Consultation

Making a positive difference for energy consumers

Eastern Green Link 2 – Project Assessment

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We are consulting on our project assessment of National Grid Electricity Transmission and Scottish Hydro Electric Transmission's Eastern Green Link 2 (EGL2) project. This is a project under the Accelerated Strategic Transmission Investment (ASTI) mechanism in the RIIO-2 Price Control Framework. At the project assessment (PA) stage, we review and ultimately set revenue and outputs associated with delivery of an ASTI project.

We would like views from people with an interest in the costs of electricity transmission infrastructure, and the transmission owners. We particularly welcome responses from stakeholders impacted by the project. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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Contents

Eastern Green Link 2 – Project Assessment 1

Executive Summary 4

Summary of our minded-to position on the PA 4

Next steps 4

1. Introduction 6

What are we consulting on? 6

Context 6

Overview of ASTI re-opener mechanism 7

Background 9

Related publications 10

How to respond 10

Your response, data and confidentiality 10

How to track the progress of the consultation 11

2. Proposed Cost Allowances for EGL2 13

Direct construction costs 13

Indirect costs, risk and contingency 14

Cost and Output Adjustment Event 18

3. Our minded-to position on the PA submission 19

Direct Construction Costs 19

Indirect costs and risk 20

COAE 25

Summary of Proposed ASTI Allowances 25

4. Conclusion and next steps 27

Appendices 28

Appendix 1– Consultation questions 29

Appendix 2– Privacy notice on consultations 30

Personal data 30

Executive Summary

ASTI framework

The British Energy Security Strategy set out the Government's ambition to connect up to 50GW of offshore generation to the electricity network by 2030.[1] Facilitating this ambition will require significant reinforcements to the onshore electricity transmission network and a change to the current regulatory framework to accelerate delivery of large projects.

As such, in December 2022 we published a decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework.[2] We set out the initial list of ASTI projects, our decision on exempting strategic projects from competition, the new process for assessing and funding ASTI projects and the range of measures we are introducing to protect consumers against additional risks that changing the process brings.

Eastern Green Link 2 (EGL2) is the second project to undergo the project assessment (PA) process under ASTI. It is being delivered by a Joint Venture (JV) between Scottish Hydro Energy Transmission (SHE-T) and National Grid Electricity Transmission (NGET).

Summary of our minded-to position on the PA

This consultation sets out our minded-to position for the EGL2 project following PA.

We are proposing to set the funding allowance at £3,449,161,471 (18/19 prices) for the JV to deliver the project. This includes £2,709,190,955 on direct costs as well as £819,614,376 of indirect costs and risk. On the latter, during the review of EGL2 we have identified increased risks and new areas of uncertainty on this project. We have set out different ways to address these and we believe these should be funded via different funding routes when they materialise. This includes the existing Cost and Output Adjusting Event (COAE) mechanism, as well as the introduction of a new reopener.

Lastly, we are minded-to implement a Cost and Output Adjusting Event (COAE) threshold of 0.75% (equivalent to a threshold of £25.9m).

Next steps

In the coming weeks, we will engage with the JV on the licence and guidance changes that are necessary to implement our minded-to position on the PA assessment. After

1 British energy security strategy - GOV.UK (www.gov.uk)
2 Consultation on accelerating onshore electricity transmission investment | Ofgem

considering responses to this consultation, we will publish a full decision on the PA for EGL2 alongside our proposed modifications to the ASTI Guidance and NGET's and SHE-T's electricity transmission licences to support delivery of EGL2.

1. Introduction

Section summary

This section summarises what we are consulting on and provides an overview of EGL2 and background information.

What are we consulting on?

This consultation sets out our minded-to position and seeks stakeholder views on the project assessment (PA) of the Eastern Green Link 2 (EGL2) project (Network Options Assessment (NOA) code: E4D3).

1.1 Chapter 2 covers the main cost areas of the PA request as submitted by the JV.

1.2 Chapter 3 sets out our minded-to position on the funding allowance for each of the cost areas.

1.3 Chapter 4 summarises next steps and our expected timescales for a further publication on our decision.

1.4 Our assessment and minded-to position set out in this document are subject to our consideration of any consultation responses and we invite stakeholders to respond using the contact details set out on the front of this document.

Context

1.5 The GB onshore electricity transmission network is planned, constructed, owned and operated by three transmission owners (TOs): NGET in England and Wales, Scottish Power Transmission (SPT) in the south of Scotland, and Scottish Hydro Electricity Transmission (SHE-T) in the north of Scotland.

1.6 In July 2022, we published our conditional decision[3] to approve the needs case for the Eastern HVDC projects under the Large Onshore Transmission Investment (LOTI) re-opener mechanism, subject to the projects obtaining the necessary planning consents.

1.7 The proposal for the Eastern HVDC projects consists of two separate reinforcement projects:

[3] Eastern HVDC - Decision on the project's Final Needs Case (ofgem.gov.uk)

- Torness to Hawthorn Pit subsea HVDC link, with NOA code: E2DC, referred to as Eastern Green Link 1 (EGL1), prepared by a joint project team from SPT and NGET; and
- Peterhead to Drax subsea HVDC link, with NOA code: E4D3, referred to as Eastern Green Link 2 (EGL2) prepared by a joint project team from SHE-T and NGET.

