

24 FEBRUARY 2025

THE INFRASTRUCTURE PLANNING (EXAMINATIONS PROCEDURE) RULES 2010

THE H2 TEESSIDE PROJECT

WRITTEN SUBMISSION AT DEADLINE 8

ON BEHALF OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC

REF: TWHI/2026502.572



Bryan Cave Leighton Paisner

Bryan Cave Leighton Paisner LLP

Governor's House 5 Laurence Pountney Hill London EC4R 0BR
Tel: +44 (0)20 3400 1000 Fax: +44 (0)20 3400 1111

WRITTEN SUBMISSION AT DEADLINE 8 ON BEHALF OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC

1 INTRODUCTION

- 1.1 National Grid Electricity Transmission Plc (“**NGET**”) made a Relevant Representation in this matter on 1 July 2024 [**RR-024**], a Written Representation on 3 October 2024 [**REP2-068**], and further written submissions on 20 December 2024 [**REP5-064**], 22 January 2025 [**REP6A-033**] and 6 February 2025 [**REP7-049**] (together the “**Existing Representations**”).
- 1.2 NGET also attended Compulsory Acquisition Hearing 2 (“**CAH2**”) which was held virtually on 13 January 2025.
- 1.3 Further to [**AS-047**] and to the Examining Authority’s (“**ExA**”) Procedural Decision of 11 February 2025 [**PD-021**], this Written Submission is provided at Deadline 8 (24 February 2025).
- 1.4 This Written Submission is comprised of the following elements:
- (a) A detailed response to the Applicant’s Second Change Request as accepted into the Examination on 10 February 2025 (including the Applicant’s Second Application Change Report [**REP7-011**]) and as further supplemented by the Saltholme Interaction Report submitted at Deadline 7A [**REP7A-015**]¹; and
 - (b) A response to Question Nos. 2, 4 and 5 as set out in Annex B to the ExA’s Procedural Decision and Request for Further Information dated 10 February 2025 [**PD-020**].
- 1.5 NGET would be pleased to provide the ExA with further clarification on any of the matters contained within this Written Submission if that would be of assistance.

2 NGET’S RESPONSE TO THE APPLICANT’S SECOND CHANGE REQUEST

Introductory Remarks

- 2.1 As the ExA will be aware from Paragraph 2 of [**REP7-049**], and based on its dialogue with the Applicant, NGET had not anticipated that Change Area 4 would be included within the Applicant’s Second Change Request.
- 2.2 The Applicant’s characterisation, in Table 2-1 of [**REP7-024**] and in Paragraphs 2 and 5 of [**REP7A-015**], of the sequence of events immediately leading up to, and immediately following, the submission of the Second Change Request is also somewhat misleading. In particular:
- (a) All parties had acknowledged since early January 2025 the potential that NGET’s technical engineering review might well establish that the “compromise solution” was not feasible (see, for example, Paragraph 3.7(b) of [**REP6A-033**]).

¹ This element of the Written Submission also responds to Question No. 5 in the ExA’s Request for Further Information dated 19 February 2025 [**PD-022**].

- (b) It was, therefore, at the Applicant's own risk that it committed to a course of action which saw it focus *"its technical resources on progressing the "compromise solution" with NGET's technical team instead of debating the Engineering report [i.e. [REP5-064]]."* As noted in Paragraph 3.7(c) of [REP6A-033] and again in Paragraph 2.13 below, there is perhaps a wider question as to why the Applicant had not sought to address these matters much sooner in the development of its design proposals.
- (c) In any event, as the owner of the electricity transmission network, NGET is entitled to reach what the Applicant has termed in [REP7-024] a *"unilateral conclusion that the "compromise solution" does not work for NGET"* on the basis of its own technical work. As the undertaker with responsibility for delivery of the Saltholme Expansion, NGET is uniquely placed to reach a conclusion on whether or not any compromise solution would allow that development to proceed. Whilst it is regrettable that the parties have not been able to reach a mutually satisfactory solution, the conclusion reached by NGET is, for the reasons explained within this Written Submission, a robust one.
- (d) The Applicant's assertion in Paragraph 5.3.5 of [REP7A-015] that NGET has ceased negotiations is also factually incorrect. Indeed, Paragraph 3.4 of [REP7-049] (dated 6 February 2025) made clear that NGET's expectation was that engagement between the parties would continue, notwithstanding the conclusions reached and communicated regarding the "compromise solution". NGET has received no recent correspondence from the Applicant regarding Protective Provisions and/or a Side Agreement.

2.3 The Applicant's response in Table 2-1 of [REP7-024] indicated that a report would be produced in order to challenge NGET's conclusions regarding the viability of the "compromise solution" and that such a report would be submitted into the Examination as soon as possible. However, the Saltholme Interaction Report [REP7A-015] was not submitted by the Applicant until Deadline 7A, some 11 days after the Applicant had brought forward its Second Change Request (and a month after the Applicant had submitted its Second Change Notification). There is no apparent reason for this lengthy delay, albeit it might be inferred from the absence of any detailed drawings that the Applicant has needed further time in order to attempt to reconcile the significant technical constraints, and notwithstanding the Applicant's stated confidence in the *"mutual compatibility"* of its own amended proposals for Change Area 4 (see Paragraph 2.2.21 of [REP7-011]).

2.4 As the ExA will be aware, the Saltholme Interaction Report [REP7A-015] contains a significant amount of new technical and engineering detail which NGET had not previously had sight of. A direct consequence of the Applicant's delay in publishing the Saltholme Interaction Report is the limited opportunity which has therefore been afforded to NGET to have full and proper regard to that information in the context of preparing this Written Submission and, in turn, for those matters to be properly considered before the close of the Examination. This raises important and legitimate concerns as to procedural fairness or, rather, the lack thereof.

2.5 The likely adverse impacts of the Applicant's amended proposals on NGET's statutory undertaking are significant and, as Paragraph 4 of this Written Submission reemphasises, the Applicant has fallen short of discharging the burden of evidential proof required under Section 127 of the Planning Act 2008. This includes the Applicant's submissions at Deadline 7A.

Adequacy of Consultation

- 2.6 Paragraph 2.2.21 of the Applicant's Second Application Change Report [**REP7-011**] seeks to suggest that it is NGET's conduct which has delayed the development of a potential "compromise solution". Similar submissions were made by the Applicant in [**AS-045**] and a factual rebuttal has already been provided by NGET at Paragraph 3.5 of [**REP6A-033**].
- 2.7 NGET does not accept the Applicant's most recent submissions.
- 2.8 Taking account of the significance of the proposed interface between the proposed development and NGET's statutory undertaking at, and in the vicinity of, Saltholme Substation, NGET remains of the view that the Applicant's pre-application consultation and engagement was wholly inadequate.
- 2.9 NGET responded in writing to the Applicant's pre-application consultations on 2 May 2023, 20 October 2023 and 22 January 2024. Within each of its consultation responses, NGET clearly stated:
- "Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGET apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO. NGET requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: box.landandacquisitions@nationalgrid.com". (Emphasis added).*
- 2.10 Notwithstanding that contact details for NGET's Development Liaison Officer were also included within each consultation response, no further engagement was received from the Applicant. As noted in [**REP6A-033**], attempts were only made by the Applicant to seek to acquire interests in land within NGET's ownership in March 2024, *after* the submission of the DCO application.
- 2.11 NGET would also note that the plans and other information provided by the Applicant as part of its pre-application consultation did not provide sufficient detail as to the rights sought to be acquired over land within NGET's ownership and nor did those plans or documents detail any potential impacts to NGET's apparatus. The various appendices to [**REP7A-015**] helpfully demonstrate this point. NGET was, therefore, only made aware of the likely extent of impact to its undertaking when reviewing the submitted DCO documents following acceptance.
- 2.12 Despite NGET raising its concerns with the Applicant shortly thereafter, including also through its Relevant Representation submitted on 1 July 2024 [**RR-024**], it was not until the beginning of January 2025 that the Applicant attempted to engage with NGET in respect of those concerns. The Applicant has, thus far, failed to explain why it took over six months to take any meaningful substantive action in response to NGET's concerns.

Addendum to the Engineering Constraints Report

- 2.13 Appendix 1 to this Written Submission contains an Addendum to the Engineering Constraints Report which NGET previously submitted into the Examination at Deadline 5 [**REP5-064**] (the "**Addendum Report**").
- 2.14 The Addendum Report responds directly to the "compromise solution" which the Applicant has brought forward in the context of Change Area 4 (the detail of which is set out in the Saltholme Interaction Report [**REP7A-015**]). The key conclusions drawn from the Addendum Report are summarised further below.

- 2.15 However, and contrary to the statement in Paragraph 2.2.22 of the Applicant's Second Application Change Report [**REP7-011**], it is important that the contents of the Addendum Report are read alongside the submissions put forward by NGET at Deadline 5 [**REP5-064**]. Amongst other things, NGET's Deadline 5 submission established: **(i)** the need to bring forward an expansion of Saltholme Substation, **(ii)** the intended nature of NGET's emerging expansion proposals (including the underlying technical and engineering criteria) and **(iii)** other significant areas of concern which relate to the interface between the Applicant's proposals and the operation of Saltholme Substation.
- 2.16 None of those matters have assumed any lesser relevance or importance now that Change Area 4 has been accepted into the Examination, and particularly in the context of the serious detriment which will still be caused to NGET's statutory undertaking as a consequence of the Applicant's proposals. For the avoidance of doubt, and as is explained further in Paragraph 4 below, it remains the responsibility of the Applicant to demonstrate that there will be no such detriment to NGET's statutory undertaking.
- 2.17 In this context, it is important to recognise that the changes brought forward by the Applicant in respect of Change Area 4 are of very limited practical effect:
- (a) Save for the omission of Plot 3/19 and Work No. 6B.1 (AGI), extensive permanent rights are still sought to be compulsorily acquired by the Applicant in respect of Plots 3/21 and 3/23. No change has been made to the extent of Plot 3/21 along the northwestern boundary of Saltholme Substation (noting that Plot 3/21 has in fact now been extended at its southernmost extent), and nor has any attempt been made to refine Plot 3/23 in response to the removal of the AGI and/or NGET's continued concerns regarding the use of the primary access road into Saltholme Substation. Indeed, it is questionable whether the Applicant still requires rights of access in respect of Plot 3/23 at all, now that there is no AGI which it will be required to access.
 - (b) The Applicant's submissions (Paragraph 2.2.34 of [**REP7-011**]) refer to the 'doubling up' of hydrogen pipelines within Plot 3/21. The fact that a change of this significance was capable of being accommodated without altering the majority of the width of Plot 3/21 indicates that the Applicant had previously been seeking to acquire permanent rights over a more extensive swathe of land than was actually required. Similarly, there remains a question as to why Plot 3/21 is now drawn quite so widely at its southern extent when, by the Applicant's own reasoning, a 'doubling up' of pipelines can be achieved within an area slightly further north of at least half the width. Taken together, both points reinforce concerns which NGET has previously raised regarding the maturity of the design and the robustness of the Applicant's justification of the need for the compulsory acquisition powers which it is seeking.
- 2.18 Turning towards the Addendum Report, the key conclusions can be summarised as follows:
- (a) ***Interface with the Applicant's own compulsory acquisition powers:*** Figures 5.5 and 5.6 as included within the Saltholme Interaction Report [**REP7A-015**] appear to suggest that a new 275kV GIS Substation could, in the Applicant's opinion, be constructed by NGET immediately to the north of the existing Saltholme Substation. (The location is marked as 'B' on both Figures). With reference to Sheet 3 of the Land Plans [**REP7-003**], it is not clear how it would be possible for NGET to bring forward a new 275kV GIS

Substation in that location alongside the rights which the Applicant is seeking to permanently acquire in Plot 3/23. For the avoidance of doubt, the permanent rights which the Applicant is seeking in Plot 3/23 include "...*the right to prevent any works on or uses of the land which may interfere with or obstruct access from and to the authorised development, including the right to prevent or remove the whole of any building, or fixed or moveable structure, tree, shrub, plant or other thing...*" (emphasis added). Absent further clarification, it seems to NGET that the Applicant's own compulsory acquisition powers would, in fact, create an insurmountable impediment to the delivery of the Applicant's latest proposed "compromise solution".

