

## Consultation on the proposed works to enable connection of additional onshore wind capacity at Coalburn Substation

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We<sup>1</sup> are consulting on SP Transmission's (SPT's) plans to carry out infrastructure work to enable the connection of additional onshore wind capacity at Coalburn Substation. 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.

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<sup>1</sup> The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

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## Executive summary

The RIIO-ET2 price control runs from 1 April 2021 until 31 March 2026. It includes a range of Uncertainty Mechanisms (UMs) that will allow us to assess further funding during RIIO-ET2 as the need, cost or timing of works becomes clearer. This ensures that consumers fund projects only when there is clear evidence of benefit and we have clarity on likely costs. These mechanisms also ensure that the RIIO-ET2 price control has flexibility to adapt as clarity on the pathways to Net Zero target becomes clearer.

Where possible, we have set automatic UMs, such as the Generation and Demand Connection Volume Drivers, which provide Electricity Transmission Owner (ETOs) with immediate funding when they are required to undertake new customer connection works. In other areas, where the degree of uncertainty is too great to allow for an automatic mechanism, we set “re-openers” which will allow us to robustly assess ETO proposals once information with sufficient accuracy is made available.

The Medium Sized Investment Projects (MSIP) re-opener provides ETOs with an annual opportunity to request additional funding for sub-£100m projects, many of which may be critical for achieving Net Zero targets. It was developed to ensure that ETOs are able to undertake necessary investments in the transmission network, funding for, which has not been provided in RIIO baseline allowances.

An ETO can submit a request for additional funding via the MSIP re-opener during specific “windows” (each regulatory year between 25 January and 31 January) where it considers a project to be atypical in scope and where the forecast costs are expected to be outside the range for typical projects provided through the Connections Volume Driver mechanisms. Projects that meet the criteria will be eligible for consideration and scrutiny by Ofgem to establish the level of efficient costs to be remunerated.

We have engaged with the ETOs on the potential MSIP projects to be submitted in this first MSIP re-opener window. This document summarises the submission received from SPT for the proposed connection of the additional onshore wind capacity at Coalburn Substation MSIP project.

We welcome views from stakeholders on our initial views on the project outlined in Chapters 2 to 5.

## 1. Introduction

### What are we consulting on?

1.1. We are consulting on the needs case, optioneering of the chosen design and timing for the proposed connection of the of the additional onshore wind capacity at Coalburn Substation project proposed by SP Transmission (SPT) under their Medium Sized Investment Project (MSIP) reopener submission in January 2022<sup>2</sup>. The MSIP licence condition<sup>3</sup> provides for companies to make reopener submissions during the RIIO-2 price control period for projects that meet certain conditions in their licence. SPT considers that this project meets criteria SpC 3.14.6 (a) of the licence condition.

1.2. In the MSIP re-opener submission, SPT provided Ofgem with evidence of the needs case for the installation of a fourth SuperGrid Transformer<sup>4</sup> (SGT) at Coalburn substation. Due to insufficient existing transformer capacity of 840MVA at Coalburn 400kV Substation, SPT considers that reinforcement is required to accommodate further generation in the area.

1.3. In line with the provisions set out in paragraph 3.4 of the RIIO-2 Re-opener Guidance and Application Requirements Document<sup>5</sup>, SPT have presented a case for dividing their MSIP application into two stages and has provided a justification for not providing all of the required information for cost details now.

### Two-stage MSIP submission process

1.4. The ETOs have a duty to provide connection to users and to develop and maintain an efficient, co-ordinated and economical transmission network. Therefore, it is for an ETO to decide when it is the right time to initiate a new project that may be needed during the RIIO-ET2 price control period.

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<sup>2</sup> Referred to as Coalburn SGT4 MSIP project for the remainder of the document.

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

<sup>4</sup> Supagrid transformer operates at voltage equal to or larger than 132kV. A grid transformer operates at voltage smaller than 132kV.