1.8 In December 2022,[4] we decided to introduce a new Accelerated Strategic Transmission Investment (ASTI) regulatory framework. This framework will assess, fund and incentivise the accelerated delivery of the large, strategic onshore transmission projects required to deliver the government's ambition to connect up to 50GW of offshore wind generation to the network by 2030.

1.9 In August 2023,[5] we published our decision to modify the Special Conditions in the electricity transmission licences required to give effect to our ASTI decision, introducing new Special Conditions (SpCs):

- 3.40 Accelerated strategic transmission investment Pre-Construction Funding Re-opener, Price Control Deliverable and Use It Or Lose It Adjustment (APCFt);
- 3.41 Accelerated strategic transmission investment Re-opener and Price Control Deliverable term (ASTIRt); and
- 4.9 Accelerated strategic transmission investment output delivery incentive (ASTIIt).

1.10 This document covers our minded-to position on the PA for EGL2.

Overview of ASTI re-opener mechanism

1.11 The ASTI framework streamlines the regulatory approval process, compared with the LOTI regime, by reducing the number of regulatory assessment stages. It also allows the TOs earlier access to project funding to accelerate delivery of ASTI projects.

[4] Decision on accelerating onshore electricity transmission investment (ofgem.gov.uk)
[5] Decision to modify the special licence conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem

1.12 The ASTI framework applies to the electricity transmission projects listed at Appendix 1 of our ASTI implementation decision of August 2023[6] as they have been found to meet the following criteria[7]:

- meets the definition of a LOTI as set out in SpC1.1 (Interpretations and definitions), Part B of the TOs' electricity transmission licences: "LOTI means the assets constituting an investment in the Transmission System, which investment:

  (a) is expected to cost £100m or more of capital expenditure; and

  (b) is, in whole or in part, load-related;"

- has been identified by National Grid Electricity System Operator (NGESO) as being needed to be operational by 2030 to meet the Government's ambition to connect 50GW offshore wind generation; and

- satisfies the Authority that there is clear evidence that the expected consumer benefits of applying the accelerated delivery framework to the project exceeds the expected consumer detriment.

1.13 The ASTI framework will apply to an initial 26 ET projects identified by the ESO in the Holistic Network Design[8] (HND) and NOA 7 Refresh[9] as required to deliver the Government's 2030 net zero ambitions.[10]

1.14 To accelerate delivery of the ASTI projects, all ASTI projects that had not already been granted pre-construction funding (PCF) were granted PCF of 2.5% of their estimated total cost under SpC 3.40. PCF funding is intended to allow ASTI projects to be progressed to the point where all material planning consents have been applied for.

1.15 Further, should additional funding be required ahead of PA to accelerate an ASTI project, TOs may apply for early construction funding (ECF) which is capped at 20% of the project's estimated costs, unless directed otherwise by Ofgem. PA is

[6] Accelerated Strategic Transmission Investment Guidance And Submission Requirements Document (ofgem.gov.uk)
[7] Decision to modify the special licence conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment, Accelerated Strategic Transmission Investment Guidance And Submission Requirements Document, paragraph 2.3
[8] The Pathway to 2030 Holistic Network Design | National Grid ESO
[9] Network Options Assessment (NOA) | National Grid ESO
[10] British energy security strategy - GOV.UK (www.gov.uk)

the final stage of the ASTI framework.[11] The PA review determines the efficient allowance to deliver the project, including the efficient costs of construction, risk contingencies, project management and any other elements of delivery.

1.16 EGL1 and EGL2 were progressing in parallel when they were still LOTI projects as Eastern HVDC. They were considered together for their Initial Needs Case and FNC of the LOTI process. Following the implementation of the ASTI framework, both projects have continued to progress closely together. Given their similarities and that the projects progressed almost simultaneously, they faced similar procurement challenges, uncertainty and elevated costs. We have received separate PA submissions and have assessed them separately.

1.17 This document addresses the EGL2 PA submission assessment.

Background

1.18 EGL2 is an infrastructure project that will connect the Scottish and English transmission networks from Peterhead in Aberdeenshire, Scotland to Drax in North Yorkshire, England. It consists of c.436km of 525kV, 2GW High Voltage Direct Current (HVDC) marine cable and c.70km of onshore HVDC Land Cable. Two converter stations, one at each end of the link, are required to transform the electricity to alternating current (AC) as used on onshore network.

