Consultation

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Draft Determination on National Grid Electricity Transmission's North Wessex Downs – Visual Impact Mitigation Re-Opener

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Response deadline:	15 December 2023
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We[1] are consulting on National Grid Electricity Transmission's (NGET) Visual Impact Mitigation Re-opener application for the North Wessex Downs project. As governed by Special Condition (SpC) 3.10 (Visual Impact Mitigation Re-opener and Price Control Deliverable and Enhancing Pre-existing Infrastructure Projects allowance ($VIMRE_t$ and EPI_t)) of NGET's electricity transmission licence (the Licence). We particularly welcome responses from people with an interest in electricity transmission networks. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at ofgem.gov.uk/consultations.

If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response

[1] The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority (the Authority). Ofgem operates under the direction and governance of the Authority.

Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU.

This publication is available at www.ofgem.gov.uk. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

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1. Executive Summary

1.1 Network companies are natural monopolies. Effective regulation of privatised for profit monopolies is essential to ensure they cannot unfairly exercise their monopoly power to the detriment of their customers. This is particularly important in the case of essential utilities, such as energy, where consumers have no choice on whether or not to pay what they are charged. It is therefore crucial that an effective regulator protects energy consumers by controlling how much network companies can charge their customers. Ofgem does this through periodic price controls that are designed to ensure network companies are properly incentivised to deliver the best possible outcomes for current and future energy consumers. This includes ensuring that consumers only pay for investments that are needed and do not overpay for those investments.

1.2 We are consulting on our assessment of a funding request made by National Grid Electricity Transmission (NGET) to deliver a new Visual Impact Mitigation Price Control Deliverable (PCD) as part of its RIIO-2[2] price control.

1.3 NGET made a re-opener application in February 2023 under Special Condition (SpC) 3.10 (Visual Impact Mitigation Re-opener and Price Control Deliverable and Enhancing Pre-existing Infrastructure Projects allowance (VIMREt and EPIt)), for a direction to add a new Visual Impact Mitigation PCD and associated allowance to Appendix 1 of SpC 3.10. The proposed project will replace 4.6km section of 400kV double circuit overhead lines (OHL) (knowns as YYM.1) and towers with an underground cable and associated infrastructure, on the North Wessex Downs Area of Outstanding Natural Beauty (AONB). NGET proposes to deliver the North Wessex Downs project by 2026.

1.4 This consultation sets out our views on the North Wessex Downs project in the following areas:

- whether NGET has compiled with the requirements in SpC 3.10 of its electricity transmission licence (the Licence);
- whether NGET has complied with its Visual Impact Provision (VIP) policy[3] in selecting the Visual Impact Mitigation PCD;

[2] The term RIIO is used to refer to (Revenue = Incentives + Innovation + Outputs)
[3] The term Visual Impact Provision (VIP) policy is a term used to refer to the "*Mitigating Pre-existing Infrastructure Policy*" as set out in SpC 3.10 Part C of NGETs transmission licence.

- whether the technical scope of the proposed Visual Impact Mitigation PCD is justified; and,
- whether the proposed costs for delivering the Visual Impact Mitigation PCD are efficient.

1.5 Based on the documentary evidence provided in its application, we are satisfied that the steps taken by NGET meet the commitments set out in its 2021 VIP policy and that the North Wessex Downs project is a valid outcome of working with stakeholders on the selection of new visual impact mitigation projects to deliver under its RIIO-2 price control.

1.6 From our assessment of the Options Appraisal Study, we are satisfied that NGET and the Stakeholder Advisory Group considered an appropriate range of options to potentially address the visual impacts of the YYM.1 section of OHLs. We also consider that the technical scope of NGET's proposed visual mitigation project is appropriate given the characteristics of the area and the complexity involved in an underground cabling project.

1.7 In October 2023, NGET submitted an updated costing to their February re-opener application from £57.35 million to £67.69 million (2018/19 prices) to deliver the North Wessex Downs project, following significant increase in the contractor's final price submission. The increased costs are due to market pressures affecting the cost of materials and labour for installation.

1.8 Based on the additional information provided, we acknowledge that visual impact mitigation projects are justified to a large extent by the intangible benefits they are expected to deliver. However, the impacts of current market conditions and constraints in the cable supply chain, have further highlighted the need for Ofgem to properly scrutinise the proposals and to establish whether it is appropriate for consumers to prioritise visual impact improvement funding in RIIO-2. We have assessed NGET's proposed project costs for the North Wessex Downs project and carefully considered the impacts of the recent changes and potential for future cost escalations on this project. On the basis of contractor costs being competitively tendered, we are satisfied that they are reflective of the prices currently available given the constrained market conditions.

1.9 For the proposed contractors' costs, we consider that NGET included some indirect activity costs in its Visual Impact Mitigation Re-opener funding application which we propose to remove. Instead, NGET will receive an automatic funding

uplift from the Opex Escalator[4] included in its price control, specifically to provide allowances for indirect activities on new projects. We are satisfied that NGET's other direct activity costs are efficient and propose to allow these.

1.10 We have disallowed NGET's RIIO-1 expenditure as well as expenditure expected to be incurred in RIIO-3 from its funding request. This is because SpC3.10 only provides for allowances in RIIO-2. Should the project go ahead, then the remaining RIIO-3 allowances may be provided as part of NGET's RIIO-3 settlement.

1.11 We have also assessed NGET's proposed risk and contingency costs. Our draft view is to award NGET a 7.5% risk provision for the North Wessex Downs project. The 7.5% risk provision will be applied to the efficient total direct cost following our proposed adjustments in chapter 5.

1.12 The remainder of this document summarises NGET's Visual Impact Mitigation Re-opener submission and explains our findings to support our Draft Determination. We welcome responses to our consultation, in particular on the specific questions we have included in Chapters 3, 4 and 5. The deadline for responses is 15 December 2023.

[4] Special Condition 3.36 Opex Escalator (OE_t)
This OPEX escalator allowance calculation is predicated on the view of efficient Closely Associated Indirect (CAI) baseline allowances established at Final Determination (FD) which utilised the relationship between direct capex and CAI and subsequently applies this relationship to any direct capex allowances agreed under a defined list of uncertainty mechanisms.

2. Introduction

What are we consulting on?

2.1 We are consulting on our assessment of a £67.69m[5] funding request made by NGET in under SpC 3.10.11, to deliver a new Visual Impact Mitigation PCD under the VIP policy of the RIIO-2 price control. NGET has proposed the removal of 4.6km section of existing 400kV double circuit overhead electricity transmission line (knowns as YYM.1) and 13 towers, to be replaced with an underground cable, to enhance the views surrounding north of Devizes in the North Wessex Downs AONB.[6] NGET is to deliver this and other associated works by 2026.

Context

2.2 As part of the RIIO-1 price control, we introduced a new policy for electricity transmission owners to reduce the visual impact of pre-existing transmission infrastructure in nationally designated areas and their settings.[7] The policy applies to the following designated areas: National Parks, AONB, and National Scenic Areas.

2.3 In RIIO-2 price control, we established a £465m provision (2018/19 prices) for Electricity Transmission Operators (TOs) to mitigate the visual impacts of existing infrastructure in National Parks, AONB and National Scenic Areas in Great Britain.[8] An electricity transmission licensee can propose a new Visual Impact Mitigation PCD and request funding for these under its price control, as long as it has a policy in place for working with stakeholders on the selection of visual impact improvements projects[9] within their transmission area.

2.4 As part of the RIIO-2 Final Determinations (FD), a volume driver allowance of £13.40m was made available to NGET for uprating the section of the Bramley-Melksham double circuit OHL route that runs through the North Wessex Downs. The volume driver allowance was made available to deliver wider customer

[5] Unless otherwise stated, all values are in 2018/19 prices (to align with the original RIIO-2 price base).
[6] Area of Outstanding Natural Beauty means an Area of Outstanding Natural Beauty designated under the National Parks and Access to the Countryside Act 1949 (including any amendments) and the Countryside and Rights of Way Act 2000.
[7] Pre-existing transmission infrastructure is defined as transmission infrastructure assets forming part of the licensee's Transmission System as of April 2013.
[8] RIIO-2 Final Determinations Electricity Transmission System Annex (REVISED). Set into the Licence in SpC 3.10 Appendix 2.
[9] 'Visual impact improvement projects' is a term to refer to both the "*Enhancing Pre-existing Infrastructure (EPI) projects*" and "*visual impact mitigation projects*".

connection enabling works by 2025,[10] and did not include a visual impact mitigation component. NGET submitted this Re-opener application in February 2023, under SpC 3.10 (Visual Impact Mitigation Re-opener), seeking additional funding to deliver visual impact mitigation interventions required for the North Wessex Downs project.