<sup>5</sup> RIIO-2 Re-opener Guidance and Application Requirements Document:

<https://www.ofgem.gov.uk/sites/default/files/2022-02/Re-opener%20Guidance%20And%20Application%20Requirements%20Document%20Version%202.pdf>

1.5. Transmission projects can contain works that are dependent on factors outside the direct control of the ETOs, including the impact on customer-driven requirements, or involve issues where project timescales do not necessarily align with the rigid regulatory structure (e.g. the fixed submission window of the MSIP submission framework). These factors create a potential problem where a lack of firm information can have a disproportionate impact on the development of activity and adversely impact work deemed necessary to deliver a connection in a timely manner. Delays to the works to progress connection of low carbon generation, which would contribute towards meeting the Net Zero target, may lead to additional costs for GB consumers.

1.6. The MSIP arrangements<sup>6</sup> have been designed to allow ETOs to seek an Agreement in Principle of investment need and preferred design solution from us when sufficient information is available about the drivers for the work, the optioneering of the chosen design and the proposed timing of delivery for qualifying projects. The arrangements enable us to apply proportionate scrutiny, on a case-by-case basis, to our assessment of works proposed by the ETOs. This helps to manage uncertainty and helps ensure the timely and efficient progress of preparatory works. We consider it is in the interests of existing and future consumers to ensure that the scope of MSIP projects, reflecting the specific circumstances of each case, are justified and can be progressed at the most appropriate time.

1.7. Our position relating to the efficient costs of the project is tentative at this stage. We expect unit costs and volume details to form a key part of the second stage submission in January 2023.

1.8. In the first stage submission, SPT provided Ofgem with information to justify their proposed option for meeting the needs case and the optioneering for the proposed project.

1.9. This consultation sets out our minded-to position on the following areas of the Coalburn SGT4 MSIP project:

- the needs case,
- the alternative options and the selection of the proposed project.

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<sup>6</sup> Further details can be found in the MSIP licence condition ([Statutory consultation on modifications to the RIIO-2 Transmission, Gas Distribution and Electricity System Operator licence conditions | Ofgem](#)) and in Final Determinations ([RIIO-2 Final Determinations - Core Document \(REVISED\) \(ofgem.gov.uk\)](#))

1.10. In the following Chapters we set out the assessment of the MSIP application in more detail and our minded-to view based on the evidence submitted by SPT to date.

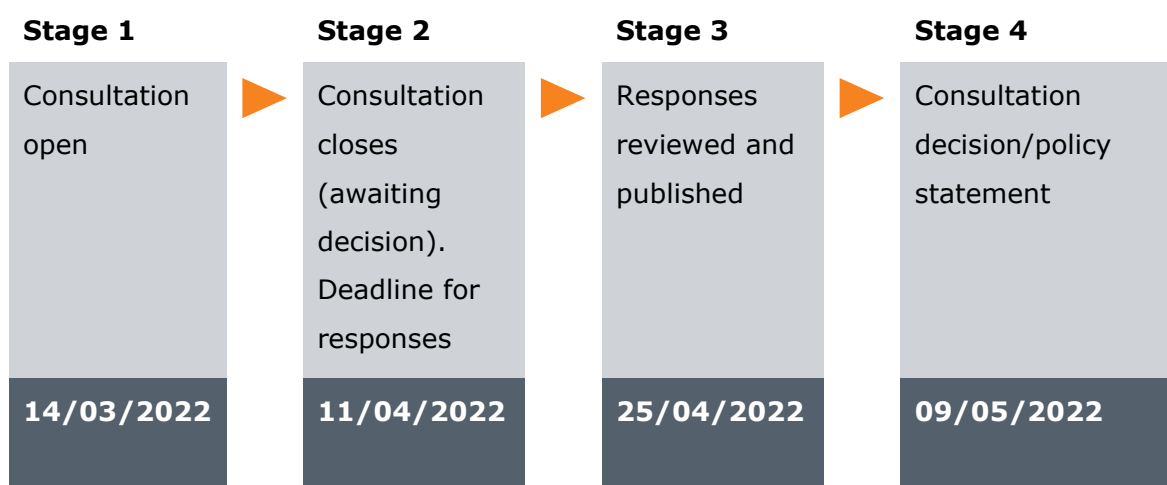
## Context and related publications

1.11. The scope of this consultation is limited to SPT’s Coalburn SGT4 MSIP project. Additional information on this MSIP project can be found in Coalburn MSIP re-opener application document<sup>7</sup>.