1.19 In 2022 the NGESO NOA refresh, which now fully integrates the HND, confirmed that delivering EGL2 is essential to achieving the Government's net zero ambitions.[12] Although the project had progressed through the LOTI mechanism up to FNC stage (see 1.6-1.7), going forwards it will be considered under the new ASTI framework. As such, the project is already included in the list of projects in Appendix 1 to SpC 3.41 to NGET's and SHE-T's respective licences.[13] The project was not granted PCF under the ASTI framework as PCF had already been provided as part of setting the RIIO-2 price control for electricity transmission in February 2021. The PCF amount provided for NGET was £39.42m and for SHE-T was £20.32m.[14]

[11] The ASTI Guidance includes information on the ASTI stages – PCF, ECF and PA.
[12] Network Options Assessment (NOA) | ESO (nationalgrideso.com)
[13] Decision to modify the Special Conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem
Decision to modify the Special Conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem
[14] RIIO-2 Final Determinations - NGET Annex (REVISED) (ofgem.gov.uk), at page 17 under the acronym of E4D3. Also, at Appendix 2 to SpC 3.15 of NGET's and SPT's licences.

1.20 The project will be delivered by a Joint Venture (JV) between NGET and SHE-T. The final PA submission was made in November 2023. Ofgem and the JV had extensive up-front engagement, including an engagement stage prior to submissions on indirect costs and programme, to better understand the procurement environment and development of project scope.

1.21 We have commissioned external consultancy support to produce new benchmarks that will assist with the ASTI PA process. We believe that this will be an important milestone that will ensure robustness and consistency in the PA review and will expedite decision making timescales. Once this work is concluded we will begin to incorporate it in our PA assessments.

Related publications

1.22 Decision to modify the Special Conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem

1.23 Decision on accelerating onshore electricity transmission investment | Ofgem

How to respond

1.24 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.

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

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

Your response, data and confidentiality

1.27 You can ask us to keep your response, or parts of your response, confidential. We will 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.

1.28 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 will 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.

1.29 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 2.

1.30 If you wish to respond confidentially, we will keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We will not 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

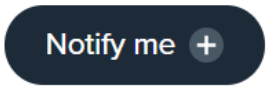
1.31 We believe that consultation is at the heart of good policy development. We welcome any comments about how we have run this consultation. We would also like to get your answers to these questions:

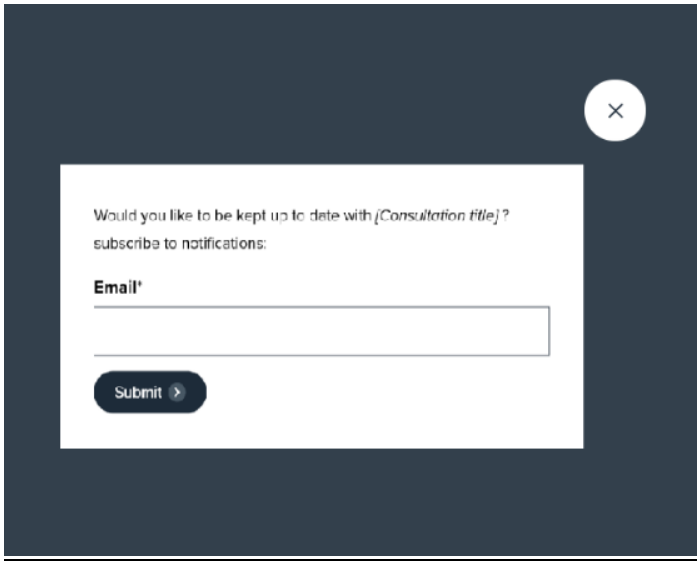
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6.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

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

How to track the progress of the consultation

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





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

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

2. Proposed Cost Allowances for EGL2

Section summary

This section details the funding requested by the JV in their submission.

2.1 When the FNC for EGL2 was assessed under LOTI, the estimated capital costs for E4D3 were £2.105m (18/19 price base). At the ASTI PA stage, the JV requested a total of £3,528,805,331 (for direct, indirect and P50 costs) and a further [redacted] to cover risk related costs for the delivery of EGL2. This represents a significant increase from the initially expected to the final costs of the project and reflects changes in the supply chain environment with constrained supply and soaring global demand, maturing project scope and a commodity price challenging inflationary environment throughout the development period. At PA stage we expect the JV to explain the reasons behind the submitted costs.

2.2 This section sets out the main parts of the funding requested by the JV in their submission. This includes the proposed project allowances regarding direct construction costs, indirect costs and risk, as well as a request to adjust the Cost and Output Adjusting Event (COAE) threshold for EGL2.

Direct construction costs

2.3 The JV requested £2,709,190,955 to fund direct construction works for EGL2. EGL2 is an HVDC project, requiring new HVDC cable, subsea installation and converter stations to transmit the new generation from Scotland to England. Suppliers of HVDC equipment operate in a global market made up of manufacturers and installers of the highly complex engineering solutions required for converter stations, and cable suppliers who manufacture and install onshore and submarine cables.

2.4 Countries around the globe are setting challenging targets for decarbonising their energy networks and increasing the volume of renewable energy they connect, driving global demand and increased prices. This is happening simultaneously as other inflationary pressures also come to bear, including the increase in construction activity following the Covid 19 pandemic and the commodity cost increases driven by the Russian invasion of Ukraine.

