

Response overview

This response to Ofgem’s consultation on the ASTI ODI Penalty Exemption Period request for Eastern Green Link 1 (EGL1) dated 10 April 2025 (the “consultation”) is from National Grid Electricity Transmission plc (NGET) and SP Transmission (SPT). Licence tests

It is essential that Ofgem focuses on the Delay Event tests set out in the electricity transmission licence. A Delay Event is defined in Special Condition 1.1¹ of NGET and SPT’s licences as an event that (a) causes, or is reasonably expected to cause, one or more ASTI projects to be delayed by at least 30 days; (b) is outside the licensee’s reasonable control; and (c) is not attributable to any error or failure on the licensee’s part. Ofgem has not properly used this licence definition as the basis for its minded-to position and has therefore misdirected itself as to the law in this respect. The table below summarises how each of the above licence tests has been met and signposts the relevant section in this response document where this is discussed further:

Licence test	Summary of why test has been met	Ref.
a) Is there a delay event which has caused at least 30 days delay to the EGL1 project?	<p>This licence test has been met because:</p> <ul style="list-style-type: none">• Ofgem agrees with the TOs that there has been a delay of more than 30 days on the project.• The delay was not accounted for when setting ASTI ODI Target Dates. The approach to setting those dates was taken generically at portfolio level. It is not possible that Ofgem’s December 2022 ASTI decision considered the specific and evolving circumstances impacting EGL1.	Page 4
b) Was the delay event (i.e. supply chain constraints) outside the reasonable control of the TOs?	<p>This licence test has been met because the licence does not require there to be disruption to the global supply chain – it merely requires an event which meets the 3-part Delay Event tests set out in the licence.</p> <ul style="list-style-type: none">• In any event, the HVDC market is plainly global in nature - suppliers who responded or expressed an interest represented a global supply base and our procurement event had a global invitation to bid. We received interest at pre-qualification (PQQ) from 25 suppliers including US, European and Asia based suppliers. Suppliers headquartered in a particular country rely on global supply chains and are therefore affected by such constraints. It would be irrational for Ofgem to maintain that a lack of capacity in Europe and the US is evidence of available supply elsewhere in the world.• This global market was heavily constrained - no supplier could offer a delivery date earlier than 2029. Independent assessments concluded that no comparable projects procured around the same time secured delivery dates prior to 2029. The assessments also conclude that current timescales to Earliest in Service Date (EISD) (c.5 years) are not considered a genuine delay but rather an accurate reflection of global supply chain capacity. These timescales are consistent with current benchmark	Page 11

¹ Part B definitions

	<p>data - timescales would increase to c. 6 years if the tender was launched today, demonstrating the ongoing supply chain constraints.²</p> <ul style="list-style-type: none"> • Ofgem took 16 months from Initial Needs Case submission in 2020 to allocate delivery of the project to the JV (via informal email in January 2022). This meant that: <ul style="list-style-type: none"> ○ The JV was not able to engage meaningfully with the supply chain until confirmed; this is acknowledged by Ofgem in its ASTI decision in December 2022. ○ The JV could not have awareness of the full extent of capacity constraints in 2022 and the impact they would have, as the extent of supply chain constraints only became apparent at the BAFO stage in May 2023. 	
Licence Test	Summary of why test has been met	Ref.
c) Was the delay event (i.e. supply chain constraints) not attributable to any error or failure on the part of the TOs?	This licence test has been met because:	Page 19

² [redacted]

	<ul style="list-style-type: none"> • Independent assessments show the procurement approach adhered to was reasonable, drawing on GB TO experience, benchmark data, and extensive supply chain engagement³, [redacted]. • No counterfactual has been proposed by Ofgem. Ofgem has suggested the procurement process could have been run differently but has no evidential basis to conclude its proposed changes (different technical scope, contracting models pricing models or location) would have mitigated delays, nor has it even begun to articulate any counterfactual analysis to determine the potential effect on delivery of its hypothetical alternatives. Further, even if Ofgem had (a) identified a counterfactual process and (b) found cogent evidence demonstrating that it actually would have averted or mitigated delays, Ofgem would still need to conclude that the JV committed a culpable “error” or “failure” by not adopting this process, assessing that question by reference to the information available at the time. There is no evidence that could begin to support that conclusion, nor has Ofgem consulted upon reasons for reaching it. • Ofgem also does not fully consider the impact of alternative suggestions on CAPEX, NESO technical advice or recommendations via the HND or technical group for cable type, cost benefit analysis or relevant procurement laws when suggesting alternatives may have yielded earlier dates. • [redacted].⁴ • Ofgem makes assumptions that a misunderstanding of consenting requirements caused the delay. This is not the case and the supplier in question will respond to the consultation stating this. • Ofgem does not acknowledge that alternative strategies impact on cost or delays. • Ofgem does not consider the procurement laws which EGL1’s procurement approach was required to follow. Also, pivoting a procurement approach during a live procurement event, such that it would amount to a substantial change (which Ofgem appears to suggest the JV should have done) would likely result in a need to restart the procurement process or face potential legal challenge under UCR. This would inevitably lead to further delays and is noted by the independent assessments. 	
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Additional points regarding the application of the licence and guidance

- Ofgem’s minded-to position has not been assessed against information that could reasonably have been known at the time by the TOs. These circumstances, including the regulatory framework change and external factors, have not been considered in Ofgem’s minded-to position. Instead, Ofgem has drawn upon hindsight as to why the delay “may” have happened; this is not in line with the principles governing penalty exemptions.
- Furthermore, Ofgem’s minded-to position is not applying the right test. To evidence a Delay Event, TOs only need to show there was an event outside their reasonable control which was not attributable to any error or failure on their part that resulted in a delay of over 30 days. By focusing on whether the delay was caused by unavailability of equipment or supply chain globally, Ofgem misdirects itself as to the meaning of the licence. Global supply chain unavailability is only one example in the ASTI guidance of a potential Delay Event, which also refers to supplier unavailability more broadly.
- The delay was indeed caused by supplier unavailability because as set out above, the EGL1 procurement was run appropriately, and no counterfactual has been provided by Ofgem to evidence that an alternative procurement approach would have prevented or mitigated the delay. Therefore, despite doing everything within its reasonable control and running a competent procurement process, the JV could not secure delivery before 2029.

³ [redacted]

⁴ [redacted]

NGET/SPT's detailed response to Ofgem's minded-to position to reject the Delay Event application

EGL1 is a Joint Venture (JV) between NGET and SPT for the purpose of building a 2GW HVDC link from Torness to Hawthorn Pit¹. It is an innovative project and the first of five currently planned 'Eastern HVDC Links' and is critical national infrastructure. EGL1 is being delivered under the Accelerated Strategic Transmission Investment (ASTI) framework implemented in October 2023 by Ofgem which is designed to accelerate transmission investment.

ASTI includes an Output Delivery Incentive (ODI) mechanism which automatically rewards or penalises TOs for early or late delivery against a target date (the ASTI ODI Target Date). In addition, it includes provisions for 'Delay Events' to manage project delays, avoiding penalties during Penalty Exemption Periods for delays of over 30 days that occur due to events outside the reasonable control of a Transmission Owner (TO) and which are not attributable to any error or failure on the TO's part.

When Ofgem took the decision to establish the ASTI framework in December 2022, EGL1 was in the middle of a live procurement event with the HVDC supply chain market becoming increasingly constrained. The constraints peaked around this period and resulted in no suppliers offering delivery dates ahead of 2029. This resulted in NGET and SPT submitting the Delay Event application in December 2023 which followed the process set out in the transmission licence and the ASTI guidance. The extent of the supply chain constraints has been validated in three independent assessments and included as part of our response to the consultation.

This section sets out NGET/SPT's detailed response to the consultation published by Ofgem on 10 April 2025 in which Ofgem indicates it is 'minded to' reject the Penalty Exemption Period application from NGET and SPT.

We fundamentally disagree with Ofgem's 'minded-to' position to reject the EGL1 Penalty Exemption Period application arising from the Delay Event and consider Ofgem's position relies on an erroneous factual basis and takes account of irrelevant facts whilst ignoring those which are relevant. It is our view that the Delay Event meets both the licence and ASTI guidance requirements, namely the existence of an event which:

- causes, or is reasonably expected to cause, delay of at least 30 days;
- is outside the licensee's reasonable control; and
- is not attributable to any error or failure on the licensee's part.

We have previously provided substantial evidence which contradicts Ofgem's position, including:

- The Original Delay Event Submission – 7 December 2023
- The Delay Event Addendum – 29 October 2024
- A Further Management Response to additional arguments presented by Ofgem – 24 December 2024

In addition to this, we have referenced a number of external reports that verify independently the state of the market at the time of the EGL1 procurement event and the impact this event had on the project programme for EGL1. These documents provide an extensive evidence base outlining the timeline of events and the information available in support of NGET and SPT's submission. We ask that the documents listed above, and the independent reports are taken into consideration alongside this consultation response when arriving at the final decision.

Finally, given that Ofgem has introduced a new argument not previously raised in over 17 months of engagement on the Delay Event submission, we have included new evidence. This relates to the fact that Ofgem has now stated that it believes that the nature of our procurement strategy may have resulted in a lack of acceptable offers and caused the delay. We do not believe this is the case and given we have not had the opportunity to counter this argument in the engagement with Ofgem on the Delay Event to date, all evidence relating to the procurement approach provided as part of this response should be considered as new.

Response structure

As outlined above, it is essential that Ofgem's focus must be on the test in the licence. We have structured our response to the consultation around the licence tests for a 'Delay Event'. Specifically, the response sets out how the EGL1 Delay Event meets the definition in Special Condition 1.1 of NGET and SPT's licences. It addresses the licence tests by outlining how:

(a) there was a delay of at least 30 days. This occurred in May 2023 and was based on a lack of supply chain capacity on a global basis, resulting in the supply chain being unable to deliver the project to the required timelines. This was not accounted for in the ASTI ODI Target Dates.

(b) the event, caused by supply chain unavailability driven by external factors, was outside the licensee's reasonable control; taking into consideration changes in regulatory framework, notably Ofgem taking 16 months to allocate delivery of the project to the JV, which was also outside the licensee's control; and

(c) the event was not attributable to an error on the licensee's part. The JV took reasonable mitigation actions including a robust procurement strategy responding to market dynamics which did not contribute towards the delay.

The final section of this response makes additional points regarding application of the licence and guidance, namely that Ofgem has not used the licence as the basis for its minded-to position and has misdirected itself as to the law in this respect. The Delay Event meets both the licence and ASTI guidance requirements. In addition to the points outlined above, Ofgem's minded-to position is based on hindsight and lacks evidence of a counterfactual to the EGL1 procurement approach.

We have also provided a response to each of the specific questions posed by Ofgem in the consultation in Annex 1 of this response. The responses in Annex 1 are to be read alongside the main body of this response document, the evidence previously provided to Ofgem, and the independent reports provided alongside this response.

Independent assessments - Independent reports have further corroborated the above. These reports have been made available to Ofgem and should be considered alongside this document. In summary:

- All reports state that there was a global supply chain shortage the effects of which materialised in 2023.
- All reports state that no comparable project to EGL1 was able to secure a commissioning date earlier than 2029. Concluding that current timescales to Earliest in Service Date (EISD) (c.5 years) are not considered a genuine delay but rather an accurate reflection of global supply chain capacity. These timescales are consistent with current benchmark data, timescales would increase to c. 6 years if the tender was launched today. Demonstrating the ongoing supply chain constraints.⁵
- The two reports that assessed the procurement approach concluded that it was appropriate for the operating environment at the time, noting that EGL1 started under the Large Onshore Transmission Investment (LOTI) framework and Ofgem took 16 months to allocate delivery of the project to the JV. Reports state that whilst other options could have been explored, these would not necessarily have secured an earlier delivery date and would have come with additional risk relating to integration, which may have further increased cost and delay.