## Consultation stages

1.12. This consultation will open on 14 March 2022 and close on 11 April 2022. We will review and publish the responses 14 days after the consultation closes. We will endeavour to publish our decision by 9 May 2022.

**Figure 1: Consultation stages**



## How to respond

1.13. We want to hear from anyone interested in this consultation. Please send your response to [Eliska.antosova@ofgem.gov.uk](mailto:Eliska.antosova@ofgem.gov.uk).

<sup>7</sup> [2022-01-31 Coalburn MSIP Reopener - Final Published.pdf \(spenergynetworks.co.uk\)](#)



1.14. We've asked for your feedback in relation to each of the questions in Chapters 2-5. Please respond to each one as fully as you can.

1.15. We will publish non-confidential responses on our website at [www.ofgem.gov.uk/consultations](http://www.ofgem.gov.uk/consultations).

## **Your response, data and confidentiality**

1.16. 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.

1.17. 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.

1.18. 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.

1.19. 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

1.20. 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:

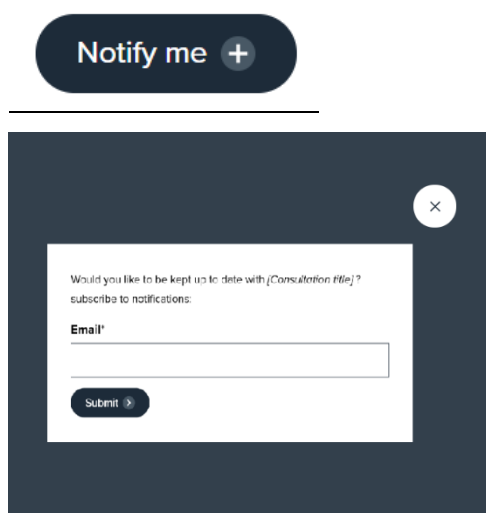
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6.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

Please send any general feedback comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk).

## How to track the progress of the consultation

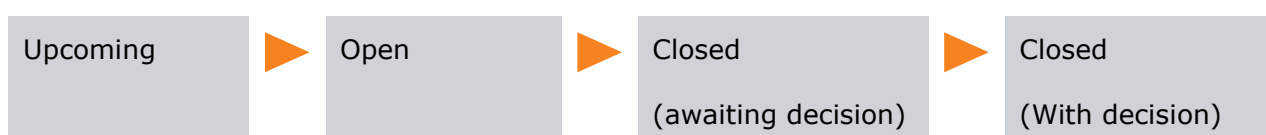
You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website.

[Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).



The image shows a dark blue button labeled 'Notify me' with a white plus sign. Below it is a dark blue modal window with a white 'X' in the top right corner. Inside the modal is a white box containing the text: 'Would you like to be kept up to date with [Consultation #116]? subscribe to notifications:'. Below this text is a label 'Email\*' followed by a text input field. At the bottom of the white box is a dark blue button labeled 'Submit' with a white right-pointing arrow.

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:



## 2. Assessment against Re-opener Requirements

### Section summary

In this section, we detail Ofgem’s assessment of SPT’s application against the Re-opener application requirements in the licence and the Re-opener Guidance and Application Requirements Document. (See Table 1 below).

**Table 1: Re-opener application requirements**

Document	Requirement	Has the requirement been met?
RIIO-2 Re-opener Guidance and Applications Requirements 3.3 <sup>8</sup>	To 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	To provide a justification for not providing all of the required information.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.8	To 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 3.9	The needs case must contain the alignment with overall	Yes