- (b) ***Breadth and depth of concerns:*** even though NGET has not been able to respond in detail to every aspect of the Applicant's submissions in [REP7-011] and [REP7A-015], the Addendum Report demonstrates the breadth and the depth of NGET's concerns with the "compromise solution" which the Applicant has proposed. Those concerns are founded on the basis of NGET's considerable expertise as the statutory undertaker with sole responsibility for the national electricity transmission network in England and Wales. Such expertise means that NGET is uniquely placed to evaluate the Applicant's proposed "compromise solution". Whilst it is accepted by NGET that none of those concerns are, individually, sufficient to render the Applicant's proposed "compromise solution" unviable, it is NGET's reasoned conclusion that those concerns are, cumulatively, of an order of magnitude which would place substantial and unacceptable technical, financial and operational constraints on the discharge of NGET's statutory duties and regulatory obligations.

- 2.19 Part A of the Addendum Report demonstrates that the implementation of the "compromise solution" would be **incompatible** with the delivery of the required extension of the existing Saltholme Substation. As a consequence, the "compromise solution" **does not** represent a viable option through which the proposed development can be brought forward by the Applicant in a manner which avoids causing serious detriment to NGET's statutory undertaking.

Exclusion of the 'Cowpen Bewley Spur': Applicant's Without Prejudice Submissions at Deadline 7A

- 2.20 It is noted that, in its Procedural Decision of 11 February 2025 [PD-021], the ExA requested the submission, by the Applicant, of "*an alternative version of the Development Consent Order (DCO) that excludes Plots Numbers 3/18, 3/20 and 3/21 (as shown on Land Plans Rev 3 [REP7-003]) and all Plots Numbers north of those Plot Numbers (ie the Cowpen Bewley Spur)*".
- 2.21 In that context, and with reference to Schedule 1 of the tracked change version of the draft Order submitted at Deadline 7A [REP7A-007], NGET is concerned that the Applicant's without prejudice proposals would still seek to authorise the installation of a hydrogen pipeline along the current proposed alignment to the west of Saltholme Substation (Work No. 6A) to a connection point at a new above ground installation immediately to the northwest of Saltholme Substation (Work No. 6B).
- 2.22 Based on the submissions which are currently before the Examination, it appears that the Applicant's concept of a "*without Cowpen Bewley Spur scenario*" would simply be limited to the omission of the section of the proposed development extending north-westwards from what is characterised in [REP7A-007] as Work No. 6B.

- 2.23 Such a scenario would remain wholly unacceptable from NGET’s perspective. For the avoidance of doubt, and for the reasons which are already before the ExA, NGET would **strongly object** to any formulation of a “without Cowpen Bewley Spur scenario” in such terms.
- 2.24 NGET would, in any event, welcome clarification from the Applicant as to how its current formulation of a “without Cowpen Bewley Spur scenario” would comply with the terms of the ExA’s request in [PD-021].

3 **NGET’S RESPONSE TO QUESTION NO. 2**

The Examining Authority (ExA) would invite all IPs to summarise their position, in regard to: i) any outstanding objection(s); ii) Protective Provisions (PP); iii) CA/ temporary possession; and iv) the status of any side agreement, interface agreement or other relevant agreements they consider necessary to provide relevant protections or mitigations from the Proposed Development.

(i) Status of Objection:

- 3.1 NGET’s overall position in this matter, as stated in Paragraphs 1.2 to 1.4 of [REP5-064], remains unchanged.
- 3.2 Accordingly, and taking account of the Applicant’s Second Change Request, NGET continues to maintain its **strong objection** to:
- (a) the carrying out of those elements of the proposed development, including but not limited to Work Nos. 6A.1 and 6B.1, 9 and 10A.1 as defined in the draft Order, the overall effect of which would place substantial and unacceptable technical, financial and operational constraints on the discharge of NGET’s statutory duties and regulatory obligations in relation to the delivery of the required extension of the existing Saltholme Substation;
 - (b) the Applicant’s intended reliance on powers of temporary possession and compulsory acquisition (as set out in the draft Order) in order to temporarily use and to permanently acquire a significant extent of land and rights currently held for the purposes of NGET’s statutory undertaking and, further, to override or otherwise interfere with easements or rights which would adversely affect NGET’s right to access and maintain its apparatus; and
 - (c) the proposed development being carried out in close proximity to NGET’s existing apparatus within the Order limits, unless and until suitable protective provisions have been secured to NGET’s satisfaction.

(ii) Status of Protective Provisions:

- 3.3 As explained in Paragraph 3.13 of [REP7-049], the Protective Provisions included for the benefit of NGET in Schedule 19 to the draft Order (the “**Protective Provisions**”) are not yet in a form that NGET considers satisfactory.
- 3.4 The matters outstanding principally relate to concerns with the proposed development from NGET’s ‘business as usual’ perspective and are, therefore, not confined to the Saltholme Expansion.
- 3.5 NGET would make the following overarching submissions in respect of the Protective Provisions:

- (a) NGET is not seeking to depart from its standard form of Protective Provisions and NGET's position is, therefore, supported by an extensive line of precedent found in other made Orders.
- (b) The Applicant has provided very little, if any, substantive explanation to justify the proposed departures from NGET's standard Protective Provisions. Amongst other things, this is contrary to Paragraph 4.1 of Advice Note 15 (Drafting Development Consent Orders) which expects applicants to submit the standard protective provisions for protected parties with any amendments that the applicant is seeking annotated with "*full justification included within the Explanatory Memorandum*".
- (c) In its submissions at Deadline 7A [REP7A-016], the Applicant has made several references to drafting included within The Net Zero Teesside Order 2024. NGET agrees with written submissions made by other statutory undertakers in the context of this Examination that the circumstances surrounding the Net Zero Teesside decision were highly anomalous and therefore cannot be said to set any form of precedent.

3.6 Appendix 2 to this Written Submission contains a copy of the Protective Provisions which NGET would request are recommended for inclusion in Schedule 19 to the draft Order. Matters not agreed are shown in red text and are highlighted in yellow.

3.7 For the avoidance of doubt, NGET has no concern with the amendments which the Applicant has labelled as "Issue 1" (definition of "commence" and "commencement"), "Issue 4" (retained apparatus: protection) and "Issue 5" (indemnity) in its submissions at Deadline 7A [REP7A-016]. Those amendments have been incorporated within Appendix 2 to this Written Submission.

3.8 Appendix 3 to this Written Submission sets out NGET's justification in support of its position in respect of each of the matters not yet agreed.

(iii) Compulsory Acquisition & Temporary Possession:

3.9 For the reasons which are explained in Paragraph 4 of this Written Submission, NGET does not consider that the Applicant has satisfied the test in Section 122 of the Planning Act 2008 in relation to the intended compulsory acquisition of land and/or rights in land.

(iv) Status of Side Agreement:

3.10 There has unfortunately been no change in position since NGET last updated the ExA at Deadline 7. There is now little prospect of a Side Agreement being completed before the close of the Examination.

3.11 As recorded in Paragraph 3.13 of [REP7-049], technical queries raised with the Applicant in early January (and linked to NGET's submissions in [REP5-064]), including on important matters pertaining to pipeline safety, remain unaddressed.

3.12 Therefore, and as outlined in [REP7-049], NGET has now amended the Protective Provisions included in Appendix 2 to this Written Submission in order to secure, through the draft Order, the substantive matters which have been under negotiation between the parties. (These amendments are also shown in red text and highlighted yellow in Appendix 2). Appendix 3 to this Written Submissions provides NGET's justification for the inclusion of those further amendments.

4 RESPONSE TO QUESTION NO. 4

Please can all Statutory Undertakers state if they consider that the Applicant has satisfied the tests in PA2008 in relation to Statutory Undertakers land where this relates to your undertakings.

Section 122 of the Planning Act 2008

- 4.1 Section 122 of the Planning Act 2008 provides that a DCO may only include provision authorising the compulsory acquisition of land if certain conditions are met. Those conditions are that (i) the land is **required** for the development to which the development consent relates (emphasis added); (ii) is required to facilitate or is incidental to that development, or (iii) is replacement land provided as exchange land. There must be a "*compelling case in the public interest for the land to be acquired compulsorily*".
- 4.2 NGET's position is that the requirements of Section 122 have not been made out for the following reasons.
- 4.3 Paragraph 2.2.29 of the Second Application Change Report [**REP7-011**] summarises the optionality which still remains within the Applicant's amended proposals. It is noteworthy that "*the ability to bring the options forward is dependent on the Government's timeline for the development of the networks and the technical and engineering requirements of the key stakeholders...and process safety assessments, design feasibility assessments, and the interaction with existing supplies to customers*" (emphasis added). By the Applicant's own admission, it seems there is no certainty that any of those dependencies can, or will, be capable of being satisfied.
- 4.4 In light of the above, the "*strategic and economic value*" of the Cowpen Bewley arm of the proposed development which the Applicant refers to in Paragraph 2.2.31 of [**REP7-011**] does not provide sufficient justification to satisfy the strict statutory tests in Section 122(2)(a) and (b) of the Planning Act 2008 ("*the land is required for the development to which the DCO relates or is required to facilitate or is incidental to the development*") nor the general considerations under Paragraphs 8 to 10 of the existing DCLG 'Guidance related to procedures for the compulsory acquisition of land' (September 2013).
- 4.5 In addition, the fact that the Applicant itself acknowledges the potential for future operational benefits associated with this particular element of the proposed development to be attained through alternative, albeit less commercially certain, means provides clear evidence that the statutory tests in Section 122(2)(a) and (b) of the Planning Act 2008 are not satisfied as regard the intended acquisition of land, rights and other interests held by, or belonging to, NGET or as regard the exercise of powers of temporary possession.

Section 127 of the Planning Act 2008

- 4.6 Sections 127(3) and 127(6) of the Planning Act 2008 are individually and together recognised as forming a statutory test of great significance.
- 4.7 Despite its attempts in Paragraphs 2.2.22 to 2.2.24 of the Applicant's Second Application Change Report [**REP7-011**] and again in Paragraph 5 of the Saltholme Interaction Report [**REP7A-015**] to reverse the burden of proof, it is the Applicant's responsibility to demonstrate to the Secretary of State that the statutory tests under Sections 127(3) and 127(6) are satisfied once a representation has been made which engages Section 127(1). Each of those tests refer to the need to establish that land and/or rights can be purchased without causing serious detriment to the undertaking

in question. That is a test which is for the Applicant to satisfy, recognising the underlying legislative intent which is to afford a significant degree of protection to those affected third parties carrying on an existing statutory undertaking.