This section outlines how the test (a) of a Delay Event is met:

- i. There was a delay of at **least 30 days**.
- ii. This occurred in May 2023. It was based on a lack of supply chain capacity on a global basis, resulting in the supply chain being unable to deliver the project to the required timelines.
- iii. This was not accounted for in the ASTI ODI Target Dates.

i) The delay was more than 30 days

Ofgem incorporated the concept of a "Delay Event" into the ASTI framework following feedback received from TOs during the development of the ASTI regime. This mechanism enables Ofgem to exempt TOs from penalties under the output delivery incentive (ODI) for the duration of the delay (a "Penalty Exemption Period", PEP) and to modify the delivery date by the same period where the licence tests for a Delay Event are met.

The Delay Event application submitted by NGET/SPT in December 2023 explains that the Delay Event materialised in May 2023 and caused a delay of a duration of more than 30 days. This length of delay in excess of 30 days is not Disputed in Ofgem's minded-to position which notes, in Ofgem's view, that the duration was around 180 days.⁶ Figure 1 below outlines key milestones in the project relevant to the Delay Event application.

⁵ [redacted]

⁶ Ofgem's minded-to consultation (unredacted) sections 4.5 and 4.7

2021

- Jan – Dec market engagement for EHVDC links
- Nov Initial Needs Case (INC) decision published, Ofgem
- Dec Final Needs Case (FNC) submitted, TOs

2022

- Jan Informal confirmation of delivery body
- Feb Pre-qualification Questionnaire (PQQ) issued
- Jun Request For Proposal (RFP) issued
- Jul HND publication – technology and scope approved
- Dec ASTI decision

2023

- May Best and Final Offer (BAFO) – suppliers cannot meet date earlier than 2029
- Sep Final Project Assessment submission including procurement strategy
- Oct Deep Dive with Ofgem, including Price Adjustment Mechanisms (PAMs)
ASTI license comes into effect
- Nov Contract awarded
- Dec Delay event submission

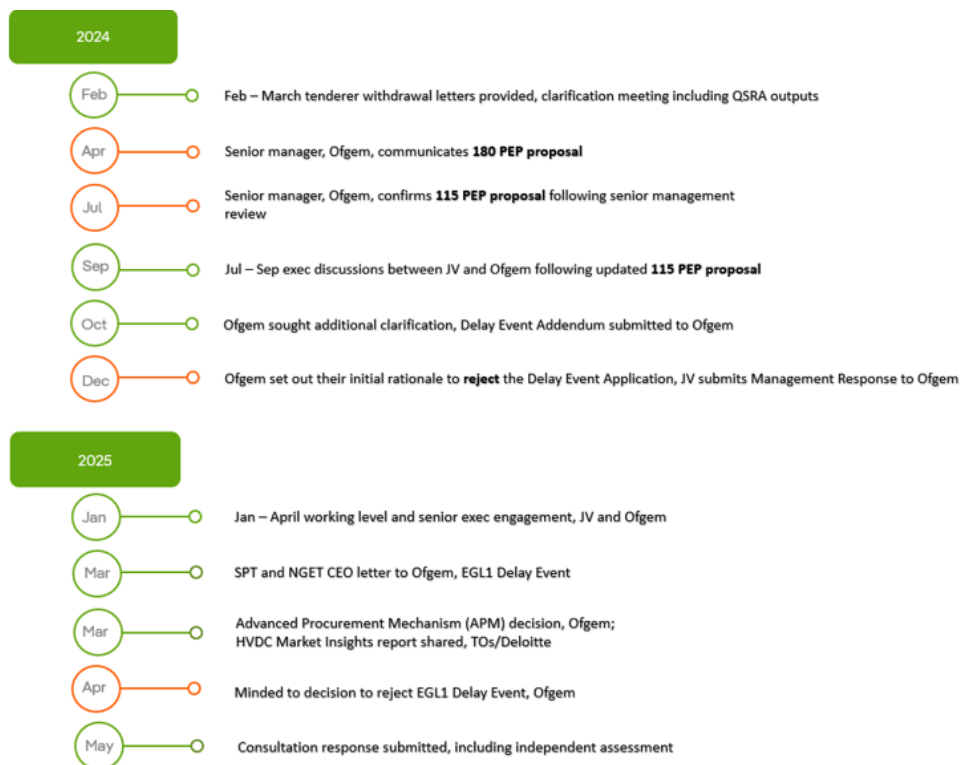


Figure 1 - EGL1 Delay Event timeline 2021-2025

Duration of the PEP and its impact on relevant delivery dates

As regards the duration of the PEP, the principal point of difference between NGET/ SPT and Ofgem is whether NGET and SPT's September 2022 delivery plans (which was based on the Final Needs Case (FNC) submission) or NGET's December 2022 plan to Ofgem represents the most recent project delivery plan.⁷ NGET/ SPT and Ofgem appear to be in agreement as to the revised expected delivery date (**[redacted]**, albeit that Ofgem's minded-to position is that it does not accept that the delay otherwise satisfies the criteria for a Delay Event under the licence) and the manner in which the PEP is otherwise calculated (i.e. the difference between the expected delivery date in the most recent project delivery plan and the revised expected delivery date). NGET/SPT and Ofgem also agree that there has been a delay of more than 30 days.⁸

As detailed below, NGET/SPT's position on the duration of the PEP (a) is consistent with Ofgem's ASTI guidance; and (b) accurately reflects the JV's most recent project delivery plan.

Approach taken by NGET / SPT in the Delay Event Application

At the time of application, NGET/SPT considered that the pre-Delay Event expected delivery date according to the most recent project delivery plan was 31 December 2027, as set out in its September 2022 NGET and SPT ASTI delivery plans. The plans submitted in September 2022 maintained the position set out in the FNC and the original EISD, namely that the expected delivery date was 31 December 2027.

As a result of the supply chain constraint, and despite the mitigation measures, the new post Delay Event expected delivery date was **[redacted]**. The minded-to consultation does not take issue with this revised delivery date, and it appears to be common ground between Ofgem and NGET/SPT.

⁷ See paragraph 4.6 of the minded-to consultation and paragraph 5.18 of the ASTI guidance.

⁸ See paragraph 4.5 of the minded-to consultation.

In light of paragraph 5.18 of the ASTI guidance (and the examples in Table 6 paragraph 5.33), NGET/SPT used the start point of the delay as *[redacted]* and the revised estimated delivery date of *[redacted]* to calculate the PEP. This gave a PEP of 480 days which, when added to the ASTI ODI Target Date for EGL1, means that the PEP concludes on *[redacted]*. As a result, the revised output delivery date in the licence moves by the same duration as the PEP (480 days) and is *[redacted]* and the revised licence obligation delivery date (set 12 months after the revised output delivery date) is *[redacted]*. NGET/ SPT's primary position is that this is the correct assessment of both the ASTI guidance and the nature of their delivery plans and communications with Ofgem, for the reasons detailed below. However, SPT/ NGET also recognise that, if this is incorrect, then the most logical alternative approach is for the calculation of the PEP to use NGET's December 2022 plan as the most recent delivery plan.

Approach proposed by Ofgem in its minded-to consultation

NGET/ SPT do not accept that NGET's December 2022 plan amounts to 'the most recent project delivery plan'. This is because:

- This was a plan submitted by NGET only.
- NGET's December 2022 plan was heavily caveated. The P50 was based on a Quantitative Schedule Risk Analysis (QSRA) analysis carried out by Arcadis, but NGET was clear in email correspondence to Ofgem in February 2023 that it was "*not changing [their] target [delivery] dates [in the September 2022 plan] as a result of the [Arcadis report]*" and that the Arcadis assessment should not be treated "*as a final delivery position or a forecast delivery position*". The document was a "*quick independent assessment of the level of maturity of [NGET's] assumptions in [its] deterministic timing, based on construction industry norms rather than NGET's proposed new approach or historic performance (that informs [NGET's] deterministic dates)*". Whilst the dates in the December 2022 plan "*account for and mitigate supply chain capacity risk*" compared to the EISDs, this QSRA analysis did not account for prospects for new ways of working and efficiencies that would enable NGET/SPT to deliver accelerated dates in line with the EISDs. Given this, it is inaccurate to use this as the 'project delivery plan' in the sense referred to in the ASTI guidance.
- The September 2022 delivery plan was consistent with other plans submitted to Ofgem, namely the Initial Needs Case (INC) and Final Needs Case (FNC) and Pathway to 2030 Holistic Network Design (HND).

In any event, the minded-to position contains errors both in its calculation and its description of the ASTI guidance:

- The consultation refers at paragraph 4.6 to the '*latest best estimate of delivery ahead of the proposed delay event*'. That is not the same language as that in the ASTI guidance, which refers instead to '*the most recent project delivery plan, or the expected delivery date that is consistent with a reasonable set of 'baseline' planning assumptions relating to the occurrence of the potential Delay Event along with supporting information on how that date was estimated*'.⁹
- There is an arithmetic error in Ofgem's calculation. The number of days from the P50 in the NGET 2022 December Plan (*[redacted]*) to the P50 in the Delay Event Application (*[redacted]*) is 206 days, not 180 days as stated in paragraphs 3.2 and 4.7 of the consultation.

For these reasons, NGET and SPT maintain that, based on the ASTI guidance, they are entitled to a PEP of 480 days or, in the alternative, a PEP of 206 days.

ii) This occurred in May 2023. It was based on a lack of supply chain capacity on a global basis, resulting in the supply chain being unable to deliver the project to the required timelines.

It should be noted that the supply chain issues that transpired after the December 2022 ASTI decision¹⁰ were of a wholly different magnitude to anything expected before that stage and as noted within the response, the extent of the constraints became apparent at Best and Final Offer stage (BAFO) stage in May 2023. Independent assessments have concluded that whilst the market was understood to be changing prior to this, it was not until receipt of BAFO submissions (May 2023) when a critical delay was presented by tenders.¹¹ The addition of the Delay Event mechanism to the ASTI framework is, and was always intended to be, a separate and additional process to the 12-month generic period applied between the optimal delivery dates from the Pathway 2030 HND publication and the relevant ASTI ODI Target Date.

⁹ See paragraph 5.18 of the ASTI guidance.

¹⁰ [Decision on accelerating onshore electricity transmission investment | Ofgem](#)

¹¹ *[redacted]*

The introduction of the Delay Event mechanism within the ASTI framework was intended to address a project-specific delay issue, precisely the issue which later arose with EGL1 project.

As part of the FNC and Delivery Plan submissions, the EGL1 project EISD included a low probability delivery date of 2027. The Delay Event which was the subject of the Delay Event application caused a 480-day delay from this 2027 EISD delivery date to the 2029 delivery date revealed at the BAFO stage. Based on this length of delay, the event impacting EGL1 meets the licence definition test that the delay must be of at least 30 days.

NGET and SPT submitted a Delay Event application to Ofgem in December 2023 citing unavailability of equipment and capacity globally in the supply chain as the cause of a delay to the EGL1 delivery date. This was because, by the time the TOs were confirmed as the delivery body and were able to commence procurement in 2022, the supply chain was experiencing an unprecedented surge in demand. This was outside the reasonable control of the TOs, was not attributable to any error or failure on the TOs' part and pushed the achievable delivery date into 2029. This became clear at the BAFO stage. The additional evidence provided in this consultation response further demonstrates that these two Delay Event definition criteria have been met.

iii) Ofgem has not accounted for the PEP when setting the ASTI ODI Target Date

We understand Ofgem's ODI calibration took place as at December 2022, when the ASTI decision was published. Prior to this, supplier feedback from market engagement conducted in 2021/22 by EGL1¹² was that:

- They were seeing worldwide challenges in capacity and that the market was buoyant and changing; and
- The suppliers could not, at that time, foresee any issues in meeting the delivery timescale requirements in respect of EGL1.

