

Consultation



Making a positive difference
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National Electricity Transmission (NGET) Cellarhead Customer Connection

Subject	Details
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We¹ are consulting on the Cellarhead 132kV customer connection project submitted by NGET. We would like views from people with an interest in electricity transmission and distribution 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](https://www.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.

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1. Executive summary

1.1. We are consulting on our assessment of the needs case, optioneering and efficient costs for a customer connection in Cellarhead proposed by National Grid Electricity Transmission (NGET) under its Medium Sized Investment Project (MSIP) Re-opener submission made in January 2022.

1.2. The MSIP Re-opener allows the electricity transmission companies to request new funding during the RII0-2 price control period for projects that meet certain conditions in their licence and cost less than £100m.

1.3. Due to the growth in embedded renewable generation connected directly to distribution networks, the traditional pattern of transmission networks exporting power to distribution networks is often reversed. This development has led Distribution Network Operators (DNOs) such as Western Power Distribution (WPD) to seek greater flexibility in their network connections to safely accommodate multi-directional power flows.

1.4. WPD has made an application to NGET for a new connection point within the Cellarhead Grid Supply Point to increase capacity within its distribution network, WPD considers that this is the most efficient way to reinforce its distribution network and to manage upcoming reliability risks. NGET is required by its licence to provide connections for customers.

1.5. Based on our assessment, we are satisfied that NGET's analysis of the current and future challenges between transmission and distribution network's connection are valid and that an intervention is needed to maintain DNO's required levels of system stability. Moreover, we accept that NGET's licence obligation is sufficient to justify an intervention such as the proposed.

1.6. We also consider that the option of NGET to provide bus bar connection and protection equipment to WPD within Cellarhead site is likely to be more cost efficient compared to other alternatives.

1.7. We have assessed NGET's proposed costs for the Cellarhead customer connection. We consider that NGET's proposed direct activity costs for the project are efficient and are minded-to adjust NGET's price control allowances for these. However, we consider that NGET included some indirect activity costs in its MSIP funding application which we propose to remove. Instead, NGET will receive an automatic funding uplift from an allowance escalator

included in its price control specifically to cover the costs of indirect activities on new projects.

1.8. The rest of this document summarises NGET's MSIP submission and explains our findings to support our minded-to position.

2. Introduction

What are we consulting on?

2.1. We are consulting on the needs case, optioneering and efficient costs for a customer connection Medium Sized Investment Project (MSIP) proposed by National Grid Electricity Transmission under its MSIP Re-opener submission made in January 2022.²

2.2. The MSIP licence condition³ allows the electricity transmission companies to make re-opener submissions during the RIIO-2 price control period for projects that meet certain conditions in their licence and cost less than £100m.

2.3. NGET considers that this MSIP submission meets the relevant criteria set out in SpC 3.14 (f) of the licence condition and that it is made in accordance with the RIIO-2 Re-opener Guidance and Applications Requirements⁴ which provides how licensees must prepare their Re-opener applications pursuant to SpC 9.4 (Re-opener Guidance and Application Requirements Document). We agree with NGET that this project meet the MSIP eligibility criteria and we have provided a summary of our assessment in Appendix 2.

Consultation approach

2.4. In the MSIP Re-opener submission, NGET provided Ofgem with supporting evidence that the Cellarhead customer connection project is driven by Western Power Distribution (WPD). WPD has applied for a 132kV connection to accommodate a feeder circuit that it is building between its Whitfield Bulk Supply Point (BSP)⁵ and the shared Cellarhead Grid Supply Point (GSP). For the Cellarhead project, NGET propose to provide a transmission busbar to WPD to build a new connection bay for accommodating its new feeder circuit.

2.5. NGET has provided Ofgem with information to justify its proposed connection solution and the associated costs of its preferred option.

² We note NGET made the request to redact some information from this publication on the grounds of commercial sensitivity. We partially accepted the request to redact some information, but do not consider information published in this competition breaches competition law.

³ [Statutory consultation on modifications to the RIIO-2 Transmission, Gas Distribution and Electricity System Operator licence conditions | Ofgem](#)

⁴ [Re-opener Guidance and Application Requirements Document \(ofgem.gov.uk\)](#)

⁵ Bulk Supply Point is any point (substation) at which electricity is delivered from a transmission system to any distribution system.

2.6. This consultation sets out our minded-to position on the Cellarhead project in the following areas:

- the needs case
- the alternative options and the justification for the proposed project, and
- the efficient costs for the proposed project.

