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Dear James,

Response from National Grid Electricity Transmission (NGET) plc to the consultation on the Harker – Consultation on the project's Final Needs Case published 21 July 2023.

This response is provided on behalf of National Grid Electricity Transmission (NGET) in our role as Transmission Owner in England and Wales. As the party delivering the project, we welcome the opportunity to respond to this consultation regarding Ofgem's consultation on the projects Final Need case.

Consultation Questions: -

Ofgem's findings on the FNC for this project, the conclusions of our assessment, and our proposed position.

- Q1: Do you agree with the need for investment on the transmission network?
- Q2: Do you agree with our conclusions on the technical options considered?
- Q3: Do you agree with our conclusions on the CBA?

Delivery via a competition model

- Q4: Do you agree with our minded-to decision to retain the Harker project within the LOTI arrangements under RIIO-2?

Large project delivery

- Q5: Do you agree with our proposed approach to Large Project Delivery (LPD) for Harker?

Q1: Do you agree with the need for investment on the transmission network?

NGET agrees with Ofgem's minded-to position with regards to the need for investment on the transmission network as the drivers detailed within our FNC submission remain unchanged.

Q2: Do you agree with our conclusions on the technical options considered?

Ofgem's summary of the technical options considered (paragraph 2.19) states that the predominant reason for selecting Option 3 was *"the poor condition of existing assets at Harker and the necessity for their rebuild to be able to accommodate new infrastructure necessary for forecast growth"*. NGET agrees that Option 3 is the preferred solution to address the complex and interacting load and non-load drivers, of which the load-related drivers have substantially grown in recent years and drive the timing of the proposed solution. All drivers have been considered throughout the optioneering to date, resulting in the need to replace the substation and the best option to achieve this is an offline rebuild of the 132kV and 400kV sites.

Regarding delivery of a non-Sulphur hexafluoride (SF6) solution, throughout the engagement process Ofgem has indicated its expectation that an SF6-free solution will be constructed at Harker and NGET has remained committed to exploring this option with the market. However, within paragraph 5.3 of the FNC consultation, Ofgem has stated that it expects to see an SF6-free solution detailed as part of the PA submission for Harker, and *"If this is not the case, it will be highly likely that we will not approve further progression of the project beyond the PA stage"*¹. This appears inconsistent with paragraph 2.4 of the FNC, which states that the viability of an SF6-free solution *"is expected to be confirmed during the Project Assessment Stage"*, and paragraph 2.33 where Ofgem notes that *"it will become clearer towards the end of 2023 whether an SF6-free solution can be implemented"*.

The wording contained in paragraph 5.3 stipulates a requirement on NGET to detail an SF6-free solution as part of the PA submission for Harker. Given the circumstances, such clear direction from Ofgem as to its technology preference for Harker has a number of implications for the project which we have raised in previous bilateral engagements and for completeness also set out here:

- NGET has engaged with our supply chain on the provision of an SF6-free solution for Harker and those discussions are ongoing. However, as we have previously explained, a type-registered SF6-free solution does not yet exist for the 400kV equipment required for Harker, and the current expectation for completion of type testing is March 2024. The success of such type testing is outside of the control of both NGET and its delivery contractor.
- Depending on the progress of product development and the outcome of testing, there remains a risk that currently unanticipated works will be required to successfully procure an SF6-free 400kV solution. This innovation therefore carries a risk of delay to the delivery programme. If Ofgem maintains its position and mandates the installation of innovative SF6-free technology, we are concerned that this could delay the realisation of the wider benefits of the project.
- Furthermore, any delay as a result of such a technology mandate by Ofgem will result in an increase to NGET's costs associated with contractor stand down, which will be priced into our contingency log or through an alternative mechanism to be agreed upon.

Notwithstanding Ofgem's stated technology preference and in the interests of seeking to maintain viable options for timely delivery of the project, NGET continues to explore practical mitigations with our supply chain. Given the drivers for this project, the deployment of alternative options to a full SF6-free solution may, when considered holistically in the round, be beneficial for current and future consumers.

NGET notes that Ofgem's assessment does not set any precedent regarding future GIS / AIS projects.