A number of suppliers did indicate expansion plans, however, as noted in our previous submissions to Ofgem, whilst we had indications of a constrained market, the actual impact of this on delivery timelines remained uncertain. During this time Ofgem had not yet appointed the delivery body for EGL1 or consulted on the ASTI framework.

As stated above, at FNC stage the programme indicated potential project completion in December 2027. However, the FNC pointed to risk analysis (FNC 6.13) that suggested completion in December 2027 had a circa 40% likelihood of being achieved, even if these assumptions were correct. The indicative view was that the 80% confidence level for the in-service date was in July 2028. It was also noted that there was a further risk that market capacity constraints could impact the project by up to an additional 12 months. The JV informed Ofgem of its concerns in relation to the delivery date ahead of Ofgem's ASTI December 2022 decision, emphasising that this was an indicative view at the time of the FNC submission.

NGET and SPT consistently made clear in the INC and FNC submissions that key assumptions within these programmes were subject to market availability. The FNC programme and underlying assumptions utilised historic information as well as data provided during early market engagement throughout 2019-2021 but recognised that securing manufacturing and installation slots through a procurement process was critical. This demonstrates that the JV had informed Ofgem of its concerns in relation to delivery date ahead of ASTI decisions.¹³

As the EGL1 procurement event progressed through 2022 - 2023, suppliers for both the converters and cables began advising that the market demand was increasing with requests and orders. Throughout the phased EGL1 Project Assessment (PA) submission (January – September 2023) the JV continuously informed and updated Ofgem in relation to the impact of the emerging and unprecedented market conditions.

The full extent of supply chain unavailability and the impact on the EGL1 project delivery timelines, which gave rise to the Delay Event application, only became apparent on receipt of the BAFO in May 2023. Ofgem was informed, including through responses to the licence drafting consultations, that the ASTI ODI Target Date for EGL1 was not achievable. NGET and SPT took comfort from the comments at paragraph 3.36 of the ASTI licence modification decision in August

¹² As outlined in the FNC and in Reasonable Mitigation Actions 1 and 2 outlined in this response

¹³ [Decision on accelerating onshore electricity transmission investment | Ofgem](#), December 2022 and [Decision to modify the special licence conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem](#), August 2023

2023 that the delivery risks identified since the ASTI decision in December 2022 (which included evidence in respect of the EGL1 procurement event) could be addressed through the Delay Event mechanism.¹⁴

In line with the ASTI licence conditions, NGET and SPT submitted a Delay Event application in December 2023 following the ASTI licence conditions taking effect in October 2023.

We agree Ofgem gave some consideration to supply chain constraints in deciding to set the ASTI ODI Target Dates one year later than the EISD (as detailed at paragraph 7.41 of the December 2022 ASTI decision) but this was just one of a number of factors that were taken into account (as recognised in paragraph 7.42 of the December 2022 ASTI decision) when setting the ASTI ODI Target Date. Moreover, in deciding to set the ASTI ODI Target Date 12 months after the EISD, Ofgem took no account of any project-specific delay factors - that is what the Delay Event mechanism has been designed to address.

The 12-month period between the EISD and the ASTI ODI Target Date in the December 2022 ASTI decision was set consistently for all ASTI projects and was not targeted at or calibrated for individual ASTI project circumstances. Ofgem's ASTI decision in December 2022 did not state that Ofgem was taking into account individual project circumstances. It does not address and was not designed to address individual project delays that may have been faced by EGL1 (or any other ASTI project) as the extent of the unavailability of the supply chain was unknown in December 2022. As discussed below, two of the four [redacted] suppliers withdrew from the tender event, citing unavailability, [redacted].

The decision to set the ASTI ODI Target Dates on this basis of EISD plus twelve months was to take into account the TOs' views that the EISDs were not appropriate dates for the calibration of the symmetrical ODIs. This was driven by the fact that TOs could not provide Ofgem with robust P50 dates due to the limited engagement with the supply chain at the time. It is accepted that Ofgem did consider that some of this 12 month 'buffer' period would cater for the constrained supply chain more generally, but this was not specific to EGL1, a project that was already in flight under LOTI and which started procurement activities as soon as reasonably practicable as outlined above and prior to the ASTI decision in December 2022. As demonstrated above, the market at the beginning of 2023 was far from normal with the expected supply exhausted due to an exceptional global market surge. This is evidenced by supplier returns after the Round 2 tender negotiations, as included in the Delay Event Addendum.¹⁵

The December 2022 ASTI decision was made pre-BAFO stage, with round 2 negotiations commencing in February 2023. Furthermore, two of the three remaining suppliers [redacted] dropped out in January and March 2023, leaving only one supplier [redacted] in the running. [redacted] did not even submit a best and final offer in May 2023. It was only at this point that it became clear to the TOs what a market tested delivery date would be and the extent to which the 31 December 2027 EISD (and indeed the ASTI ODI Target Date of 31 December 2028) would not be met (especially in light of the fact that the BAFO delivery date from [redacted] suppliers was [redacted] was the completion date based on the most ambitious supply chain programme and a P50 schedule risk analysis).

Following the addition of 12 months to the EISD to establish the proposed ASTI ODI Target Dates, Ofgem continued to develop and engage with TOs on the introduction of the Delay Event mechanism. At paragraph 7.43 of its December 2022 decision, Ofgem recognised that the additional 12 months "*along with the other adjustments set out in this Chapter, sufficiently mitigates the risk that the ASTI ODI is asymmetric by design and systematically biased towards penalties*" - the other adjustments to the framework made in Chapter 7 of the decision include (at paragraphs 7.50 -7.52) the ODI penalty exemptions for events outside a TO's reasonable control (including "unavailability of equipment globally in supply chain").

Given the simultaneous creation of the Delay Event mechanism, it is clear that the intention was to create a separate mechanism (in addition to the 12 months added to establish the ASTI ODI Target Dates) to deal with (amongst other things) the effect of supply chain constraints on specific project timelines (such as those conditions faced by the JV on EGL1). Ofgem went on to refer specifically to the fact that "[we] are aware that some projects that may fall within the ASTI regime are already underway under the LOTI mechanism. There is therefore a possibility that a Delay Event could occur ahead of implementation..." (para. 7.55). Ofgem at no point sought to differentiate supply chain availability in this context.

¹⁴ [Decision to modify the special licence conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem](#)

¹⁵ Delay Event Addendum, submitted to Ofgem in October 2024.

In April 2024, email exchanges took place with a senior manager at Ofgem in relation to the Delay Event submission. These exchanges resulted in a pragmatic conclusion where Ofgem communicated acknowledgment of the submission as a Delay Event and offered a PEP of 180 days with a resulting revised delivery date of 29 June 2029. We have included a timeline of the engagement during this period in Annex 3.

This conclusion was in line with Ofgem's previous communications about the envisaged use of the Delay Event mechanism in these types of circumstances, as set out above. These exchanges make clear that Ofgem accepted at the time that there was a Delay Event impacting EGL1, and discussions between the JV and Ofgem proceeded on the shared assumption that the justification for a Delay Event was obvious. This proposal was also ratified through the JV Board.

This section outlines how test (b) of a Delay Event is met:

- i. the event was caused by global supply chain availability driven by external factors outside the JV's reasonable control;
- ii. taking into consideration changes in regulatory framework notably Ofgem taking 16 months to allocate delivery of the project to the JV.

i) The event caused by global (not regional) supply chain availability was outside the JV's reasonable control

The HVDC cable market is clearly global and not regional as outlined by Ofgem in its minded to consultation¹⁶, driven by the need for efficient long-distance power transmission across continents. **[redacted]**.

[Figure 2 - redacted]

Our procurement event **was open to the global market**, and we received bids through the very early pre-qualification phases from two Asia-based suppliers: **[redacted]** (China) and **[redacted]** (S Korea). Both were engaged with prior to the procurement formally commencing, however in the submitted PQQ responses, **[redacted]** confirmed its inability to manufacture **[redacted]** and **[redacted]** confirmed that they had **[redacted]**. This is in addition to those suppliers from Europe and the United States, see below. Overall, there is no evidence of a supplier capable of performing the work who was not the subject of the invitation:

[Figure 3 - redacted]

The European HVDC cable market is the most developed globally, which is why the suppliers that engaged with the procurement were predominantly European based suppliers (albeit European and US suppliers who operate globally). The fact that the evidence provided focuses on European and United States based suppliers is therefore not the result of an unduly narrowed procurement process, and we note in that regard that the Asia-based suppliers dropped out at PQQ stage.

In their independent assessment, **[redacted]** observed that 'HVDC demand stems primarily from Europe: Of all 64 global subsea HVDC projects awarded between 2018 and 2024, 54 were European projects and only 10 non-European, clearly illustrating that the largest source of demand is in Europe. Europe's dominance is due to three drivers: its offshore wind markets are the most developed, its geographical layout around sea basins requires subsea cables for interconnection, and it is pursuing policies of energy market integration'. They also concluded that it was clear that HVDC subsea cable suppliers serve global markets and supply outside their home region and into global opportunities: 'This was the case in 2022/3 when there were only three 525kV HVDC suppliers and remains the case now that there are five suppliers. If there is sufficient long-run demand then a supplier will establish a presence in a new region.' The fact that important suppliers are headquartered in Europe does not mean that they fail to operate globally or that companies headquartered outside of Europe were not invited to bid.

External factors driving global supply chain constraints

There have been multiple, publicly available, reports issued that have examined the extent of the global supply chain constraints. To further inform this response, three additional independent assessments have been carried out, all of which determined that there was a clear global constraint, peaking in 2022/23 at the time EGL1 went out to market, and resulting in the Delay Event at the BAFO stage in May 2023

This was driven by raw material availability, market shutdowns and volatility from the COVID-19 pandemic and the Ukraine war. Governments around the world were focused on economic growth and decarbonisation primarily via offshore wind (for example, 40GW by 2030 for UK, Germany and USA 30GW by 2030, 200GW in China). This is further supported by additional publications, most notably Ofgem's recent Advanced Procurement Mechanism (APM) decision¹⁷ and Deloitte report (2025) previously shared with Ofgem, both of which reference supply chain challenges that persist today.

Independent Assessments

¹⁶ Paragraph 4.9, [Eastern Green Link 1 Delay Event | Ofgem](#)

¹⁷ [Electricity Transmission Advanced Procurement Mechanism | Ofgem](#)

The independent assessment from [redacted] examined the constraints observed through the value chain of the HVDC cable and converter market. This looked at constraints from raw materials through to system integration and installation. [redacted] observed that there were moderate and highly constrained components throughout the value chain.

For example, the assessment of the converter value chain noted Copper, Polymer and Steel, all of which HVDC projects are dependent on, were experiencing moderate constraints.