Context and related publications

2.7. The scope of this consultation is limited to NGET's Cellarhead MSIP project. Additional information on this MSIP project can be found in Cellarhead's MSIP Re-opener application document.⁶

Consultation stages

2.8. This consultation will open on 24 May 2022 for 28 days and close on 22 June 2022. We will review and publish the responses 14 days after the consultation closes. We will publish our decision in 2022.

How to respond

2.9. 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.

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

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

⁶ [A4 simple report 1-col no divider Nov 2019 \(nationalgrid.com\)](#)

Your response, data and confidentiality

2.12. 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.

2.13. 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.

2.14. 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.

2.15. 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

2.16. 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?

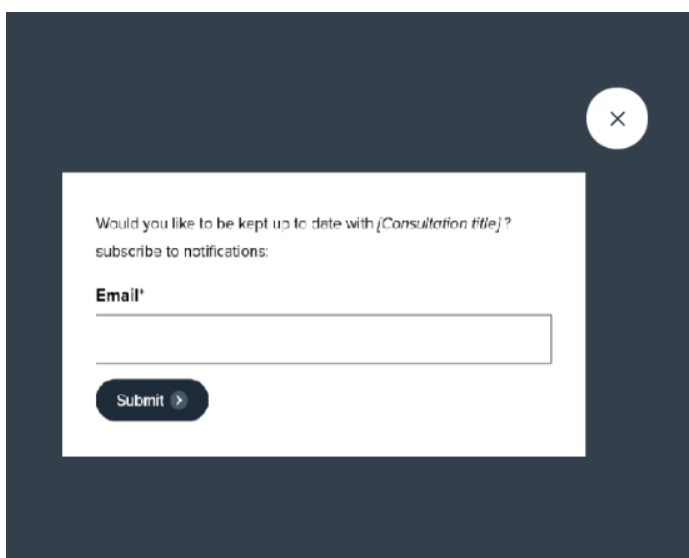
2.17. Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

2.18. 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.

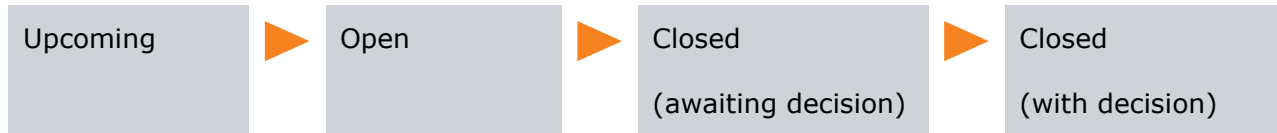
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Notify me +



The image shows a dark-themed modal window with a white background for the form. At the top right of the modal is a close button (X). The form text reads: "Would you like to be kept up to date with [Consultation title]?" followed by "subscribe to notifications:". Below this is a label "Email*" and a text input field. At the bottom left of the form is a "Submit" button with a right-pointing arrow.

2.19. 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:



3. Needs case for the proposed project

Section summary

In this section, we summarise the main issues that form the needs case for the Cellarhead customer connection project.

Consultation Question 1: Do you agree with our 'minded to' view on the validity of the needs case for the Cellarhead customer connection Project?

3.1. WPD has made an application to NGET for a new connection point within the Cellarhead GSP to accommodate a new 132kV feeder circuit that WPD is building to link to its Whitfield BSP. WPD is building the new feeder circuit to reinforce its distribution network and to manage reliability risks that are expected to increase in future due to changing demand and supply patterns in the area.

3.2. NGET is required by its transmission licence to provide connections to customers. As the connection project is not a typical generation or demand customer connection, the uncertainty mechanisms within NGET's RIIO-T2 price control to fund new connections are not applicable.

Background

3.3. The growth in embedded renewable generation connected directly to distribution networks is contributing to new power flow patterns between Distribution Network Operators (DNOs) and the transmission networks. The traditional pattern of transmission networks transferring power to distribution networks is being reversed in many areas such that the distribution network is exporting excess power from embedded generation onto the transmission system.

3.4. As a result of these developments, DNOs require greater flexibility in their connections to transmission networks to safely accommodate multi-directional power flows.

3.5. Cellarhead substation is located in the West Midlands region of England and is one of NGET's seventeen GSPs⁷ that supply WPD. The substation is running as a meshed network⁸ and connects six feeders from WPD and one from Scottish Power Energy Networks (SPEN) SP Manweb distribution network.