2.5 Under SpC 3.10 of the Licence, Ofgem can direct amendments to NGET's RIIO-2 licence to add a new Visual Impact Mitigation PCD and associated allowance to Appendix 1, where no allowance has been awarded as part of their baseline allowance.[11] Projects within the scope of that licence condition will be considered and scrutinised by Ofgem to establish the level of efficient costs to be remunerated.

Consultation approach

2.6 In its application, NGET has provided Ofgem with supporting evidence on its implementation of its VIP policy. This includes explanation of how it has worked with stakeholders to identify and prioritise the North Wessex Downs project to deliver a Visual Impact Mitigation PCD output, as well as details of the proposed technical scope of the project and forecast project costs.

2.7 We are issuing this consultation following our assessment of NGET's Visual Impact Mitigation Re-opener application. We considered NGET's proposal and the funding requested in accordance with our principal objective and statutory duties. In line with SpC 3.10 of the NGET RIIO-2 licence and the Re-opener Guidance and Application Requirement Document, our assessment covers the following areas:

- NGET's fulfilment of the key commitments of its VIP policy, including working with stakeholders to identify and prioritise the North Wessex project;
- the options considered by NGET and whether the proposed technical solution is justified; and

[10] Customer connection projects are driven by the respective outcomes from the National Grid Electricity System Operator's (NGESO) Network Options Assessment (NOA). NOA recommends which reinforcement projects should receive investment. These projects are major electricity transmission network reinforcements, as defined in the NOA methodology.

[11] The policy, introduced in the RIIO-1 electricity transmission price control, for addressing the impacts of existing transmission infrastructure in designated areas that was continued in RIIO-2. The RIIO-2 licence condition SpC 3.10 is largely based on the RIIO-1 licence condition SpC 6G but was amended to include a provision on how the regulatory approval process would work in the RIIO-2 price control period for project proposals submitted before the end of RIIO-1.

- whether the proposed costs for delivering the Visual Impact Mitigation PCD are efficient.

2.8 We are also issuing our draft direction for implementing the Authority's decision on the Licensee's application to the Authority to add a new Visual Impact Mitigation PCD and associated funding into its RIIO-2 price control framework. Through this consultation we are seeking views on our assessment of NGET's North Wessex project and on our Draft Determination position to approve this proposal for additional funding.

Context and related publications

2.9 The scope of this consultation is limited to NGET's Visual Impact Mitigation Re-opener. This document is intended to be read alongside:

- the RIIO-2 FDs – Core Document (REVISED)[12]
- the RIIO-2 FD – NGET Annex (REVISED) [13]
- NGET's Special Licence Conditions[14]
- RIIO-2 Re-opener Guidance and Application Requirements Document[15]

Consultation stages

2.10 This consultation and draft direction will open on 17 November 2023 and close on 15 December 2023. We will review responses before finalising and publishing our decision and corresponding direction in the beginning of 2024. The actual decision publication date will be contingent on the number responses we receive, the complexity of any issues raised, and necessary resource availability. Our priorities are ensuring that we give full consideration to all responses and that we make final decisions that are in the best interests of consumers.

[12] RIIO-2 Final Determinations - Core Document (REVISED) (ofgem.gov.uk)
[13] RIIO-2 Final Determinations – NGET Annex (REVISED)
[14] https://www.ofgem.gov.uk/industry-licensing/licences-and-licence-conditions
[15] Re-opener Guidance and Application Requirements Document: Version 3 | Ofgem

Figure 1: Consultation stages.

Stage 1	Stage 2	Stage 3	Stage 4
Consultation open on Ofgem's draft determination and notice of draft direction.	Consultation closes (awaiting decision). Deadline for responses	Responses reviewed and published	Consultation decision/policy statement and direction.
17/11/2023	15/12/2023	Early 2024	Early 2024

How to respond

2.11 We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

2.12 We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

2.13 We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

2.14 You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

2.15 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

2.16 If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its

statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

2.17 If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

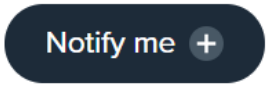
2.18 We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

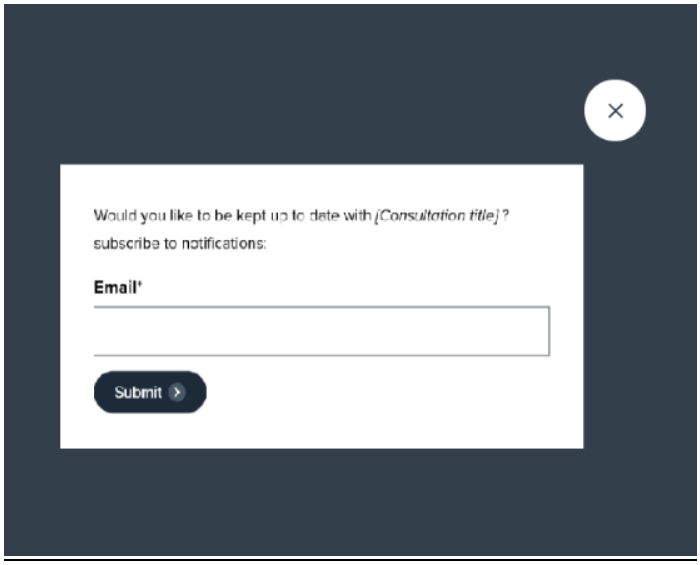
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

2.19 You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. Ofgem.gov.uk/consultations





Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:

Upcoming > **Open** > **Closed** (awaiting decision) > **Closed** (with decision)

3. Implementation of NGET's Visual Impact Provision Policy

Section summary

In this section, we summarise the steps taken by NGET to implement its VIP policy and our view on whether NGET has met its commitments to work with stakeholders on the selection of visual impact improvement projects.

Questions

Q1. Do you agree with our draft view that NGET has fulfilled its VIP policy commitments?

Q2. Do you agree with our draft view that the North Wessex Downs project is the valid outcome of NGET working with stakeholders on the selection of visual impact improvement projects?

NGET's VIP policy and project selection

3.1 NGET submitted its VIP policy to Ofgem in 2014. This was approved in March 2014 following a public consultation.[16] The policy sets out how NGET will work with stakeholders during RIIO-1 to identify visual impact improvement projects and to maximise the benefits of these for consumers.

3.2 As part of its of its VIP policy, NGET published a Landscape and Visual Impact Assessment (LVIA) methodology that was principally prepared for NGET by qualified landscape professionals. The methodology is based on an assessment framework in the Guidelines to Landscape and Visual Impact Assessment (GLVIA3). The VIP policy sets out the process and methodology used to identify existing NGET infrastructure that has the greatest impact on AONBs and National Parks, and which offers the greatest opportunities for benefit-maximising outputs.[17]

[16] Ofgem response to National Grid Electricity Transmission's proposed Visual Impact Provision policy can be found here: https://www.ofgem.gov.uk/publications/response-our-consultation-national-grid-electricity-transmissions-proposed-visual-impact-provision-policy

[17] Visual Impact Provision (VIP): Landscape and Visual Impact Methodology. Available at: http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=37294

3.3 In accordance with SpC 3.10.6, NGET reviewed and proposed minor revisions to its VIP policy. The document was submitted to Ofgem in 2023, which was subsequently reviewed and approved by the Authority in the same year.[18]

3.4 In 2014, NGET established a national Stakeholder Advisory Group (SAG),[19] consisting of representatives from stakeholder organisations such as National Parks England, National Parks Wales, the National Trust, Historic England, the Landscape Institute to help identify priorities for the use of the visual impact provisions within the TO's licence (SpC 3.10). The group's primary role is to advise NGET on key decisions, on the basis of the guiding principles (the five principles of NGET's VIP policy). These are as follows:

- result in greatest landscape enhancement benefits;
- result in greatest opportunities to conserve and enhance natural beauty, wildlife and cultural heritage whilst avoiding unacceptable environmental impacts;
- result in greatest opportunities to encourage public understanding and enjoyment of the protected landscapes, including positive socio-economic impacts;
- are technically feasible in context of the wider transmission system; and
- are economical and efficient.