[Figure 4 - redacted]¹⁸

Moving through the value chain, [redacted] noted that semi-conductors were highly constrained; these are essential in HVDC converters and were not prioritised during wafer allocations, creating long lead times. Component manufacture experienced some of the biggest constraints, specifically Insulated-Gate Bipolar Transistors (IGBTs), and HV Transformers, which are key to HVDC converters. Finally, [redacted] noted that even the installation stage experienced significant constraints. Skilled labour shortages slowed deployment and commissioning activities, and logistical delays related to shipping at a high demand, further compounded project timeline impacts. [redacted] conclude that:

'value chain analysis outlines the inherent nature of the HVDC market being global, and challenges that the market faced in 2020-2023, the dependency on securing manufacturing slots cannot be understated. The different components of offshore HVDC converter stations are often manufactured in different factories, usually in different locations and, for offshore assets, transported to be assembled in one location, before final transportation and installation. Suppliers may take different approaches to manufacturing, assembly, transportation and installation to try to alleviate lead time constraints, which may impact on delivery risk profiles. Although many components are bespoke and involve prolonged manufacturing periods, current lead times are mostly driven by availability of manufacturing slots'

[redacted] performed a similar analysis for cables, which noted similar constraints as can be seen below:

[Figure 5 - redacted]¹⁹

[redacted] concluded that *'Between 2020 and 2023, the HVDC cable sector became a textbook example of global supply chain interdependence. Copper mined in Chile, polymers refined in Texas or Korea, and cables manufactured in Italy or Japan were all required to converge on time and in sequence for successful offshore grid integration. Each constrained stage created knock-on effects for others, magnified by a post-COVID surge in decarbonisation investment and infrastructure stimulus.'*

The report goes on to examine the impact of these constraints on lead times which on many projects extended by 12-24 months, driven by the component shortages and labour constraints in high-voltage manufacturing. For example, the typical lead time for the bipole 525kv 2GW converter systems was approximately 2-4 years during 2020-2023. There is extensive further evidence available in each of the three independent assessments.

Global engagement was carried out by the JV (as recognised in the enclosed independent reports). While [redacted] consider the chosen lotting strategy may have favoured organisations with established UK supply chains given the focus on timely delivery, any alternative lotting strategy would not have been tenable as it would have inevitably caused greater delays. [redacted]²⁰

Independent Assessments: Comparable Projects

In paragraph 4.8 – 4.10 of the consultation, Ofgem notes evidence of regional supply chain constraints; however, Ofgem goes on to reference other 'comparable projects', which secured expected completion dates in 2028 ([redacted]) and 2027 [redacted]. **These are not comparable projects because they both differ in circuit configuration or number of circuits, such that they do not fit the scope of the project as determined at FNC.**

This is supported by the independent assessment from [redacted] that examined 7 transmission projects and 17 offshore wind grid connections. That assessment found that:

[redacted]

¹⁸ [redacted]

¹⁹ [redacted]

²⁰ [redacted]

[redacted] reach the same conclusion in their independent assessment concluding:

*"In 2023 71% of HVDC projects in 2023 were forecast to commission in 2029 or after, and that number increased to 100% for HVDC projects with similar specifications to EGL1 (2GW converters using 525kV XLPE cables). This suggests that suppliers responded to constraints between 2022 and 2023 by extending their delivery times, impacting overall commissioning times."*²¹

[redacted] conclude their independent assessment: *"Independent assessments conclude that current timescales to Earliest in Service Date (EISD) (c.5years) are not considered a genuine delay but rather an accurate reflection of global supply chain capacity. These timescales are consistent with current benchmark data, timescales would increase to c. 6 years if the tender was launched today. Demonstrating the ongoing supply chain constraints."*²²

Ofgem also suggests that the EGL1 procurement event narrowed the technical scope thus limiting the solutions suppliers could propose and therefore the delivery dates suppliers could offer. This is incorrect: the EGL1 procurement event offered two lots in order to provide this optionality and increase the range of solutions and dates that the supply chain could offer:

- Lot 2A – 2 GW 2 cable 525kV solution;
- Lot 2B – 1.4GW - 1.6GW 2 cable 525kV solution

The aim of the procurement was to achieve a solution which has the best overall cost-benefit outcome. The optimum solution which was understood to be available in the market was a '525kV 2GW Rigid Bipole' using XLPE cable technology. Previous generations of cable technology, Mass Impregnated (MI) could only achieve up to 1.6GW due to inherent thermal limitations. A third option, MI-PPL (as per 2.25GW Western Link) was not actively sought due to it only being available from a limited part of the market. Overall, the NESO approved the technology type, as further outlined in this response to test (b) – Reasonable Mitigation Action 5, which focuses on the procurement approach.

Ofgem's characterisation of two supposedly comparable projects is flawed because it has not taken into account the following:

[redacted] NGET/SPT have evidenced the supply chain conditions and the impact on EGL1 project delivery timelines extensively. The analysis of the comparator projects considered links that were contracted in 2023 and 2024 for which information is available. This analysis shows that for the whole of 2023 and 2024, no comparable HVDC cable link contract with a delivery date before 2029 is known to have been awarded.

To demonstrate the unprecedented surge in HVDC projects approaching the market through 2021-2023, the JV provided a table in the December 2023 Delay Event application and subsequently in the October 2024 Delay Event Addendum and the Management Response submitted to Ofgem on 24 December 2024. Ofgem refers to this table in paragraph 3.24 of the consultation.

The table included market intelligence acquired during the procurement process that evidenced extremely high demand for HVDC converters around similar timelines to EGL1. The initial data provided in the Delay Event application showed indicative delivery periods; these were updated in the Delay Event Addendum to show commissioning dates as contracted (see below). This was provided to demonstrate the volume of market activity at the time and to support the conclusion that no known comparable HVDC cable links were awarded with a delivery date before 2029 during the whole of 2023 or 2024. This has been corroborated in each of the independent assessments enclosed with this response.

[Figure 6 - redacted]

Through both the original Delay Event submission, and the subsequent Addendum, NGET and SPT have provided compelling evidence, based on the information reasonably available to it, of the supply chain constraints faced. This evidence includes information provided directly by suppliers engaged through the procurement event, publicly available data, and independent studies such as those performed by **[redacted]** and DESNZ. This was also referenced in the Winsor report in August 2023: *"HVDC equipment look likely to be in short supply for years or decades (based on stakeholder interviewed from July 2022 – July 2023)"*²³. These reports corroborated the existence of the constraints

²¹ **[redacted]**

²² **[redacted]**

²³ Accelerating electricity transmission network deployment: Electricity Networks Commissioner's recommendations, August 2023

across a range of equipment types including HVDC cables and converters that were set out in DESNZ's "UK renewables deployment supply chain readiness study"²⁴. The narrative in these reports explains the drivers for the constraints across converters and cables with specific peaks observed in 2023 and 2024 where demand outstrips supply.

We have also provided extensive market intelligence that contradicts Ofgem's position that it is not convinced that the circumstances are truly reflective of global unavailability or lack of capacity, Ofgem appears to rely on the fact that a significant number of cable and converter contracts have been able to be signed across Europe. However, Ofgem has not taken into account the dates on which these projects will be delivered. Ofgem appears to be taking into account the date of signing, and ignoring a critically relevant factor, which is evidence as to the dates of delivery secured for projects equivalent to EGL1, which were placed globally in a similar time period. For example, the TenneT procurement, whereby the secured HVDC capacity will not deliver ahead of 2029.

It should also be noted that Ofgem and TOs are collaboratively developing the Advanced Procurement Mechanism (APM) which will enable TOs to reserve supply chain capacity at earlier stages of project development, to seek to mitigate market constraints. The key driver for this has been Ofgem's recognition of the global supply chain constraints as per Ofgem's APM decision²⁵ paragraph 2.3:

'We are committed to delivering this investment but there are considerable constraints to the supply of certain equipment and services that are critical for the expansion of the ET network. This was highlighted by government in April 2024 in its UK renewables deployment supply chain readiness study. This flagged that supply chain constraints could be a key delivery risk affecting plans to build offshore generation capacity and the networks (including the GB ET network) to get it connected. These constraints have been caused by a multitude of factors including the war in Ukraine, the COVID-19 pandemic, and the global push towards net zero which has increased demand for raw materials, equipment, and skills.'

ii) Taking into consideration changes in regulatory framework notably Ofgem taking 16 months to allocate delivery of the project to the JV

As outlined above and in the timeline in Figure 1, Ofgem took 16 months to allocate delivery of the project to the JV from the INC submission in October 2020 to the informal indication in January 2022 that the JV would be the delivery body. This directly impacted the JV's ability to engage with the supply chain directly as it meant there was ambiguity over delivery, ultimately contributing to EG1's procurement timeline and the delay event occurring at the BAFO stage in May 2023.

This is noted in part in Ofgem's minded- to consultation²⁶, although the impact of this 16-month delay does not appear to have been considered and no accountability taken by Ofgem. The timeline in Figure 1 above outlines the complexity associated with EGL1 in relation to how it had started under the LOTI framework and transitioned to ASTI during a live procurement event, which in itself is outside the TOs' reasonable control. A more detailed timeline is provided in Annex 2. The change in regulatory framework was outside the reasonable control of NGET/SPT as TOs but undoubtedly had an impact on the project as an incentive framework was implemented for acceleration without taking into account the 16-month delay already faced by the project and the HVDC supply chain market at the time of procurement.

The LOTI framework contains a competition assessment²⁷. Ofgem acknowledges that confirming whether a project will be subject to competition may limit the ability of projects to engage with the supply chain. This was noted in Ofgem's ASTI policy consultation, which was further supported by supply chain responses²⁸.

Without the confirmation of the delivery body, it was not possible to engage meaningfully, and formally, with the supply chain, i.e. commence a Pre-Qualification Process. This is because the JV needed to be established as the contracting body, and this could not be done until the decision to appoint it as the delivery vehicle was made. This is consistent with best practice and in line with Regulation 58 of the UCR on preliminary market consultations. This was included in the INC submission from EGL1, specifically that the supply chain required confidence of the delivery model.

²⁴ [UK renewables deployment supply chain readiness - GOV.UK](#)

²⁵ [Electricity Transmission Advanced Procurement Mechanism | Ofgem](#), March 2025

²⁶ Paragraph 3.11 and 3.15, [Eastern Green Link 1 Delay Event | Ofgem](#)

²⁷ Chapter 1: Competition Assessment, Chapter 4 Initial Needs Case (INC) and Chapter 5 Final Needs Case (FNC), [Large Onshore Transmission Investments Reopener Guidance](#)

²⁸ [Consultation on accelerating onshore electricity transmission investment | Ofgem](#), including responses from Morgan Sindall, Balfour Beatty, Jacobs

During this time, both NGET and SPT repeatedly raised with Ofgem the need for urgency to allocate delivery of the project to the JV including communicating to Ofgem increasing lead times and factory constraints.²⁹

Despite the delay in delivery body confirmation, the project team did carry out what supply chain engagement was possible, at the TOs' own initiative and risk. This was to ensure we were able to commence the procurement process immediately after the receipt of the confirmation. This took the form of preliminary market consultation in line with UCR Regulations 58 and 59 which state that utilities may carry out consultations with a view to preparing the procurement and informing economic operators of their procurement plans and requirements before commencing a procurement, but they need to ensure that competition is not distorted by the participation of a candidate or tenderer that was involved in the preparation of the procurement.

Early supply chain engagement is critical in ensuring there are 'no surprises' to the market and the supply chain has an opportunity to provide feedback to the procurement approach (*in line with the procurement approach outlined in Reasonable Mitigation Action 8 below*). **Throughout this engagement no indication was given that suppliers could not achieve a date prior to 2029 or that they had serious concerns with the lotting approach. EGL1 adopted its procurement approach based on feedback which is further outlined below (Reasonable Mitigation Action 2 below).**

However, without the confirmation of the delivery body, it was not possible to commence the procurement process (via a Pre-Qualification Process) which is ultimately the only effective means of gauging interest in the procurement. This is because NGET and SPT required confidence that a JV would be established as the contracting body and this could not be done until the decision to appoint it as the delivery vehicle was made. This was included in the INC submission³⁰ from EGL1, specifically that the supply chain required confidence in the delivery model. This is consistent with best practice and in line with Regulation 58 of the UCR on preliminary market consultations.