3.6. A GSP that provides connection to more than one DNO is a shared site where DNOs and NGET own assets. NGET is responsible for infrastructure works on transmission assets within the Cellarhead substation. For more information, please see Appendix 3.

3.7. During the summer period WPD plans for a series of outages on its 132kV network that includes Cellarhead 132kV. Under the current network arrangements, these outages can result to potential overloads that will stress the distribution network beyond its thermal limitations.

Technical requirements

3.8. WPD's proposed circuit does not increase the generation or demand volumes at the Cellarhead substation. As a 0MW connection, the design standards of the proposed connection are not applicable by the National Electricity Transmission System Security of Supply Standard (NETS SQSS)⁹ to meet the customer requirements.

3.9. In order to facilitate the customer connection, NGET has to provide to WPD a bay for connecting its circuit to substation busbars. The switchgear assets that connects the circuit into the NGET busbars is responsibility of WPD.

3.10. NGET has assessed whether connecting the new circuit will require new upgrades on NGET's network, due to the potential power flows and fault level infeed. WPD has assisted and shared relevant data with NGET for this analysis.

⁷ Substations that include Super Grid Transformers and provide connection to a distribution network, such as Cellarhead, are called Grid Supply Points (GSPs). Generally, the low voltage side of the SGT will operate at 132kV and the distribution network operator (DNO) will be the owner of the 132kV substation to which the SGT is connected.

⁸ A mesh network is a topology where there substations within the group are connected to multiple other substations. This is opposed to a radial or looped topology where substations are connected in a sequential manner.

⁹ The Security and Quality of Supply Standard sets out the criteria and methodology for planning and operating the National Electricity Transmission System (NETS).

3.11. NGET has confirmed that its assessment has concluded that it can build the new circuit for WPD without further security-related work on network.

NGET's licence obligation

3.12. NGET is required by its licence to provide connections for customers. Prior to the start of RIIO-T2 period, NGET secured investment for existing connections through its baseline RIIO-T2 business plan. For any new connections or changes on existing customers within the price control period, NGET can apply for new funding through RIIO-T2 uncertainty and Re-opener mechanisms.

Demonstration of needs case

Background to WPD's connection request

3.13. The proposed scope for WPD's connection is to reinforce its distribution network by maintaining the required levels of security and increase network's capacity. This application is not considered as a request for increased transfer capacity between WPD's and NGET's networks, but as a request for increased capacity within WPD's network.

3.14. WPD presented information to NGET via a technical appraisal that a series of drivers will significantly increase both the embedded generation and demand to its distribution network. The embedded generation will increase by 900MW for WPD in the near future, mainly by the increase of renewable generation. Demand will also increase in the West Midlands area (approximately 700MW) due to the following drivers:

- Anticipated connections,
- Increase of network load from HS2,
- Rise of electric vehicles and charging stations, and
- Local plans for increased housing building.

3.15. Under the present meshed network configuration, there is a risk that the existing circuits could overload under certain fault conditions. However, the future growth in embedded generation will exacerbate the risk to WPD's network's future operability and resilience.

3.16. WPD assessed several options to reduce the network risk and selected a new feeder circuit between Cellarhead and Whitfield as the most cost efficient solution. In December 2019, WPD submitted a connection application to NGET to accommodate its 132kV feeder circuit at the Cellarhead 132kV GSP.

NGET needs case

3.17. The needs case is driven by, firstly, a connection request from WPD to NGET on 17/12/2019 for a new connection at Cellarhead by 30/06/2022, and NGET's licence obligation to provide new connection for customers.

3.18. The second driver is the need from NGET to assist each customer's reinforcement works in the earliest and most efficient/economic possible connection date in order to maintain required levels of network security.

Our initial view of needs case

3.19. We consider that the needs case put forward by NGET is valid. NGET's licence obligation to deliver the customer connection is sufficient to justify an intervention of the scale proposed by NGET.

3.20. We note WPD's responsibility to maintain the required levels of system stability by protecting distribution network's circuits in the most economic and efficient way for consumers. As mentioned in 2.13, we also note that a series of drivers such as future connections, the installation of new charging stations across UK and the council plans for new buildings in the area of West Midlands will impact on the networks' resilience and the proposed project can contribute on offsetting these impacts.

3.21. We also note that WPD's initial appraisal that the proposed new 132kV feeder circuit from Whitfield to Cellarhead substation is the most efficient solution lacked detailed information regarding costs and future energy demand and supply scenarios for the region. However, WPD and NGET provided the required information through the process of supplementary questions (SQs) and we are confident that NGET's plan to accommodate agreed or potential future connections is the most cost-efficient manner.