2.5 There are only a limited number of suppliers operating in the HVDC market; it is a specialised field with a high barrier to entry and historically relatively slow and unpredictable demand. For example, there are currently only three mature suppliers with a proven track record of delivering converter stations able to meet

the exacting requirements of the GB network: Siemens, Hitachi Energy and General Electric. In addition, specialist equipment and plant, such as cable laying vessels, are in high demand and in short supply. Many cable suppliers prefer to use their own vessels for ease of planning and costs, meaning that if their vessel(s) is/are already reserved for projects elsewhere, they will potentially not bid for work.

2.6 The JV concluded that demand and commodity inflation is prompting significant cost increases on all electricity transmission projects, increasing lead times for specialist equipment due to manufacturing constraints and driving a change in appetite for the transfer of risk, with suppliers no longer content to fix prices in a volatile market with high inflation or bid for projects they deem to have an unacceptably high-risk environment.

Indirect costs and risk

2.7 The JV requested £819,614,376 of indirect costs, and P50 level of confidence funding. A further [redacted] was requested for P80 level risk funding, [redacted] on deferred risks, [redacted] on hedging and they also requested [redacted] on Price Adjustment Mechanisms (PAMs).

2.8 As part of the indirect costs, the JV requested consultancy costs of £848,423 which it subsequently noted that had been erroneously added in the submission.

2.9 The indirect cost funding also included £67,230,272 of funding to recover costs associated with increased organisational costs (capabilities, structures and operating costs) that the JV is expected to incur to deliver the ASTI portfolio (termed ASTI Overhead). These costs are intended to cover the incremental uplift in operational and management overhead to deliver the JV parent companies' ASTI programmes and based upon a 2% estimated uplift to required overhead costs.

2.10 Furthermore, the JV included £7,624,379 for a proposed community benefit fund. This is to ensure that the communities in Scotland and North-East England that host the infrastructure also secure some benefit from it. This also supports the project in obtaining and discharging planning consents, thereby reducing project delivery risk and expediting the project's programme of works.

2.11 A further £48,264,998 was requested for a proposed sustainability innovation fund. This aims to drive carbon-reducing innovation on the project and support UK net zero targets.

P50 and P80 level of confidence

2.12 The JV requested funding based on a P80 level of confidence for EGL2. Ofgem's approach is to normally fund projects at a P50 level of confidence only.

2.13 Costs confidence levels are a measure of confidence in the project's estimated costs constructed using probability. They are used to gauge the appropriate level of funding against the likelihood of the project being successfully delivered for a given cost.

2.14 A project costed at the P50 confidence level means that 50% of estimates exceed the P50 estimate and that, by definition, 50% of estimates are less than the P50. In other words, it is a middle estimate (but not the mean). A P80 level of funding exceeds a P50 level, as it is funding a greater volume and value of risk, with a correspondingly greater likelihood that the project will be delivered within that cost estimate.

2.15 For EGL2, the P50 level of funding sought was [redacted] and P80 was [redacted].

2.16 The JV provided 3 levels of justification for their seeking funding at a P80, rather than a P50 level of funding:

- The cost of acceleration in a constrained supply chain environment
- As noted previously in this chapter, high levels of demand in the supply chain, reduced supply chain appetite to retain risk and cost volatility have led to fewer and more expensive mitigating options.
- Innovation and quality; EGL2 is one of the first UK deployments of new 525kV XLPE cable technology and 525kV 2GW VSC bi-pole converter configuration. These novel equipment types represent additional risk over and above a more traditional solution.

Deferred risks

2.17 The JV noted in their submission that they have identified four types of highly uncertain project cost risks, which they expect to become clearer in the near future. The four types of risks covered estimated uncertainty on: Unexploded Ordnance (UXO) target investigations; UXO Clearance / detonation; Compulsory Purchase Order (CPO) Process for Southern Land Cable; and estimating uncertainty associated with enabling works in NGET's licence area, essential to enabling the integration of EGL2 on to the electricity network.

2.18 The JV said that these are highly uncertain risks and will be subject to continuing refinement, mitigation and investigation. They anticipate that this further work would lower the risk costs and thereby reduce the burden on consumers.

2.19 The JV asked us to allow them to not include these costs from their quantitative costed risk analysis as the level of definition and refinement of these costs where disproportionately low. They asked that Ofgem do not review these risks at a PA stage. The JV argued that if the costs had been included within the submission, the low level of definition would have resulted in a disproportionately high allowance request which it would have not been fair for consumers to bear.

2.20 They confirmed that they plan to submit an updated position on this once further work has been completed to fully ascertain and understand the complete risk position.

2.21 They expect to submit a request for further funding in 2024, so that total project allowances would be adjusted to reflect Ofgem's view on their efficiency. Based on their most recent update, the JV have indicated that the potential outturn indicative range of these costs is (redacted).

Price Adjustment Mechanisms

2.22 EGL2 is one of the first projects (alongside EGL1) that has necessitated the introduction of funding arrangements for Price Adjustment Mechanisms (PAMs) across supply chain indexation and currency risk on uncertain items.