<sup>8</sup> [reopener\\_guidance\\_and\\_application\\_requirements\\_document.pdf](#)

	business strategy and commitments.	
RIIO-2 Re-opener Guidance and Applications Requirements 3.10	To include a clear statement of how the proposed expenditure aligns with the licensee's future business strategy, 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	To 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 Requirements 3.12	To provide the rationale for the level of expenditure proposed and why this level should be regarded as being efficient.	Cost information will be part of the stage two submission in January 2023.
RIIO-2 Re-opener Guidance and Applications Requirements 3.13	To 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	To include a clear description of the preferred option, sufficient to allow us to make an informed decision on if the preferred option is suitable.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.15	To 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	To include an explanation of how stakeholder engagement contributed to the identification and design of the preferred option. Stakeholder engagement may not be necessary where there is not a material impact on stakeholders, or where the application is driven by statutory obligations.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.19, 3.20	To provide sufficient cost information.	Cost information will be part of the stage two submission in January 2023.
RIIO-2 Re-opener Guidance and Applications Requirements 3.21, 3.22	Cost Benefit Analysis and Engineering Justifications Papers are important sources of evidence that can be included in an application.	Yes
Special Condition 3.14, paragraph 6a <sup>9</sup> and 6c	Projects qualify for submission via the MSIP re-opener where the activities:	Yes

<sup>9</sup> More details are 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](#)

	(a) are expected to generate a level of allowance through the volume driver mechanism that diverges from the current level of expected costs beyond the defined tolerance range <sup>10</sup> stated.	
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.	A further submission will be made detailing the requested amendments to the outputs, delivery date and allowances to be detailed as a Price Control Deliverable in SpC 3.14 Appendix 1.
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, impact assessments, risk mitigation, and engineering justification.	Yes (technical need and engineering justification).  As noted above, detailed information on costs and risk, and associated cost benefit analysis, will be provided as a further submission.

[System Operator | Ofgem](#)

<sup>10</sup> In accordance with SpC 3.14.6: "The licensee may apply to the Authority for a direction amending the outputs, delivery dates or associated allowances in Appendix1 in relation to one or more of the following activities: (a) a Generation Connection project, including all infrastructure related to that project, the forecast costs of which are at least £4.24m more or less than the level that could be provided for under Special Condition 3.11 (Generation Connections volume driver)"

Special Condition 9.4, paragraph 3.	To prepare applications for Re-openers in accordance with the Re-opener Guidance and Application Requirements Document.	Yes
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2.1. Ofgem has deemed that the submission from SPT 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.

2.2. In the following Chapters we set out the assessment of the MSIP application in more detail and our minded-to view based on the evidence submitted by SPT.

### 3. Needs case for the proposed project

#### Section summary

In this section, we detail the main issues that form the needs case driving the Coalburn SGT4 MSIP project.

**Consultation Question 1: Do you agree with our view on the validity of the needs case for the Coalburn SGT4 MSIP project?**

3.1. Coalburn 400kV substation can be found in south central Scotland and is located on one of the two main 400kV interconnected circuits between Scotland and England. Currently there are 2 x 240MVA and 1 x 360MVA transformers at the substation giving a combined prefault capacity of 840MVA. The needs case details additional transformer capacity is required to meet the additional future generation connections that are contracted with SPT and have achieved local consents.

3.2. The main issue that the proposed Coalburn SGT4 project seeks to address is the insufficient total transformer capacity of 840MVA at Coalburn 400kV Substation. Coalburn SGT4, a fourth 400/132kV SGT, is required at Coalburn 400kV Substation to provide an increase in prefault capacity for the generation in the area.

3.3. Details on the issue are set out below.

#### Insufficient transformer capacity to support expected connection growth

3.4. SPT has presented information that shows the existing and near-term use of the capacity at the Coalburn substation. These indicate that the capacity requirements at the substation would marginally exceed available capacity by February 2024 in the absence of any substation expansion. The position is summarised in Table 2 and 3 below.



**Table 2: Connected Generation<sup>11</sup>**

Site	Connection Status	Capacity (MW)
Blacklaw Extension	Connected	60.0
Douglas West	Connected	45.0
Galawhistle	Connected	55.2
Kennoxhead Extension	Connected	60.0
Kype Muir	Connected	88.4
Linnmill GSP (Embedded) <sup>4</sup>	Connected	171.5
Middlemuir	Connected	51.0
<b>Total Capacity (MW)</b>		<b>531</b>

**Table 3: Contracted and Consented Generation<sup>12</sup>**

Site	Connection Status	Consent Status	Capacity (MW)	Contracted Energisation Date
Dalquhandy	Contracted	Consented	45.0	Jul-22
Cumberhead	Contracted	Consented	50.0	Aug-22
Harting Rig	Contracted	Consented	67.2	Sep-22
Broken Cross	Contracted	Consented	48.0	Sep-23
Kennoxhead	Contracted	Consented	112.0	Feb-24
<b>Total Capacity (MW)</b>			<b>322.2</b>	

3.5. In addition, the following projects (see Table 4 below) are either consented or actively seeking consents, which will add a further 273.9MW to the SGT capacity requirements by November 2024 at Coalburn substation.

