Decision

ofgem
Making a positive difference
for energy consumers

Provisional decision on the first stage assessment of SPT's MSIP re-opener applications

Subject	Details
Publication date:	27 April 2022
Contact	Eliska Antosova, Analyst
Team:	RIIO Networks
Telephone	0207 901 7176
Email:	eliska.antosova@ofgem.gov.uk

This document provides our[1] provisional decision on Scottish Power Transmission's (SPT's) stage one application to enable the connection of three projects under the Medium Sized Investment Projects (MSIP) re-opener mechanism.

We published our initial assessment for each of the three MSIP projects on 14 March 2022. Consultations have now closed on our initial assessment of the projects. This document also summarises the responses received to each of the consultations. We have published the non-confidential consultation responses alongside this document.

[1] The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

Contents

Executive summary

In line with the provisions of the RIIO-2 Re-opener Guidance and Application Requirements Document[2], Scottish Power Transmission (SPT) have divided their Medium Sized Investment Projects (MSIP) applications into two stages:

- Stage one: detailing the needs case, optioneering of the chosen design and timing of specific projects.

- Stage two: providing evidence on unit costs, volumes and delivery dates to be used as the basis of our final assessment and to inform the associated amendments to SPT's RIIO-T2 Electricity Transmission Licence.

On 14 March 2022, we published consultation documents on the stage one submission for three projects submitted for our consideration under the MSIP reopener mechanism by SPT.

We have completed our assessment of the stage one submission for each MSIP project.

This document provides a summary of the consultation responses received from stakeholders on our minded-to position for each MSIP project, a description of any changes made to the minded-to position since the consultation and sets out our provisional decisions in relation to the stage one assessment and next steps for each project.

Our provisional decisions, summarised below, are subject to our assessment of the efficient costs to be provided by SPT as part of the stage two submissions for each project:

- Branxton MSIP project: we have provisionally decided to approve the needs case and the option of the 21-bay design.

- Coalburn Substation MSIP project: we have provisionally decided that the installation of a fourth 360MVA SuperGrid Transformer (SGT) and the subsequent substation works represent the optimal option for the consumers.

[2] Paragraph 3,4 of the 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

- Inch Cape Offshore Wind Farm MSIP project: we have provisionally decided to approve the repurposing former Cockenzie power station bays.

We will continue to liaise with SPT in advance of the second stage submission for each of these MSIP applications.

Related documents

Consultation on the proposed works to enable connection of the Eastern HVDC link and offshore wind generation at Branxton Substation,
Consultation on the proposed works to enable connection of the Eastern HVDC link and offshore wind generation at Branxton Substation | Ofgem

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

Consultation on the proposed works to enable connection of the Inch Cape Offshore Wind Farm
Consultation on the proposed works to enable connection of the Inch Cape Offshore Wind Farm | Ofgem

Coalburn MSIP re-opener application document,
2022-01-31 Coalburn MSIP Reopener - Final Published.pdf (spenergynetworks.co.uk)

Inch Cape Offshore Wind Farm MSIP re-opener application document,
2022-01-31 Inch Cape MSIP Reopener - Final Published.pdf (spenergynetworks.co.uk)

Branxton MSIP re-opener application document,
Microsoft Word - 2022-01-31 Branxton MSIP Reopener - Final - Draft Redaction (spenergynetworks.co.uk)

1. Background and overview

Background

1.1. The RIIO[3]-ET2 price control period (running from 1 April 2021 until 31 March 2026) 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.

1.2. Where possible, we have set automatic UMs, such as the Generation and Demand Connection Volume Drivers, which provide Electricity Transmission Owners (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 ETOs' proposals once information with sufficient accuracy is made available.

1.3. The 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.

1.4. 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 these criteria will be eligible for consideration and scrutiny by Ofgem to establish the level of efficient costs to be remunerated.

1.5. The MSIP licence condition provides for licensees to make reopener submissions during the RIIO-2 price control period for projects that meet certain conditions in their licence.