Independent Assessments

[redacted], in their independent assessment note that the ASTI framework: "*benefitted [other ASTI projects] but, due to the timing of the procurement period, was unhelpful for EGL1 which was in a mature state and unavoidably launched procurement right at the most uncertain point in the supply chain*"³¹. The independent assessment concludes that this did provide ambiguity in the delivery route for the projects. Despite this, the project undertook early supply chain engagement and an accelerated and adapted procurement approach. This is outlined below under licence test (c) in Reasonable Mitigation Actions 1 and 2.

²⁹ As per INC submission October 2020; email from Min Zhu (Ofgem) January 2022 informally confirming the delivery body; TO CEO letter sent to Ofgem in March 2025.

³⁰ INC submission requested a final decision on delivery model to enable the progress.

³¹ **[redacted]**

This section outlines how test (c) for a Delay Event is met:

- i. **the event was not attributable to any error or failure on the licensee's part.** Setting out the eight Reasonable Mitigation Actions taken by the JV including using a robust procurement strategy responding to market dynamics which did not contribute towards the delay.

NGET and SPT took all actions within their reasonable control to mitigate the event which occurred in May 2023 including using a robust procurement strategy responding to market dynamics which did not contribute towards the delay.

In reaching its minded-to position on the EGL1 Delay Event, Ofgem must give due consideration to its principal objective under section 3A EA89 to protect the interests of existing and future consumers, in particular via the promotion of economy and efficiency. The alternative procurement approaches Ofgem speculates on in its minded to position do not evidence any consumers' benefit.

We have taken the approach to outline the reasonable mitigation actions taken by the JV (we respond to Ofgem's feedback to the procurement approach in the following section). In doing this we clarify what the EGL1 position is for each of the procurement approach suggestions from the minded to position, drawing reference to further evidence by way of independent assessments. Specifically, this includes:

- **EGL1 position** – given the view set out by Ofgem in its minded to consultation in relation to EGL1's procurement approach where new arguments by Ofgem are introduced, we have included additional evidence. This is because Ofgem's arguments were not previously discussed over the 15-month period of engagement post delay event submission until being included in the minded to position to reject the EGL1 Delay Event.
- **Independent Assessment**- given the lack of counterfactual evidence provided by Ofgem in its minded-to position, we have engaged external independent assessments of our procurement approach. These assessments have concluded that our approach was robust. The independent assessments incorporated a comparison of leading practices including: the Royal Institution of Chartered Surveyors (RICS), the Chartered Institute of Procurement and Supply (CIPS) and the Royal Institute of British Architects (RIBA) for the commercial delivery of major capital projects including HVDC.

Reasonable mitigation action 1: Supply chain engagement as soon as reasonably practicable (prior to delivery body confirmation).

Ofgem's minded to position suggests that the JV's approach to the market on EGL1 may have been a contributing factor to capacity not being secured³². This is incorrect as set out below.

EGL1 position

As outlined above and as shown in Figure 1 above, Ofgem took 16 months to allocate delivery of the project to the JV. This directly impacted the JV's ability to secure the supply chain.

The FNC³³ submission outlines the extent of market engagement (a two-year period) that sought to capture feedback across the technical programme, supply chain capacity and other areas to inform and shape the specification and procurement approach (full supply chain feedback is outlined in Table 1 of the FNC submission). Ofgem approved the FNC.

The Project team identified **[redacted]** suppliers (including **[redacted]**) to send out the supplier questionnaire document for participation in the Eastern HVDC Link projects as outlined in the FNC³⁴. The activities, as outlined in the FNC submission and the EGL1 Delay Event Addendum,³⁵ undertaken by EGL1 during this time included:

³² Ofgem's minded-to consultation (unredacted) section 4.2

³³ FNC submitted in December 2021, 1 month after Ofgem published the INC decision.

³⁴ Chapter 9.8 Procurement Strategy and Supply Chain Engagement, 9.8.2 Supply Chain Engagement, FNC December 2021

³⁵ EGL1 Delay Event Addendum submitted to Ofgem in October 2024

[redacted]

NGET/SPT reiterate that throughout this engagement no indication was given that suppliers could not achieve a date prior to 2029³⁶ or that they had any serious concerns with the lotting approach.

Independent assessments

Three independent assessments have been commissioned to test these issues, two of which focused specifically on the procurement approach taken. [redacted] concluded that *"The approach to market engagement and analysis undertaken by EGL1 appears proportionate to a project of the size and scale ensuring engagement reaches a wide number of suppliers"*.³⁷

The early market engagement approach from EGL1 follows public sector best practice, as cited within the 2015 Infrastructure Project Authority Procurement Roadmap and Construction Playbook³⁸. Two years of market engagement is also comparable to other major construction and infrastructure projects within the UK including London 2012 Olympics, HS2, Thames Tideway and more recently on the New Hospital Programme³⁹.

[redacted] in their independent assessment also conclude that the confirmation of delivery body was a 'critical path' aspect to having the formal engagement with the supply chain to complete the process in a timely manner and secure the manufacturing slots⁴⁰. They state that the delay in receiving this confirmation may have impacted the overall delay due to the competition and constraints in the global supply chain.

Reasonable mitigation action 2: Accelerated and adapted procurement process (post-delivery body confirmation)

The minded to position suggests that the JV did not make sufficient efforts to consider adjusting or adapting its procurement strategy to prevailing market changes⁴¹. This is incorrect as detailed below.

EGL1 position

Once the project delivery body was informally confirmed by Ofgem⁴², procurement events started 2 days later⁴³ and NGET and SPT were able to accelerate to complete PQQ to contract award in [redacted]. Contracts were awarded at an **accelerated pace** [redacted]⁴⁴.

Independent Assessments

This compares favourably to comparable projects, which typically take up to 24-30 months⁴⁵. This was also the original schedule as per FNC⁴⁶ (which Ofgem approved), demonstrating that the JV expedited the process and as the JV became aware of increasing constraints towards the end of this period, it reacted to these as quickly as it could by proceeding with an advanced payment agreement ahead of full cable contract award to ensure the supply chain was secured and the project did not face additional delays to the delivery.

[redacted] in their independent assessment conclude: *"procurement at pace was prioritised by the JV in response to the known and expected supply chain constraints. In our view this seems a reasonable and sensible decision."*⁴⁷ Noting the

³⁶ See Table 2 and 3 of Addendum to Delay Event application dated October 2024

³⁷ [redacted]

³⁸ [redacted]

³⁹ [redacted]

⁴⁰ [redacted]

⁴¹ Ofgem's minded-to consultation (unredacted) section 4.4

⁴² Email from Min Zhu (Ofgem), 31 January 2022

⁴³ PQQ issued 2 February 2022

⁴⁴ Table 14 – Key Dates E2DC Torness-Hawthorn Pit, FNC, December 2021

⁴⁵ [redacted]

⁴⁶ Table 14 – Key Dates E2DC Torness-Hawthorn Pit, FNC, December 2021 – had scheduled PQQ January 2022 with main contract award January 2024.

⁴⁷ [redacted].

JV reacted to feedback from the supply chain and “adjusted the procurement process to include additional rounds of negotiations to enhance the quality and specificity of prospective supplier submissions”.⁴⁸

Procurement Regulations

Responding to Ofgem’s minded-to position that the JV should have adapted the procurement strategy, it is crucial to emphasise that the live procurement event was subject to compliance with the UCR, the effect of which is that substantial changes cannot be made during the procurement event to the extent that these may distort competition as these contracts were presented to the market.

The principles of transparency and equal treatment (which under Regulation 26(1) of the UCR are fundamental principles which apply to utilities’ conduct throughout the whole of the procurement process) limit the extent to which a live procurement can be amended, as changes risk distorting competition for contracts as advertised and presented to the market. A change which risks benefitting one candidate or class of candidates over another is likely to be a breach of the principle of equal treatment.

A substantial change which: (i) renders the contract materially different in character; (ii) had it been made at the outset of the procedure, would have allowed for the admission of other candidate or attracted additional participants to the process; (iii) changes the economic balance of the contract in favour of a particular contractor; or (iv) extends the scope of the contract considerably; is likely to be a breach of the principle of transparency.

Where a procurement cannot be changed lawfully (or practically given the implications of the risk of challenge) the only alternative would be to abandon and recommence the process, which would cause significant delays. Even then, case law shows that even a decision to abandon a procurement process is potentially open to challenge. Given that a procurement challenge under the UCR automatically suspends the utility’s ability to enter into the contract until proceedings are determined or otherwise disposed of or the Court lifts the automatic suspension by way of an interim order (Regulation 110), any risk of challenge has significant practical implications for the timescale of awarding a contract.

EGL1 position

[redacted] independent assessment concluded this criteria to be aligned with the regulatory framework governing ASTI projects, which rewards certainty and delivery performance. It also noted that [redacted], which is considered by [redacted] to be in clear alignment to the project objectives and consistent with approaches used for the delivery of similar projects across Europe⁴⁹. The suppliers engaged are set out in [redacted].

As set out above, pivoting the procurement approach, which would have been a material change, during a live procurement event would likely have resulted in a requirement to restart the procurement processes or face a potential legal challenge under the UCR. This would have caused greater time and cost risk to the GB consumer and therefore would not have been reasonable. See ‘Reasonable Mitigation Action 3’ for the JV’s approach’ to UCR compliance.

In terms of responding to supply chain feedback, the JV considered the ‘supplier’s voice’, and to the extent that it could do within the UCR, [redacted]. All of the above was the outcome of the extensive market engagement EGL1 carried out.

Independent Assessments

Pivoting the procurement approach would inevitably have led to further delays. This is confirmed in the independent assessment undertaken by [redacted]. This states that supply chain constraints and lead times worsened in the following year (2024); this would have caused a **greater delay**. The independent assessment has estimated that any material changes to the tender could have caused delays **of up to 7 months**⁵⁰. As outlined above in license test (b), 2023 saw over double the number of projects announce their procurement results compared to 2022⁵¹; **a 7-month delay to tender** could have had a greater impact on the overall programme due to the market constraints and [redacted]⁵². Cable Laying

⁴⁸ [redacted]

⁴⁹ [redacted]

⁵⁰ [redacted]

⁵¹ [redacted]

⁵² €120 million investment to build a new manufacturing facility by 2026; €450 investment to build a new manufacturing facility by 2026; additional €80 million (Naples) and €250 million (Gron) investment to build a new manufacturing facility; \$245 million North America expansion

Vessels are well known to be in high demand with DESNZ noting: “the shortages in Cable Laying Vessels mirrors many cable manufacturers being “sold out for three to four years”⁵³.

Storage of the long lengths of offshore cable produced in factories is limited and the production of cable is intrinsically linked to the transport and installation. Different vessels are used for different purposes or installation scenarios. Therefore a 7-month delay in procurement would not translate to a direct 7-month delay in manufacture and installation, but potentially a much larger delay, as it is necessary to find not just the next available manufacturing slot, but also the next available manufacturing slot aligned to a suitable available installation vessel. Any delay would ultimately cause an increase in price to consumers. Although projects that are directly comparable are still in flight and a cost comparison cannot be made, the Princess Elisabeth Island project which faced similar market challenges has seen substantial cost increases due to equipment delays⁵⁴.

As well as causing price increases, there is a risk that cost could have caused cancellation of the project due to unprecedented level of price escalations, as can be seen in the case of Harmony link⁵⁵. This is not an isolated case as New York State Energy Research and Development has cancelled 3 key offshore wind projects due to insufficient capacity to carry them out⁵⁶. This is supported by the Global Wind Energy Council report in which they note supply chain constraints will delay offshore wind farms globally⁵⁷. Further, in June 2023, the Financial Times reported that global demand for HVDC cables would outstrip supply for HVDC cable delivery from 2024 to 2027⁵⁸.

As outlined above there was a global market presence in the EGL1 procurement event and the below diagrams show the various stages and market activity. This was carried out ‘rapidly’ by the JV turning around its PQQ in 2 days after informal confirmation that it would be the delivery body for EGL1⁵⁹.