<sup>11</sup> Coalburn MSIP re-opener application document: Table 4 on page 10.

<sup>12</sup> Coalburn MSIP re-opener application document: Table 5 on page 10.

**Table 4: Contracted Generation Requiring Intervention** <sup>13</sup>

Site	Connection Status	Consent Status	Capacity (MW)	Contracted Energisation Date
Hagshaw Hill Repower Phase 1	Contracted	Consented	30.0	May-24
Hagshaw Hill Repower Phase 2	Contracted	Consented	54.0	May-24
Douglas West Extension	Contracted	Consented	60.0	Jul-24
Cumberhead West	Contracted	Consented	100.0	Nov-24
Little Gala (via new Lesmahagow GSP)	Contracted	In progress	29.9	Oct-27
<b>Total Capacity (MW)</b>			<b>273.9</b>	

3.6. The existing post-fault thermal capacity at Coalburn (by applying SGT rating) equals to 240MVA. This represents the outage of the existing 360MVA SGT combined with a fault on either one of the existing 240MVA SGTs. With the additional second 360MVA SGT, the post-fault thermal rating will increase to 480MVA. This represents the outage of the existing 360MVA SGT with the fault on the remaining 360MVA SGT.

## Our initial view of needs case

3.7. Our initial view is that the needs case put forward by SPT is valid and that additional capacity will be required at Coalburn to support expected generation growth.

3.8. This position is supported by the following reasons:

- SPT is required to complete Coalburn SGT4 installation in accordance with the statutory and regulatory requirements under the terms of SPT’s licence<sup>14</sup>, including Licence Condition D4A<sup>15</sup>.
- 244MW of the additional 274MW contracted low carbon generation at Coalburn 400/132kV Substation is already consented.
- The proposed connection of low carbon generation supports legislated Net Zero targets.

3.9. SPT have considered alternative options to address the needs case. These are set out in the following chapter with our view on the optioneering carried out by SPT.

<sup>13</sup> Coalburn MSIP re-opener application document: Table 6 on page 11.

<sup>14</sup> Statutory duties under section 9(2) of the [Electricity Act 1989 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1989/29/section/9)

<sup>15</sup> [Electricity Transmission Standard Licence Conditions 24 07 2021 \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/electricity-transmission-standard-licence-conditions-24-07-2021)

## 4. Assessment of options and justification for the proposed project

### Section summary

We examine all the alternative solutions considered by SPT from a technical viewpoint. 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 SPT?**

## Engineering assessment of the range of solutions

4.1. To address the needs case discussed in the previous chapter (insufficient existing prefault capacity), SPT considered the following five options:

- Do Nothing or Delay
- New 132kV circuit to Kilmarnock South
- New 132kV circuit to Strathaven or Elvanfoot
- Replacing existing Coalburn transformers
- Installing a fourth SGT rated at 360MVA at Coalburn (SPT's preferred option).

4.2. We have undertaken a technical review of the solutions considered by SPT. The materials reviewed comprised of SPT's pre-engagement presentation materials, their initial submission under the MSIP re-opener licence condition and responses to supplementary questions.

### **OPTION 1: Do Nothing or Delay**

4.3. SPT rejected this option because it does not comply with SPT’s various statutory duties<sup>16</sup> and licence obligations. This includes Licence Condition D4A, which requires SPT to offer to enter into an agreement with the system operator upon receipt of an application for connection, or for modification to an existing connection.

### **OPTION 2: New 132kV circuit to Kilmarnock South**

4.4. SPT rejected this option because this solution does not offer the most economic and efficient option. This solution is similar to the preferred option in that additional SGT capacity is required. However, this option in addition to the new SGT requires a new transmission circuit to be built. This will increase the risk to the project delivery, have a negative impact on the environment and will inevitably result in higher costs to deliver the same output.