1.6. In the MSIP re-opener submission in January 2022, SPT provided Ofgem with evidence of the needs case and optioneering for three MSIP projects (further details are in

[3] RIIO stands for "Revenue = Incentives + Innovation + Outputs".

Chapters 2 – 4). SPT considers that these projects meet criterion SpC 3.14.6 (a) of its licence condition.

1.7. In line with paragraph 3.4 of the RIIO-2 Re-opener Guidance and Application Requirements Document[4], SPT presented a case for dividing their MSIP applications into two stages and provided a justification for not providing all the required information on cost details now.

Two-stage MSIP submission process

1.8. The ETOs have a duty to provide connections 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.

1.9. Electricity transmission projects sometimes 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 (i.e. the fixed submission window of the MSIP submission framework). These uncertain factors may 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 projects which are designed to progress connection of low carbon generation and contribute towards meeting the Net Zero targets, may lead to additional costs for GB consumers.

1.10. The MSIP framework[5] allows ETOs to seek an Agreement in Principle of investment need and preferred design solution from us once there is more certainty 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-

[4] 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

[5] 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). For further information on the MSIP re-opener See Chapter 4 of Final Determinations Annex (RIIO-2 Final Determinations Electricity Transmission System Annex (REVISED) (ofgem.gov.uk)

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.

1.11. Our position relating to the efficient costs of the projects is tentative at this stage because there have been no submissions and assessments on cost. SPT intends to make a final submission, currently expected in January 2023, requesting that outputs, delivery date and allowances for each of the three projects are added to Appendix 1 to Special Condition 3.14 of SPT's RIIO-T2 Electricity Transmission Licence.

1.12. 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 projects.

Purpose of this document

1.13. This document provides the summary of the consultation responses received from stakeholders on our minded-to position on the MSIP projects outlined in the Consultation Documents. This provisional decision is subject to our assessment of cost (when submitted).

Responses to the MSIP re-opener consultation

1.14. We received four responses to the consultation questions, which we have carefully considered.

1.15. A summary of the responses to each MSIP project is provided in the relevant chapters of this document.

- Chapter 2: Needs case and proposed works to connect the Eastern HVDC link and offshore wind generation at Branxton Substation
- Chapter 3: Needs case and proposed works to enable connection of the Inch Cape Offshore Wind Farm
- Chapter 4: Needs case and proposed works to enable connection of additional onshore wind capacity at Coalburn Substation

Next steps

1.16. We will continue to liaise with SPT in advance of the second stage submission for each of these MSIP applications.

Your feedback

1.17. We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this decision document. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall quality of this document?
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. Are its conclusions balanced?
5. Did it make reasoned recommendations?
6. Any further comments?

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

2. Needs case and proposed works to connect the Eastern HVDC link and offshore wind generation at Branxton Substation

This section summarises responses to the consultation on SPT's submission to carry out infrastructure work to enable connection of the Eastern High Voltage Direct Current cable link and offshore wind generation at Branxton Substation. It also sets out our views on those responses and our provisional decision.

Background

2.1. The proposed Branxton MSIP project seeks to address the issue of the insufficient existing transmission network capacity and forecast growth in renewable energy, mainly offshore wind generation, driven by Net Zero carbon emissions targets.

2.2. In the re-opener submission, SPT provided Ofgem with evidence of the increased demand for renewable generation, driven by the commitment to achieve Net Zero carbon emissions targets by 2045 in Scotland and 2050 across Great Britain, and the needs case for reinforcement on the transmission network to facilitate this growth. There is a number of engineering options available to address significant forecast renewable generation demand growth. Following its analysis and investigations, SPT considers that the best solution is to develop a new substation on the eastern 400 kilovolt (kV) corridor of SPT's transmission network to enable the timely connection of the northern connection point for the first Eastern High Voltage Direct Current (HVDC) link and also the connection of a significant amount of offshore wind generation from the North Sea.