3.5 From 2014, NGET convened the SAG regularly and held a multi-stage selection process for prioritising visual impact improvement projects. This involved:

- a landscape and visual impact assessment of all 571km of transmission lines in National Parks and AONBs in England and Wales, from which the SAG shortlisted 12 sections of OHL based on their high adverse impact on the landscape.[20]

[18] A copy of the Authority's review of NGET revised VIP policy can be found on the Ofgem website.
[19] Stakeholder Advisory Group comprises of senior representation from 15 stakeholder bodies, namely: Cadw, Campaign for National Parks, Campaign to Protect Rural England (CPRE), The Campaign for the Protection of Rural Wales, Historic England, the Landscape Institute, the National Association for Areas of Outstanding Natural Beauty (AONBs), National Parks England, National Parks Wales, the National Trust, Natural England, Natural Resources Wales, The Ramblers, Visit England and Visit Wales.
[20] A copy of the landscape and visual assessment can be found here: https://www.nationalgrid.com/electricity-transmission/document/84141/download

- the identification and appraisal of potential mitigation options for all 12 shortlisted sections of lines, which were also consulted on with local Stakeholder Reference Groups (SRG).[21]
- the SAG ranking of the mitigation options for the 12 shortlisted sections against the five VIP principles in order to make a recommendation to NGET on the sections of lines and visual impact improvement measures to be progressed for further development.

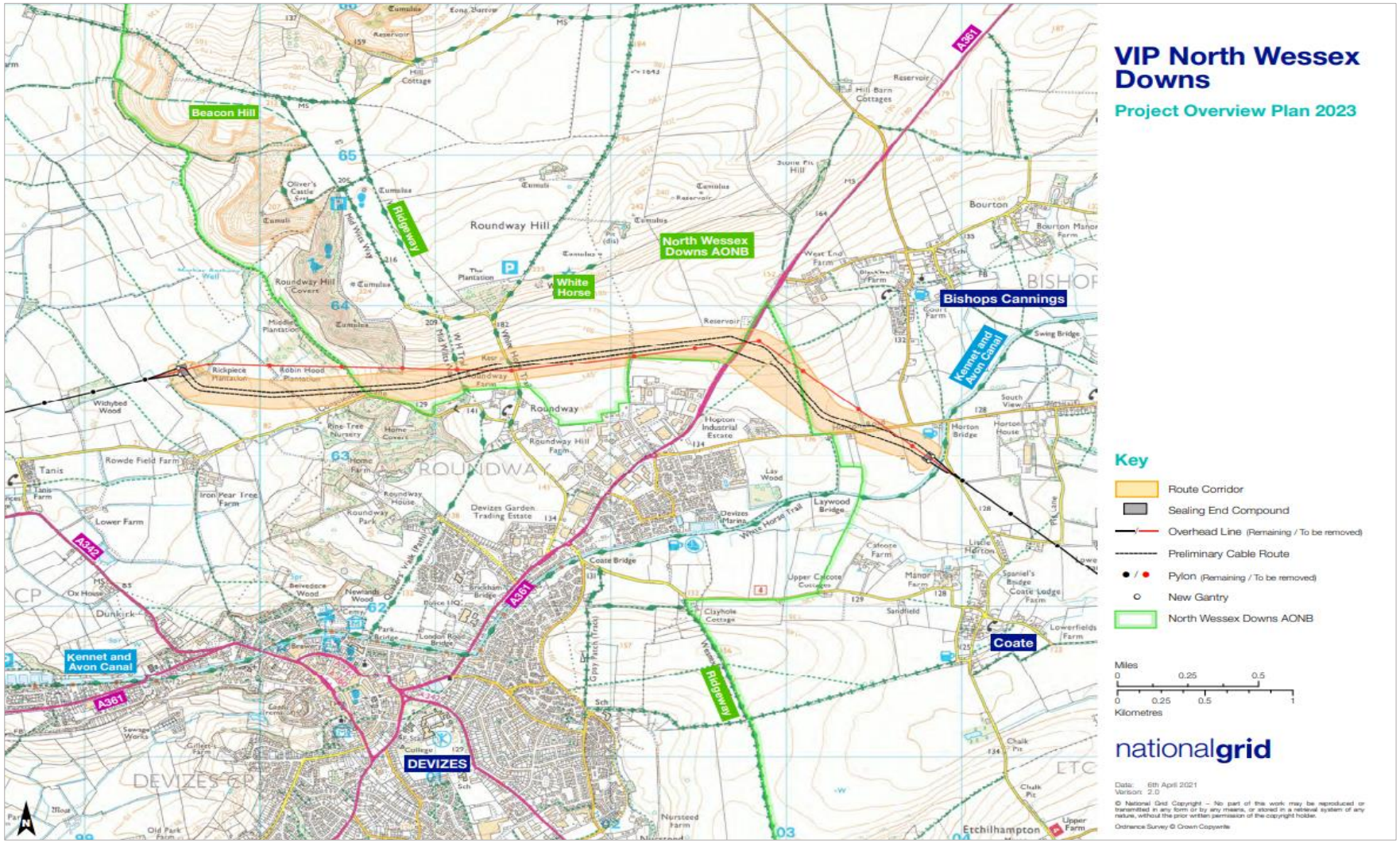
3.6 In its submission, NGET highlighted that subsection YYM.1 of the North Wessex Downs AONB was initially subjected to formal land and visual impact assessment and the benefits the project will bring. Application of the agreed method and scoring placed subsection YYM.1 just outside of the 12 shortlisted subsections of transmission line in terms of landscape and visual impacts. Following further considerations in 2018, the overhead line section, YYM.1, was later recommend to NGET by the SAG as one of the projects to prioritise in RIIO-2.[22]

Route selection

3.7 The YYM.1 OHL forms part of a 400kV double circuit OHL that runs between Bramley 400kV and Melksham 400kV in the Southwest of England. The North Wessex Downs project focuses on a section of line within the Vale of Pewsey to Milton Lilbourne, where it converges with the 132kV Distribution Network Operator (DNO) line. There are four sections of towers that crosses North Wessex AONB and runs from proximity to the village of Rowde and finishes close to the Bridge Inn at Horton.

[21] The stakeholder reference group was established in 2019 for the purpose of guiding the North Wessex Downs project at the local level.
[22]Ofgem approved NGET's funding requests for EPI projects in Dorset and the Peak District, and also adjusted allowances for NGET to recover the efficient costs incurred on development work for the New Forest EPI project up to the point the project was mothballed due to environmental challenges posed by the EU Habitats Regulations. The other overhead line section prioritised for visual impact improvements in RIIO-2 was Cotswold AONB (Section ZF.2).

Figure 2: Indicative YYM Route for North Wessex Downs project



Expected benefits of the North Wessex Downs project

3.8 NGET has assessed the impacts of YYM.1 and the expected benefits of the removal of the transmission infrastructure along specified line section of North Wessex AONB. This is summarised below.

Landscape and visual enhancement benefits

3.9 The landscapes that will benefit the most from the North Wessex Downs project are the large scale open landscape of Horton Downs, the Vale of Pewsey landscape along where the foothills and the extensive open low lying landscape that is enclosed by the escarpment meet and parts of the Rolling Clay Lowland landscape. These areas form an important element of the North Wessex AONB as they are susceptible to landscape and visual impacts of the transmission line and associated infrastructure.

3.10 The communities affected by views of the existing YYM.1 subsection of the overhead line are relatively small and dispersed. With the removal of the transmission infrastructure, the main visual enhancement benefits of the project will also be enjoyed by different groups of people. This includes local communities in the villages and settlements, users of the promoted recreational amenities (ie footpaths, cycle routes etc), visitors to publicly available sites, users of local rights of way network and users of transport routes.

3.11 The current landscape and visual impact score of 24 (donating impacts of high significance) is expected to reduce to 9 after the removal of the large-scale towers and the screen planting around the cable sealing end compounds has had time to mature.[23] Overall, the mitigation project is therefore considered to have a moderate beneficial impact on the character of the landscape of the Vale of Pewsey north of Devizes.