3.22. NGET has considered several options to address the needs case and has provided detailed information on its analysis for the two shortlisted options. We set out in the following chapter our view on the optioneering carried out by NGET.

4. Assessment of options and justification for the proposed project

Section summary

We detail our assessment of all the options considered by NGET from a technical viewpoint and its justification for the chosen options. We analyse the relative costs of these options and discuss our minded-to view of their proposed solution.

Consultation Question 2: Do you agree with our technical assessment of the range of solutions to meet the needs case?

Consultation Question 3: Do you agree with our minded-to view of the solution proposed by NGET?

Option Selection

4.1. NGET has assessed four options for delivering the Cellarhead connection. The broad options and their variations were:

- Do Nothing,
- Whole system / market-based solution,
- Use / enhancement of existing assets, or
- Construction of new assets.

4.2. We have undertaken a technical review of the alternatives considered by NGET, including engineering justification papers, networks system studies and WPD's technical appraisal. These were included within NGET's MSIP submission and responses to SQs from NGET.

4.3. We have summarised below the options that NGET assessed, alongside NGET's view on their viability.

Option 1: Do nothing

4.4. This option was assessed and discounted by NGET from further consideration.

4.5. Do nothing option is not applicable to this case for two reasons: NGET has a licence obligation to provide a connection for customers and, there is no alternative for NGET to connect the customer without providing some form of direct access to the transmission system.

Option 2: Whole system / market-based solution

4.6. This option was assessed and discounted by NGET from further consideration.

4.7. WPD's requested connection can only be made through the provision of a physical connection to NGET's transmission network.

4.8. We accept NGET's view that there are no present market solutions (e.g. existing generators or assets) capable of providing the requested physical connection to the transmission network. As these works are required at transmission level, it is unlikely a DNO solution would be possible or economic and efficient. We therefore believe the whole system option is not applicable in this project.

4.9. Moreover, as no additional engineering work is needed beyond the customer connection point for WPD's additional circuit (e.g. replacement of circuit breakers), NGET has not considered any whole system or market-based solutions as alternatives to any infrastructure works beyond connection point.

Option 3: Use / enhancement of existing assets

4.10. This option was assessed and discounted by NGET from further consideration.

4.11. NGET explored options to utilise existing assets within Cellarhead substation that would lead to reduced costs for consumers and quicker connection date for WPD. However, as there is currently no existing spare populated bay within Cellarhead where WPD can connect its new feeder circuit, NGET rejected this option.

Option 4: Construction of new assets

4.12. Option 4 was assessed and shortlisted by NGET as the only viable solution that meets the technical requirements of the needs case.

4.13. NGET explored whether to construct new assets in order to provide a connection to WPD. This would involve the construction of a new bay within Cellarhead substation.

4.14. Construction of new assets option encompasses two sub-categories, the first option - *Extend substation, provide busbar connection and protection equipment* (Option 4a); and a 'hybrid' second option - *Provide bus bar connection and protection equipment within existing site* (Option 4b).

Option 4a: Extend substation, provide busbar connection and protection equipment

4.15. Due to the lack of a spare bay within Cellarhead substation premises, NGET explored the option of extending the substation in order to accommodate the construction of a new bay, by providing busbar connection and protection equipment to WPD to connect its feeder circuit.

4.16. NGET discounted this option as it is more expensive and provides later connection date compared to the *Provide bus bar connection and protection equipment within existing site* option below.

Option 4b: Provide bus bar connection and protection equipment within existing site

4.17. NGET identified existing civil structures and 132kV busbars supports within Cellarhead substation premises which could be reused to create a spare bay. WPD proposed to install their new switchgear assets for the connection onto the existing civil structures which are fit for purpose.

4.18. NGET has offered to provide a bus bar connection and new bus bar protection at the agreed location to WPD for the construction of the new bay within substation premises. This 'hybrid' option can reduce the costs of works required for the connection and deliver greater efficiencies for consumers and customer, compared with the option of extending the substation and construct a new bay.

4.19. The re-use of some existing assets can reduce further the costs of this connection and NGET contends that this is the most cost-effective option for consumers and customer.

4.20. NGET shortlisted this option because it is more efficient on economic terms, delivery date and engineering perspective compared with building a brand new bay via the extension of Cellarhead substation (see below).

Ofgem’s view of the potential solutions

4.21. Having reviewed NGET’s analysis on the viable options, we are satisfied that they have considered an appropriate range of options to connect Cellarhead project.