2.23 Inflation over the past 2 years has been significant owing to a variety of global macro-economic events. Whilst general inflation indices such as Consumer Prices Index including owner occupiers' housing costs (CPIH) have seen substantial change, they do not reflect the full extent of inflation within specific sectors, especially construction and the specialist HVDC market. Whilst historically CPIH has been a close proxy for construction-specific indices, since mid-2023 inflation within manufacturing and construction has far outstripped CPIH. This divergence is illustrated in Table 1 below:

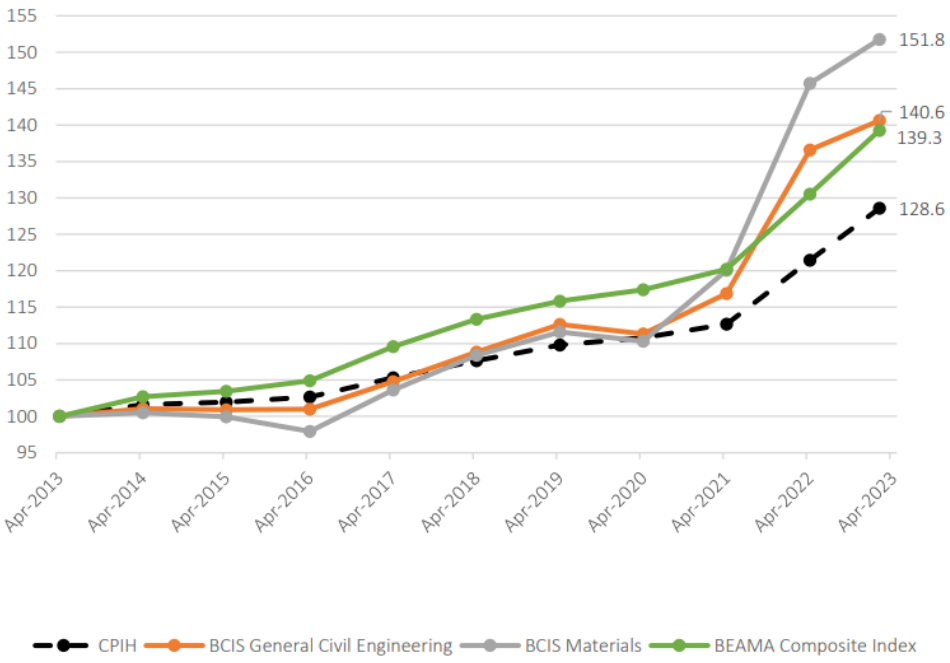


Table 1: CPIH comparison to Building Cost Information Services (BCIS) and British Electrotechnical and Allied Manufacturers' Association (BEAMA) Indicies (APR-2013 = 100)

2.24 A Supply Chain Indexation PAM is a contractual mechanism for managing changes to the contract price post award. Costs are treated as pass-through and therefore not pre-determined but treated by ex-post allowance adjustment which is trued up on an annual basis based on indices. PAMs have been demanded by the supply chain to manage costs which they have not been able to fix, and which remain highly volatile in the current climate, in particular commodities such as copper, aluminium and oil.

2.25 The JV estimated the total exposure to the PAMs on EGL2 at being between [redacted] and [redacted] at the lower and top end of the range respectively. However, they noted that these are not fixed limits, and they are subject to change as indices evolve.

Currency hedging

2.26 The JV explained in its submission that due to the unpredictability, applicable currency and cost profile of uncertain costs (like risk) it is impossible to accurately forecast a fully foreign exchange hedged position. Currency markets are complex, volatile and can be influenced by any number of exogenous factors outside the JV's reasonable control (e.g. war, politics, inflation etc.) This means that currency positions are constantly changing.

2.27 The JV notified us that EGL2 intends to enter into an option arrangement. This strategy offers protection to the consumer and the TOs from downside foreign

exchange rate movements across an agreed proportion of the uncertain spend phased profile, by locking in an option to buy foreign currency at a determined rate. It also offers the consumer an opportunity to benefit from upside foreign exchange rate movements. This foreign currency option product will carry a fee which will be confirmed at the time of placing the option when the main contracts are hedged.

2.28 The JV suggested that as the project progresses, and the risk phasing evolves there could be additional costs for re-phasing the foreign exchange option as the dates assumed at the time of placing the option are updated to actual transaction dates.

2.29 In their submission the JV proposed that as the option fee and rearrangement fees are not pre-determined, an ex-post adjustment should be made to reflect these costs in allowances with allowances trued up on an annual basis based on hedge option activity.

Cost and Output Adjustment Event

2.30 Part E of SpC 3.41 provides for a Cost and Output Adjusting Event (COAE) re-opener mechanism to adjust outputs and allowances in Appendix 1 to SpC 3.41 should there be a COAE.

2.31 Given the high value of EGL2's submitted costs (redacted), the JV argued that 5% was too high a threshold to breach and exposed them to individual unfunded risks of up to [redacted] in value; a COAE threshold of 0.75% was therefore proposed.