Opportunities to conserve and enhance natural beauty, wildlife and cultural heritage

3.12 NGET highlights that the effectiveness of the North Wessex project in achieving conservation and enhancing natural beauty are linked to the expected visual benefits, due to the specific effects on the special qualities relating to landscape. This includes improved perception of the character and quality of the landscapes within the North Wessex AONB. An additional benefit will be the enhanced

[23] A score of greater than 25 denotes an impact of 'very high importance' while a score from 0 to 9 indicated an impact of 'lower importance'.

tranquillity in the area though the removal of detracting electricity transmission infrastructure. Enhancing the area's special qualities will also bolster the recreational enjoyment of walkers and those visiting publicly accessible areas and tourist destination.

3.13 NGET notes that the works involved in the project will have an impact on some of the sites that are designated to be of importance to nature conservation. However, it expects as a result of mitigation and enhancement measures incorporated during and after the construction, that direct and indirect impacts on these sites will either be avoided, reduced or mitigated. Mitigation measures include, precautionary working measures, re-instatement of important habitat, and landscape planting. Through consultations with various stakeholders, NGET also identified additional offsite enhancement opportunities to support its Biodiversity Net Gain (BNG) commitment.[24]

3.14 Subsection YYM.1 and its immediate setting is of interest to cultural heritage and landscape history, including considerable archaeological interest across the entire cable route. NGET expects there to be no direct operational effects on heritage assets as a result of the works to be carried out. The removal of the OHL and towers is expected to result in significant improvements to the setting of several nationally significant designated heritage assets.

Opportunity to encourage public understanding and enjoyment of the protected landscapes

3.15 NGET envisages the North Wessex Downs project to be a benefit to residents within the local community and to visitors and tourist to the area. Tourist attractions close to the existing OHL include the modern Devizes White Horse chalk escarpment, and Oliver's castle Hill Fort lying west of the White Horse, as well as the kennet and Avon Canal to the east.

In addition to the Wessex Ridgeway and the White Horse trail, there are several rights of way network in close proximity to subsection YYM.1, giving local residents and visitors access to the landscape, rich cultural heritage and the historic and natural features to be found in the area. As a result of the improved visual amenity and special qualities of the area, the project is also likely to result in an enhanced experience of the nationally designated landscape for local communities and visitors to the area.

[24] Biodiversity net gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand.

Our views on NGET's implementation of its VIP policy

3.16 Our draft view is that NGET has provided good documentary evidence to demonstrate the steps it has taken to implement the key commitments of its VIP policy and how it has resulted in the selection and development of the North Wessex Downs project. We support NGET's use of professional landscape assessment of impacts of all its transmission infrastructure in designated areas in England and Wales. We also support the use of the GLVIA3 assessment approach. We think this method is appropriate as the GLVIA3 is widely recognised as industry standard for assessing landscape and visual amenity impacts and is recommended as good practice by relevant professional institutes.

3.17 Stakeholder input is essential to make the most of the RIIO-2 visual impact provision. We think NGET provided good evidence to demonstrate early engagement with national and local stakeholders in each of the designated areas. For example, minutes from the SAG meetings summarise each stage of the selection process, application of the prioritise criteria including the considerations covered by the SAG in making its recommendations on the projects to be prioritised for development in RIIO-2.[25]

3.18 We also welcome NGET continued with engagement the SAG in furthering the technical development of the North Wessex Downs project. For example, technical workshops and public drop-in session were held to inform mitigation options and help to identify any potential problems and challenges.[26]

3.19 NGET provided a comprehensive qualitative description of the estimated benefits the project will deliver. On the basis of NGET's analysis of the pre-mitigation impact of the existing line and the post-mitigation benefits and effects, our draft view is that the project will benefit consumers by mitigating adverse impact of the existing transmission infrastructure on the highly valued landscape within the designated area and its setting.

3.20 Overall, we are satisfied that NGET have complied with the relevant Re-opener application criteria (specified in SpC 3.10.13 of its Licence) by delivering the key commitments set out in its VIP policy, and that the North Wessex Downs project

[25] https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/visual-impact-provision.
[26] Stakeholder engagement section of the North Wessex Downs options appraisal report (nationalgrid.com)

is a valid outcome of NGET working with stakeholders on the selection of the project.

4. Assessment of options and proposed project

Section summary

In this section, we summarise the options considered by NGET, our views on the option appraisal and whether its proposed visual mitigation project is justified.

Questions

Q3. Do you agree with our views on the option appraisal carried out by NGET?

Q4. Do you agree with our view on the technical scope of the North Wessex Downs project proposed by NGET?

Options assessment

4.1 Throughout 2015, NGET investigated the feasibility of potential methods to reduce the adverse impacts of the YYM.1 overhead line section on the North Wessex AONB.[27] This assessment took the form of an Options Appraisal Study covering the technical, environmental, socio-economic factors and cost. While costs were considered throughout, environmental and socio-economic factors had overriding considerations.

North Wessex Downs options appraisal study

4.2 We summarise below the main options included in the study, along with NGET's view on their feasibility.

Option 1: Alternative tower design using same route of the current overhead line

4.3 Alternative towers, such as low height lattice or T-Pylons were considered replacements for the current 400kV OHL. To maintain the current route alignment, the existing line would have to be temporarily diverted during the construction work. Temporary diversion would require the construction of a new OHL route which would sequentially require consent. Option 1 was not supported by stakeholders and the project team. They considered this option would not sufficiently mitigate the landscape and visual impacts to justify the costs and disruptions.

[27] An Options Appraisal Study was carried out for all 12 shortlisted sections of lines and was used by the SAG to inform their recommendations to NGET on which visual impact improvement projects to take forward for further technical development. A copy of the Options Appraisal Study for the North Wessex Downs visual impact mitigation project can be found here: https://www.nationalgrid.com/electricity-transmission/document/84086/download

Option 2: Placing overhead line on an alternative route alignment

4.4 This option would require re-locating the 400kV OHL along alternative alignment (using either conventional lattice or alternative tower design). As subsection YYM.1 is relatively straight and situated within a generally flat landform, redirecting the OHL either north within the Vale or South along the escarpment would not mitigate the landscape and visual effects of this part of the AONB. While this option was explored, it did not represent a feasible solution as it would lead to a significant diversion that would introduce several risks to network from a system design standpoint. As a result, this option was also discounted and not investigated further.

Option 3: Underground cabling within a bored tunnel

4.5 This option involves construction of bored tunnel using a tunnel boring machine to complete the subsurface excavation. Tunnels being created are generally considered over direct burial methods, where the traditional direct burial method is deemed to be an unviable option for technical or environmental reasons (for example, under a large water body) or when located in an urbanised environment (where direct burial would cause unacceptable disruption). NGET estimated this option would have been approximately 200 per cent the cost of other viable options and was therefore not consider for further investigation.

Option 4: Underground Gas Insulation Lines

4.6 NGET also considered underground cabling with Gas Insulated Lines (GIL).[28] This option was explored with Siemens to understand whether this technology for cross country route could be utilised instead of underground cabling. It was also noted that continued use of Sulphur hexafluoride (SF6)[29] would be a limiting factor. While GIL represents an option that would satisfy majority of items captured within NGET's 'Approach to Options Appraisal' and the criteria captured

[28] Option 4 was not included in the initial 2015 options appraisal report. Underground GIL was later included as an option in NGET's North Wessex Down Visual Mitigation reopener main submission document.
[29] Sulphur hexafluoride (SF6) is a synthetic, odourless gas used in electricity transmission and distribution infrastructure to keep networks running safely and reliably. Medium and high voltage electrical equipment contains SF6 to insulate the live electrical parts and to switch the flow of electrical current. SF6 is one of the most potent greenhouse gases.

within,[30] it was estimated to be more costly compared to the direct bury cable option.

Option 5: Underground cable by combination of direct burial and Horizontal Directional Drilling (HDD)

4.7 This option would involve the replacement of the 400kV OHL with an underground cable. Direct burial of an underground cable would typically require a construction corridor of 30-50m wide along the length of the cable. Following completion of the underground cable installation, the ground would be returned to its previous use with landscape planting and other field boundaries being reinstated.

4.8 In conjunction with direct burial, NGET may incorporate horizontal directional drilling (HDD) technology to navigate steep terrains or to avoid disturbing ecologically sensitive areas. The feasibility of trenchless drilling for cable installation is dependent on the length of the drill itself, the size of the cables and the geology and topography of the ground.

4.9 Underground cabling was considered to be an efficient way for enabling the primary purpose of the project, which is to mitigate the impacts of existing OHL within section YYM.1 of the AONB. On the basis of the Option Appraisal study, the SAG recommended to NGET that it should proceed with an underground cable option.