- 4.8 The Applicant has provided very limited evidence in order to demonstrate that its proposals, if consented, will not give rise to serious detriment to the carrying on of NGET's statutory undertaking. The Applicant has had ample opportunity to do so, noting the significant concerns raised in NGET's Relevant Representation of 1 July 2024 [RR-024]. The information provided to date, most notably in the Applicant's Second Application Change Report [REP7-011], is superficial at best. This is in contrast to the detailed evidence produced by NGET at Deadline 5 ([REP5-064]) and supplemented by this Written Submission.
- 4.9 Whilst noting that the Applicant's Second Change Request removes the proposal to compulsorily acquire land within the ownership of NGET (thus negating the need for the Applicant to satisfy the statutory test under Sections 127(3) in this particular context), it remains NGET's position that the Applicant's proposals in respect of the acquisition of rights over NGET's land will give rise to serious detriment to NGET's statutory undertaking, such that the test in Section 127(6) is not satisfied.
- 4.10 Further, any detriment caused to the carrying out of NGET's undertaking, in consequence of the acquisition of the rights, could not be made good by the use of other land belonging to NGET or available for acquisition by NGET, for the reasons explained by NGET at Deadline 5 ([REP5-064]).
- 4.11 NGET's position is supported by the contents of this Written Submission as well by matters already set out in the Existing Representations.

5 **RESPONSE TO QUESTION NO. 5**

The ExA will not be asking the Secretary of State to decide and consult further on which version of a PP to include in the final Development Consent Order (DCO) if any are not agreed by the close of the Examination. To that end, please can all parties who are negotiating PPs, including the Applicant, provide by DL7a on Monday 17 February 2025 a statement of agreement of a single version of PPs with that agreed version presented to the ExA. If this is not possible please provide the following: • Your preferred version of PPs which should be highlighted to show where there is disagreement. • Commentary as to the reason for the disagreement and why this disagreement has not been resolved. • Commentary on the potential consequences if this is not resolved in your favour. • Statement of progress on any side agreements. We reiterate that we will not be rewriting PPs, we will be recommending one of the versions which is presented to us by the end of the Examination. All parties will have a further opportunity to comment on DL7a submissions at DL8 on Monday 24 February 2025 with the Applicant's final reply to these comments at DL9 on Friday 28 February 2025. If PPs are subsequently agreed after DL7a and before the close of the Examination, the ExA will accept these as additional submissions at any time between DLs with conformation from both parties that these are indeed an agreed version.

- 5.1 NGET has received no correspondence from the Applicant regarding a 'statement of agreement' in the form contemplated by the Examining Authority.
- 5.2 As a consequence, and as explained in the preceding paragraphs of this Written Submission:
- (a) Appendix 2 contains a copy of the Protective Provisions which NGET would request are recommended for inclusion at Schedule 19 to the draft Order.

Matters not agreed, including the additional measures referred to above in Paragraphs 3.10 to 3.12, are shown in red text and are highlighted in yellow.

(b) Appendix 3 provides justification in support of NGET's position in respect of all of the matters not yet agreed.

5.3 A statement of progress in respect of the Side Agreement is included in Paragraphs 3.10 to 3.12.

Bryan Cave Leighton Paisner LLP

For and on behalf of National Grid Electricity Transmission Plc

24 February 2025

Appendix 1

Addendum to the Engineering Constraints Report

Deadline 8 Submission

H2Teesside Saltholme Substation



Engineering Constraints Report – Addendum

February 2025

nationalgrid

Contents

1.	Part 1: New Substation Expansion	2
1.1	Introduction	2
1.2	Restatement of Deadline 5 Submissions [REP5-064]	2
1.3	Premise of the “Compromise Solution”	3
1.4	Structure of NGET’s Response to the “Compromise Solution”	4
1.5	NGET’s Response to the “Compromise Solution”	4
1.6	Concluding Remarks	10
2.	Part 2: Existing Assets	12
2.1	Overview of constraints and conflicts with existing infrastructure	12
2.2	Venting of hydrogen	13
2.3	OHL interaction with pipelines	14
2.4	Pipeline construction activities	15

1. Part 1: New Substation Expansion

1.1 Introduction

- 1.1.1 This Addendum Report, which forms part of written submissions made on behalf of National Grid Electricity Transmission Plc (NGET) at Deadline 8, supplements the Engineering Constraints Report included at Appendix 1 to NGET's written submissions at Deadline 5 [REP5-064].
- 1.1.2 In this context, it is emphasised that the needs case and regulatory obligations underpinning the delivery of an expansion of Saltholme Substation remain unchanged from NGET's submissions at Deadline 5.
- 1.1.3 This Addendum Report responds directly to the "compromise solution" which the Applicant has brought forward in the context of Change Area 4 (the detail of which is set out in the Applicant's Second Application Change Report [REP7-011]) and as further supplemented by the Saltholme Interaction Report submitted at Deadline 7A [REP7A-015]).
- 1.1.4 Given the constraints of the Examination timetable, NGET has not been able to respond in detail to every aspect of the Applicant's submissions in [REP7-011] and [REP7A-015]. NGET has instead sought to respond, within this Addendum Report, to the main matters of substance raised in the Applicant's submissions.
- 1.1.5 Nonetheless, this Addendum Report will demonstrate that the "compromise solution" proposed by the Applicant **does not** represent a viable means for delivering the Applicant's proposed development without causing serious detriment to NGET's statutory undertaking.
- 1.1.6 Further to NGET's submissions at Deadline 7 [REP7-049], this Addendum Report will explain in detail *why* the "compromise solution" would be incompatible with the delivery of the required expansion of the existing Saltholme Substation and *how* the Applicant's proposals would place substantial and unacceptable technical, financial and operational constraints on the discharge of NGET's statutory duties and regulatory obligations.
- 1.1.7 As the statutory undertaker with responsibility for the national electricity transmission network in England and Wales, NGET is uniquely placed to reach the conclusions set out in this Addendum Report and in its previous written submissions.

1.2 Restatement of Deadline 5 Submissions [REP5-064]

- 1.2.1 As explained in the Engineering Constraints Report submitted at Deadline 5 (Appendix 1 of [REP5-064]), the Applicant's proposals conflict with NGET's preferred expansion proposals at Saltholme Substation primarily due to the physical and spatial constraints imposed by the intended installation and operation of a 'doubled up'/twin hydrogen pipeline arrangement. Whilst the Applicant has now omitted the Above Ground Installation (AGI) originally proposed to be constructed on land within NGET's ownership, permanent rights of access are still sought to be acquired by the Applicant across that land.

- 1.2.2 Taking account of recent changes brought forward at Deadline 7, and having had regard to the latest Works Plans [REP7-005] and Land Plans [REP7-003], the Applicant's proposals would still give rise to the following conflicts with NGET's preferred expansion proposals:
- **Land Constraints:** the land owned by NGET at Saltholme is already limited in size and shape, restricting options for new substation placement. Introduction of the proposed pipeline and access rights would further constrain the available land and would render all of the options for NGET's proposed substation expansion unviable.
 - **Proximity Issues:** installation of the pipeline would prevent the development of a new substation, as the proposed pipelines presence would interfere with the necessary clearances and foundations required for substation assets.
 - **Construction Challenges:** the close proximity of the proposed pipelines and the substation proposals would complicate construction operations and introduce additional complexities and work restrictions. Specifically, customer cable routes into certain bays of the substation would become unachievable, effectively sterilising those bays and limiting operational capacity.
 - **Foundation Requirements:** the foundations required for the substation's transformers (SGTs) and other assets would not be deliverable if the proposed pipelines are in place, as the weight and fire radius associated with these transformers would restrict their installation near the proposed pipelines. The weight of the SGTs could impose additional loadings on the proposed pipelines and cause integrity issues.
- 1.2.3 Overall, the conflicts are such that the Applicant's current proposals for the proposed development (as amended through the Second Change Request) remain incompatible with NGET's own preferred proposals for the expansion of Saltholme Substation, such that expansion of Saltholme Substation would be incapable of being brought forward. It remains NGET's position that the Applicant's proposals will therefore give rise to serious detriment to NGET's statutory undertaking.

1.3 Premise of the "Compromise Solution"

- 1.3.1 As explained in its previous submissions ([REP6A-033] and [REP7-049]) NGET has welcomed the Applicant's recent engagement in response to NGET's concerns regarding the likely impacts of the Applicant's proposed development and has supported the investigation, evaluation and review of a "compromise solution".
- 1.3.2 However, all parties had acknowledged the potential that NGET's technical engineering review might well conclude that a "compromise solution" was ultimately not feasible. This was unfortunately the conclusion reached in respect of the "compromise solution" proposed by the Applicant in early January.
- 1.3.3 The subsequent technical review undertaken by NGET raised significant concerns about the deliverability of the required substation extension as part of that "compromise solution", to the point that there would be a very realistic probability that NGET would not be able deliver any such extension economically and efficiently. Further, and as explained in Paragraph 2.2 of [REP7-049]:

"The "compromise solution" would place substantial and unacceptable technical, financial and operational constraints on the discharge of NGET's statutory duties and regulatory obligations. The implementation of the "compromise solution" would be

incompatible with the delivery of the required extension of the existing Saltholme Substation (notwithstanding the fact that NGET's own proposals as regard the technical specification of that extension are still under development)."

- 1.3.4 Notwithstanding the conclusions reached and communicated by NGET, the Applicant has tabled, in Section 5 of the Saltholme Interaction Report submitted at Deadline 7A [REP7A-015] what it considers to be an acceptable form of "compromise solution".

1.4 Structure of NGET's Response to the "Compromise Solution"

- 1.4.1 The following paragraphs of this Addendum Report will demonstrate that the "compromise solution" proposed by the Applicant at Deadline 7A **does not** represent a viable option through which the proposed development can be brought forward in a manner which avoids causing serious detriment to NGET's statutory undertaking.

- 1.4.2 As noted above, this is not an exhaustive rebuttal of all aspects of the Applicant's submissions in [REP7-011] and [REP7A-015].

- 1.4.3 Within the time available, NGET has instead sought to respond, within this Addendum Report, to the main matters of substance raised in the Applicant's submissions.

- 1.4.4 NGET's response to the "compromise solution" is structured as follows:

- Sequencing of delivery;
- Transformer proposals;
- Cable proposals;
- Access;
- Smart Valves;
- Rationalisation of allocation of future bays;
- Laydown area;
- Gantry installation;
- 400 kV connection; and
- Civil engineering constraints.

1.5 NGET's Response to the "Compromise Solution"

Sequencing of delivery

- 1.5.1 In Paragraph 5.1.8 of the Saltholme Interaction Report [REP7A-015], the Applicant asserts that NGET could reutilise the existing 275/132kV transformer yard in order to allow for the expansion of Saltholme Substation. The following paragraphs identify the principal difficulties and constraints that arise from that proposal.

Implications of an 'online build':

- 1.5.2 NGET's preference is always to build an 'offline' solution and to transfer the relevant circuits into the newly built development after it has been completed. The principal reason for this is 'safety from the system', as an 'offline' build is intrinsically safe from high voltage

(HV) electricity and it therefore helps to minimise both risk and cost. HV electricity poses a potentially fatal risk in 'online' builds, thereby adding extra complexity to the project as construction areas need to be isolated from live elements of the substation both electrically and physically.