[Figure 7 - redacted]

Reasonable mitigation action 3: Robust and UCR compliant procurement approach

⁵³ [redacted]

⁵⁴ [redacted]

⁵⁵ [redacted]

⁵⁶ [redacted]

⁵⁷ [redacted]

⁵⁸ Will there be enough cables for the clean energy transition? July 2023 <https://www.ft.com/content/c88c0c6d-c4b2-4c16-9b51-7b8beed88d75>

⁵⁹ [redacted]

Ofgem's minded to position suggests that the procurement approach adopted in respect of EGL1 may have resulted in a lack of acceptable offers⁶⁰. This mitigation action outlines our (UCR compliant) procurement strategy, which allowed us to respond appropriately and reasonably to market dynamics at the time.

EGL1 position

EGL1's procurement approach was robust and compliant with the UCR. In particular, it included: i) the estimated value of the contract(s) to be awarded (Regulation 16 and 17); ii) the choice of procedure (Regulation 44); and iii) pre-market engagement with the suppliers (Regulation 58).

All suppliers said they could achieve a date earlier than 2029, until the BAFO stage in May 2023, regardless of the nature of our terms. Further, the procurement for EGL1 was identical to that for EGL2.

One [redacted] suppliers reported to Ofgem that NGET/SPT should have procured differently in order to suit their preferred business model; [redacted]. Ofgem has taken an isolated statement from one supplier as to its ideal procurement model and has apparently sought to elevate that statement to evidence how the chosen procurement strategy may have contributed to the delay. That view is entirely unjustified on the evidence before Ofgem

Independent Assessments

We have sought an independent assessment of our procurement approach for EGL1. This concluded that the JV's approach was appropriate given the significant global supply chain constraints at the time. It was executed in line with applicable procurement rules and aimed at securing timely delivery while minimising costs to consumers.⁶¹

Whilst alternative procurement approaches could have been pursued, they risked unintended consequences which would ultimately introduce additional cost to GB consumers due to project delays, such as significantly increasing the integration risk borne by the JV, requiring a corresponding augmentation of internal project management and coordination capabilities. The independent assessments also concluded that no comparable projects secured commissioning dates earlier than 2029.

Reasonable mitigation action 4: TO challenge on deliverability and consenting timelines

Ofgem's minded to position suggests that JV was late in identifying that a supplier had misunderstood consenting requirements, which may have been the cause of the delay⁶². This is incorrect and, in any case, the misunderstanding cannot have caused any additional delay.

EGL1 position

[redacted] Interrogation of contractors' submissions is standard practice in line with the UCR and a prudent action from TOs. [redacted].

We have since engaged with [redacted] who confirmed this was the case and we understand they intend to respond to this consultation to explain their view of capacity constraints relevant to EGL1 as the driver for programme changes. No other supplier involved in EGL1 had this misunderstanding.

In any event, a misunderstanding of [redacted] cannot have caused any additional delay. At most, a misunderstanding may lead a supplier to incorrectly estimate the date by which it can deliver and, once the misunderstanding is clarified, lead to a correction. That is not evidence of supply chain capacity; it is only evidence of a supplier incorrectly believing that it had sufficient capacity. To put it another way: had there been no misunderstanding as to [redacted], it would not have led to a supplier being able to achieve an earlier delivery date at the BAFO. At most, all that it would have led to is an earlier realisation that supplier could not meet the earlier delivery date. In this respect, Ofgem illogically leaps from (a) a misunderstanding as to [redacted] by a supplier to (b) a conclusion that delay could have been avoided by that supplier offering an earlier delivery date. That reasoning has no basis in the evidence before Ofgem and is irrational.

⁶⁰ Ofgem's minded-to consultation (unredacted) section 4.21

⁶¹ [redacted]

⁶² Ofgem's minded-to consultation (unredacted) section 4.16-4.19

Independent Assessments

In terms of the information provided to suppliers, [redacted] independent assessment notes that clear guidance to suppliers regarding project priorities was provided⁶³.

Reasonable mitigation action 5: A clear technology choice and location independently assessed in the Holistic Network Design to deliver consumer value

Ofgem's minded to position suggests that the technology and location specificity used for EGL1 was 'fixed and restrictive including XLPE cable type'⁶⁴.

EGL1 position

The technical scope and the decision to specify the voltage source convertor (VSC) technology, was a joint decision made by SSEN-T, NGET and SPT as part of a Transmission Networks working group ahead of procurement on the EGL links⁶⁵. A full range of technology advantages and risks were considered. However, the risk of multiple embedded Line Commutated Converter (LCC) links experiencing a simultaneous commutation failure and the impact this would have on the security of the GB transmission system was considered unacceptable. VSC converters are not susceptible to commutation failures and perform better during AC system disturbances.

The decision to restrict the tender to VSC was made on technical grounds, as described in the FNC submission, and approved by Ofgem in its FNC decision⁶⁶. This included a report on the above technical working group. This was approved by the NESO on 29 June 2021, which noted: *"Clearly, a variety of technology solutions could do this, and it is important for consumer value that potential solutions are not ruled out of consideration inappropriately. However, given our experience, and view of future electricity system conditions, and in particular the anticipated decline in 'system strength', we very much support the conclusions presented in the report."*⁶⁷

Ofgem suggests that tendering for different designs may have resulted in an earlier date being offered, i.e. the same power rating using two circuits at a lower voltage, or a lower power rating. Ofgem has provided no evidence or NESO technical advice to support this statement. However this was a consideration in the technical report approved above by the NESO, the outcome being that the increased cost and losses of this was not beneficial, despite being able to exceed the 2GW total capacity and taking an assumed lower fault rate of the 320kV DC cables into account.

These alternative designs were not deemed preferable by the NESO based on the outcome of the cost-benefit analysis (CBA) at FNC and feedback from the supply chain. Ofgem's suggestion is therefore inconsistent with the decision made under ASTI and the HND, which defined the capacity of the cables in the CBA and which was independently assessed by the NESO.

By extension of this point, considering multiple locations may also introduce additional risk of the HND recommendations being challenged on the basis that the original economic assessment undertaken to support the HND may end up being far outside the expected tolerances built into the HND process. This could allow challenge of the needs case for the project through the consenting process, particularly through statutory process such as the Compulsory Purchase Order (CPO).

The processes of obtaining land and planning consents requires certainty around location and design to inform land negotiations and planning decision making. [redacted] Our procurement approach was robust and compliant with UCR. This includes the scope of works and technical specifications, including approach to cable technologies and any minimum requirements (Regulation 60); any change to this, especially mid procurement event would have been likely to amount to a substantial change and introduce a delay.

⁶³ [redacted]

⁶⁴ Ofgem's minded-to consultation (unredacted) section 4.17

⁶⁵ The "Converter Technology Selection for the Eastern Link HVDC Schemes" report from October 2021 is available.

⁶⁶ [Eastern HVDC - Decision on the project's Final Needs Case](#), July 2022

⁶⁷ Letter from Network Operability Senior Manager, Graeme Stein, in July 2021 following the technical group report outcome.

The same principles in the HND and procurement approach also apply to location. In addition, as outlined above in Reasonable Mitigation Action 1, there was significant engagement with suppliers ahead of the tender, specifically to obtain information on a likely converter station footprint, so that suitable locations could be identified within a reasonable distance from the required connection points to the transmission network. The location of converter stations is impacted by a range of factors, such as environmental and community impact, access to roads and ports, feasible AC and DC circuit routes, etc. There is no evidence or feedback from suppliers that location of the converter stations deterred potential bidders.

A less mature design (less restrictive scope) in terms of location and technology would have prevented network planning works, system studies, route development and consenting processes from commencing until design had been developed with suppliers. Allowing multiple locations and site design to progress to tender would have significant implications on the programme for obtaining both planning and land consents. The processes of obtaining land and planning consents require certainty around location and design to inform land negotiations and planning decision making.

We estimate this could have extended the programme of works by [2-3years] as this would mean a re-do of the pre-construction activities already undertaken and could have potentially promoted a material scope change under the ASTI framework. In addition, multiple sites would almost certainly have negative implications for stakeholder relations, particularly for landowners and the communities who live, work and recreate in proximity to site options. This would almost certainly add to risk of challenges through the consents process, over and above progressing a preferred option that, in the TOs' view, balances our transmission licence obligations. This delay would have cost consumers in constraint costs, delayed other wider works projects and delayed the connection of offshore wind connections.

Independent Assessments

An independent assessment from [redacted]⁶⁸ outlines the cable choice as: Cross-linked polyethylene (XLPE) and mass-impregnated (MI) cables. Both are used for high-voltage direct current (HVDC) transmission, but they have distinct characteristics. XLPE cables use extruded polymer insulation and can operate at higher temperatures (up to 90°C continuously) without the risk of fluid leakage, allowing for higher power transmission capacity, making them attractive for modern ±525 kV HVDC links.

XLPE cables have distinct characteristics in comparison to MI cables, using layers of paper impregnated with a viscous, non-draining oil, offering extremely low dielectric losses and proven performance at ultra-high voltages up to ±600 kV, **but they are heavier, more expensive to manufacture and install, require careful fluid management, and pose a greater environmental risk if damaged.**

Overall, as outlined by [redacted], alternative design choices have different economic profiles, including increased CAPEX due to the higher number of cables to be manufactured and installed or through the reduced economic impact of lower power transmission⁶⁹.

Despite the benefits of the XPLE cable, an independent assessment noted that EGL1 **retained the ability for suppliers to offer a 525kV MI solution⁷⁰ through the inclusion of a Lot 2B in the procurement event.** This was included as an option for the supply chain both in case of technical or if this, for example, had substantial programme benefits. [redacted] in their independent assessment also concluded that the technical specifications did not limit engagement with the global supply chain and the JV ensured that global suppliers were involved during the market engagement exercise⁷¹.

Reasonable mitigation action 6: Commercial arrangements that responded to market dynamics at the time: Fixed price, and lotting strategy

⁶⁸ [redacted]

⁶⁹ [redacted]

⁷⁰ [redacted]

⁷¹ [redacted]

Ofgem's minded to position suggests that NGET and SPT should have considered alternative commercial arrangements including on fixed price and lotting⁷².

EGL1 position

The purpose of the procurement process is to identify the most economically advantageous tender on the basis of the best price-quality ratio which, under regulations, must be identified on the basis of the price or cost" (UCR Regulation 82(2)). The procurement approach the JV took was a commercially attractive and competitive offer which reflects market dynamics at the time (2022/23) and delivers consumer value.

The Fixed Price approach represented market practice at the time⁷³. It was approved as part of the project assessment process following significant Ofgem engagement, scrutiny and challenge. [redacted] This followed the extensive market engagement outlined in Reasonable Mitigation Action 1. [redacted] which required substantial Ofgem engagement during the PA process⁷⁴.

It is important that Ofgem assesses the use of fixed price in the context of the consumer value it delivers as it provides a level of cost certainty and reflects the market practices at the time. In addition, the regulatory regime under which EGL1 started the procurement, LOTI, has a focus on cost efficiency (not timely delivery).

The Lotting strategy complied with UCR (Regulation 65); which gives utilities the discretion, but no obligation, to award a contract in the form of separate lots and to determine the size and subject-matter of such lots. EGL1 used a two-lotted approach with the option of an alternative solution under lot 3. This is a common approach within the interconnector market and at the time of procurement strategy development for EGL1 (for example Western Link and Shetland) was being used extensively by TOs and other private developers.