4.5. Due to its location, this solution requires new infrastructure through a rural area. To facilitate connection of the New 132kV circuit to Kilmarnock South, modifications to the 132kV busbar system at Coalburn would be required. The existing 132kV inter-bus transformer at Kilmarnock South is a 240MVA unit connected to Kilmarnock South 275kV Substation, both of which already serve a wider group with a high penetration of connected and contracted renewable generation. To alleviate the additional generation from Coalburn adding to the pre-existing load on the Kilmarnock South 400/275kV inter-bus transformers, a new 400/132kV 360MVA inter-bus transformer, with associated 400kV Gas Insulated Switchgear (GIS) and 132kV AIS switchgear, would be required at Kilmarnock South.

### **OPTION 3: New 132kV circuit to Strathaven or Elvanfoot**

4.6. SPT rejected this option because this solution does not offer the most economic and efficient option. This solution is similar to the previous option. In addition to a new SGT, this option would require a new transmission circuit to be built. This will increase the risk to the project delivery, have a negative impact on the environment and will inevitably result in higher costs.

4.7. This solution requires modifications to the 132kV busbar system at Coalburn. There is no 132kV infrastructure currently existing or planned at Strathaven 400/275kV Substation.

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<sup>16</sup> Statutory duties under section 9(2) of the [Electricity Act 1989 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1989/29)

Even though 132kV infrastructure is planned at Elvanfoot, the associated inter-bus transformer capacity is committed to other contracted developments at this time. Therefore, a new 400/132kV 360MVA inter-bus transformer, with associated 400kV AIS and 132kV AIS switchgear, would be required at either Strathaven or Elvanfoot and incur additional costs relative to the preferred solution.

#### **OPTION 4: Replacing existing Coalburn transformers**

4.8. This solution involves uprating the two existing 240MVA transformers to 360MVA each.

4.9. SPT rejected this option because this solution only provides an additional 240MVA of uplift. This solution fails to deliver the additional capacity required, i.e. it would not enable the connection of an additional 274MW of contracted low carbon generation to Coalburn 400/132kV Substation, nor would it provide any uplift for future connections or additional capacity at already contracted generators. Moreover, operational configuration with two 400/132kV 360MVA units in parallel with all of the connected generation would exacerbate fault infeed issues at Coalburn 132kV Substation. This option involves lengthy construction outages on each existing unit, with a corresponding impact on system access for generators already connected to Coalburn 132kV Substation.

4.10. Further details on the cost implications of each option can be found in Table 4 of SPT's Coalburn MSIP re-opener application document.

#### **OPTION 5: Installing a fourth SGT at Coalburn (proposed option)**

4.11. SPT preferred this option because a fourth SGT at Coalburn 400kV Substation provides additional capacity for generation to connect in the area. It enables the connection of an additional 274MW of contracted low carbon generation to Coalburn 400/132kV Substation. It also minimises the impact of the unavailability of any single transformer (or associated asset) on the Coalburn site (in comparison with uprating of SGT1 and SGT2). Installing a fourth SGT at Coalburn also provides the required thermal capacity increase in the most efficient manner. As discussed prior, the ESO analysis proposed intervention is now required.

#### **Ofgem's view of the potential solutions**

4.12. Having considered the range of solutions presented by SPT, we are satisfied that SPT have considered an appropriate set of options to address the needs case.

4.13. Of the solutions, our initial view is that additional transformer capacity at Coalburn 400kV substation is required to support expected generation growth.

## **Our minded-to view of the proposed project**

4.14. Our review concluded that the options two to five are all technically feasible. However, our minded-to view is that the installation of a fourth 360MVA SGT and the subsequent substation works represents the optimal option. There are a range of benefits<sup>17</sup> that the option brings:

- It provides additional SGT capacity on the network, enables additional renewable energy to connect and provides further capacity to enable future green projects to connect.
- The additional SGT increases the level of system operability at the substation for the ESO to utilise going forward.

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<sup>17</sup> The benefits of the proposed options are identified by SPT and stated in Section 5 of the MSIP Re-Opener Application ([2022-01-31 Coalburn MSIP Reopener - Final Published.pdf \(spenergynetworks.co.uk\)](#))

## 5. Cost assessment of the proposed project

### Section summary

This section sets out our tentative assessment of the submitted costs of the proposed Coalburn SGT4 MSIP project.