Further appraisal of preferred option (underground cable by direct burial)

4.10 Direct burial of the cable is expected to have significant landscape and visual benefits and was considered the most viable and economical option when compared to GIL. For this method, a sealing end compound (SEC) would be located at each end of the cable route, to achieve transition from an overhead to underground cable. NGET worked with Land Use Consultants (LUC) to undertake a Landscape and Visual Appraisal (LVA) to identify the most appropriate locations to accommodate the two cable sealing end compounds (CSEC) required for facilitating the underground of the YYM.1 section of the transmission line.

CSEC search area

4.11 The optioneering for the CSEC search area considered land use, the availability to provide sufficient screening, the need to avoid and minimise ecology and archaeology impacts, and for the SEC to be positioned in areas within suitable

[30] NGET's 'Our Approach to Options Appraisal' can be found here: https://www.nationalgas.com/document/81076/download

topography to minimise civil works. The preferred options were determined by environmental and technical assessments and input from stakeholders including the SRG, Wessex Water and the Environmental Agency.

4.12 For the western cable sealing end compound (WCSEC), two possible search areas were shortlisted (YYM32 and YYM34). Search area YYM34 was the preferred option, as it would not require a new tower to be constructed and would involve significantly less construction work compared to YYM32. Additionally, the CSEC option appraisal determined that location YYM34 is not located within a flood zone and nor were protect species constraints identified.

4.13 For the eastern cable sealing end compound (ECSEC), four locations within search area YYM46 were shortlisted for micro siting.[31] The preferred option was to place the siting further away from several visual receptors[32]and in close proximity to option 1. The location also allows for the OHL to be connected to YYM47 with no additional infrastructure beyond the ECSEC.

Cable route

4.14 To inform the sitting of the cable route, NGET undertook high level environmental studies, further development and design work and engaged statutory stakeholders. It was recognised that there was a need case for repositioning a section of the underground cable, due to its proximity to Wessex Water assets.

4.15 The key changes can be observed between the section of the cable that runs north of Hopton Park Industrial Estate, heading east near the south of the reservoir where it then crosses the A361, returning to the original proposed route as it crosses Horton Road.

[31] Option 1: adjacent to Kennet & Avon Canal, Option 2: field west of Bridge Inn, Option 3: North of Horton Rd in SMV & Option 4: Eastern Field South of Horton Road.
[32] Bridge Inn, the Kennet and Avon canal and Horton Road

Ofgem's view on the appraisal of potential options

4.16 In line with paragraph 3.13 and 3.14 of the Re-Opener Guidance, we are satisfied with the documentary evidence NGET provided in its submission demonstrate its considerations of options and its methodology for the selection of the preferred option for delivering the North Wessex Downs Visual Impact Mitigation PCD.

4.17 Based on our review of the North Wessex Downs Options Appraisal study, we are satisfied that NGET and the SAG considered an appropriate range of options to address the visual and landscape impacts of YYM.1 section of the OHL.

4.18 We agree that Option 1 (alternative tower) and Option 2 (re-routing the OHL) will not significantly reduce the existing landscape and visual impacts. In the case of Option 2, it could potentially exacerbate the adverse impacts. We agree with NGET's discounting of these options.

4.19 While Option 3 (bored tunnel) would address the visual impacts of the existing OHL, we agree that this option would not cost efficient compared to other viable options that were considered. On this basis, we think it would not be in the consumers' interest for option 3 to have been considered for further investigation.

4.20 We are also satisfied from the analysis that Option 4 (underground gas insulation line) was not feasible at this point in time, due to the limited technological advancements on the alternatives to SF6. Except were necessary, we think limited use of SF6 will help minimise the need for future interventions for addressing SF6 leakage from transmission infrastructure, while also facilitating the progress towards net zero targets. Therefore, we think it is in consumers' interests that the use of SF6 is reduced from electricity transmission equipment. Additionally, we note that the use of GIL technology is generally considered more appropriate for either underground lines located in short distance within substations, in densely populated areas or for connecting power plants to the transmission network.

4.21 Our draft view is that the only feasible option to address the visual impacts of the existing OHL is to intersect the YYM.1 section through underground cabling (option 5). We also accept that the topography and sensitive nature of the location posed technical challenges and significant environmental constraints to the routeing of the underground cables and the positioning of the CSEC.

4.22 The preferred options for the positioning of the CSEC and the routing of the underground cables will remove 13 towers and at the same time, avoid sections

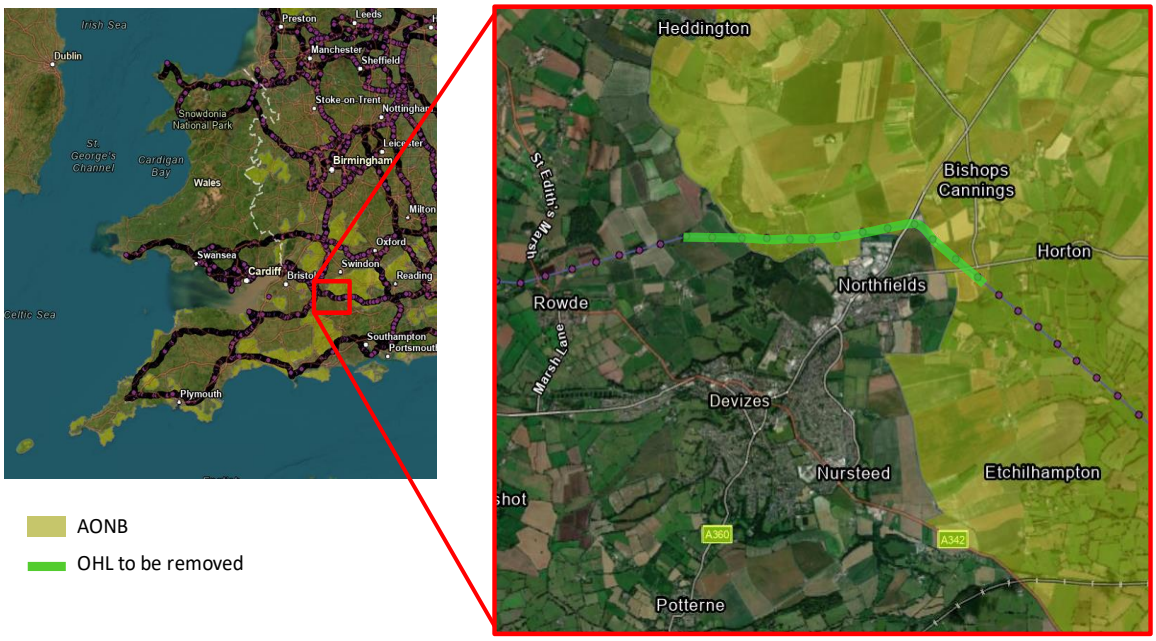
of direct bury that would likely cause some disruption to local communities and interact with Source Protection Zones. We are satisfied that NGET's proposed Visual Impact Mitigation PCD based on Option 5, as recommended by the SAG, fulfils the VIP policy five guiding principle, therefore our draft determination is to approve Option 5.

Technical Scope of the proposed North Wessex Downs project

4.23 The North Wessex Downs project will involve the removal of 4.6km section of existing 400kV overhead electricity transmission line including 13 towers. The section containing 13 towers, with associated conductor and fittings will be replaced by an underground cable route. The proposed section of OHL identified for removal forms part of a double circuit OHL that runs between Bramley 400kV and Melksham 400kV substations in the Southwest of England (known as the YYM route). The route also contains an essential fibre optic data cable, which provides data and signals to support operation of the network and will therefore be reinstated during the cable undergrounding.

4.24 In order to facilitate the undergrounding of YYM.1 transmission circuit, cable sealing end compounds (CSECs) will be built on the eastern end (eastern field, south of Horton Road) and western end (east of Rickpiece plantation) of the selected route (see figure 4). NGET expects that the project will require temporary diversions at each end of the cable route to mitigate the on-site safety risks when delivering projects of this nature.