The advantage of this approach was to manage projects risks for EGL1, which, due to the complexity of the project and the first of a kind nature, carried greater risk than subsequent EGL projects. The most critical risk to manage is safety. For complex HVDC convertor projects, close coordination with the design of the electrical installation (e.g. aspects as diverse as ensuring the electromagnetic emissions from the convertor station are within limits, to correct placement and load bearing capabilities of the convertor transformer base). This approach de-risked and minimised the interfaces with contractors ensuring a capable and credible supply chain partner which met quality and technical standards which was ultimately achieved.

Overall, this is a commercial arrangement and comes down to supplier preference. To ensure this was commercially attractive to Original Equipment Manufacturers (OEM), [redacted] (see Final Project Assessment) to allow for partnerships between civils suppliers and OEMs. This is in addition to an extensive two-year period of market engagement to allow suppliers to prepare (see Reasonable Mitigation Action 1).

As outlined in EGL1's Project Assessment, a 'Lot 3: Turnkey' option was included in the tender, which was not welcomed by the market (returning no tender responses at the PQQ stage)⁷⁵. No bids were received, reiterating that the JV explored different arrangements provided that they did not expose the project to unacceptable risk.

Ofgem attaches great importance to one supplier's preference. However, as stated in [redacted] response to the PQQ, [redacted] preference was simply to include a 'civils partner'⁷⁶, which our procurement process did. Ofgem's argument is therefore based on a false premise. [redacted]

Independent Assessments

An independent assessment has verified the approach used by EGL1:

- For Fixed price, EGL1 responded to market challenges through negotiation and risk management with the supply chain.

⁷² Ofgem's minded-to consultation (unredacted) section 4.21

⁷³ As noted in Reasonable Mitigation Action 2 we benchmarked the procurement approach against previous comparable HVDC projects like Western Link and Shetland.

⁷⁴ As per Appendix 9 and 10 and Chapter 10 in the final Project Assessment (PA), submitted in September 2023; deep dive workshop October 2023.

⁷⁵ [redacted]

⁷⁶ [redacted]

- For Lotting approach, the assessment states that *‘Alternative options were permitted through the procurement (notably a two-lot option based on cable type and Lot 3: Turnkey). EGL1 set out a procurement approach for the market to provide a technical and delivery solution that would best meet the programme schedule requirements.’*⁷⁷ It is further noted that alternatives would have significantly increased the integration risk borne by the JV.⁷⁸ Independent reports concluded that the lotting approach follows the preferred methodology among developers for projects with relatively short onshore routes, prioritising delivery certainty by minimising technical and contractual interfaces.⁷⁹ Noting the approach was valid as demonstrated by the successful agreement of an EPC solution under competitive tension up to the BAFO stage.⁸⁰

Overall, the independent assessment⁸¹ show that the commercial approach has been proactive to support timely delivery by collaborating with its stakeholder to limit the delay to project delivery. The independent assessment states that alternatives, with the benefit of hindsight, could have been considered. However, it considers that this is outweighed by the benefit of EGL1’s extensive market engagement and the risk and cost to consumers of materially changing the procurement approach as outlined in Reasonable Mitigation Actions 1 and 2 above. Value for money for EGL1 must be considered as part of Ofgem’s overall assessment.

The most advantageous commercial arrangement which could have accelerated the procurement would have been to have placed a bulk purchase order or to have a framework agreement in place. For example, [redacted] reference a HVDC OEM who said in the interview that *“equipment OEMs preferred framework agreements over one-off systems”*⁸². And this can be seen from 7 suppliers’ order with TenneT⁸³ around the same time as EGL1. This is further substantiated in the independent assessment that noted that TenneT operates in a regulatory environment where there is no OFTO regime (not onshore competition), enabling TenneT to invest in future ready configurations and achieve design standardisation and bulk orders⁸⁴. Although Ofgem’s APM decision is welcome, it comes 2/3 years after the National Infrastructure Commission (NIC) recommendations specifically Recommendation 13: *“Recommendation 14 The new regulatory deal established by Ofgem with TOs should place a strong responsibility with the TOs to address the acute supply chain constraint... noting 5 to 10 year deals would be required”*⁸⁵, and is too late for EGL1. Independent assessment by [redacted] concluded that without early capacity reservation EGL1 aligns with traditional approaches and regulatory provisions in place at the time⁸⁶.

The LOTI competition exemption again was too late for EGL1 and as outlined above, EGL1 undertook all reasonable mitigation ahead of delivery body confirmation and acted rapidly after informally appointed as delivery body. [redacted], in their independent assessment note that the ASTI framework: *“benefitted [other ASTI projects] but was unhelpful for EGL1 which was in a mature state and unavoidably launched procurement right at the most uncertain point in the supply chain”*⁸⁷.

The regulatory framework, on which NGET/SPT can and have advocated for changes in regard to the NIC Recommendations and Transmission Acceleration Plan⁸⁸, is outside of the control of the TOs.

Reasonable mitigation action 7: Accountability for on time delivery and incentives for accelerated delivery

⁷⁷ [redacted]

⁷⁸ [redacted]

⁷⁹ [redacted]

⁸⁰ [redacted]

[redacted]

⁸² [redacted]

⁸³ [redacted]

⁸⁴ [redacted]

⁸⁵ <https://assets.publishing.service.gov.uk/media/64c8e96e19f5622360f3c0f0/electricity-networks-commissioner-letter-to-desnz-secretary.pdf> Aug 2023

⁸⁶ [redacted]

⁸⁷ [redacted]

⁸⁸ <https://www.gov.uk/government/publications/electricity-networks-transmission-acceleration-action-plan> (Nov, 2023)

Ofgem's minded to position suggests that the use of a fixed date could been a contributing factor, seeking views in the consultation on date flexibility⁸⁹.

EGL1 position

Including a delivery date is a standard procedure for EPC contracts. This is particularly important for EGL1 as there is the need to efficiently align dates between the different contracts and contracting parties (i.e. cables, convertors and connection works) which were procured in parallel.

Having commercial arrangements to ensure suppliers are incentivised and accountable for delivery is a prudent and sensible action for TOs, which is further highlighted by the ASTI licence conditions. **[redacted]** In addition, we had no feedback from suppliers that this was an issue.

Independent assessments

The ASTI consultation publication from Ofgem in August 2022 provided market assurance to projects. However, it is reasonable to assume it would have caused the supplier to pause and be cautious and review their commitments for delivery dates⁹⁰. **[redacted]** conclude their assessment noting this approach sound and aligned with procurement best practice, noting the strong focus on incentivising project completion on time following the ASTI framework⁹¹.

Reasonable mitigation action 8: A clear procurement approach which sought to mitigate risks developed through governance

Ofgem's minded to position suggests that 'TOs are accountable for the choices and strategies they use and '⁹² suggests the chosen strategy was a contributing factor the delay.

Project procurement strategy was developed under LOTI which, as noted in Reasonable Mitigation Action 6, had an impact on the cost focus, informed by market engagement, as set out in Reasonable Mitigation Action 1. This is set out in section 9.8 Procurement Strategy and Supply Chain Engagement of the FNC submission to Ofgem in December 2021, which was approved by Ofgem.

Independent assessments

- The independent assessment concluded that overall, the procurement approach was reasonable, drawing on GB TO experience and benchmark data, and extensive supply chain engagement, and in any event did not materially contribute to the delay⁹³. **[redacted]**. It also noted the following in relation to governance and processes that EGL1 put in place to mitigate against delivery delay risks⁹⁴ and support delivery:
 - **Delivery model-** there was clear governance and cross-function teams within the JV with dedicated teams to ensure its success and provide challenge to procurement delivery.
 - **Stakeholder engagement-** a coordinated approach to technical focusses engagement which respect supply chain framework agreements and adopt best practice with the key theme of considering the 'voice of the supplier'.
 - **Procurement strategy development:** A comprehensive and methodical 5-phase model for the development of the procurement strategy has been followed by EGL1. EGL1 has demonstrated clear consideration for multiple commercial delivery options to support a procurement approach undertaken at the time of procurement contract notice launch.
 - **Market engagement:** as outlined in Reasonable Mitigation Action 1 EGL1 has delivered market engagement between 2019 and 2022 for the project accounting for suppliers' feedback. *"This is particularly important noting the programme-based engagement was delivered 12 months prior to procurement launch. Undertaking a final*

⁸⁹ Ofgem's minded- to consultation (unredacted) section 4.21

⁹⁰ **[redacted]**

⁹¹ **[redacted]**

⁹² **[redacted]**

⁹³ **[redacted]**

⁹⁴ **[redacted]**

market engagement activity to ...mitigate the risk sub-optimal competitive tension or a failed procurement activity.”

- **Tender Opening and Evaluation Procedure:** was “a diligent ensuring the required rigour and challenge is applied to challenge supplier tender submissions to subsequently inform and shape negotiations to challenge suppliers on their proposals including programme.”
- **Negotiation of final solutions:** “EGL1 amended the commercial models to support programme delivery. ...an approach demonstrated EGL1s ability to challenge suppliers to secure supply chain capacity to support delivery timescales.”
- **Established risk management approach:** “demonstrating understanding of the supply-based challenges to delivery ahead of and during the live tender process”.

This section outlines additional points regarding the application of the licence and guidance. We believe Ofgem's minded to position:

- i) is based on hindsight;
- ii) does not apply the right test under the licence; and
- iii) lacks evidence of a counterfactual to the EGL1 procurement approach.

The final section of this response outlines additional points regarding the application of the licence and guidance. Ofgem has not used the licence and the whole of the guidance as the basis for its decision and has misdirected itself as to the law in this respect. The Delay Event meets both the licence and ASTI guidance requirements.

i) Ofgem's minded-to position is based on hindsight

Ofgem's minded-to position is not assessed against information that could reasonably have been known at the time to TOs. This is not in line with the licence or ASTI guidance, specifically section 5.4 of the guidance under Principles governing penalty exemptions that states: *"TOs' actions will be assessed against information that could reasonably have been known to the TO at the time of the action, rather than with the benefit of hindsight"*.

It is not open to Ofgem to follow a chain of reasoning to the effect of: a) there was a delay; b) it is conceivable with hindsight that the JV could have acted differently; and c) therefore, its failure to act differently caused the delay. That is a misapplication of the licence and irrational reasoning. The evidence provided by the JV demonstrates that no reasonable TO would have acted differently in the circumstances known to the JV at the time, we have set out above the eight Reasonable Mitigating Actions the JV took, which we believe a reasonable and efficient TO would take.

Within the independent assessments, **[redacted]** note that: *"shift required in procurement approaches and this was borne out by later activities in 2024 and beyond where less mature ASTI schemes are being procured and planned differently. This necessarily took time to do, delivered good outcomes, but notably did not secure dates ahead of EGL1."*⁹⁵

Ofgem gives no regard in its minded to position to the external factors at the time⁹⁶ or the 16-month decision from Ofgem in appointing JV as delivery body.

ii) Ofgem's minded-to position does not apply the right test under the licence

The minded to position focuses on the global nature of the constraints which must allegedly be evidenced, for example in paragraph 4.3 of the consultation, Ofgem states that:

'...At this stage, we do not consider that the JV has demonstrated there was unavailability of equipment or capacity globally in supply chain at the time of the EGL1 tender. The evidence provided is limited to European and US projects, and does not provide a global supply chain outlook....'

However, global unavailability is only one example in the guidance of an event outside of a TO's control. Ofgem's current position is flawed as it fails properly to take account of the applicable test under the licence. The test that NGET/SPT need to meet – and against which Ofgem must assess the evidence provided – is that set out in the definition of a Delay Event in the licence. Ofgem cannot lawfully discharge its duties by looking narrowly at whether the circumstances of this case correspond precisely to one of the (non-exhaustive) examples of Delay Events given in paragraph 5.8 of the applicable Guidance. Ofgem cannot base its decision entirely on whether there was "unavailability of equipment or capacity globally in the supply chain" and approach its decision in a way which seeks to apply the wording of that example as if it were a statutory test.