5.1. In line with the provisions set out in paragraph 3.4 of the RIIO-2 Re-opener Guidance and Application Requirements Document<sup>18</sup>, SPT have presented a case for dividing their MSIP application into two stages.

5.2. We agree with SPT that a two-stage approach is appropriate in this case as it will alleviate delays to the works to progress connection of low carbon generation, helps to manage uncertainty and ensures the timely and efficient progress of preparatory works. We consider it is in the interests of existing and future consumers to ensure that the scope of MSIP projects, reflecting the specific circumstances of each case, are justified and can be progressed at the most appropriate time.

5.3. A final submission will be made as part of the Stage 2 submission in January 2023 relating to the associated amendments to the outputs, delivery date and allowances to be detailed in Special Conditions 3.14 of SPT's T2 Electricity Transmission Licence.

5.4. SPT's indicative view of potential direct capital expenditure for the Coalburn SGT4 installation MSIP Project in RIIO-2 is set out in Section 7 of the Stage 1 MSIP Re-Opener Application<sup>19</sup>. These estimated costs have been informed by SPT's Manual of Standard Costs. The Manual is regularly updated with changing market conditions and enables appropriate estimates of the likely capital costs at an early stage of the project.

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<sup>18</sup> RIIO-2 Re-opener Guidance and Application Requirements Document:

<https://www.ofgem.gov.uk/sites/default/files/2022-02/Re-opener%20Guidance%20And%20Application%20Requirements%20Document%20Version%202.pdf>

<sup>19</sup> [2022-01-31 Coalburn MSIP Reopener - Final Published.pdf \(spenergynetworks.co.uk\)](https://www.spenetworks.co.uk/2022-01-31-Coalburn-MSIP-Reopener-Final-Published.pdf)

## Risk and contingency

5.5. Risks costs will be included in the MSIP Stage 2 submission in January 2023. Project risks will be logged within the Risk Register to manage the risks throughout the course of the project. Risk values will be presented highlighting the likelihood and impact on the progression of the project and its completion.

5.6. Main risks categories include:

- Planning Consent - application submitted in September 2021 following stakeholder engagement.
- Landowner Consent
- Network Access/System Outages - to ensure minimal customer outages, works were aligned with TORI 155 Coalburn-Linmill 1 cable replacement.

## Our minded-to position

5.7. We have considered whether the above factors present a robust reason to delay assessment of the needs case and design, i.e. whether it is more practical to delay assessment until all appropriate information is available and whether it has led to any detriment for GB consumers. In this case we consider that there is no evidence that considering the MSIP application is unreasonable. However, any approval of the MSIP project is subject to receipt of appropriate evidence regarding project delivery and the associated costs.



## 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, 4 and 5. Please send your response to: [Eliska.antosova@ofgem.gov.uk](mailto:Eliska.antosova@ofgem.gov.uk). The deadline for response is 11 April 2022.

6.2. We will conclude our first stage assessment of SPT's **Coalburn SGT4 MSIP project** with a decision in May 2022. If our minded to view does not change through the consultation and MSIP assessment processes, our provisional decision will confirm our provisional view that SPT should be funded for the efficient delivery of **Coalburn SGT4 MSIP project**, subject to receipt of appropriate evidence regarding the project delivery and the associated costs.

6.3. Once a final submission including cost details is submitted a in January 2023, we will seek to establish the efficiency of the proposed costs. Our approach to assessing network company costs relies on a combination of bespoke review and comparison across the companies, as appropriate to the nature of the cost.

6.4. We will also consider changes in the connection scope or capital expenditure programme where this may have an impact on the needs cases and optioneering.

6.5. In the event that we were to decide that SPT should be funded for this connection project, we are minded to categorise 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.

6.6. Further work will be necessary to set explicit outputs, delivery dates, and the profile of the project allowances for the PCD and to initiate a statutory consultation to make the relevant changes to the licence required.