- 1.5.3 The Applicant's proposed "compromise solution" would not only require the 'online' build of the new Gas Insulated Switchgear (GIS) substation, but also the 'online' demolition of the old 'mesh corner' substation.
- 1.5.4 NGET would be required to supply Northern Power Grid (NPG) with energy throughout the rebuild process, meaning at least one Super Grid Transformer (SGT) would need to be connected at any time. In order to achieve this, construction would need to be staged with the new substation being partially built, at least one overhead line (OHL) 'turned in' and the new SGT installed, before the NPG connection is transferred. At this point the new substation build would be 'online'.
- 1.5.5 Following this, the old SGTs and the mesh corner substation would need to be removed to facilitate the wider new build of the site. This would likely have to happen whilst sections are still live. For the reasons noted above, this approach would be significantly more complex than decommissioning the old site when it was 'offline'.
- 1.5.6 This has implications for outage periods, as explained below.

Outages:

- 1.5.7 An 'outage' is the term used when an asset, or assets, of the transmission system are 'turned off' to ensure safety from the system. It allows that asset to be maintained or modified safely. By turning off certain assets, the rest of the transmission system is 'stressed' as the same amount of electricity is moved across fewer assets. Therefore, to ensure the system is balanced, only a small number of assets can be on outage at any one time. Further ways to balance the system when outages are taken is to constrain generators, a cost which is passed onto consumers. Outages can generally be only taken during Daylight Saving Time when the demand on the network is lower.
- 1.5.8 A staged, 'online', build as proposed by the Applicant would be significantly more demanding from an outage perspective compared to an 'offline' build. In an 'offline' build all construction activity is completed with electrical systems which are not energised, and circuits are transferred at the end and normally in short outages. By contrast, in an 'online' build, circuit outages are required during construction to transfer different parts of the build and circuits. Moreover, more outages are likely to be required to ensure proximity from the system because of the safety implications of working in live substations.
- 1.5.9 Due to this, 'online' construction periods are often much longer and more complex to programme because of the reliance on the outages that can be secured. Outages on the transmission network are increasingly difficult to secure as more work is being completed on it. This is magnified in the North East of England where a significant volume of upgrades are required to facilitate the large volumes of wind power being connected.
- 1.5.10 In addition to this, each outage has an attributed 'constraint cost' that is ultimately passed through to the consumer, therefore fewer and shorter outage requirements are preferable. The 400 kV circuit in this case would have particularly high constraints and therefore would be extremely challenging to secure outages for the duration required in order to complete the works to transfer it to the new substation.
- 1.5.11 The Applicant's proposed "compromise solution" would necessitate a significant number of outages. However, for the reasons outlined above, there is a very real risk that a

number of those outages could not be secured within the timeframe required for the rebuild of Saltholme substation.

Nuclear safety:

- 1.5.12 Hartlepool Nuclear Power station is connected to NGET's transmission network in the vicinity of Saltholme, thereby automatically designating the surrounding OHL circuits as 'coloured'.
- 1.5.13 Outages on these 'coloured' circuits are more onerous to secure due to the sensitivity around impacting the nuclear safety case of the power station. Any outages on these circuits need to be agreed with the power station and therefore have a greater potential to be rejected. This restricts the viability of an 'online' build even further and adds to the real risk that outages could not be secured in time for the rebuild of Saltholme substation.

Transformer proposals

- 1.5.14 In Paragraph 5.1.16 of the Saltholme Interaction Report [**REP7A-015**], the Applicant suggests that SGTs with a higher power rating could be used interchangeably in order to meet the power demands required by NPG.
- 1.5.15 Whilst it is true that larger 360MVA SGTs can, in theory, meet the required demand, it cannot be assumed that they are suitable in this location. NPG's network has been designed with two 240MVA SGTs providing infeed of power. Any attempt to replace these for larger 360MVA units would be likely to have repercussions downstream of Saltholme Substation.
- 1.5.16 In order to fully understand the likely ramifications of installing larger rated SGTs, detailed studies would need to be completed by NPG in collaboration with NGET. These studies take a significant amount of time to complete and require complex modelling of the power system. There is no certainty that, once complete, the output of those studies would support the installation of 360MVA SGTs. As such, NGET has proposed replacing the old SGT with 'like for like' units as a default position.
- 1.5.17 The 360MVA SGTs would also be larger than the 240MVA units and require a bigger bund in order to contain the insulating oil if there were to be a leak. Due to this, the area required by four 360MVA units is likely to be comparable to five 240MVA units. This would mean that the Applicant's suggestion would not materially decrease the space required for the SGTs.
- 1.5.18 Furthermore, the 360MVA units would weigh considerably more, thereby requiring more robust foundations which would interact with the proposed pipeline for the reasons already explained at Deadline 5 (Appendix 1 of [**REP5-064**]).

Cable proposals

- 1.5.19 In Paragraph 5.1.18 of the Saltholme Interaction Report [**REP7A-015**], the Applicant states that the cable systems proposed by NGET are too large.
- 1.5.20 However, the cable designs proposed by NGET are typical of 275kV cables as a worst-case scenario. Whilst cables sizes may be capable of being reduced, this would only be identified after detailed intrusive ground investigation studies, such as Thermal Conductivity Tests, have been undertaken to understand the soil conditions at Saltholme.
- 1.5.21 Only after such surveys have been undertaken can detailed cable design be completed in order to understand the most efficient solution for the installation of the cables.

- 1.5.22 The addition of multiple cables into the vicinity further complicates cable design due to the extra heat transferred to the surrounding soil.
- 1.5.23 For present purposes, a realistic worst-case scenario has been used by NGET as a reasonable design assumption.

Access

- 1.5.24 In Figure 5.6 of the Saltholme Interaction Report [REP7A-015], the Applicant suggests that the current access road would be removed as a result of the construction of the new GIS substation.
- 1.5.25 This arrangement would require NGET and NPG to use the same access road, with NPG only able to access its compound through NGET's compound. This arrangement is not acceptable due to the different security and safety rules required to be used by each network operator. For instance, if an emergency situation was to develop within NGET's compound, the Applicant's proposals would prevent NPG from gaining access to its compound.
- 1.5.26 In addition, and with reference to Sheet 3 of the Land Plans [REP7-003], it is not clear how it would be possible for NGET to bring forward a new 275kV GIS Substation in the location marked as 'B' on Figure 5.6 alongside the rights which the Applicant is seeking to permanently acquire in Plot 3/23. For the avoidance of doubt, the permanent rights which the Applicant is seeking in Plot 3/23 include "...the right to prevent any works on or uses of the land which may interfere with or obstruct access from and to the authorised development, including the right to prevent or remove the whole of any building, or fixed or moveable structure, tree, shrub, plant or other thing..." (emphasis added).
- 1.5.27 Absent further clarification, it appears to NGET that the Applicant's own compulsory acquisition powers would create an insurmountable impediment to the delivery of the Applicant's latest proposed "compromise solution".

Smart Valves

- 1.5.28 In Paragraph 5.3.4 of the Saltholme Interaction Report [REP7A-015], the Applicant states that the relocation of the existing 400 kV Smartwires compound to elsewhere on the network would create additional space at Saltholme.
- 1.5.29 At present, these 400 kV Smart Valves are required on the network to provide power flow control in the area. To remove these would require the addition of similar devices at other substations and potentially the 'writing off' the asset value of the Smart Valves installed if they cannot be transferred.
- 1.5.30 The purpose of Smart Valves is to inject reactive power onto the network, ensuring system stability and ultimately enhancing the reliability of the transmission system. They must be installed in areas of the network that frequently experience instability in terms of voltage or frequency; simply relocating them elsewhere would not yield the same benefits. Additionally, Smart Valves regulate active power flow by adjusting impedance settings, much like quad boosters change taps but in a more efficient manner. This functionality allows them to reduce or increase active power flow along specific circuits, helping to alleviate overloads and mitigate possible negative phase sequence voltages. Stability studies would be necessary to identify suitable relocation alternatives, but these cannot be completed within the current timeframe.

Rationalisation of allocation of future bays

- 1.5.31 In Paragraphs 5.1.13 and 5.1.14 of the Saltholme Interaction Report [REP7A-015], the Applicant indicates that, in its view, the existing constraints associated with the Saltholme site might make future connections unviable such that bays for future connections should be dispensed with.
- 1.5.32 NGET disagrees entirely with this assertion, noting that the Applicant's submissions are speculative, entirely unsubstantiated and would appear to be outside of the Applicant's technical competence.
- 1.5.33 As the statutory undertaker with responsibility for the national electricity transmission network in England and Wales, NGET is uniquely placed to reach the conclusions already set out in Appendix 1 of [REP5-064].

Laydown area

- 1.5.34 In Paragraph 5.2.9 of the Saltholme Interaction Report [REP7A-015], the Applicant claims that the area marked as 'F' on Figure 5.6 could be used as a laydown area. As the Applicant states in Paragraph 5.2.9, area 'F' is "currently a copse with mature tree growth."
- 1.5.35 The copse area at Saltholme Substation was planted as part of a landscaping condition when the substation was consented in 1977. The planning permission for the substation states that a landscaping scheme is required "in the interests of amenity of the area and to ensure the provision of satisfactory landscaping". Removal of these trees would mean that NGET would be in breach of the an approved planning permission. Nor is there any indication that an amendment of that permission to remove the requirement to retain landscaping would be acceptable to the local planning authority.
- 1.5.36 The trees in question have been there for over 40 years and as such do provide screening to the site as was the intention of the planning condition.
- 1.5.37 In developing projects, NGET has a statutory duty under the Electricity Act 1989 to have regard to the preservation of amenity and to also have regards to biodiversity. Removal of the existing mature tree screening in order to facilitate the Applicant's "compromise solution" would not be in line with these duties. NGET's preferred options for the expansion of Saltholme Substation could be brought forwards without the loss of this woodland.
- 1.5.38 Further, and notwithstanding the above, due to the complexity of the Applicant's proposal (see further above in respect of the phasing requirements), the build period for any extended substation would almost certainly exceed three years. As a consequence, the substation expansion project would be deemed to be 'permanent' in respect of biodiversity net gain, such that NGET would be obliged to provide a 10% gain at significant cost.

Gantry installation

- 1.5.39 In Figure 5.5 of the Saltholme Interaction Report [REP7A-015], the Applicant suggests that an OHL gantry would be installed to the west of the proposed new GIS building.
- 1.5.40 The deviation of the OHL required from the existing tower to the north of Saltholme does not appear technically possible. This tower, YYJ036, is a suspension tower which can be identified by the vertical insulator stacks installed. The angle of deviation of the conductors achievable on these towers is not significant and the proposal appears to be greater than possible. This would require another new tower to be installed in place of YYJ036. To achieve this it is likely that a temporary OHL diversion would be needed

requiring new easements and consents and additional outages which as previously discussed already have a real risk of not being achievable.

- 1.5.41 The position of the new gantry is not favourable either and appears to be in close proximity to the new GIS building and the NPG 132 kV substation fence line which would make the access challenging during construction and for ongoing maintenance activities.

400 kV connection

- 1.5.42 In Figure 5.6 of the Saltholme Interaction Report [REP7A-015], the Applicant suggests that the 400/275 kV interbus transformer could be connected directly into the 400 kV substation at Saltholme.

- 1.5.43 The section of the substation which the proposal suggests the 400 kV interbus transformer connects into is only live when the Smart Valves are in operation. During times when the Smart Valves are not in operation the disconnectors to the south remain open, effectively creating a pass through of the 400 kV circuit. Due to this there would be times when the interbus transformer would be turned off.

- 1.5.44 To make this work the interbus transformer would have to be installed to the south on the “circuit side” of the disconnectors to be permanently live. This would require a new bay to be fitted as a minimum which is not possible due to the space constraints along the southern edge of the 400 kV substation.