2.3. Our minded-to view was that the proposed construction of a new 400kV 21-bay Gas Insulated Switchgear (GIS) substation at Branxton and the subsequent substation works represented the optimal option.

Consultation responses

2.4. Four respondents, Renewable Energy Systems (RES), EDF Energy (EDF), National Grid Electricity System Operator (NGESO) and Scottish Power Energy Networks (SPEN), responded on SPT's plans to carry out infrastructure work to enable connection of the Eastern HVDC cable link and offshore wind generation at Branxton Substation. All respondents supported our view that the construction of a new 21-bay GIS substation at Branxton and the subsequent substation works represent the optimal option.

2.5. One respondent (RES) suggested that Ofgem should consider the benefits of Option 5 in the consultation (new 23-bay GIS substation at Branxton). RES believes that the provision of two additional 400kV GIS bays relative to the proposed 21-bay configuration would provide better strategic anticipatory investment given the need for further increases in renewable electricity generation capacity in Scotland.

2.6. Another respondent (EDF) highlighted possible risks associated with the proposed onshore Eastern HVDC link. EDF noted that the planned connection of the Eastern HVDC link will involve crossing EDF's existing onshore assets – the Neart na Gaoithe (NnG) 220kV export cables, which may cause some risk during construction. Moreover, there may also be a mutual heating effect on each of the cables at the crossing points. EDF also identified that the additional heat from the Eastern HVDC link needs to be considered during the design phase to avoid derating of the NnG export circuits. EDF has requested that its NnG project be consulted specifically in the design stage for the HVDC cable crossing to mitigate the risk of the cables interacting with each other.

Our views

2.7. We agree that the construction of both the 21-bay and 23-bay substation configuration would provide sufficient capacity to address the current significant forecast growth in renewable generation anticipated in the region. However, in this instance, based upon the drivers and evidence presented to us, the needs case to deliver two additional 400kV GIS bays is not justified.

2.8. Both the 23-bay and 21-bay alternatives are extremely similar in design and operability and represent feasible engineering solutions. However, the 21-bay option (proposed option) layout meets the known drivers presented by SPT in their MSIP re-opener submission and provides the opportunity for further development when the driver becomes realised.

2.9. In response to the issue raised by EDF in paragraph 2.6 above, we note there will be numerous cable crossings during the construction of the proposed onshore Eastern HVDC link. This is not unusual for this type of activity. We expect that the contractor delivering the Eastern HVDC scheme will engage with all parties where services cross and will consider alleviation of any negative impact on the existing offshore infrastructure.

2.10. Following consideration of the consultation responses, we have provisionally decided to approve the needs case and the option of the 21-bay design for the Branxton MSIP project subject to our assessment of the efficient costs thereof.

3. Needs case and proposed works to enable connection of the Inch Cape Offshore Wind Farm

This section summarises responses to the consultation on SPT's submission to carry out infrastructure work to enable the connection of the Inch Cape Offshore Wind Farm project. It also sets out our views on those responses and our provisional decision.

Background

3.1. In the MSIP re-opener submission, SPT provided Ofgem with evidence of the needs case and optioneering to enable the connection of the Inch Cape Offshore Wind Farm MSIP project to the Cockenzie 275kV Substation by October 2023. Providing the timely connection of low carbon generation, in this case offshore wind, will contribute to reaching Net Zero targets and is aligned with SPT's RIIO-T2 strategic goals.

3.2. Our minded-to view was that the preferred option, repurposing former Cockenzie power station bays, represented the optimal solution.

Consultation responses

3.3. Two respondents (SPEN, NGESO) responded on SPT's submissions to carry out infrastructure work to enable the connection of the Inch Cape Offshore Wind Farm MSIP project. Both respondents supported our minded-to view that repurposing the former Cockenzie Power Station bays at Cockenzie 275kV Substation represents the optimal solution.