Figure 3: North Wessex Downs AONB and existing overhead line to be removed (green line)



Wider considerations

4.25 NGET highlights that the YYM.1 route is due to be reconductored as part of the RIIO-2 circuit uprating requirements triggered by a number of new generator connections.[33] NGET explains it would be more efficient and economical for the cable assets rating to match the capability of the reconductored OHL circuits. It is noted that schemes of this nature, replacing OHL with UGC, will typically seek to match the existing circuit rating.[34] However, NGET is looking to utilise the system outage opportunity which the North Wessex Downs project requires, to uprate the existing OHL sections not affected by the scheme. The uprating of the entire circuit will help enable additional generation to connect to the transmission system and meet future system requirements. NGET considers it more efficient and value to consumers to combine the visual mitigation works and the circuit uprating together, of which Ofgem agrees.

4.26 NGET also noted that the Customer Connection power system studies, carried out in June 2022, identified the need for intervention. The Melksham – Bramley circuit needs uprating as part of the generator connection enabling works to meet the future system power flows. As a result of said studies, NGET has identified the most appropriate OHL conductor suitable for the existing tower infrastructure.

Primary planning consents for the North Wessex Downs project

4.27 In February 2023, NGET submitted the planning application for the North Wessex Downs project to Wiltshire Council. In July 2023, NGET received planning permission, subject to the discharge of a number of conditions from Wiltshire Council.[35] This includes meeting standard conditions pre and during the construction phase.

4.28 There is a biodiversity net gain (BNG) requirement for the planning permission. NGET will deliver a 10% net gain in biodiversity units through on site BNG.[36]

[33] In the RIIO T2 submission and determinations, an uprating of the cable system over and above the existing OHL circuit ratings was agreed based on the NOA MBRE reconductoring scheme. Network Options Assessment (NOA) | ESO (nationalgrideso.com)

[34] the existing OHL would require underground technology capable of ~1300MVA, while future ratings requirements based on forecasted system flows down this route would require ~2000MVA rating.

[35] https://development.wiltshire.gov.uk/pr/s/planning application/a0i3z000019rFKAAA2/pl202301643

[36] Biodiversity units have been calculated using the Defra Biodiversity Metric 2.0: http://publications.naturalengland.org.uk/publication/5850908674228224

Our Draft Determination on NGET's proposed Visual Impact Mitigation PCD

4.29 The North Wessex Downs visual impact mitigation project is complex for a number of reasons, including the areas highly constrained topography, its ecological and archaeological sensitivity, as well as the engineering challenges and environmental constraints affecting the positioning of the CSEC.

4.30 We have assessed the information submitted and are comfortable with scope of work required to underground section YYM.1 of the AONB. In relation to the above ground infrastructure associated with the underground cable, (ie the SEC), we consider that NGET's proposals are fit for purpose and note the preliminary works carried out to achieve planning approval from the relevant authorities.

4.31 We consider the modifications to the OHL circuits and reconductoring NGET proposed to cater for the additional generation future requirements is justified. Based on the evidence and rational provided, we also agree that it is more economical to maximise interventions by delivering the visual impact improvement works and the circuit uprating together during the outage window, rather than uprating the circuit for an additional cost at a later date.

4.32 Overall, we consider that the scope of NGET's proposed Visual Impact Mitigation PCD project is appropriate given the characteristics of the area and the complexity involved in an underground cabling project.

NGET's procurement strategy and delivery programme

4.33 Due to the extensive stakeholder engagement that is required of visual impact mitigation projects and the complexity that is common to undergrounding cable projects, NGET's preferred procurement, contracting and delivery model was the Early Contractor Involvement (ECI). NGET considers this approach to be most beneficial as it allows the contractor to be appointed under a two stage Engineering and Construction Contract (ECC) approach. This enables the project scope to be developed collaboratively before it is to be priced and constructed and therefore providing greater cost certainty as the design and scope matures. Due to contracting constraints at this stage in time, NGET decided to split the work stages into two sperate contract awards. For preliminary project development (stage 1 engineering and design works), the New Engineering

Contract (NEC)[37] option E type was selected to enable flexibility around timescales or design uncertainty at this stage. For the main works construction element of the scheme (stage 2), NGET selected NEC Option A contract.[38] It considered this option provides greater benefits as it require less administration time and costs from a contractor's perspective and therefore providing a fixed price contract that gives greater cost certainty to NGET and the end consumer.

4.34 The project was tendered as a call-off event under the Engineer Procedure Construct (EPC) onshore cables framework. NGET launched its formal procurement process in February 2020 and invited four contractors to tender for the underground cabling work. NGET received bids from three of the four contractors. During stage 1 of the evaluation process, one contractor scored relatively low in the Sustainability, Design, and Construction Methodology & Key Resources sections due to a number of non-compliances in each of these areas. The other two contractors scored well against the overall commercial and non-commercial tender bid evaluation criteria. As a result, NGET decided to shortlist only two of the contractors through to final tender negotiations.

4.35 Following the conclusion of the negotiations and final clarifications, NGET selected its preferred bidder, as it consistently scored high across all the non-commercial sub-criteria compared to its competitor. Additionally, the preferred contractors contract price was deemed to be more robust due to ranking highest in the Estimated Approach score.

4.36 In its submission, NGET provided documentation including summaries of the delivery programme for the North Wessex Downs project. The delivery strategy highlighted key programme drivers and milestones and NGET demonstrated considerations of nearby projects and evidence of collaboration with third parties.

[37] The New Engineering Contract (NEC) is a series of contracts designed to manage any project from start to finish. The NEC4 Framework Contract (FC) is intended for appointing one or more suppliers over a set term to carry out work or to provide a service or goods on an 'as instructed' basis using NEC4 contracts.
[38] NEC4 Engineering and Construction Contract (ECC) Option A is priced contract with an activity schedule linked to the programme. Interim payments are made against the completion of each activity and agreed risks are typically managed by the contractor when carrying out the works against the agreed price for each defined risk.

5. Cost assessment of the proposed project

Section summary

This section sets out our assessment of the submitted cost for the North Wessex Downs project. The results represent our current view of the efficient cost of the solution.

Questions

Q5. Do you agree with our cost assessment of NGET's proposed North Wessex Downs project for its Visual Impact Mitigation PCD?

Overview of NGET's project costs

5.1 NGET has applied for an allowance of £67.69m (2018/19 prices) under the Visual Impact Mitigation Re-opener. This is to cover the development and the delivery of the visual impact mitigation component of the North Wessex Downs project, including costs incurred to date.

5.2 As previously mentioned in para 4.23, the North Wessex Downs project involves undergrounding a section of double circuit OHL on the Bramley-Melksham route and will require reinforcements to accommodate future system requirements.[39] NGET intend to utilise allowances made available through the volume driver for uprating the entire circuit, of which £13.40m has been allocated for uprating subsection YY1.M of North Wessex Downs. This volume driver allowance is part of the load related expenditure awarded for wider system requirements in RIIO-2 Final Determinations. As the visual impact provision allowance cannot be used to provide system uprating, NGET removed the volume driver allowance from the additional funding requested in its submission.

5.3 The total funding request was categorised under two work packages.

- preliminary costs; and
- main construction works.

[39] NGET Cost Benefit Analysis submitted as part of its business plan submission in December 2019, demonstrates that it is more economic to bundle the uprating works with NWD scheme by delivering the higher rating as part of the VIP project, rather than underground a low-rated solution and return within 5-10 years to replace the undergrounded section.

5.4 Preliminary costs cover activities undertaken to develop the project in preparation for delivery. This includes contractors' stage 1 engineering and detailed design works,[40] contractors project management, third party development works, NGET's project management, and associated activities for obtaining necessary planning consents. NGET is seeking to recover all preliminary costs.

5.5 Main construction works consists of cost estimates for NGET delivery team and main constructions works (MCW) for the delivery of the North Wessex Downs project. MCW activities includes installation of an underground cable, installation of high voltage switchgear, construction of sealing end compounds, the removal of existing overhead line conductors and towers and other associated works.

5.6 NGET's cost submission for the North Wessex Downs project can be classified into a combination of:

- Contractor costs,
- Non contractor costs, and
- Risk and contingency

Contractor costs

5.7 In October 2023, NGET submitted an update to the costing section of their re-opener application, increasing it from £57.35m to £67.69m (2018/19 prices), to deliver the North Wessex Downs project. This followed significant increase in its contractor's cost estimates. NGET explained that the cost differences are primarily driven by market price volatility in the construction sector affecting the price of materials and labour.