4.22. We agree with NGET’s decision to discount the options of Option 1 - Do Nothing, and Option 2 - Whole system / market-based solution, as they are either not applicable or economic options for delivering the connections.

4.23. We also agree with NGET that Option 3 - Use / enhancement of existing assets is not a viable option as there is no available spare bay for WPD’s connection.

4.24. Option 4 - Construction of new assets for NGET it is the only option that meets the needs case and can facilitate WPD’s connection. However, Option 4a - Extend substation, provide busbar connection and protection equipment - would be a more expensive choice to address the needs case, compared with the preferred option, Option 4b - Provide bus bar connection and protection equipment within existing site.

4.25. Of these solutions, we agree that the use of existing civil structures with Cellarhead substation for constructing a new bay is significantly cheaper for the consumer and customer than constructing a new bay by extending the substation, is quicker (June 2022 connection compared to late 2023 connection), and has less design and engineering complexities.

Methodology for option selection

4.26. Having considered the range of solutions presented by NGET, we are satisfied that it has considered an appropriate set of options to address the needs case.

4.27. Moreover, we are satisfied with NGET’s approach on taking forward two viable options for economic assessment.

4.28. Of the short listed options, the first and preferred option is for NGET to provide a connection by constructing a new bay within the existing footprint of the Cellarhead substation. The second option is for NGET to construct a new bay by extending Cellarhead’s substation.

Economic assessment of short-listed options

4.29. NGET stated that as its applications were based on Ofgem’s Guidance to develop MSIP submissions with proportionality related to scale and cost of the proposed projects. For that reason, NGET has not conducted and included on its submissions a cost-benefit analysis (CBA) on the options to meet the needs case of both projects.

4.30. NGET provided Ofgem with the relative costs of the two options over time. This is summarised below (see Table 1).

4.31. We accept NGET’s rationale for not providing a CBA on the options in the case of Cellarhead project. Given the low cost materiality of the proposed connection, we agree that NGET’s provision of the relative costs is adequate for our analysis.

4.32. Of the proposed options that meet the needs case, we have focussed on looking at the relative cost of the solutions that meet those outcomes, while also assessing the delivery dates.

4.33. Based on NGET’s application, the cost for providing a connection using the existing civil structures within Cellarhead substation will be £0.584m and the connection date will be June 2022, in alignment with NGET’s proposed connection date.

4.34. In contrast, the option of constructing a new bay by extending Cellarhead substation will cost approximately £1.173m and NGET will need additional 12-18 months for delivering the connection (see Table 1 below).

4.35. We agree with NGET’s preferred solution as the use of existing civil structures within site for building a new bay will have significantly smaller impact on consumers and customer both on cost (£0.584m versus £1.173m) and on connection services’ side (June 2022 versus Late 2023) compared to the solution of constructing a new bay by extending Cellarhead substation.

Table 1: Cellarhead’s options comparison

No	Option	Total Cost in 18/19 price base	Timescale	Selected (Y/N)
1	Do Nothing	0	n/a	N
2	Whole System / Market-Based	n/a	n/a	N
3	Existing Assets	n/a	n/a	N
4a	New Assets – Extend substation, provide bus bar connection and protection equipment	~£1.173m	Late 2023	N
4b	New Assets – Provide bus bar connection and protection equipment within existing site	£0.584m*	June 2022	Y

* Post-submission updated figure.

Our minded-to view of the proposed project

4.36. Our review found that NGET’s shortlisted options are both technically feasible. However, our minded-to view is that NGET’s preferred option on Cellarhead (Option 4b - Provide bus bar connection and protection equipment within existing site) is the optimal option.

4.37. We agree with NGET that the extension option is sub-optimal to the existing site option. The level of design complexity required for the substation extension means that it would not be cost-effective and would also delay WPD’s connection compared with the preferred option.

4.38. Likewise, we agree with NGET that the preferred option entails a number of benefits:

- it facilitates timely connection that this service will be available to be used by WPD;
- it offers the opportunity of utilisation of the existing Cellarhead site; and
- it provides value to consumers as it is the most cost-efficient solution.

4.39. For the above reasons, we are minded to accept NGET’s proposed solution for the Cellarhead connection project. We also agree in principle with NGET’s proposed evaluative Price Control Deliverable (PCD) and we will present its final version as part of our Decision.

4.40. In the following Chapter we assess the costs that NGET submitted for this project.

5. Cost assessment of the proposed project

Section summary

This section sets out our assessment of the submitted costs of the Cellarhead Project. The results represent our current view of an economic and efficient solution.