2.32 The following section covers our minded-to position on the JV's funding request.

3. Our minded-to position on the PA submission

Section summary

This section explains our minded-to position on the PA request from the JV. It provides a summary of the total funding we are minded-to allow to the JV for the delivery of EGL2.

Questions

Q1. Do you agree with our minded-to position on direct costs on EGL2?

Q2. Do you agree with our minded-to position on indirect costs and P50 level of confidence funding on EGL2?

Q3. Do you agree with our minded to position on P80 contingency funding on EGL2?

Q4. Do you agree with our minded-to position on PAM funding on EGL2?

Q5. Do you agree with our minded-to position on currency hedging funding on EGL2?

Q6. Do you agree with our minded-to position on the deferred risks on EGL2?

Q4. Do you agree with our minded-to position on the COAE threshold adjustment on EGL2?

3.1 The previous section set out the main parts of the JV's PA funding request and the reasons for the proposed costs on EGL2.

3.2 This section covers our minded-to position on the PA submission on EGL2. It sets out our views on the efficient allowances for the project regarding direct construction costs as well as indirect costs and risk. It covers our approach to P50/P80 confidence level of funding, the PAMs, the deferred risks and currency hedging. It clarifies our view on the requested COAE adjustment. Finally, it provides a table that summarises the requested allowance and the total sum of the funding we are proposing to allow.

3.3 In summary, we are minded-to allow £3,449,161,471 costs for the overall delivery of EGL2 and to set the COAE threshold at 0.75%.

Direct Construction Costs

3.4 The environment in which EGL2 was procured was a major challenge for the project to manage. As noted in paragraph 2.1, the past two years have seen soaring global demand for new transmission infrastructure and an already limited supply chain unable to meet unprecedented levels of demand. A number of potential bidders withdrew from the EGL2 procurement process, citing a lack of capacity to meet the project requirements and significant new contracts elsewhere in the world. In addition, commodity price inflation has driven up the

cost of key materials such as copper, steel and fuel, driving up cost estimates and placing pressure on bids.

3.5 In our review of the project's direct costs, we consider that the JV could have taken more steps to attract and retain potential bidders. We do, however, recognise the challenging operating environment EGL2 faced and the difficulty the JV had in securing bids from a supply chain experiencing high levels of customer demand.

3.6 We do not believe it is in customers' interests to make reductions to the direct costs requested by the JV. It is unclear whether making reductions would lead to any efficiencies being gained, and any such efficiencies would likely be marginal and offset by increased constraint costs caused by delays in renegotiating the procurement contracts.

3.7 We also note that Ofgem's and the TO's current direct cost benchmarks, based on historic project's achieved costs, no longer reflect current contract rates. Costs have increased significantly over the past two years due to innovation and changing market conditions; benchmarks based on historic data are to an extent obsolete; based on tender returns and market evidence presented by the JV, we believe that the direct costs submitted for this project reflect the market's current price for the works.

3.8 For these reasons our minded-to position is to allow the proposed direct costs of the project (£2,709,190,955).

Indirect costs and risk

3.9 Following discussions with the JV, we have agreed to remove the consultancy related costs that have been erroneously submitted (£848,423). We also agreed to remove the ASTI Overhead costs (£67,230,272) as further understanding is required of the costs and efficiencies associated with implementing an ASTI programme office and the optimal method for funding this, either as part of the broader price control or via a re-opener.

3.10 With regards to the Sustainability Innovation Fund, we are minded-to approve this (£48,264,998), as it refers to the potential carbon footprint of a complex major infrastructure project involving significant logistics and volumes of concrete and steel. We believe that this funding would help drive down the project's impact on the environment.

3.11 The Department for Energy Security and Net Zero (DESNZ) is expected to publish initial guidance and mandatory policy approach on Community Benefits in 2024.[15] EGL2 is progressing ahead of these publications.

3.12 With regards to the Community Benefit Fund, the sum requested by the JV is in line with recent historic norms and based upon sound principles. We recognise the need to ensure communities that host infrastructure also obtain benefit from doing so and the key role good local stakeholder relations can play in successful on time delivery.

3.13 This is the second project under the ASTI portfolio to undergo a PA review. During the review of the EGL2 submission, we have identified new areas of uncertainty, some of which are similar to those on EGL1, that need to be handled in an effective manner, so that we bring the most value for consumers. Given the fast-paced nature of the ASTI projects portfolio, we believe that exploring further these uncertainty areas and waiting to get further confidence from the JV could create significant delays to the delivery of the projects. This would not be in consumers' benefit.

3.14 We do not consider it appropriate to fund these risks in upfront allowances, instead we believe that the uncertainties on risk and contingency should be mitigated in different ways, and we have set our views below.

Low probability risk

3.15 We are minded-to remove £11,565,165 of funding that was requested for low probability risks (under 10% probability of the risks occurring) as we do not consider it efficient to fund specific risk with an identified very low probability of occurring.

P50 and P80 level of confidence

3.16 The PA stage determines the efficient cost allowance for the delivery of the project. It is the stage where we look at the proposed project in depth, focusing on the efficiency of the total forecast costs of construction, risk contingencies and the TO's readiness to proceed with delivery.