Civil engineering constraints

- 1.5.45 The following paragraphs outline the significant constraints associated with implementing the Applicant’s proposed “compromise solution” from a civil engineering perspective and are predicated on the assumption that each of the concerns outlined in the preceding paragraphs of this Addendum Report could be overcome.

- 1.5.46 In basic terms, the presence of the Applicant’s hydrogen pipelines and associated permanent rights (including access rights) would sterilise a large area of land around the outer perimeter of the western and northwestern boundary of the current NGET land ownership. This would significantly reduce the working area available during construction of an expanded substation.

- 1.5.47 The installation of hydrogen pipelines prior to any extension of Saltholme substation would give rise to a wide range of issues or constraints which NGET would need to address, including, but not limited to, the following:

- Construction plant, such as mechanical excavators or other powered equipment, cannot be located on top of or moved over the pipeline unless agreed with the pipeline operator as they could impose additional loads on the pipelines.
- Storage of any materials or equipment to be installed over the pipelines could increase the stress level in the proposed pipelines. Therefore, alternative temporary areas will have to be used for storage.
- Due cognisance will have to be given to the fact that excavation work using powered mechanical plant can only take place outside defined distances from the proposed pipelines in order to prevent damage. Any works carried out in close proximity to the pipelines would have to be approved by the Applicant.
- The substation extension works will require the use of craneage in order to lift and install the electrical equipment required (e.g. the SGTs etc.). The stabilisers/outriggers provided on the cranes to prevent toppling over will have to be carefully positioned to ensure that either no loads are transferred onto the buried pipelines or any loadings

transferred to the pipelines are within acceptable levels. The location and movement of other items of heavy construction equipment on the site will also need to be considered to prevent any impact to the pipelines.

- Certain specific activities, such as piling and demolition, cannot be conducted within specified distances of existing pipelines. Limits on allowable ground vibration levels may be specified by the Applicant to prevent pipeline integrity issues which could dictate what techniques or methods must be used and have a possible impact on construction costs and overall timescales of the work proposed.
- The proximity of foundations to the proposed pipelines needs to be considered to ensure any loadings on the foundations are not transferred onto the pipelines.
- Due to the local flood risk, the existing substation has been constructed on a raised area to form a ‘platform’ and a similar arrangement will be required for any extension works. Any groundworks near to the pipelines will need to be carefully designed and constructed to ensure there is no impact on ground stability which could increase the loading on the pipelines and will likely need to be conducted in accordance with a method statement agreed with the Applicant.
- Activities that could increase the depth of cover over the proposed pipeline (e.g. temporary storage of excavated material, landscaping for the extended substation to reduce visual impact etc.) potentially increases the overburden on the pipelines and would have to be agreed with the Applicant.
- The carrying out of any works to extend the substation would require additional mitigation measures to be put in place to ensure that NGET's contractors and the general public are not exposed to additional safety risks as a result of working in proximity to operational hydrogen pipelines.

1.5.48 Considered individually, each of these civil engineering constraints may be capable of being overcome. However, it is far from certain that this would be the case. Further, when considered cumulatively and alongside matters set out elsewhere in this Addendum Report, the civil engineering constraints are significant. In NGET’s opinion, the likely overall effect of these constraints would be to significantly lengthen the programme for delivering an extension to Saltholme Substation, and materially increase the cost of doing so. This would be contrary to NGET’s duty to act economically and efficiently.

1.6 Concluding Remarks

1.6.1 For the reasons outlined in Paragraphs 1.3.33 and 1.3.34, it seems apparent that the Applicant’s own compulsory acquisition powers will create an insurmountable impediment to the implementation of the “compromise solution” proposed by the Applicant at Deadline 7A.

1.6.2 However, and assuming that this impediment is capable of being overcome, the previous paragraphs of this Addendum Report demonstrate both the breadth and the depth of NGET’s concerns with the “compromise solution” which the Applicant has proposed. Those concerns are founded on the basis of NGET’s considerable expertise as the statutory undertaker with sole responsibility for the national electricity transmission network in England and Wales. Such expertise means that NGET is uniquely placed to evaluate the Applicant’s proposed “compromise solution”.

1.6.3 Whilst it is accepted by NGET that none of those concerns are, individually, sufficient to render the Applicant’s proposed “compromise solution” unviable, it is NGET’s reasoned

conclusion that those concerns are, cumulatively, of an order of magnitude which would place substantial and unacceptable technical, financial and operational constraints on the discharge of NGET's statutory duties and regulatory obligations.

1.6.4 Therefore, and as Part A of this Addendum Report has demonstrated, the implementation of the "compromise solution" would be incompatible with the delivery of the required extension of the existing Saltholme Substation.

1.6.5 As a consequence, the "compromise solution" does not represent a viable option through which the proposed development can be brought forward by the Applicant in a manner which avoids causing serious detriment to NGET's statutory undertaking.

2. Part 2: Existing Assets

2.1 Overview of constraints and conflicts with existing infrastructure

Introduction

- 2.1.1 Part B of the Engineering Constraints Report submitted by NGET at Deadline 5 [REP5-064] identified a number of concerns with the proposed development from a 'business as usual' perspective.
- 2.1.2 However, the Applicant's latest proposals appear to have had limited, if any, regard to a number of the issues previously highlighted.
- 2.1.3 Therefore, the following sections of this Addendum Report should be read alongside Part B of the Engineering Constraints Report submitted by NGET at Deadline 5 [REP5-064], and with reference to the Applicant's latest proposals.
- 2.1.4 Given the nature, extent and strategic importance of NGET's electrical transmission assets situated within the Order limits, and the potential risks to its undertaking by the works required with the latest proposal being carried out in close proximity to those assets, NGET still has serious concerns which are detailed in the following sections.

Requests for further information

- 2.1.5 NGET has been trying to understand the potential for adverse impacts from the proposed development on its operational assets around Saltholme substation and ensure there are no unacceptable risks to the existing assets and people who may be present around them. As part of this process, NGET has requested the following information from the Applicant on several occasions but so far nothing has been provided:
- i. Evidence demonstrating that impressed voltages have been taken into account in the detailed design for the Applicant's proposals;
 - ii. Dispersion analysis covering all normal and abnormal pipeline operational scenarios in order to demonstrate that the separation distances between the Applicant's proposals and NGET's operational assets are acceptable and that any risks posed are As Low As Reasonably Practicable (ALARP);
 - iii. Confirmation that all hazardous areas generated (e.g. Zone 0, Zone 1 or Zone 2) by the Applicant's proposals are contained within the site security fencing;
 - iv. Risk analysis covering full bore rupture and puncture releases showing the distances to the individual risk transects of 1×10^{-5} per year, 1×10^{-6} per year and 3×10^{-7} per year for the Applicant's proposals to demonstrate the risks posed are ALARP;
 - v. Analysis on the Applicant's proposals located in the 'Linkline corridor' running parallel to the existing third party above ground pipelines to determine the minimum separation distances required and the proposed mitigation measures to prevent escalation of a situation into a major emergency and to confirm the cumulative risk levels along the security fencing located to the south of Saltholme

Substation from all the above ground pipelines (existing and proposed) for the various failure scenarios are acceptable and are ALARP; and

- vi. Evidence of the operations and maintenance philosophy for the Applicant's proposals detailing how it will be commissioned, depressurised, purged, decommissioned.

2.1.6 With regard to the request under (ii) above, NGET would have envisaged some dispersion analysis being conducted during the ongoing Front End Engineering and Design (FEED) study in order to:

- Confirm the layout of the AGI supplying Saltholme power station is acceptable.
- Check the optimum site location has been selected.
- Inform the size of land required for the AGI.
- Ensure the Applicant is acquiring the correct land parcel(s) and they are of the appropriate size.

2.1.7 With regard to the request under (iii), the 'Plant and Equipment' part of section 4.1.2 in the Energy Institute report titled 'Asset integrity in repurposing existing natural gas infrastructure for hydrogen' and dated November 2021, highlights that the hazardous zone (i.e. locations where a fire or explosion hazard exists due to flammable gases/vapours or flammable liquids) created by pure hydrogen is approximately 3.6 times greater in comparison to natural gas.

2.1.8 The request under (v) relates to the series of parallel pipelines to the south of Saltholme Substation. The Applicant is working in accordance with the Institution of Gas Engineers and Managers (IGEM) standard IGEM/TD/1:Edition 6 and clause 6.11.1 states:

'Where practical, new pipelines should be routed to avoid close proximity when running parallel with existing major accident hazard pipelines (see clause 4.1.2). Where this is impractical, construction of a new pipeline in parallel with an existing one is acceptable where a sufficient separation distance between the two pipelines can be maintained to limit the possibility of interaction and escalation in the event of a failure.'

2.1.9 The Applicant must have been using some separation distances or parameters in order to develop the proposal submitted.

2.1.10 An adverse impact on its operational assets could have far reaching ramifications to the area including to the local economy if there is a loss of supply from the substation and associated OHLs.

2.2 Venting of hydrogen

2.2.1 NGET is concerned about the proposed location of the AGI supplying Saltholme power station and its position relative to the two existing OHLs sited to the east of the AGI given that the electrical assets provide high probability ignition sources. As a responsible statutory undertaker, NGET must minimise the likelihood of a hazardous event escalating and ensure that the Applicant's proposals do not deviate from best industry practice.

2.2.2 It is unclear if the Applicant's proposed AGI incorporates any type of automatic relief valves or similar devices in its design which could operate unsupervised at any time and without any staff being present on the installation to monitor the situation on site and wind conditions to ensure safe operation.

- 2.2.3 NGET was unable to find any information on pipeline venting (assuming the hydrogen is vented and not flared) or on any dispersion analysis conducted in Document 6.4.8, titled “Appendix 8B: Air Quality - Operational Phase”, to demonstrate that the separation distances used from the two OHLs near to Saltholme power station are acceptable and any risks posed are ALARP in accordance with the Pipelines Safety Regulations (PSR) 1996. Concerningly, the wind roses included in “Appendix 8B: Air Quality - Operational Phase” could have the potential for the prevailing wind to disperse any hydrogen/air cloud towards the two OHLs.
- 2.2.4 It is noteworthy that during the meeting with the Applicant on 7 January 2025, NGET was advised that depending on the option adopted by the project, the diameter of the pipeline from Saltholme to Billingham could be larger than the 200 mm (8”) diameter specified in the “Pipelines Statement” [CR1-020] and confirmed that the design case being developed was for a larger 400 mm (16”) diameter pipeline.
- 2.2.5 Provision of a larger diameter pipeline has a greater inventory of hydrogen needing to be vented to atmosphere to facilitate intrusive pipeline works giving a larger dispersing hydrogen/air cloud and a greater potential for adverse impacts on NGET’s operational assets. Depressurisation of a larger diameter pipeline will generate noise for a longer duration during pipeline venting operations due to the greater hydrogen inventory and so will have a higher potential for disturbance on the locality.
- 2.2.6 It is unclear if the scenario of the hydrogen being vented igniting has been considered given hydrogen’s propensity to easily ignite and what the effects would be and extent of the thermal radiation generated.
- 2.2.7 H2Teesside is a First Of A Kind (FOAK) project in the UK and pipeline venting operations could be more frequent than on a natural gas pipeline. For example, there is limited experience globally on conducting welding and repair operations on operational (‘live’) hydrogen pipelines, similar to the operations used on operational natural gas pipeline systems, and procedures need to be developed and tested for hydrogen pipelines. So initially the Applicant’s pipeline would have to be depressurised to facilitate intrusive works requiring the venting of the hydrogen inventory to atmosphere. In accordance with the pipeline standard IGEM/TD/1:Edition 6, clause S12.10.5 in Supplement 2 of the standard states:

“Under-pressure (i.e., “hot tap”) operations shall not be carried out on pipelines operating in Hydrogen service unless proven to be suitable.”