Consultation Question 4: Do you agree with our cost assessment of NGET's proposed Cellarhead project?

5.1. NGET's cost submission for the Cellarhead project was broken down into a combination of:

- Contractor costs
- NGET's commissioning costs
- NGET's contingency costs
- NGET's closeout costs, and
- NGET's site costs.

5.2. Our treatment of each area is as set out below and is based on our treatment of cost submissions for the RIIO-ET2 price control. More generic information on our cost assessment approach can be found in the ET2 Final Determination documents.¹⁰

5.3. We note that as this project was submitted under the MSIP Reopener is subject to the OPEX escalator which provides NGET a pre-determined mechanistic uplift to its Closely Associated Indirects (CAI) allowance.¹¹ This OPEX escalator allowance consists of a 17% uplift

¹⁰ [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#)

¹¹ 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

on the total efficient Direct Costs allowance assessed for each project. Details of the OPEX escalator approach, the applicable uncertainty mechanisms (UM) and the calculation methodology is set out in full under the UM Chapter of NGET's FD.¹²

Technical scope of the solution

5.4. On the summary of works required for the preferred options for Cellarhead project, please find more information on Appendix 3.

Overview of project costs

Contractor costs

5.5. NGET categorized under contractor costs a series of work packages that were fully and solely tendered, such as:

- 1) Site management,
- 2) Detailed Design,
- 3) Procurement and installation,
- 4) Common works, and
- 5) Fee.

5.6. We have assessed these tendered costs against our reporting protocols we have for RIIO-T2 price control.¹³

and CAI and subsequently applies this relationship to any direct capex allowances agreed under a defined list of UMs.

¹² 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.

¹³ 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.

5.7. One element which we propose to adjust is the Site Management and Detailed Design subcategories included in Contractor costs.

5.8. Our RIIO-T2 reporting guidance instructs the Transmission Owners (TOs) on defining costs of Direct or the Closely Associated Indirect Activities (CAI). In summary, Direct costs are those which include expenditure attributable to physically delivering works on assets on site. Direct costs do not include works which have no physical interaction with the assets. We asked NGET through SQs to provide more information on what activities have been included in the above two cost subcategories and why they have been categorized as Direct costs instead of CAI.

5.9. Based on our analysis, we consider that NGET has miscategorized the contractor's Site Management and Detailed Design subcategories under Direct costs instead of CAI costs. Accordingly, we propose to remove these cost elements from the Direct funding requested by NGET for the Cellarhead project. Instead, NGET will receive an automatic uplift (OPEX escalator) for its CAI activities. This will ensure that NGET does not receive double funding for the contractor's Site Management and Detailed Design activities.

5.10. As part of an SQ response, NGET provided Ofgem with updated figures regarding contractor costs compared with submission's figures. Post-submission changes of costs are diminishing our confidence on tendering works and limits our ability to make clear assessments of proposals. We will carefully consider the impacts of these changes during the review process.

NG Commissioning costs

5.11. We have assessed the reasonableness of NGET's proposed commissioning costs for the Cellarhead project and consider them to be at an efficient level. Consequently, we are minded to allow these in full. In future we will retain this information to build a range of acceptable commissioning costs for future projects.

Contingency costs

5.12. We have assessed the reasonableness of NGET's proposed contingency costs for Cellarhead project and consider them to be at an efficient level due the fact that the projects have been delivered / are in delivery at the time of publication.

5.13. We asked a range of SQs on risks and the issues identified by NGET were those where we believe the mitigations should have reduced the risk further than what was presented to

us. In future we will refer to our ET2 accepted 7.5% of Direct costs being used as our initial benchmark for further discussion. Furthermore, in future submissions we would require NGET to provide further details on mitigation efforts for projects that have been delivered / are in delivery at the time of our review.

NG Closeout costs

5.14. We have assessed the reasonableness of NGET’s proposed closeout costs and consider them to be at an efficient level. Consequently, we are minded to allow these in full. In future we will retain this information to build a range of acceptable closeout costs for future projects.

NG Site costs

5.15. We have assessed the reasonableness of NGET’s proposed site costs and consider them to be at an efficient level. Consequently, we are minded to allow these in full. In future we will retain this information to build a range of acceptable site costs for future projects.