3.17 Ofgem has always been clear that we only accept project submissions at a P50 level of confidence; we judge this the most efficient level of funding for risk,

[15] Community benefits for electricity transmission network infrastructure - GOV.UK (www.gov.uk)

providing an incentive to the TOs to proactively manage project risks and seek opportunities without providing excessive levels of comfort.

3.18 Whilst we recognise that EGL2 has a greater risk exposure than a conventional transmission project due to its accelerated nature, supply chain environment and deployment of novel technology, we do not accept there is an automatic requirement for a P80 level of funding, and we do not consider it efficient to fund the project at this level without further control of costs and assurance over why they have been incurred. We would only consider funding at P80 level if we were convinced that there was an event outside of the JV's control, which they could not reasonably have planned for, and which resulted in that level of funding being justified.

3.19 Part E of SpC 3.41 provides for a COAE re-opener mechanism to adjust allowances and/or scope where an event that is outside of the TOs' reasonable control happens, which they could not have economically and efficiently planned a contingency for, and which has a material impact on the scope or cost of an ASTI Output. We believe that the COAE reopener is the appropriate re-opener for this extra allowance to be assessed. If the JV believes that the P80 funding is needed and justified under the COAE mechanism, we expect them to make a submission under the that mechanism, which we will review and decide upon after consulting. For clarity, any COAE submission would cover the difference between P80 and P50 (the 'P80 contingency').

3.20 This re-opener will not have a materiality threshold in place, and it would only be applicable for the funding P80 contingency only. We expect that such a request would only be relevant to adjusting the allowance, but it will not impact the delivery date or output. We intend to include the amount of P80 contingency requested at PA in the Confidential Annex.

3.21 **We are minded-to remove £67,230,272 and £848,423 (in relation to for consultancy costs and ASTI Overheads respectively) from the total submitted indirect costs. We are minded-to approve £819,614,376 of indirect costs and P50 funding level for EGL2. Further, we are minded-to amend Part E of SpC 3.41 to provide no materiality threshold for a COAE application for P80 contingency funding.**

Deferred Risks

3.22 At a PA submission stage, we engaged with the JV on four highly uncertain risks (see paragraph 2.17). We understand that including such undefined risks in the PA would be extremely difficult to assess or agree on in a timely manner.

Therefore, we agreed that not including these risks categories in the submission would be to the benefit of consumers. We believe that assessing the efficiency of these costs later in time would allow the PA assessment to progress faster (for the other parts of the proposed costs) and would ensure that the JV request a reasonable allowance based on adequate information.

3.23 We note that UXOs and CPOs are already potential COAEs in line with paragraph 4.93 of the ASTI Guidance. As such, we believe that, in principle, the existing ASTI COAE mechanism would be the best for the JV to submit a further allowance adjustment request on the deferred risks. If the JV believes that the deferred risks are justified under the COAE mechanism, we expect them to make a submission under that mechanism, which we will review and decide upon after consulting.

3.24 Therefore, we are minded-to amend Part E of SpC 3.41 to provide no materiality threshold for a COAE application for the funding of these deferred risks.

PAMs

3.25 Whilst the JV does have some control over the introduction and management of the PAM mechanism through its commercial leverage and ability to negotiate, we accept that the project is being delivered in a supplier's market, with significant commodity inflation and that it has limited means to fix prices. As such, we accept that the PAMs can create a risk for the JV that would require further funding to cover it.

3.26 At the date the PA submission was made, there was asymmetry existing within the PAMs. At that point, costs could only go up as inflation increases and there was no opportunity for consumers to gain should inflation decrease, and commodity prices come down. We communicated to the JV that it was our view that it needed to renegotiate the terms it had agreed.

3.27 Following discussions with the JV in the interim since the PA submission was made, we understand this asymmetry has now been addressed following renegotiation with the supply chain. This will ensure the JV and consumers are able to benefit in the instance that prices come down. We welcome this development.

3.28 Our view is that the existing ASTI mechanisms cannot be used to mitigate this uncertainty. We recognise that in the future submissions, new uncertainty areas could be brought to our attention.

3.29 We believe that PAM funding requests should be considered through a specific and targeted cost reopener mechanism. We envisage a mechanism that allows flexibility to adjust allowances based on commodity price movements. We would be able to increase allowances if commodity prices increase or decrease allowances if commodity prices reduce in future. This approach prevents consumers from incurring unnecessary costs. It also provides assurance to the JV that there is a mechanism in place for them to request further funding based on the progress on the project. Overall, we believe that such a mechanism would be in the interests of consumers.

3.30 We are minded-to subject the PAM costs to a new cost uncertainty reopener.

3.31 For EGL2, this annual reopener would allow the JV to submit a further funding request where they have incurred cost via their PAMs mechanisms. This reopener would cover the case where the JV requires additional funding as necessitated by the PAMs. We will be reviewing the reasonableness and efficiency of these costs, therefore we expect this to be evidenced by supporting information, such as invoices, question and answer logs and relevant price indices for PAMs-related costs from EGL2's contractors. However, we note that we expect to get a further update on the PAM negotiations from the JV prior to the decision stage.