2.3 OHL interaction with pipelines

- 2.3.1 The Applicant’s latest proposal now has two pipelines running in parallel to each other to the proposed location of the AGI supplying Saltholme power station and are routed in between two existing OHLs.
- 2.3.2 Pipelines running parallel to OHLs can experience possible interactions particularly with the pipeline corrosion protection arrangements and this situation has now been exacerbated.
- 2.3.3 Pipeline standards include rigorous mandatory requirements to avoid this (reference information included in NGET’s written submission of 20 December 2024 [REP5-064]), which can impact the level of corrosion experienced on the pipelines and in the worst case scenario lead to a release of hydrogen from the pipeline systems with associated impacts on the OHLs.

- 2.3.4 Expansion of the existing substation including the addition of new cabling systems could cause a greater impact on the pipelines corrosion protection systems and increase the risk of Alternating Corrosion (AC) corrosion.
- 2.3.5 Another aspect of this, is the possibility of any issues between the earthing systems on the substations or associated with the OHLs which could affect the pipeline corrosion protection systems.
- 2.3.6 Referring to the UK Onshore Pipeline Operators' Association (UKOPA) Good Practice Guide (GPG) UKOPA/GPG/027, titled 'AC Corrosion Guidelines' and dated October 2019. The Executive Summary states:
- "A.C. corrosion can occur in certain circumstances and if the a.c. interference risk is not managed. It can result in high rates of corrosion on cathodically protected pipelines affecting pipeline integrity even if the CP levels comply with published criteria."*
- 2.3.7 Section 3.1 goes onto state:
- "The electrical safety risk to pipeline personnel, sub-contractors working on a pipeline system and the general public, that arises if any contact is made to a pipeline or its above ground appurtenances, which include CP test cables, at the time that there are short term or also long-term a.c. voltages present."*
- 2.3.8 Section 7.2 is headed 'Route Selection' and states:
- "Consideration of the risks of a.c. interference should form an integral part of the route selection process for any new pipeline system. Wherever possible, pipelines should be routed as far as possible from overhead power lines. Thus, pipeline routes should be selected to avoid or minimize a.c. interference and an assessment of the a.c. interference risk included in the route selection process."*

2.4 Pipeline construction activities

- 2.4.1 Pipeline construction activities typically use some kind of lifting arrangements or craneage to either unload sections of pipe or equipment, lower pipe into a below ground trench etc.
- 2.4.2 NGET are concerned about lifting activities in close proximity to the two existing OHLs and the risk that a crane for example could damage an OHL or pylon when working underneath/nearby or a crane could touch an OHL conductor and cause an injury to the construction staff below. All lifting operations will need to be planned in detail and supervised by the Applicant's construction team.
- 2.4.3 The Applicant has not yet explained to NGET its proposed construction philosophy for working around the OHLs and what mitigation measures are being planned to ensure no damage is caused to existing operational electrical assets by the Applicant's construction activities.

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com

Appendix 2

Protective Provisions for the benefit of NGET

SCHEDULE 19

Article 41

PROTECTIVE PROVISIONS FOR THE PROTECTION OF NATIONAL GRID ELECTRICITY TRANSMISSION PLC AS ELECTRICITY UNDERTAKER

Application

1. For the protection of National Grid as referred to in this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and National Grid.

Interpretation

2. In this Schedule—

“acceptable credit provider” means a bank or financial institution with a credit rating that is not lower than: (i) “A-” if the rating is assigned by Standard & Poor’s Ratings Group or Fitch Ratings; and “A3” if the rating is assigned by Moody’s Investors Services Inc.;

“acceptable insurance” means general third party liability insurance effected and maintained by the undertaker with a combined property damage and bodily injury limit of indemnity of not less than £50,000,000.00 (fifty million pounds) per occurrence or series of occurrences arising out of one event. Such insurance shall be maintained for the duration of the construction period of the authorised works; and (b) after the construction period of the authorised works in respect of any use and maintenance of the authorised development by or on behalf of the undertaker which constitute specified works and arranged with an insurer whose security/credit rating meets the same requirements as an “acceptable credit provider”, such insurance shall include (without limitation):

(a) a waiver of subrogation and an indemnity to principal clause in favour of National Grid;

(b) pollution liability for third party property damage and third party bodily damage arising from any pollution/contamination event with a (sub)limit of indemnity of not less than £10,000,000.00 (ten million pounds) per occurrence or series of occurrences arising out of one event or £20,000,000.00 (twenty million pounds) in aggregate;

“acceptable security” means either—

(a) a bank bond or letter of credit from an acceptable credit provider in favour of National Grid to cover the undertaker’s liability to National Grid for an amount of not less than £10,000,000.00 (ten million pounds) per asset per event up to a total liability cap of £50,000,000.00 (fifty million pounds) (in a form reasonably satisfactory to National Grid); or

(b) such other evidence provided to NGET’s reasonable satisfaction that the undertaker has a tangible net worth of not less than £50,000,000 (fifty million pounds) (or an equivalent financial measure).

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of National Grid to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means any electric lines or electrical plant as defined in the 1989 Act, belonging to or maintained by National Grid; together with any replacement apparatus and such other apparatus whether or not constructed pursuant to the Order that becomes operational apparatus of National Grid for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;

“authorised works” has the same meaning as is given to the term “authorised development” in article 2(1) (interpretation) of this Order and includes any associated development authorised by the Order and for the purposes of this Schedule includes the use and maintenance of the authorised works and construction of any works authorised by this Schedule;

“commence ” and “commencement” has the same meaning as in article 2(1) (interpretation) of this Order except for the purposes of this Schedule only where it shall include any below ground surveys, monitoring, ground work operations or the receipt and erection of construction plant and equipment;

“deed of consent” means a deed of consent, crossing agreement, deed of variation or new deed of grant agreed between the parties acting reasonably in order to vary or replace existing easements, agreements, enactments and other such interests so as to secure land rights and interests as are necessary to carry out, maintain, operate and use the apparatus in a manner consistent with the terms of this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“Incentive Deduction” means any incentive deduction National Grid Electricity Transmission plc receives under its electricity transmission licence which is caused by an event on its transmission system that causes electricity not to be supplied to a demand customer and which arises as a result of the authorised works;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid; construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means National Grid Electricity Transmission Plc (Company Number 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH or any successor as a licence holder within the meaning of Part 1 of the 1989 Act;

“N²ESO” means as defined in the STC;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed;

“parent company” means a parent company of the undertaker acceptable to and which shall have been approved by National Grid acting reasonably;

“specified works” means any of the authorised works or activities undertaken in association with the authorised works which—

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise;
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; and/or
- (c) includes any of the activities that are referred to in development near overhead lines EN43-8 and HSE’s guidance note 6 “Avoidance of Danger from Overhead Lines”;

“STC” means the System Operator Transmission Owner Code prepared by the electricity Transmission Owners and NEMESO as modified from time to time;

“STC Claims” means any claim made under the STC against National Grid Electricity Transmission plc arising out of or in connection with the de-energisation (whereby no electricity can flow to or from the relevant system through the generator or interconnector’s equipment) of a generator or interconnector party solely as a result of the de-energisation of plant and apparatus forming part of National Grid Electricity Transmission plc’s transmission system which arises as a result of the authorised works;

“Transmission Owner” means as defined in the STC; and

“undertaker” means the undertaker as defined in article 2(1) of this Order.

On Street Apparatus

3. Except for paragraphs 4 (apparatus of National Grid in affected streets), 9 (retained apparatus: protection), 10 (expenses) and 11 (indemnity) of this Schedule which will apply in respect of the exercise of all or any powers under this Order affecting the rights and apparatus of National Grid, the other provisions of this Schedule do not apply to apparatus in respect of which the relations between the undertaker and National Grid are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

Apparatus of National Grid in affected streets

4.—(1) Where any street is stopped up under article 10 (power to alter layout etc. of streets), article 11 (street works), article 12 (construction and maintenance of new or altered means of access), if National Grid has any apparatus in the street or accessed via that street National Grid has the same rights in respect of that apparatus as it enjoyed immediately before the stopping up and the undertaker must grant to National Grid, or procure the granting to National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway but nothing in this paragraph affects any right of the undertaker or National Grid to require the removal of that apparatus under paragraph 7 or the power of the undertaker, subject to compliance with this sub-paragraph, to carry out works under paragraph 9.

(2) Notwithstanding the temporary closure or diversion of any highway under the powers of article 13 (temporary closure of streets and public rights of way), National Grid is at liberty at all times to take all necessary access across any such closed highway and to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the closure or diversion was in that highway.

Protective works to buildings

5. The undertaker, in the case of the powers conferred by article 19 (protective works to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of National Grid.

Acquisition of land

6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not (a) appropriate or acquire or take temporary possession of any land or apparatus or (b) appropriate, acquire, extinguish, interfere with or override any easement, other interest or right and/or apparatus of National Grid otherwise than by agreement.

(2) As a condition of an agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between National Grid and the undertaker) that is subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest

of National Grid or affect the provisions of any enactment or agreement regulating the relations between National Grid and the undertaker in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Grid reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between National Grid and the undertaker acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.

(3) Save where otherwise agreed in writing between National Grid and the undertaker, the undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus/including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid and/or other enactments relied upon by National Grid as of right or other use in relation to the apparatus, then the provisions in this Schedule shall prevail.

(4) Any agreement or consent granted by National Grid under paragraph 8 or any other paragraph of this Part of this Schedule, shall not be taken to constitute agreement under sub-paragraph (1).

Removal of apparatus

7.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in or possesses temporarily any land in which any apparatus is placed, that apparatus must not be removed under this Schedule and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5).

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), secure any necessary consents for the alternative apparatus and afford to National Grid to its satisfaction (taking into account paragraph 8(1) below) the necessary facilities and rights—

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid **must may, in its sole discretion**, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances to assist the undertaker to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid and the undertaker.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to a written diversion agreement having been entered into between the parties and the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph

(2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Schedule.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Schedule, the undertaker affords to or secures for National Grid facilities and rights in land for the construction, use, maintenance and protection of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless otherwise agreed by National Grid.

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject the matter may be referred to arbitration in accordance with paragraph 15 (arbitration) of this Schedule and the arbitrator must make such provision for the payment of compensation by the undertaker to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus: protection

9.—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to National Grid a plan of the works to be executed and seek from National Grid details of the underground extent of their electricity assets.