5.16. The following table summarize NGET’s total allowance request for Cellarhead project.

Table 2: Cellarhead total allowance request*

Classification	Activities	Source	Previous Years (£k)	FY22 (£k)	FY23 (£k)	FY24 (£k)	Total Cost (£k)
Indirect	NG Project Management Costs	Estimate based on resources anticipated for the delivery stage of the project	2.9	30.3	24.8		58
Indirect	NG Optioneering / Development costs	Optioneering/Development costs are based on an actual costs for the completion of the development stage		9.1			9.1
Direct	Contractor Costs	Tendered		172.6	234.4		407
Direct	NG Site Costs	Estimate based on previous projects		24.1	17.5		41.6
Direct	NG Commissioning Costs	Estimate based on previous projects			27.9	4.4	32.3

Direct	Contingency value	Estimate based on QRA & previous projects		16.7	14.4	1.8	32.9
Direct	NG Closeout Costs	Estimate based on previous projects			3	0.9	3.9
	Total Costs		2.9	252.	310.	7.1	584.
		Direct allowances Requested		213.	285.	7.1	517.
				4	9		7

* Post-submission updated figures.

Summary of costs

5.17. Table 3 below details NGET’s requested funding, our proposed reductions, and our proposed allowances against each of the components for the Cellarhead project. Specifics of the work packages have been redacted for commercial sensitivity.

5.18. As explained in paragraph 5.3, NGET will receive an additional 17% of the proposed total allowances for Direct activities from the OPEX escalator for its CAI activities for Cellarhead project.

Table 3: Cellarhead project proposed funding and proposed adjustments*

Direct activity	NGET Request (£k)	Ofgem Proposed Adjustments (£k)	Ofgem Proposed Allowances (£k)
Contractor Costs	407	-76.3	330.7
NG Commissioning Costs	32.3	0	32.3
Contingency Value	32.9	0	32.9
NG Closeout Costs	3.9	0	3.9
NG Site Costs	41.6	0	41.6
Total	517.7	-76.3	441.4

* Post-submission updated figures.

6. Next Steps

6.1. We welcome your responses to this consultation, both generally, and in particular on the specific questions in Chapters 2, 3 and 4. Please send your response to: graeme.barton@ofgem.gov.uk. The deadline for response is 27 June 2022.

6.2. We will conclude our assessment of NGET's **Cellarhead** project with a decision in 2022. If our initial view does not change through the consultation and MSIP assessment processes, our decision will confirm our provisional view that NGET should be funded for the efficient delivery of **Cellarhead** project.

6.3. We are minded to categorise this project as an evaluative Price Control Deliverable (PCD) as we believe there is some flexibility in the manner by which this project can be delivered. Given the potential level of difference in materiality between the delivery modes, we consider it appropriate to protect consumer interests by reviewing the delivery. As such, if we confirm our decision that NGET should be funded for the project, we expect to initiate a statutory consultation to make the relevant changes to the licence required to set explicit deliverables, timescale(s) for delivery and the profile of the project allowances for the PCD.

Appendices

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Appendix 1 – Consultation questions

Consultation Question 1: Do you agree with our 'minded to' view on the validity of the needs case for Cellarhead connection Project?

Consultation Question 2: Do you agree with our technical assessment of the range of solutions to meet the needs case?

Consultation Question 3: Do you agree with our minded-to view of the solution proposed by NGET?

Consultation Question 4: Do you agree with our cost assessment of NGET's proposed Cellarhead project?

Appendix 2 - Assessment on Re-opener application requirements

In this section, we detail Ofgem’s assessment of NGET’s application for Cellarhead project against the Re-opener application requirements in Special Condition 3.14 and the Re-opener Guidance and Application Requirements Document. (See Table 4 below).

Table 4: Re-opener application requirements

Document	Requirement	Has the requirement been met?
Special Condition 3.14.6 (f) ¹⁴	The licensee may apply to the Authority for a direction amending the outputs, delivery dates or associated allowances in Appendix 1 of the licence in relation to one or more activities set out in that section. The two projects qualify for submission via the MSIP Reopener under the following: (j) a system operability, constraint management or OMW connection project or substation work which is required to accommodate embedded generation, which in each case has been requested in writing by the System Operator;	Yes
Special Condition 3.14, paragraph 9	Includes a statement setting out what MSIP the application relates to.	Yes
Special Condition 3.14, paragraph 9	To give details of the associated amendments to the outputs, delivery dates or allowances and an explanation of the basis of the calculation for any amendments requested to allowances.	Yes
Special Condition 3.14, paragraph 9	To provide such detailed supporting evidence as is reasonable in the circumstances to justify the technical need including cost benefit analysis,	Yes