3.32 We intend to include the level of PAMs in the Confidential Annex, to reflect the submitted estimates.

Currency Hedging

3.33 Currency hedging can prevent the JV incurring higher costs than anticipated and ultimately protect consumers against the cost increases that would otherwise occur. We therefore encourage hedging in as transparent a manner as possible.

3.34 Currency hedging is a method of managing cost uncertainty that was raised at the point of the PA submission. **We are minded-to consider funding costs related to currency hedging via a new reopener mechanism.** This will be the same mechanism that covers costs incurred for PAMs (see 3.32-3.34 above). This approach prevents consumers from unnecessarily paying for these costs upfront when the eventual outturn cost is not yet known. It also provides assurance to the JV that there is a mechanism in place for them to request further funding base on the progress on the project. Overall, we believe that such a mechanism would be in the interests of consumers, as it will ensure that we will assess the efficiency of any costs related to hedging.

COAE

3.35 We accept that for a project of this value, a 5% threshold represents a significant liability of unfunded cost risk. We consider the JV's proposed COAE threshold of 0.75% to be a reasonable suggestion. **We are minded-to implement a COAE threshold of 0.75% (equivalent £25.9m).** We believe that this represents a single risk of significant magnitude, protecting the interests of consumers whilst providing the JV with confidence that low probability and high value risks will be funded.

Summary of Proposed ASTI Allowances

Summary of our minded-to position

3.36 In summary, we are minded-to allow £3,449,161,471 of costs for the overall the JV to deliver the project. This includes £2,709,190,955 on direct costs as well as £819,614,376 on indirect costs and risk.

3.37 The above level of funding on indirect costs and risk includes our minded-to position to:

- remove £848,423 for erroneously submitted consultancy costs.
- remove £67,230,272 for ASTI Overheads
- remove £11,565,165 of low probability risk costs.
- allow the P50 [redacted] to the JV.
- subject the remaining P80 funding request to a separate application under the COAE mechanism [redacted] with no materiality threshold and
- subject the deferred risks to a separate application under the COAE mechanism [redacted] with no materiality threshold.
- subject the PAM [redacted] and the currency hedging to a new reopener.

3.38 We are also minded-to set the COAE threshold at 0.75%.

Summary of submitted and proposed funding

3.39 The table below summarises the proposed cost allowances under the ASTI Re-opener for EGL2.

ASTI Project Funding

Cost Category	**Submitted Cost (£)**	**Proposed Adjustment (£)**	**Subject to COAE / Reopener**	**Proposed Allowance (£)**
Indirect Costs, P50 and Risk	819,614,376 P80 Risk [redacted] Deferred Risks [redacted] PAMs [redacted] Currency Hedging	-67,230,272 -848,423 -11,565,165	COAE: P80 [redacted] COAE: Deferred Risks [redacted] New Reopener: PAMs [redacted], currency hedging	739,970,516 P80: Nil Deferred Risks: Nil PAMs: Nil Currency Hedging: Nil
Direct Construction Costs	2,709,190,955			2,709,190,955
Total ASTI Reopener Funding	**3,528,805,331**	**-43,011,356**		**3,449,161,471**
COAE	0.75%			0.75%

Table 2: Summary of proposed cost allowances under the ASTI Re-opener for the EGL2 Project (in 18/19 prices)

4. Conclusion and next steps

4.1 We welcome your responses to this consultation, both generally, and in particular on the specific questions in Chapter 3. Please send your response to: riioelectricitytransmission@ofgem.gov.uk. The deadline for responses is 26 April 2024.

4.2 We aim to publish our decision and our proposed modifications to the licensees' licences and ASTI Guidance in June 2024, which will reflect that decision.

4.3 In forming our view on these changes, we will engage with the JV to ensure the licence changes reflect the policy intention. We will hold workshops with licensees to ensure transparency and consistency in the changes.

Appendices

Index

Appendix	**Name of appendix**	**Page no.**
1	Consultation questions	30
2	Privacy notice on consultations	31

Appendix 1– Consultation questions

Chapter 3:

Q1. Do you agree with our minded-to position on direct costs on EGL2?

Q2. Do you agree with our minded-to position on indirect costs and P50 level of confidence funding on EGL2?

Q3. Do you agree with our minded to position on P80 contingency funding on EGL2?

Q4. Do you agree with our minded-to position on PAM funding on EGL2?

Q5. Do you agree with our minded-to position on currency hedging funding on EGL2?

Q6. Do you agree with our minded-to position on the deferred risks on EGL2?

Q4. Do you agree with our minded-to position on the COAE threshold adjustment on EGL2?

Appendix 2– Privacy notice on consultations

Personal data

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

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

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

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

2. Why we are collecting your personal data

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

3. Our legal basis for processing your personal data

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

4. We will not be sharing your personal data.

5. Your personal data will be held for twelve months after the consultation has closed.

6. Your rights

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

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties

- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas

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

9. Your personal data will be stored in a secure government IT system.

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