¹ Harker – Consultation on the project's Final Needs Case – paragraph 5.3

Q3: Do you agree with our conclusions on the CBA?

NGET welcomes Ofgem's minded-to position that the evidence provided within our CBA has been robust and enables Ofgem to support the need for both investment and the selection of our preferred solution, Option 3.

Within the FNC consultation, Ofgem raised concerns with regards to the forecasted increase in costs of c.£15m (6%) between NGET's Initial Needs Case consultation submission and the Final Needs Case submission.

As detailed in our FNC submission, the differences between the CBA submitted in response to SQ10 and the position following the completion of Front-End Engineering Design (FEED) in January 2023 are:

- The number of bays of switchgear within the 132kV substation has increased from 23 to 24.
- Updated external benchmarks have increased the estimating unit for the Statcoms / Dynamic Reactive Compensation. The range of current costs associated with Statcoms for Bolney, Richborough and Ninfield Substations in particular, has informed our benchmarking updates.
- Optimisation of the design during FEED has reduced the substation footprint and associated estimated cost.
- The inclusion of cost for a bay in the 400kV substation, noting this is not a scope change from the INC but a correction to the CBA provided in SQ10.

At the FNC stage, the increased costs were based on NGET's estimation at the time. NGET are continuing to work with our supply chain regarding tendered rates for the required scope of works. As similar increases would be applicable to Option 4, it has not impacted on the outcome of optioneering, or the project's needs case with identified Option 3 remaining the most viable delivery option.

Specific increases will be discussed during the PA stage where we will provide more detail in compliance with the LOTI cost submission requirements.

Q4: Do you agree with our minded-to decision to retain the Harker project within the LOTI arrangements under RIIO-2?

NGET welcomes Ofgem's assessment that Harker does not meet the full criteria for late model competition, and that applying either of the Competition Proxy or SPV models would be detrimental to the interests of consumers. NGET agrees with both minded to decisions.

Large project delivery

Q5: Do you agree with our proposed approach to Large Project Delivery (LPD) for Harker?

NGET agrees with Ofgem's stated aim of ensuring network companies do not benefit financially from a delay to the delivery of LOTI projects and that, if a project is delivered late, reprofiling may be used to reflect actual expenditure. We also agree that a milestone-based approach is not appropriate for Harker, given that the key consumer benefit is dependent on completion of the project and there are no intermediate milestones within the delivery plan suitable to provide additional consumer protection.

Whilst we agree that there should be clear incentives on TOs to encourage timely delivery of LOTI projects, we do not consider that the imposition of a Project Delay Charge (PDC) for Harker is appropriate. In particular, it would be inappropriate to apply a PDC where Ofgem has mandated for SF6-free technology to be installed, given that such technology is not readily available within the market and has not yet undergone sufficient testing. Where it is Ofgem that mandates the use of such untested technology and the necessary testing of such new technology is outside of both NGET's and its delivery contractor's control, then it would be unreasonable for NGET to be exposed to either a PDC or any other form of financial penalty under the LPD. We also do not consider it is appropriate for NGET to be accountable for any subsequent impact to customer connection dates or increase in system constraint costs as a result of a delay.

Given the intention to innovate in the technology solution for Harker, we consider that an evaluative PCD would be an appropriate alternative to LPD; this would allow for an ex-post assessment of delivery

to determine whether an adjustment to allowances is necessary to protect consumers, such adjustment could include the reprofiling of allowances as provided for in the LPD.

It is important that NGET has clarity on how Ofgem intends to incentivise timely delivery of the Harker project whether via LPD (including both as to reprofiling and PDCs) or alternative means as suggested above, as this will need to be considered in the negotiation of contractual terms with the supply chain prior to submission of the Project Assessment (PA). Any commercial mechanism to incentivise timely delivery will likely impact the cost to consumers as the supply chain seeks to reflect the transference of risk in their contract price. It is important that the PA process and associated timescales are not a constraining factor to commencing construction in 2024.

Confidentiality

I confirm that this response can be published on Ofgem's website.

Yours sincerely,

Richard Masterson

Regulatory Development Manager

(Issued via email)