¹⁴ More detail is available in the RIIO-ET2 “ET Annex” Final Determinations document, paragraphs 4.19 and 4.20. See link: [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#)

	impact assessments, risk mitigation, and engineering justification.	
Special Condition 9.4.3	Must prepare any applications for Re-openers in accordance with any applicable provisions of the Re-opener Guidance and Application Requirements Document.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.3	Each application must include a table that maps out which sections of the application relate to individual requirements as set out in the relevant Re-opener licence condition and Chapter 3 of RIIO-2 Re-opener Guidance and Applications Requirements.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.4	Where the licensee will not be able to provide the required information listed in the RIIO-2 Re-opener Guidance and Applications Requirements, the licensees must provide a justification for not providing all of the required information.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.8	All Re-opener applications must include a needs case whether or not this is a specified requirement of the relevant Re-opener licence condition or Re-opener Guidance.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.10	The needs case must contain a clear statement of how the proposed expenditure aligns with the licensees' overall future business strategy and commitments, including consideration of how it relates to the licensee's RIIO-2 licence or other statutory obligations and, if relevant, its RIIO-3 business plan.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.11	Must include a clear statement as to the need for the proposed expenditure or the problem the licensee is trying to address in the context of its significance for consumers and network assets. The affected consumers / assets must be identified, and the associated risk being addressed quantified, where possible.	Yes
RIIO-2 Re-opener Guidance and Applications	Must provide the rationale for the level of expenditure proposed and why this level should be regarded as being efficient.	Yes

Requirements 3.12		
RIIO-2 Re-opener Guidance and Applications Requirements 3.13	Must include a clear description of the long and short list of options considered and the selection process undertaken to reach the preferred option.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.14	Must include a clear description of the preferred option, sufficient to allow us to make an informed decision on whether the preferred option is suitable.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.15	Must include a clear statement as to any project delivery and monitoring plan for the preferred option.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.16, 3.17	Must include an explanation of how stakeholder engagement contributed to the identification and design of the preferred option. Where stakeholder engagement may not be necessary because there is no material impact on stakeholders, or where the application is driven by statutory obligations, a brief explanation must be provided as to why stakeholder engagement was not considered appropriate.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.19, 3.20	To provide sufficient cost information to justify: <ul style="list-style-type: none"> - why expenditure is additional to that already provided for by baseline allowances or other mechanisms; and - why the level of costs is efficient. This should be submitted in accordance with the format and detail specified at paragraph 3.20.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.21, 3.22	Where Cost Benefit Analysis and Engineering Justifications Papers are included in an application, these must be consistent with Ofgem’s guidance published in September 2019.	Yes

Ofgem has deemed that the submission from NGET has met the necessary requirements set out in both the applicable Special Licence conditions and the detailed Re-opener application criteria set out in the RIIO-2 Re-opener Guidance as listed in the Table above.

Appendix 3 - Cellarhead's location and summary of works

Cellarhead 400kV substation is located in the West Midlands region of England and is one of the seventeen NGET Grid Supply Points (GSP) that supply WPD. Within the substation, the Cellarhead 132kV is running as a meshed network and connects six feeders from WPD and one from Scottish Power Energy Networks (SPEN) SP Manweb distribution network.

Cellarhead 132kV is a shared site and owned both by NGET and distribution networks (WPD and SPEN). The Cellarhead 132kV mesh feeds the following BSPs:

1. Whitfield
2. Burslem
3. Newcastle
4. Stagefields
5. Boothern
6. Forsbrook
7. Longton
8. Meaford

The proposed works to be undertaken from NGET on facilitating WPD's connection is summarised below:

- NGET Infrastructure Works – The subject of this MSIP funding request.
 - The design, supply, installation, and commissioning of a new bus bar protection panel to incorporate WPD's new bay into the substation bus bar protection scheme.
 - Design, supply, installation, and commissioning of bus bar connection tails.
 - Design, supply, installation, and commissioning of mechanical interlocking between WPD and NG 132kV bay.
 - Design, supply, installation, and commissioning of modifications to the Substation Control System.
- One Off Works – Funded by WPD directly and not part of NGET's submission.
 - Site attendance for commissioning WPD assets.

Appendix 4 – 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.

3. 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 as specific as possible.)

4. 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')***

5. 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.

6. 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”.

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

8. 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.)

9. More information For more information on how Ofgem processes your data, click on the link to our “[Ofgem privacy promise](#)”.