5.8 NGET clarified that the scope of the main construction work has remained largely unchanged since its original re opener project application. It also expects there to be continued market pricing volatility leading to increased uncertainties around material rates and installation resource cost. Considering this, NGET state that it does not plan to submit any new Visual Impact Mitigation Re-Openers in RIIO-2 as it deems projects necessary to meet Net Zero targets to be of higher priority in RIIO-2.

5.9 NGET categorised under contractor cost a series of work packages that were fully tendered, such as:

1) Contractor's Project Management

[40] Contractor preliminary works cover: environmental works, stakeholder engagement, engineering design works and surveys.

2) Detailed Design
3) AIS
4) Common Works
5) Commissioning
6) Close Out
7) Cable Works
8) Risks
9) Replacement
10) Route Removal
11) Contingency
12) Fee

Non contractor costs

5.10 NGET provided a breakdown of non contractor costs which have been incurred and are expected to be incurred through areas of work which do not form the main scope of the contracted works.[41] These include:

- risks held by NGET (covered in the risks section below);
- network operational costs
- project management and overhead costs; and,
- other programme related costs (eg land, consents).

Risk and Contingency

5.11 In its funding request, NGET has included an amount, known as risk contingency, to cover cost increases due to programme and project risks that NGET hold i.e. possible events or changes in circumstances that affect the project delivery costs that cannot be predicted with certainty.[42] NGET's proposed risk and contingency for the North Wessex Down project is an estimated £4.80m.

5.12 In addition to NGET's proposed risk and contingency, the contractors' MCW costs breakdown included an amount to cover the selected contractors' risk and contingency costs. This is to the value of £2.46m.

5.13 NGET has also requested that, in order to mitigate its exposure to cost increases due to market volatility, we modify the RIIO-2 licence to make Real Price Effects

[41] It is noted that the majority of the non contractor cost breakdown has been categorised by NGET as indirect activities.
[42] Programme risks typically are outside the direct control of the contractor, whereas project risks are withing the control of the contractor but may result in compensation events from the contractor or an increase in delivery costs.

(RPE)[43] allowance adjustments applicable to the Visual Impact Mitigation Re-opener. NGET expects that the cost of materials and labour will increase more than general inflation over RIIO-2 period during which it is delivering the North Wessex Downs project.

5.14 The following table summarises NGET'S funding request for the North Wessex Downs project.

Table 1: NGET'S funding request*

classification	Activities	Source	Total Cost (£m) 2018/19 prices
Indirect	NGET – programme costs	Costs already incurred to cover the development & implementation of project activities	0.64
Indirect	NGET - Project delivery costs	Estimates based on resource anticipated for the delivery stage of NWD project	7.57
Direct	Third Party development costs	GIL project development	0.63
Direct	NGET – Network operational costs	Estimate based on resources anticipated for the delivery stage of NWD project	0.25
Direct	Contractors' costs	(1)Optioneering/Development costs as part of stage 1 works & design works. (2) MCW	64.57
Direct	Contractors risk & contingency		2.46
Direct	NGET risk & contingency	Estimate based on QRA & comparable projects	4.80
	Total submitted project costs		**80.93**
	Volume driver allowance		**13.24**
	Additional RIIO-2 allowances requested		**67.69**

*NGET's post-submission updated figures.

[43] In our Final Determination, we set price control allowances which can include a general inflation measure (CPIH) and certain price indices that reflect the external pressures on companies' costs. We refer to the difference between CPIH and certain price indices as Real Price Effects (RPEs).

Our view of efficient project costs

5.15 We reviewed the proposed project cost submission across RIIO-1, 2RIIO-2, RIIO-3 price control split and risk and contingency.

RIIO T1: Preliminary costs

5.16 As mentioned in paragraph 5.4, NGET are seeking to recover costs it has incurred during RIIO-1 to date on preliminary costs. This is to cover activities undertaken to develop the project in preparation for delivery.

5.17 We note that the North Wessex Downs project was submitted in accordance with SpC 3.10 of the NGET's RIIO-2 licence. The licence condition specifies the scope to which Visual Impact Mitigation PCD that the licensee is funded to deliver is set. SpC 3.10 enables the Authority to direct amendments within the scope of the licence condition and set associated allowances under the RIIO-2 arrangements. Accordingly, our draft view is to remove NGET's RIIO-1 expenditure from the funding request for the North Wessex Downs project. This amount to £1.61m from the overall preliminary costs.

RIIO-2: Main construction works costs

5.18 As part of the supplementary questions (SQ's) process, NGET submitted to Ofgem a revised MCW cost breakdown. The cost difference accounts for an estimated £10 million increase in the overall contractor value.

5.19 Post-submission costs variance diminished our confidence on NGET's timing of the tendered works. Also, we think the extent of the cost increases and likelihood of further increases as a result of market conditions, has highlighted the need for Ofgem to carefully consider whether the project will provide value for money to consumers. While we accept that visual impact improvement projects are justified to a large extent by the intangible consumer benefits, it does not mean that they should be delivered at any cost to consumers.

5.20 We asked NGET to provide Ofgem with evidence it has carried out relevant analysis, following the cost increase, to satisfy itself that the project is one that consumers should prioritise for funding in RIIO-2.

5.21 Based on the additional information and justification provided, our initial view is that undergrounding the section of the Bramley-Melksham OHL route that runs through the North Wessex Downs does not in itself provide tangible system benefits. Nonetheless, the volume of contracted connections indicates that urgent reinforcements of the entire circuit will be required within the next few years. In

light of this, we think it is more economical to maximise interventions by delivering the visual impact mitigation works and the circuit uprating together.

5.22 Considering the above factors, our draft determination position is to approve this application for funding. However, we also agree with NGET, that going forward, given it is unlikely that market conditions will stabilise in the short term, it would not be in the consumers interest to prioritise visual impact improvement funding applications in RIIO-2.

5.23 Our assessment of NGET's proposed costs for the main construction work programme is based on our treatment of cost submissions for the RIIO-2 price control. More generic information on our cost assessment approach can be found in the RIIO-2 electricity transmission FD documents.[44]

5.24 As this project was submitted under the Visual Impact Mitigation Reopener, it is subject to the Opex Escalator (OE) in SpC 3.36, which provides NGET an automatic uplift to its Closely Associated Indirects (CAI) allowance.[45] The OE determined Indirect allowance for NGET is a 16.89% uplift on the total efficient Direct Costs allowance assessed for each project. Details of the OE approach is set out in full under NGET 2022 Medium Sized Investment Projects Re-opener decision document and corresponding licence modification decision.[46]The applicable uncertainty mechanisms (UM) and the calculation methodology is set out in full under the UM Chapter of NGET's FD.[47]

5.25 We have assessed tendered costs against our reporting protocols we have for RIIO–2 price control.[48] Our RIIO-2 reporting guidance instructs the TOs on defining costs of Direct or CAI. In summary, Direct costs are those which include expenditure attributable to physically delivering works on assets on site. Although we acknowledge NGET has already classified some Indirect costs in its submission, we note that its contractor estimates include an amount for project

[44] RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem

[45] This OPEX escalator allowance calculation is predicated on the view of efficient CAI baseline allowances established at Final Determination (FD) which utilised the relationship between direct capex.

[46] Decision to modify the special conditions of the electricity transmission licence held by National Grid Electricity Transmission Plc | Ofgem

[47] As part of RIIO-2, we have established a mechanistic calculation (OPEX escalator) of the efficient uplift to CAI and NOC allowances for each UM based on the methodology employed in setting CAI baseline allowances in our RIIO-2 Final Determination and the historical relationship observed between NOC and asset additions.

[48] The RIGS Guidance provides instructions on TO's about the information we plan to collect, guide them on how to provide this information and enable licensees to put systems in place to collect the data to the detail we require.

cost management and detail design activities. Under current RIIO price control arrangements, contractor's project management and design work are not classified as Direct activities but are CAI activities and covered by the OE.

5.26 NGET has incorrectly categorised contractors' project management and detailed design subcategories under Direct costs instead of CAI costs. Accordingly, we are proposing to remove the cost for these specific elements from the NGET's proposed contractors' cost for the main construction work programme. Instead, NGET will receive an automatic uplift via the OE for its CAI activities. Removing the cost for these for these specific elements reduces NGET's proposed contractors cost for the main construction works by approx. 13.7%.