3.4. One respondent (SPEN) noted that the Stage 2 submission is dependent on the continued development of Inch Cape Offshore Wind Farm in line with the existing contracted position and may therefore be subject to change. Therefore, the final timing of the second stage submission in January 2023 may be subject to a change.

Our views

3.5. We note that a final submission is currently expected to be made in January 2023. The submission will contain details of the associated amendments to the outputs, delivery date and allowances to be detailed as a Price Control Deliverable (PCD) in Appendix 1 to Special Condition 3.14 of SPT's T2 Electricity Transmission Licence. This submission will

contain details and explanation of any changes to the information provided as part of the stage one submission.

3.6. We acknowledge SPEN's comments that the second stage of the submission is subject to change due to its dependency on continued development of Inch Cape Offshore Wind Farm. Our position relating to the efficient costs of the project will be determined based on the information provided in SPT's second stage submission.

3.7. Following consideration of the consultation responses, we have provisionally decided to approve the needs case and the design that was consulted on, i.e. repurposing former Cockenzie power station bays, subject to our assessment of the efficient costs thereof.

4. Needs case and proposed works to enable connection of additional onshore wind capacity at Coalburn Substation

This section summarises responses to the consultation on SPT's plans to carry out infrastructure work to enable the connection of additional onshore wind capacity at Coalburn Substation. It also sets out our views on those responses and our provisional decision.

Background

4.1. The proposed Coalburn project seeks to remedy the issue of the insufficient total transformer capacity of 840MVA at Coalburn 400kV Substation through the installation of a fourth 400/132kV SuperGrid Transformer[6] (SGT) at the site. The solution is anticipated to provide an increase in prefault capacity for the generation in the area. In the MSIP re-opener submission, SPT provided Ofgem with evidence of the needs case for the project.

4.2. Our initial minded-to view was that the installation of a fourth 360MVA SGT and the subsequent substation works represented the optimal option.

Consultation responses

4.3. Two respondents (SPEN, NGESO) responded to the consultation on SPT's submission to carry out infrastructure work to enable the connection of additional onshore wind capacity at Coalburn Substation. They both supported our view that additional transformer capacity at Coalburn 400kV Substation is required to support expected generation growth.

Our views

4.4. Following consideration of the consultation responses, we have provisionally decided to approve the needs case and the option of installing a fourth 360MVA SGT and the subsequent substation works for Coalburn SGT4 MSIP project subject to our assessment of the efficient costs thereof.

[6] A supergrid transformer operates at voltage equal to or larger than 132kV. A grid transformer operates at voltage smaller than 132kV.

5. Other considerations

This section explains other issues raised by stakeholders for consideration regarding the consultations.

5.1. The consultation response from SPEN requested clarification regarding the addition of an evaluative Price Control Deliverable (PCD) to SPT's Licence if the MSIP Re-opener applications are accepted. The Consultation documents (paragraph 6.5) state: "*Given the potential level of difference in materiality between the delivery modes, we consider it appropriate to protect consumer interests by reviewing the delivery*." SPEN asked for further clarity on the statement as there is a high certainty of need in the MSIP Re-opener applications submitted by SPT.

Our view

5.2. The statement in the Consultation Document (paragraph 6.5) intended to reflect the broader PCD framework[7] and the current data provided through the stage one submission regarding the potential flexibility in the manner by which this project can be delivered. We consider that the best forum to discuss the structure of the potential PCD design would be through our engagement in advance of the stage two submission where we can consider any additional details in full.

[7] For further information on the PCD framework see Pre-Construction Funding (PCF) re-opener and PCD (Chapter 4) of Final Determinations Annex (RIIO-2 Final Determinations Electricity Transmission System Annex (REVISED) (ofgem.gov.uk)

6. Next steps

6.1. SPT intends to make a final submission including cost details for each of the three projects. We will then assess 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.

6.2. 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.

6.3. Further work will be necessary to set 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.