Clearly, capacity in the supply chain is highly relevant for all of the reasons given in this document, but Ofgem must also look at the circumstances prevailing at the time as a whole, and undertake a holistic review of the evidence to determine (i) the cause of the delay, (ii) whether the cause was outside of the TO's reasonable control; and (iii) whether any of those factors were attributable to any error or failure on the TO's part. This has been the focus of this response.

⁹⁵ **[redacted]**

⁹⁶ **[redacted]**: COVID-19 lockdowns, raw materials shortages, semiconductor shortages, logistics bottlenecks, geopolitical tensions and surge in demand. See summary report section 3.1.

Moreover, the different limbs of the test require Ofgem to consider whether NGET/SPT is culpable, in the sense that it has fallen short of objectively reasonable standards. It is insufficient for Ofgem to find that the JV could have acted differently and that, had they done so, this would (still less *might*) have averted the delay. The failure to take that alternative action must have involved “failure”, “error” or unreasonable conduct.

Although global unavailability in the supply chain has been evidenced in this response (as above), it is only one example in the guidance and is not the test in the licence. Another example of a potential Delay Event in the ASTI guidance is “contractor/supplier/manufacture insolvency or unavailability”. That is equally demonstrated by the evidence which the JV has presented: there were simply no suppliers who were available to undertake the relevant work on the timeline sought. Ofgem must assess this evidence not only against the example of global supply chains, but also through the additional example in the guidance as well as the licence test itself.

Ofgem has acknowledged that the constrained supply chain had committed to other projects and so was unavailable to EGL1. In its minded to position, Ofgem appears to be interpreting the “Unavailability of equipment or capacity globally in supply chain” to mean total unavailability, i.e. that the equipment is unavailable for any and all purchasers in the world. As well as being the incorrect focus for establishing a Delay Event, the criteria for which are set out in the definition in the licence of “Delay Event”, this amounts to an incorrect interpretation of the licence which is a misdirection as to the law. Ofgem should instead ask itself whether there has been an event which meets the three criteria in the licence.

iii) Ofgem’s minded to position lacks evidence of a counterfactual to the EGL1 procurement approach.

Ofgem has suggested the procurement process could have been run differently, but has no evidential basis to conclude that its proposed changes (different technical scope, contracting models pricing models or location) would have mitigated delays, nor has it even begun to articulate any counterfactual analysis to determine the potential effect on delivery of its hypothetical alternatives. Further, even if Ofgem had (a) identified a counterfactual process and (b) found cogent evidence demonstrating that it actually would have averted or mitigated delays, Ofgem would still need to conclude that the JV committed a culpable “error” or “failure” by not adopting this process, assessing that question by reference to the information available to [the JV] at the time. There is no evidence that could begin to support that conclusion, nor has Ofgem even consulted upon reasons for reaching it.

If Ofgem is to embark on such hindsight speculation it is important that a counterfactual is tested against the facts to ascertain whether it would have prevented or mitigated delay.

We have provided evidence that no other known comparable project could have delivered the ASTI ODI Target Date (see above). Ofgem’s assessment inappropriately and irrationally focusses on hindsight, in particular as regards EGL1’s procurement strategy which Ofgem notes ‘may’ have contributed to the delay rather than have an evidence-based counterfactual. Noting that the only comparable projects which are reasonable to compare to at the time are Shetland and the Western link, which is outlined in the FNC. We have provided an independent assessment of our procurement approach (see above).

Crucially, Ofgem has failed to identify key facts and matters that would render a counterfactual procurement process mistaken and erroneous:

- Ofgem has not taken into account the fact that the original procurement strategy was agreed with Ofgem through engagement leading up to the FNC and Project Assessment.
- Ofgem gives no weight to the very real counterfactuals and consumer impact of the potential delay or cancellation of EGL1 as a result of not securing the supply chain if a new or different procurement approach had been taken. This is outlined above in Reasonable Mitigation Actions 1 and 2 which we expect would have cost the project at least 7 months.
- Ofgem has not considered the fact that the procurement process was constrained by procurement law, and the impact that had on the avenues available to the JV. This is discussed in the Reasonable Mitigation Actions under licence test (c)
- Ofgem has failed to account for the fact that any attempt to change procurement strategy once procurement had commenced would have:
 - Run a risk of breach of procurement law;
 - Resulted in a risk of legal challenge that could have resulted in significant delay to the project; and
 - Resulted in cost increases and different delays for which Ofgem has not accounted.

Annex 1 – Response to Ofgem’s Consultation questions.

Q1. Do you have any views, or additional information (including in support, or opposition) relating to the JV’s EGL1 PEP application?

NGET’s/SPT’s views on the EGL1 PEP application together with additional information which supports the EGL1 PEP application has been provided in our consultation response.

Q2. Do you agree with our assessment of the EGL1 PEP application?

NGET/SPT do not agree with Ofgem’s assessment of the EGL1 PEP application. Our consultation response, which outlines the three Delay Event tests as set out in the licence and which is supported by three independent assessments, provides extensive evidence which supports the original Delay Event / PEP application.

Q3. Is there any additional evidence or information that should be considered in making our determination?

Throughout our response we have provided evidence in support of the Delay Event and associated PEP application. This evidence includes references to information previously provided over the past 17 months that we do not believe has been considered properly by Ofgem to date. This includes evidence in our Management Response⁹⁷ to Ofgem’s preliminary view shared in December 2024 and subsequent follow-up information. In addition, we have made available alongside this response three independent assessments which conclude that:

- There was a global supply chain shortage peaking in Europe in 2023.
- No comparable project to EGL1 was able to secure a commissioning date earlier than 2029.
- The EGL1 procurement approach was reasonable for the market environment at the time, noting that EGL1 started under the LOTI framework and Ofgem took 16 months to allocate delivery of the project to the JV.
- Whilst other options could have been explored these would not necessarily have secured an earlier delivery date and would have come with additional risk relating to integration, further increasing cost and delay.

Q4. Do you agree with our assessment of the JV’s procurement process?

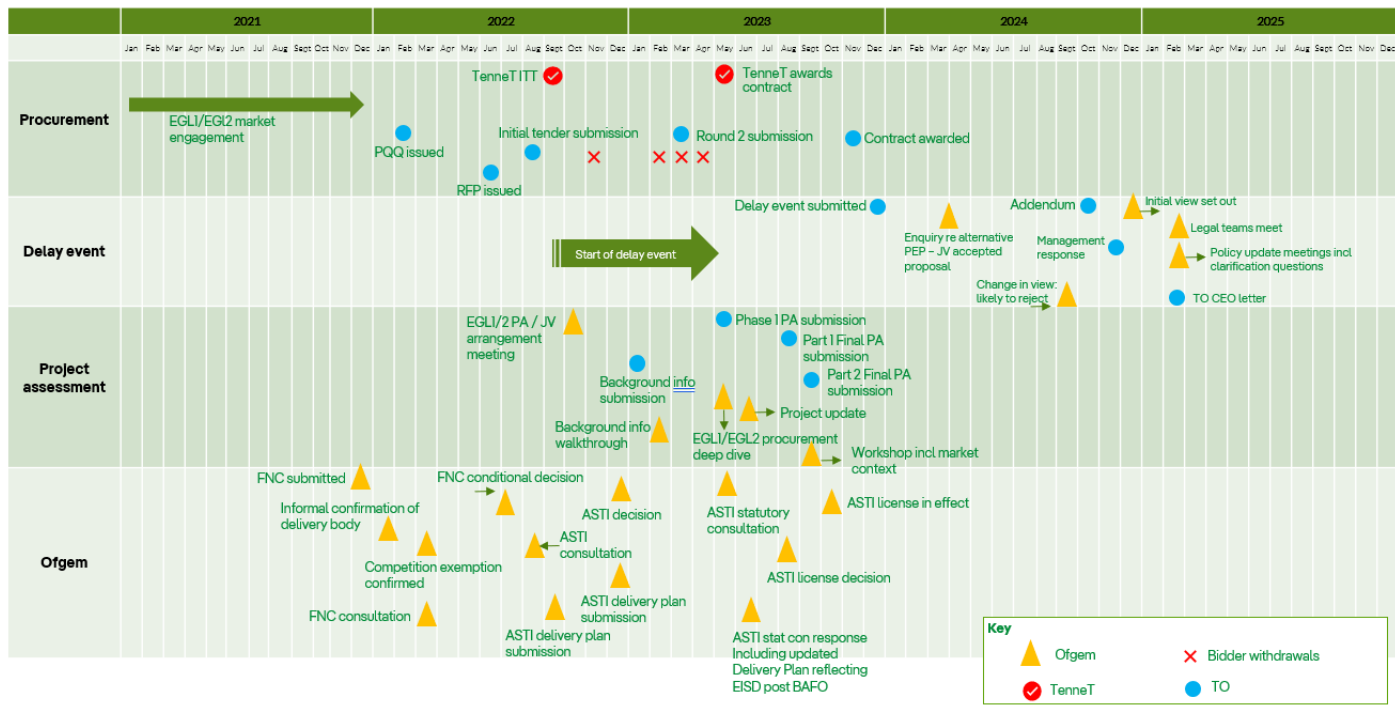
NGET/SPT do not agree with Ofgem’s assessment of the JV procurement approach, and Ofgem’s conclusions are contradicted by the independent assessments enclosed with this response. Ofgem has failed to provide a counterfactual and has provided no evidence that an alternative approach would have been successful. Ofgem’s arguments are circumstantial and unsubstantiated speculation about what could have been done differently with the benefit of hindsight and do not consider the risk associated with the alternative approach nor the impact of pivoting mid procurement event.

If Ofgem is to embark on such hindsight speculation it is important that a counterfactual is tested against the facts to ascertain whether it would have prevented or mitigated delay. This is fully outlined in our response.

The Delay Event was caused by the supply chain constraints which were outside the JV’s reasonable control. This included supplier unavailability and unavailability or capacity globally in the supply chain, both of which are examples in the ASTI guidance of events that can qualify as Delay Events where the TOs provide sufficient evidence that the event meets the definition of a Delay Event as set out in Special Condition 1.1 of the licence.

⁹⁷ Management Response, as submitted to Ofgem in December 2024

Annex 2 - Detailed timeline 2021-2025 – EGL1 Delay Event



Annex 3 - Timeline of engagement points to arrive at Ofgem’s proposal of a PEP of 180 days as an alternative to the PEP of 480 days requested in the EGL1 Delay Event submission

We believe we need to establish some understanding about the extent to which licence mechanisms such as the Delay Event / PEP mechanism can be relied on by licensees and ensure Ofgem’s commitment to apply these mechanisms in a manner which is transparent, fair and reasonable and consistent with the licence and relevant associated guidance.

We were assured that Ofgem would be pragmatic and reasonable in its decision-making on Delay Events, to reflect the significant additional risk TOs were taking in accepting the ASTI framework and to allow us to be more agile. It was on this basis that the TOs accepted the introduction of the ASTI framework, and the associated ODI mechanism, into their respective licenses.

In the case of the EGL1 Delay Event submission we believed that we had reached an appropriate and acceptable solution in respect of the duration of the PEP considering the circumstances, the unique nature of the project and the fact that the EGL1 Delay Event submission was the first of its kind under the AST regulatory framework. This view was supported by the correspondence with Ofgem that was previously shared in Appendix D to the Delay Event Addendum. We think it is reasonable to have placed reliance on these exchanges as they represent substantial engagement, evidence of reasonableness on both sides and a desire to reach a pragmatic conclusion. This includes engagement with senior leaders and assertions that senior leaders in Ofgem had agreed to the proposals. This correspondence is included again in the table below.

[redacted]