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29 September 2022

Dear Ore,

**Harker – Consultation on the project’s Initial Needs Case and initial thinking on its suitability for competition**

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 on the Initial Needs Case (INC) for the Harker Energy Enablement (Harker) Project.

Harker is one of several projects we are bringing forward under the Large Onshore Transmission Investment (LOTI) re-opener mechanism. These LOTI projects are linked to enabling the delivery of the UK Government’s targets of 50GW of offshore wind generation by 2030 and net zero by 2050, the meeting of which requires the timely development of a significant amount of onshore work to reinforce the GB electricity network.

We therefore very much welcome Ofgem’s findings that there is sufficient evidence of a clear needs case for the project and that our chosen option is optimal, from both a technical and economical perspective.

We have responded to the consultation questions in an annex to this response. Additional considerations are summarised below.

- **Final Needs Case (FNC) timing:** We welcome the determination that a Final Needs Case submission will not require further assessment and be limited to confirmation that the appropriate planning consents are in place for the project. Our current plan assumes no further assessment will be required and we are planning ongoing engagement with Ofgem during the design development phase. If a need for further assessment is identified, this could affect our overall delivery plan and we will inform Ofgem. The Project Assessment (PA) submission is currently scheduled for July 2023, just three months after we expect to confirm receipt of planning permission by 31st March 2023. In order to meet customer connection dates, it is important that the LOTI process does not become a constraining factor to progressing with the planned programme.
- **Clarity on cost values:** Paragraph 3.41 of the consultation document states that *‘further narrative on costs will be required at the Project Assessment stage of our assessment’*. We plan to submit a Project Assessment which fully complies with LOTI requirements but we’d welcome a discussion sooner if there are cost estimation aspects which Ofgem does not consider itself to be in receipt of.
- **SF6 free solution:** As noted in the consultation document, we are pursuing delivery of SF6 free technology at both the 132kV and 400kV sites. We are mindful of the expected timing for

confirmation of our ability to deliver an SF6 free solution at the 400kV site (132kV is already offered by the market). This is currently expected to be confirmed after submission of the PA but during Ofgem's assessment of the PA.

We are actively engaging with Ofgem on these matters in order to agree an appropriate resolution for each and intend to establish an engagement programme for appropriate intervals during procurement. We would also like to understand what, if any, Project Delay Charge arrangements Ofgem intends to apply to the Harker project prior to engaging the market and we would welcome discussion about this at the earliest opportunity.

Please contact Sophie Knee-Higgins, Regulatory Development Manager, with any initial queries in relation to this letter. Email [sophie.knee-higgins@nationalgrid.com](mailto:sophie.knee-higgins@nationalgrid.com) and telephone 07890 044533.

**Confidentiality**

I confirm that this response and the annex included can be published on Ofgem's website.

Yours sincerely,

[By email]

**Chris Bennett**

Regulation Director Electricity Transmission

## **ANNEX: RESPONSES TO CONSULTATION QUESTIONS**

### **Question 1: Do you agree with the technical needs case for investment across the Harker site?**

We agree with Ofgem's finding that there is a need for the investment. Harker is a strategic site enabling energy transfer over the B6 boundary and north to south energy flows in the UK. It is also important locally to serve demand and allow embedded generation access to the wider system. Therefore, the project is a key net zero investment project. There are various load and non-load related drivers which, when considered together, create a need to replace the substation via an offline rebuild of the 132kV and 400kV sites. We believe that this is the only solution which can meet all drivers in the timescales required.

In paragraph 2.5 of the consultation document it is stated that '*NGET updated the proposed intervention to a full replacement of the substation based on an updated understanding of the condition of assets at the site and to deliver SF6 reduction benefits*'. However, it was a combination of load and non-load drivers which led to the change in approach. This suggests it was only non-load factors which drove a change in approach, which is inaccurate. As outlined from paragraph 3.4 of the consultation document, we are presented with a combination of 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.

Additionally, on page seven of the consultation document it is noted, '*that due to the significant deterioration of assets on the site, this intervention should occur as soon as possible*.' Through engagement with Ofgem and responses to supplementary questions, we have set out that whilst some of the civil infrastructure assets on site are considered at the end of their life, they could be replaced piecemeal over an extended period – however this would not address the load-related drivers at the Harker site in the timeframe required.

### **Question 2: Do you agree with our conclusions on the technical solution required to address the various drivers at the Harker site?**

We agree with Ofgem's overall conclusion, as stated in paragraph 3.42 of the consultation document, '*that due to the complex and highly interactive nature of the drivers, the proposals to overcome them had become increasingly interlinked, hence a holistic approach is necessary*.' Our proposal to rebuild the substation on an adjacent greenfield site in Gas Insulated Switchgear (GIS) is our preferred solution as it is considered the optimal to address all drivers in the timescales required.

Paragraph 3.37 of the consultation document notes that our '*explanation that the selection of AIS technology may have implications on the project programme due to the anticipation of a lengthier planning application process*'. It is correct that there may be additional time required when considering the need to secure additional required land for an AIS solution. However, the selection of AIS technology may mean it is not possible to secure planning permission at all, as noted in paragraph 3.21 4. '*The risk of planning objections is perceived to be significant from both a statutory and public perspective*'.

### **Question 3: Are there any additional factors that we should consider as part of our Initial Needs Case assessment?**

None in addition to those noted in response to questions 1 and 2 above.

### **Question 4: Do you agree with our proposal that late model competition should not be applied to the Harker project?**

We agree with Ofgem's conclusions on competition criteria.

**Question 5: Do you agree with our proposed approach to LPD for the Harker project?**

We agree with Ofgem's stated aim of ensuring network companies do not benefit financially from a delay to the delivery of LOTI projects. We therefore agree 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 not any intermediate milestones.

Whilst we agree that there should be clear incentives on TOs to encourage timely delivery of LOTI projects, it is not clear how any Project Delay Charge (PDC) would achieve this. We welcome the opportunity to work with Ofgem and the ESO to identify impacts of constraints, SF6 leakage and curtailment of generation along with associated costs.

Any related charges need to be considered in advance of procurement because contractual terms will be agreed with contractors prior to submission of Project Assessment (PA). It is important that the PA process and associated timescales are not a constraining factor to commencing construction in 2024. We are in the early stages of procurement and are due to start engagement with Ofgem in relation to PA soon.