(2) In relation to works which will or may be situated on, over, under or within (i) 15 metres measured in any direction of any apparatus, or (ii) involve embankment works within 15 metres of any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;
- (f) any intended maintenance regimes;
- (g) an assessment of risks of rise of earth issues;
- (h) a ground monitoring scheme, where required;
- (i) how impressed voltages have been taken into account in the detailed design for the specified works;
- (j) a dispersion analysis covering all normal and abnormal pipeline operational scenarios in order to demonstrate that the separation distances between the specified works and the apparatus are acceptable and that any risks posed are As Low As Reasonably Practicable (“ALARP”);
- (k) how all hazardous areas generated by the specified works will be contained within the site security fencing;
- (l) a risk analysis covering full bore rupture and puncture releases showing the distances to the individual risk transects of 1×10^5 per year, 1×10^6 per year and 3×10^7 per year for the specified works in order to demonstrate that the risks posed are acceptable and are ALARP;

- (m) an analysis of the specified works located in the “Linkline corridor” running parallel to the existing third party above ground pipelines in order to determine the minimum separation distances required and the proposed mitigation measures to prevent escalation of a situation into a major emergency and to confirm the cumulative risk levels along the security fencing located to the south of the apparatus from all the above ground pipelines (existing and proposed) for the various failure scenarios are acceptable and are ALARP; and
- (n) evidence of the operations and maintenance philosophy for the specified works, detailing how those works will be commissioned, depressurised, purged and decommissioned.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must, in addition to the matters set out in sub-paragraph (2), include a method statement describing—

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
- (c) details of load bearing capacities of trenches;
- (d) details of any cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) a written management plan for high voltage hazard during construction and ongoing maintenance of any cable route;
- (f) written details of the operations and maintenance regime for any cable, including frequency and method of access;
- (g) assessment of earth rise potential if reasonably required by National Grid’s engineers; and
- (h) evidence that trench bearing capacity is to be designed to support overhead line construction traffic of up to and including 26 tonnes in weight.

(4) The undertaker must not commence any works to which sub-paragraphs (2) or (3) apply until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required under sub-paragraph (4)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (6) or (8); and
- (b) must not be unreasonably withheld.

(6) In relation to any work to which sub-paragraphs (2) or (3) apply, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage, for the provision of protective works or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works executed under sub-paragraphs (2) or (3) must be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraph (6), as approved or as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (6) or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid will be entitled to watch and inspect the execution of those works.

(8) Where National Grid requires any protective works to be carried out by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid’s satisfaction prior to the commencement of any specified works (or any relevant part thereof) for which protective works are required and National Grid shall give notice of its requirement for such works within 42 days of the date of submission of a plan pursuant to this paragraph (except in an emergency).

(9) If National Grid in accordance with sub-paragraphs (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3, 7 and 8 apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(10) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the works for which a plan has been submitted for specified works (or part thereof), a new plan for such works, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(11) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances and comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any works authorised under the Order, the undertaker must comply with National Grid's policies for development near overhead lines EN43-8 and HSE's guidance note 6 "Avoidance of Danger from Overhead Lines".

Expenses

10.—(1) Save where otherwise agreed in writing between National Grid and the undertaker and subject to the following provisions of this paragraph, the undertaker must pay to National Grid within 30 days of receipt of an itemised invoice or claim from National Grid all charges, costs and expenses reasonably anticipated within the following three months or reasonably and properly incurred by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new or alternative apparatus which may be required in consequence of the execution of any authorised works including without limitation—

- (a) any costs reasonably incurred by or compensation properly paid by National Grid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation all costs incurred by National Grid as a consequence of National Grid—
 - (i) using its own compulsory purchase powers to acquire any necessary rights under paragraph 7(3); or
 - (ii) exercising any compulsory purchase powers in the Order transferred to or benefitting National Grid;
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus, where no written diversion agreement is otherwise in place;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works; and
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Schedule.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or

- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with paragraph 15 to be necessary, then, if such placing involves cost in the construction of works under this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) will be reduced by the amount of that excess save to the extent that it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) Any amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

(6) Where reasonably anticipated charges, costs or expenses have been paid by the undertaker pursuant to sub-paragraph (1), if the actual charges, costs or expenses incurred by National Grid are less than the amount already paid by the undertaker National Grid will repay the difference to the undertaker as soon as reasonably practicable.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised works by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by it) in the course of carrying out such works, including without limitation works carried out by the undertaker under this Schedule or any subsidence resulting from any of these works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of the authorised works) or property of National Grid or there is any interruption in any service provided, or in the supply of any goods by National Grid, or National Grid becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand accompanied by an invoice or claim from National Grid the cost reasonably and properly incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party and including STC Claims or an Incentive Deduction other than arising from any default of National Grid.

(2) The fact that any act or thing may have been done by National Grid on behalf of the undertaker or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (1) unless National Grid fails to

carry out and execute the works properly with due care and attention and in a skilful and workmanlike manner or in a manner that does not accord with the approved plan.

- (3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—
- (a) any damage or interruption to the extent that it is attributable to the act, neglect or default of National Grid, its officers, servants, contractors or agents;
 - (b) any authorised works and/or any other works authorised by this Schedule carried out by National Grid as an assignee, transferee or lessee of the undertaker with the benefit of this Order pursuant to section 156 of the Planning Act 2008 or article 8 (consent to transfer benefit of the Order) subject to the proviso that once such works become apparatus (“new apparatus”), any authorised works yet to be executed and not falling within this subsection (b) will be subject to the full terms of this Schedule including this paragraph; and
 - (c) any indirect or consequential loss of any third party (including but not limited to loss of use, revenue, profit, contract, production, increased cost of working or business interruption) arising from any such damage or interruption, which is not reasonably foreseeable.

(4) National Grid must give the undertaker reasonable notice of any such third party claim or demand and no settlement, admission of liability, compromise or demand must, unless payment is required in connection with a statutory compensation scheme, be made without first consulting the undertaker and considering their representations.

(5) National Grid must, in respect of any matter covered by the indemnity given by the undertaker in this paragraph, at all times act reasonably and in the same manner as it would as if settling third party claims on its own behalf from its own funds.

(6) National Grid must use its reasonable endeavours to mitigate and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph applies where it is within National Grid’s reasonable ability and control to do so and which expressly excludes any obligation to mitigate liability arising from third parties which is outside of National Grid’s control and if reasonably requested to do so by the undertaker National Grid must provide an explanation of how the claim has been minimised, where relevant ~~or details to substantiate any cost or compensation claimed pursuant to sub-paragraph (1).~~

~~(7) Not to commence construction (and not to permit the commencement of such construction) of the authorised works on any land owned by National Grid or in respect of which National Grid has an easement or wayleave for is apparatus or any other interest to carry out any works within 15 metres of National Grid’s apparatus until the following conditions are satisfied—~~

- ~~(a) unless and until National Grid is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has first provided the acceptable security (and provided evidence that it shall maintain such acceptable security for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid has confirmed the same to the undertaker in writing; and~~
- ~~(b) unless and until National Grid is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has procured acceptable insurance (and provided evidence to National Grid that it shall maintain such acceptable insurance for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid has confirmed the same in writing to the undertaker.~~

~~(8) In the event that the undertaker fails to comply with sub-paragraph (7) of this Schedule, nothing in this Schedule shall prevent National Grid from seeking injunctive relief (or any other equitable remedy) in any court of competent jurisdiction.~~

Enactments and agreements

12. Save to the extent provided for to the contrary elsewhere in this Schedule or by agreement in writing between National Grid and the undertaker, nothing in this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in

respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Cooperation

13.—(1) Where in consequence of the proposed construction of any part of the authorised works, the undertaker or National Grid requires the removal of apparatus under paragraph 7(2) or National Grid makes requirements for the protection or alteration of apparatus under paragraph 9, the undertaker shall use its best endeavours to coordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised works and taking into account the need to ensure the safe and efficient operation of National Grid’s undertaking and National Grid shall use its best endeavours to cooperate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever National Grid’s consent, agreement or approval is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by the undertaker, it must not be unreasonably withheld or delayed.

Access

14. If in consequence of **the agreement reached in accordance with paragraph 6(1) or** the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

15. Save for differences or disputes arising under paragraphs 7(2), 7(4), 8(1) and 9 any difference or dispute arising between the undertaker and National Grid under this Schedule must, unless otherwise agreed in writing between the undertaker and National Grid, be determined by arbitration in accordance with article 46 (arbitration).

Notices

16. Notwithstanding article 45 (service of notices), any plans submitted to National Grid by the undertaker pursuant to paragraph 9 must be submitted using the LSBUD system (<https://lsbud.co.uk/>) or to such other address as National Grid may from time to time appoint instead for that purpose and notify to the undertaker in writing.

Appendix 3

Protective Provisions: Matters Not Agreed

Amendments which NGET is seeking are shown in red text and are highlighted yellow:

