide embedded environmental measures to minimise the likely effects from a landscape and historic environment perspective associated with the Oakendene site. It was identified at Oakendene that the site area allowed for further refinement of the engineering footprint and areas for landscaping and ecological mitigation and enhancement including:

- Siting the maximum footprint of the onshore substation within the area best screened by existing trees and vegetation and provision of trenchless crossings to maintain this screening and habitat where the onshore cable route enters the onshore substation site and the onward connection to the existing National Grid Bolney substation site;
- Siting the maximum footprint to avoid interrupting the view between the manor house and the boating lake to the south of the site; and
- Planting of further woodland to strengthen the existing screening around the site and provision of scrub, hedgerow and parkland style planting to provide mitigation and enhancement.

1.3.43 These measures are secured in the design principles within the **Design and Access Statement** **[AS-003]** with which the detailed design of the onshore substation and landscaping must comply as per draft DCO requirements 8 (2) and 12 (3). The Applicant will seek to continue engagement with Horsham District Council and West Sussex County Council on these design principles and other Interested Parties (insofar as they are willing) and will seek to update the Design and Access Statement at Deadline 3.

Planning considerations

1.3.44 The decision was taken to discount Wineham Lane North on the basis of the three main factors outlined above when considered holistically and in order to deliver the planned project. The Proposed Development and the associated benefits are outlined in the **Planning Statement** **[APP-036]** paragraphs 5.4.3 to 5.4.6 and include delivering renewable electricity and making a positive contribution to the UK Government's target to reach net zero emissions by 2050. The Applicant considers that these benefits and need for renewable energy outweigh the adverse effects identified in the ES of the Proposed Development as a whole including those related to the onshore substation site at Oakendene. The Proposed Development will deliver on the urgent need for provision of low carbon infrastructure which has been identified by the UK Government as a Critical National Priority (NPS EN-1, 2023).

1.4 References

Department for Energy Security & Net Zero (DESNZ), (2023). *Overarching National Policy Statement for Energy (EN-1)*. (Online) Available at: https://assets.publishing.service.gov.uk/media/65bbfbdc709fe1000f637052/overarching-nps-for-energy-en1.pdf (Accessed: February 2024).

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National Grid, (2018). *Technical Specifications 2.01. Substations – Part 1 – Procedural*. (Online) Available at: https://www.nationalgrideso.com/document/33111/download (Accessed: February 2024).

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