## Appendices

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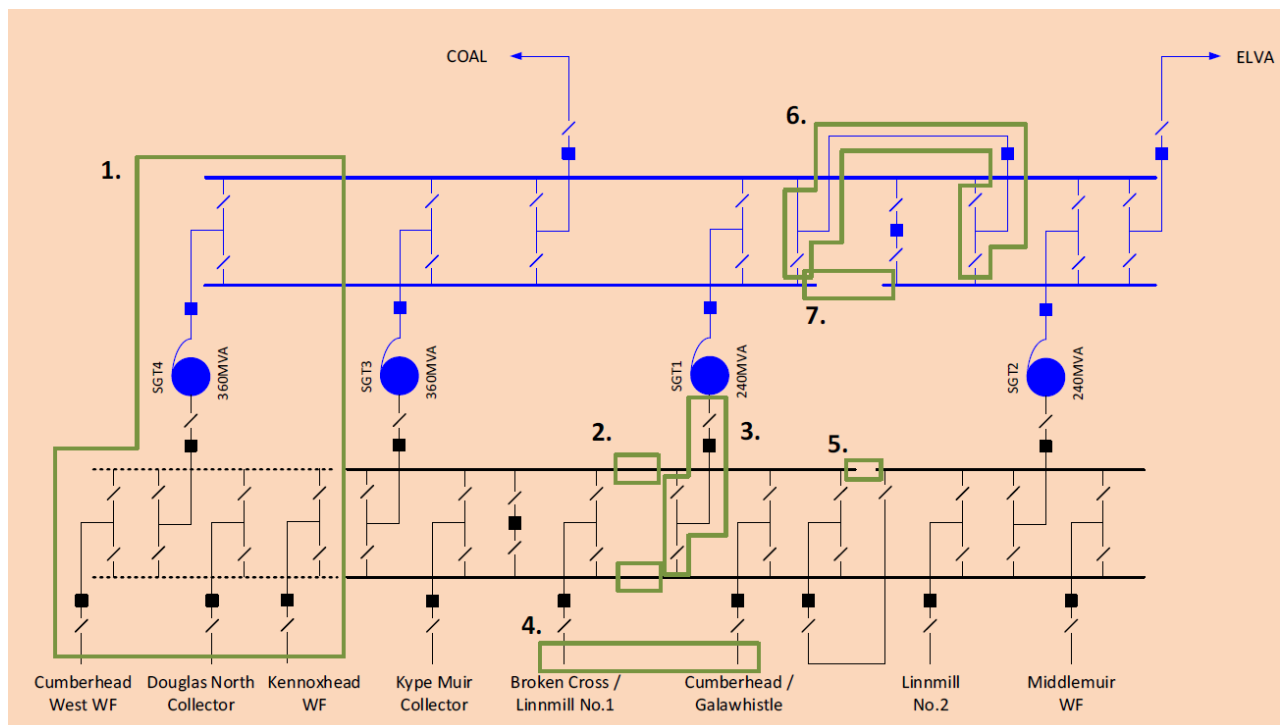
## Appendix 1

### Summary of Works Required

5.8. Figure 2 below indicates the works summarised below on the proposed single line diagram for Coalburn 400/132kV Substation:

1. Extend the existing substation fence line to accommodate extensions to the 132kV and 400kV busbar systems, install one new 400/132kV 360MVA SGT, one new 400kV and one new 132kV double busbar transformer bay.
2. Split existing 132kV main and reserve busbars to create two separate 132kV busbar systems.
3. Realign the SGT1 132kV bay.
4. Realign the Galawhistle Wind Farm and Linnmill No.1 cable systems.
5. Install a section of 132kV Main Busbar (adjacent to Bus Coupler CB120) to establish a double busbar configuration.
6. Decommission the existing 400kV cross coupler.
7. Install a section of 400kV Main Busbar adjacent to the bus.

**Figure 2: Summary of works required – single line diagram**



## Appendix 2

### Consultation questions

#### **Needs case for the proposed project**

Question 1: Do you agree with our view of the validity of the needs case for the Coalburn SGT4 MSIP project?

#### **Assessment of options and justification for the proposed project**

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

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

## 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](mailto: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

No external agencies.

#### 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 six months after the consultation 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 3<sup>rd</sup> 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.**

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