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
2	<p>"apparatus" means any electric lines or electrical plant as defined in the 1989 Act, belonging to or maintained by National Grid; together with any replacement apparatus and such other apparatus whether or not constructed pursuant to the Order that becomes operational apparatus of National Grid for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;</p>	<p>This particular amendment is made without prejudice to NGET's current objection to the draft Order.</p> <p>In the event that the Secretary of State is minded to grant development consent for the Applicant's current proposals, or in the event that the Applicant subsequently seeks to vary or amend the Order once made, this amendment is intended to ensure that the Protective Provisions will have effect in relation to all future apparatus which is required to be constructed or installed by NGET pursuant to its statutory duties.</p> <p>Its inclusion is considered necessary given the extent and strategic importance of those elements of NGET's statutory undertaking which fall within the current Order limits and the likelihood of future changes being made to the same.</p>
2	<p>"NESO" means as defined in the STC;</p> <p>"STC" means the System Operator Transmission Owner Code prepared by the electricity Transmission Owners and NESO as modified from time to time;</p>	<p>These are minor consequential amendments which are necessary in order to reflect the fact that functions of the National Grid Electricity System Operator (NGESO) have recently transferred to the National Energy System Operator (NESO).</p>
6	<p>Acquisition of land</p> <p>6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference</p>	<p>NGET's Relevant Representation [RR-024] and Written Representation [REP2-068] have both emphasised the importance of reinstating Paragraph 6 (Acquisition of land), noting that its inclusion within the Protective</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
	<p><i>to the Order, the undertaker may not (a) appropriate or acquire or take temporary possession of any land or apparatus or (b) appropriate, acquire, extinguish, interfere with or override any easement, other interest or right and/or apparatus of National Grid otherwise than by agreement.</i></p> <p><i>(2) As a condition of an agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between National Grid and the undertaker) that is subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement or other legal or land interest of National Grid or affect the provisions of any enactment or agreement regulating the relations between National Grid and the undertaker in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Grid reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between National Grid and the undertaker acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.</i></p> <p><i>(3) Save where otherwise agreed in writing between National Grid and the undertaker, the undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus/including but not limited to the payment of costs and expenses relating to such relocation</i></p>	<p>Provisions is of fundamental importance to allow the proper discharge of NGET's statutory duties and regulatory obligations.</p> <p>In particular, Paragraph 6 is intended to ensure that NGET is able to retain complete control over its apparatus and associated land rights in order to adequately protect, access and maintain its apparatus and to allow it to effectively discharge its obligations under its transmission licence.</p> <p>In the context of the proposed development, a failure to include Paragraph 6 would result in NGET's existing land rights being overridden, which is unacceptable given the critical strategic nature and importance of NGET's existing assets situated within the Order limits (as well within the wider region). The overriding of NGET's existing land rights would occur irrespective of the controls and measures which the Applicant refers to by way of mitigation in Paragraph 7.3 of [REP7A-016] (those other controls and measures within the Protective Provisions being intended to operate in parallel to Paragraph 6 in order to avoid serious detriment to NGET's statutory undertaking).</p> <p>To omit Paragraph 6 would run contrary to an extensive line of established precedent which supports the position adopted by NGET (and indeed other statutory undertakers) as to the need for a restriction on the actual exercise of powers of compulsory acquisition or temporary possession.</p> <p>Reference is made, by way of example, to equivalent provisions included for the benefit of NGET in Part 4 of Schedule 15 to The Mallard Pass Solar Farm Order 2024 (see Paragraph 38), in Part 3 of Schedule 10 to The HyNet Carbon Dioxide Pipeline Order 2024 (see Paragraph 20), in Part 6 of Schedule 12 to The Sunnica Energy Farm Order 2024 (see Paragraph 63), and in Part 6 of Schedule 13 to The Heckington Fen Solar Park Order 2025 (see Paragraph 61).</p> <p>Whilst not determinative, NGET notes from the Applicant's submissions at Deadline 7A that equivalent provisions are to be included within the draft Order for the benefit of other statutory undertakers.</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
	<p><i>and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid and/or other enactments relied upon by National Grid as of right or other use in relation to the apparatus, then the provisions in this Schedule shall prevail.</i></p> <p><i>(4) Any agreement or consent granted by National Grid under paragraph 8 or any other paragraph of this Part of this Schedule, shall not be taken to constitute agreement under sub-paragraph (1).</i></p>	<p>In overall terms, NGET considers that the continued omission of the procedural safeguards under Paragraph 6 would give rise to serious detriment in the context of the application of the statutory test under Section 127(6) of the Planning Act 2008.</p> <p>Noting the submissions which NGET has made in Paragraph 4 of this Written Submission (including in respect of the Applicant's failure to discharge the balance of proof in relation to Section 127(6)), it is vital that the Protective Provisions are secured in NGET's usual form (including Paragraph 6).</p>
7(3)	<p><i>(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must may, in its sole discretion, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances to assist the undertaker to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.</i></p>	<p>In outline terms, Paragraph 7 specifies the steps to be taken to secure the provision of alternative apparatus where NGET's existing apparatus is required to be removed as a consequence of the Authorised Development. Paragraph 7(2) places an absolute obligation on the Applicant to secure the consents, facilities and rights required in order for any alternative apparatus to be constructed and maintained. In that context, Paragraph 7(3) seeks to provide for cooperation between the Applicant and NGET in certain circumstances.</p> <p>However, NGET cannot be compelled to take such steps, regardless of the circumstances, and especially where to do so could or would place it in breach of its licence obligations or wider statutory duties. Any steps taken pursuant to Paragraph 7(3) must necessarily be at NGET's discretion.</p> <p>The amendment which NGET is seeking in respect of Paragraph 7(3) is well precedented. Reference is made, by way of example, to the identical wording included in Part 3 of Schedule 10 to The HyNet Carbon Dioxide Pipeline Order 2024 (see Paragraph 21(3)), in Part 4 of Schedule 15 to The Mallard Pass Solar Farm Order 2024 (see Paragraph 39(3)) and in Part 3 of Schedule 15 to The West Burton Solar Project Order 2025 (see Paragraph 24(3)).</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
		<p>NGET therefore disagrees with the Applicant's characterisation (in [REP7A-016]) that the inclusion of an absolute obligation in Paragraph 7(3) is a "standard" requirement in NGET's Protective Provisions. Further, and contrary to the Applicant's submissions, the drafting proposed to be included in other Schedules to the draft Order is of no relevance whatsoever in the context of the drafting of NGET's Protective Provisions.</p>
9(2)	<p><i>In relation to works which will or may be situated on, over, under or within (i) 15 metres measured in any direction of any apparatus, or (ii) involve embankment works within 15 metres of any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—</i></p> <p>....</p> <p>(h) a ground monitoring scheme, where required;</p>	<p>Given the increasing number of instances where NGET's transmission apparatus is installed below ground, it is important that there is proper consideration and assessment of the risk of impacts on that retained apparatus arising from any works or operations proposed to be undertaken as part of any proximate third party development.</p> <p>The inclusion of sub-paragraph (h) is intended to ensure that such assessment can be undertaken where circumstances dictate and is aligned with the existing drafting in Paragraph 9(1) (i.e. the requirement for the Applicant to seek details from NGET as to the extent of its underground assets) and with the corresponding defined terms in Paragraph 2 (which NGET understands are not disputed by the Applicant).</p> <p>The inclusion of sub-paragraph (h) is well precedented. Reference is made, by way of example, to the identical wording included in Part 3 of Schedule 10 to The HyNet Carbon Dioxide Pipeline Order 2024 (see Paragraph 23(2)), in Part 4 of Schedule 15 to The Mallard Pass Solar Farm Order 2024 (see Paragraph 41(2)) and in Part 3 of Schedule 15 to The West Burton Solar Project Order 2025 (see Paragraph 26(2)).</p>
9(2)	<p><i>In relation to works which will or may be situated on, over, under or within (i) 15 metres measured in any direction of any apparatus, or (ii) involve embankment works within 15 metres of any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—</i></p>	<p>As explained in Paragraph 3.14(d) of [REP7-049], and further to matters stated in Paragraphs 7.1, 7.2 and 7.3 of Part B of the Engineering Constraints Report [REPS-064] and restated in the Addendum to the Engineering Constraints Report (see Appendix 1 to this Written Submission), there are important matters associated with pipeline safety which the Applicant has so far failed to engage with.</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
	<p>....</p> <p>(i) written evidence demonstrating that impressed voltages have been taken into account in the detailed design for the specified works;</p> <p>(j) written dispersion analysis covering all normal and abnormal pipeline operational scenarios in order to demonstrate that the separation distances between the specified works and the apparatus are acceptable and that any risks posed are As Low As Reasonably Practicable ("ALARP");</p> <p>(k) written confirmation that all hazardous areas generated by the specified works are contained within the site security fencing;</p> <p>(l) written risk analysis covering full bore rupture and puncture releases showing the distances to the individual risk transects of 1 x 10-5 per year, 1 x 10-6 per year and 3 x 10-7 per year for the specified works in order to demonstrate that the risks posed are acceptable and are ALARP;</p> <p>(m) written analysis on the specified works located in the "Linkline corridor" running parallel to the existing third party above ground pipelines to determine the minimum separation distances required and the proposed mitigation measures to prevent escalation of a situation into a major emergency and to confirm the cumulative risk levels along the security fencing located to the south of the apparatus from all the above ground pipelines (existing and proposed) for the various failure scenarios are acceptable and are ALARP; and</p> <p>(n) written evidence of the operations and maintenance philosophy for the specified works, detailing how those works will be commissioned, depressurised, purged and decommissioned.</p>	<p>Recognising that certain aspects of the Applicant's proposals remain subject to detailed design and development, NGET considers that it is both appropriate and proportionate for further safeguards to be incorporated within Paragraph 9(2) of the Protective Provisions.</p> <p>It is considered that these safeguards will help minimise the potential for adverse impacts on NGET's operational assets, including in the event that the hydrogen pipeline installed between Saltholme and Billingham (if consented) is significantly larger than the 200mm (8") diameter pipeline specified in the Pipelines Statement [APP-035].</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
11(6)	<p>National Grid must use its reasonable endeavours to mitigate and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph applies where it is within National Grid's reasonable ability and control to do so and which expressly excludes any obligation to mitigate liability arising from third parties which is outside of National Grid's control and if reasonably requested to do so by the undertaker National Grid must provide an explanation of how the claim has been minimised, where relevant of details to substantiate any cost or compensation claimed pursuant to sub-paragraph (1).</p>	<p>NGET is concerned that the imposition by the Applicant of a requirement in Paragraph 11(6) for NGET to substantiate any cost or compensation claimed under the Paragraph 11 indemnity will, in effect, constitute a means through which the Applicant will attempt to cap its liability under that indemnity. (NGET is aware from other submissions already before the ExA that the Applicant has sought to introduce a capped indemnity opposite other affected statutory undertakers).</p> <p>Any attempt to limit the Applicant's liability under the indemnity would be wholly inappropriate and would run contrary to the well-established central principle that DCO promoters must bear the risk in respect of impacts to statutory undertakers' apparatus posed by the proposed development.</p> <p>The Applicant's proposed drafting is also unnecessary, given there is already a requirement within Paragraph 11(6) for NGET to use its reasonable endeavours to mitigate and to minimise any costs or expenses to which the indemnity applies.</p> <p>The precedent which the Applicant has referenced in [REP7A-016] is of very limited utility, for the reasons set out in Paragraph 3.5 of this Written Submission. Further, and contrary to the Applicant's submissions, the drafting proposed to be included in other Schedules to the draft Order is of no relevance whatsoever in the context of the drafting of NGET's Protective Provisions.</p>
11(7) and 11(8)	<p>(7) Not to commence construction (and not to permit the commencement of such construction) of the authorised works on any land owned by National Grid or in respect of which National Grid has an easement or wayleave for is apparatus or any other interest to carry out any works within 15 metres of National Grid's apparatus until the following conditions are satisfied—</p> <p>(a) unless and until National Grid is satisfied acting reasonably (but subject to all necessary regulatory constraints)</p>	<p>In the absence of a Side Agreement, there will be no requirement for the Applicant to provide any security and insurance for NGET's benefit prior to commencing any part of the authorised development on land belonging to NGET or in proximity to NGET's apparatus.</p> <p>It is standard practice for requirements of this nature to be put in place for statutory undertakers in these circumstances and the additional provisions which NGET is seeking in this context are aligned with those found elsewhere in existing Orders (see, for example, Part 3 of Schedule 10 to The HyNet Carbon Dioxide Pipeline Order 2024 (see Paragraphs 25(7) and (8)),</p>

Para.	Protective Provision Wording	NGET's Justification for Amendment Sought
	<p><i>that the undertaker has first provided the acceptable security (and provided evidence that it shall maintain such acceptable security for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid has confirmed the same to the undertaker in writing; and</i></p> <p><i>(b) unless and until National Grid is satisfied acting reasonably (but subject to all necessary regulatory constraints) that the undertaker has procured acceptable insurance (and provided evidence to National Grid that it shall maintain such acceptable insurance for the construction period of the authorised works from the proposed date of commencement of construction of the authorised works) and National Grid has confirmed the same in writing to the undertaker.</i></p> <p><i>(8) In the event that the undertaker fails to comply with sub-paragraph (7) of this Schedule, nothing in this Schedule shall prevent National Grid from seeking injunctive relief (or any other equitable remedy) in any court of competent jurisdiction.</i></p>	<p>Part 4 of Schedule 15 to The Mallard Pass Solar Farm Order 2024 (see Paragraphs 43 (7) and (8) and Part 3 of Schedule 15 to The West Burton Solar Project Order 2025 (see Paragraphs 28(7) and (8)).</p> <p>As noted in [REP7-049], given the nature, extent and strategic importance of NGET's electricity transmission assets situated within the Order limits, and the potential risks to its undertaking where works forming part of the proposed development are carried out in proximity to those assets, it is imperative that satisfactory forms of insurance and security are maintained by the Applicant, including to underpin the indemnity already included in Paragraph 11 of the Protective Provisions.</p> <p>For the avoidance of doubt, the justification for this amendment also captures the following additional defined terms included within Paragraph 2: "acceptable credit provider", "acceptable insurance" and "acceptable security". Those defined terms are again based on established precedent, save that an allowance has been made – on an entirely without prejudice basis and in the context of this project only – for the Applicant to provide an alternative form of "acceptable security".</p>
14	<p>14. <i>If in consequence of the agreement reached in accordance with paragraph 6(1) of the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.</i></p>	<p>This is a consequential amendment required as a result of the reinstatement of Paragraph 6 (Acquisition of land).</p> <p>Reference is again made, by way of example, to equivalent provisions included for the benefit of NGET in Part 4 of Schedule 15 to The Mallard Pass Solar Farm Order 2024 (see Paragraph 46) and in Part 3 of Schedule 10 to The HyNet Carbon Dioxide Pipeline Order 2024 (see Paragraph 28).</p>