RIIO-3 project costs

5.27 The delivery of the North Wessex Downs project will span throughout the remainder of RIIO-2 and into RIIO-3 price control period. As a result, a small portion of NGET's indirect and direct activities on the main construction works will proceed beyond the end of RIIO-2. We are proposing to remove the costs that are programme after March 2026 from NGET's funding request for the North Wessex Downs project. This is because SpC 3.10 only permits the awarding of allowances for costs in RIIO-2. Costs incurred after March 2023 may be provided as part of NGET's RIIO-3 settlement.

Risk and contingency

5.28 We have assessed the reasonableness of NGET's proposed contingency costs for the North Wessex Down project. We note that both NGET and the contractor's risk and contingency total value, as a proportion total direct costs, exceeds 7.5%. Our draft view is that this is too high and does not align with similar projects. Our RIIO-2 determinations capped average risk across projects at 7.5% of our assessed efficient direct project cost, following a review of outturn risk on a number of RIIO-1 projects. We do not believe we have seen sufficient reason to apply a different approach in this case and propose to cap using the same 7.5% risk provision for the North Wessex Downs project. This 7.5% risk provision will be applied to the efficient total Direct Cost following the proposed adjustments in table 2 as set below.

Real Price Effects

5.29 NGET has requested a mechanism to adjust to Price Control Framework Methodology (PCFM) to allow the automatic recovery of real price effects (RPE) on the project. However, we do not believe that it would be in the best interest of consumers and other stakeholders to change the scope of RPEs mid-period.

5.30 Our initial view is that Visual Impact Mitigation Reopener applications should not be treated any differently from any other reopener mechanism in terms of our FD on our treatment of RPE adjustments under RIIO-2.

Summary of proposed project allowances

5.31 The below table, provide a summary of our proposed view of economic and efficient costs for the North Wessex Downs project. As explained in paragraphs 5.24 to 5.26, NGET will also receive an automatic uplift from the OPEX escalator for CAI activities on the project based on the total proposed allowances.

Table 2: North Wessex Downs project proposed adjustments and allowances, £m, 2018/19 prices

classification	Activities	NGET submitted costs	Ofgem proposed adjustments	Ofgem assessed efficient costs
Indirect	NGET – programme costs	0.64	-0.64	-
Indirect	NGET - Project delivery costs	7.57	-7.57	-
Direct	Third Party development costs	0.63	-0.63	-
Direct	NGET – Network operational costs	0.25	-	0.25
Direct	Contractors' costs	64.57	-9.72	54.86
Direct	Contractors risk & contingency	2.46	+1.66	4.11
Direct	NGET risk & contingency	4.80	-4.79	0.02
	Project total	**80.93**	**-21.69**	**59.24**
Deduction	RIIO-1 expenditure	-1.61	N/A	-
Deduction	Existing RIIO-2 volume driver allowances	-13.24	N/A	-11.46
Deduction	RIIO-3 expenditure	-4.86	N/A	-1.11
	RIIO-2 reopener allowances	**61.22**	**-21.69**	**46.67**

6. Next Steps

6.1 We welcome your responses to this consultation, both generally, and in particular on the specific questions in Chapters 3,4 and 5. Please send your response to: evan.alaa@ofgem.gov.uk. The deadline for response is 15 December 2023.

6.2 We will endeavour to conclude our assessment of NGET's North Wessex Downs project with a decision in early 2024. To implement our decision, we will consult on our proposed direction to make the changes to NGET's electricity transmission licence to specify the delivery of the North Wessex Downs project by 2026.

7. Appendices

Appendix 1 – Draft Direction

A1.1 Following our assessment of NGET's Visual Impact Mitigation Re-opener application, we have collated our Draft Determination of the North Wessex Downs project. Any decision, for example to add additional allowances for this project, will be implemented into the Licensees licence via a Direction.

A1.2 This Appendix provides a draft of the Direction we are minded-to issue. This may be revised following this consultation. We will confirm the Direction text in our consultation response.

Proposal to issue direction under paragraph 3.10.11 of Special Condition 3.10 (Visual Impact Mitigation Re-opener and Price Control Deliverable and Enhancing Pre-existing Infrastructure Projects allowance (VIMREt and EPIt) of the electricity transmission licence held by National Grid Electricity Transmission plc (the Licensee)

A1.3 National Grid Electricity Transmission plc ('the Licensee') is the holder of an electricity transmission licence granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 ('the Licence').

A1.4 Special Condition 3.10.11 provides a re-opener mechanism by which the Licensee may seek additional funding during the RIIO-2 price control period to for activities capable of delivering a new Visual Impact Mitigation Price Control Deliverable.

A1.5 The Gas and Electricity Markets Authority ('the Authority')[49] hereby gives notice on 17/11/2023 in accordance with Special Condition 3.10.21 and 3.10.22 of our proposal to issue directions under Special Condition 3.10.11 to amend Appendix 1 (Visual Impact Mitigation Price Control Deliverable) of the Licensee's Special Condition 3.10. The notice, published on the Authorities website, included the text of the proposed direction to issue, the reasons for the proposed direction and provided for representations to be made on or before 15/12/2023.

A1.6 [The Authority received [x] non-confidential representation(s) and has placed [it/them] on ofgem.gov.uk. Having considered [this/these] representations, as explained in this document, the Authority has decided to proceed with making this direction. This document constitutes notice of the Authority's reasons for the direction].

A1.7 This direction will give effect to the Authority's decision on the Licensee's application to the Authority to add a new Visual Impact Mitigation project and associated

[49] The terms "the Authority", "we" and "us" are used interchangeably in this document

allowance into its RIIO-2 price control framework. Further details on the reasons for and effect of this direction can be found in the main body of this document.

A1.8 Pursuant to Special Condition 3.10.11, the Authority hereby directs the changes to amend Appendix 1 (Visual Impact Mitigation Price Control Deliverable) of the Licensee's Special Condition 3.10 as set out in this direction.

A1.9 This direction will amend table x (the existing table within Special Condition 3.10 Appendix 1).

Table 3:

Visual Impact Mitigation Price Control Deliverable

Project name and Designated Area	**Allowance (£m)**					
	21/22	22/23	23/24	24/25	25/26	**All years**
	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~**N/A**~~
North Wessex Downs Visual Impact Mitigation project	1.34	1.29	8.43	30.72	4.89	46.67

Project name	**Output**	**Delivery date**
North Wessex Downs Visual Impact Mitigation project	Remove 4.6km section of a 400kv double circuit overhead line (OHL), known as the YYM.1, and 13 towers with associated conductor and fittings, with 4.6km underground cable in the North Wessex Downs AONB area. The OHL runs from the southern slopes of Roundway Hill along Horton Downs to the north of Devizes, Wiltshire. Installation of a 2000MVA 4.6km double circuit 400kV underground cable along the YYM.1 route. Install two new sealing end compounds (SEC) at (YYM33-34) and (YYM46-47) to connect the new section of underground cable to the existing overhead line. Reinstatement of essential fibre optic data cable during cable underground.	2026

A1.10 This direction will take effect on and from XX 2024.

Jourdan Edwards

Interim Deputy Director, Price Control Operations

Duly authorised on behalf of the Authority

XX XXXX 2023

Appendix 2: Identified special engineering difficulties of the North Wessex Downs project

NGET identified a number of special engineering difficulties (SED) on the North Wessex 400kV underground cable section. This is due to the terrain in the area varying from flat to 35% gradient. While standard trenching technique is expected to be used for most of the cable route, the areas of SED are as follows:

- Horton Road crossing
- A361 road crossing
- Bishops Cannings Source Protection Zone (SPZ)
- Proximity to Wessex Water assets
- Cutting adjacent to YYM38
- Embankment adjacent to YYM36

Appendix 3: Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

(Include here all organisations outside Ofgem who will be given all or some of the data. There is no need to include organisations that will only receive anonymised data. If different organisations see different set of data then make this clear. Be a specific as possible.)

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for ***(be as clear as possible but allow room for changes to programmes or policy. It is acceptable to give a relative time e.g. 'six months after the project is closed')***

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas (Note that this cannot be claimed if using Survey Monkey for the consultation as their servers are in the US. In that case use "the Data you provide directly will be stored by Survey Monkey on their servers in the United States. We have taken all necessary precautions to ensure that your rights in term of data protection will not be compromised by this".

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system. (If using a third party system such as Survey Monkey to gather the data, you will need to state clearly at which point the data will be moved from there to our internal systems.)

10. More information For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".