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Dear Colleague,

Decision on the RIIO-T1 Pre-construction Engineering Outputs ("PE Outputs") for prospective Strategic Wider Works – Substitution of PE Outputs - National Grid Electricity Transmission plc

This letter sets out the decision of the Authority¹ on the Output Substitution ("OS") request from National Grid Electricity Transmission plc (the "Licensee") relating Pre-construction Engineering Outputs for prospective Strategic Wider Works ("SWW") scheme of the RIIO-ET1 price control period.

Having completed our review and assessment of the Licensee's submission, we are satisfied, based on the supporting evidence provided, that the estimate of the efficient costs of the alternative PE Outputs are reasonable. We are satisfied with the PE Outputs contained within Table 1 for the purposes of reporting for assessment under RIIO-ET1 closeout².

During the closeout process we will assess this information and consider whether the Licensee has delivered on their commitments and demonstrated that they have efficiently incurred expenditure to deliver consumer benefits. The outcome of our assessment will then be used to calculate the total value of the financial adjustment (if necessary) that is to be given effect through the Annual Iteration Process.

The remainder of this letter sets out the detail behind this decision.

¹ The terms "we", "us", "Ofgem" and "the Authority" are used interchangeably in this letter. The Authority is the Gas and Electricity Markets Authority. Ofgem is the Office of the Authority.

² Elements of the RIIO-ET1 price control need to be settled (or "closed out") once the price control has ended and information on the actual efficient costs incurred or revenue received is available.

RIIO-ET1 PE Outputs

Under the RIIO-ET1 price control framework, the Licensee was required to put forward a well-justified business plan setting out what it anticipates delivering during the price control period. We assessed this plan as part of the making of the price control settlement. In the Licensee's business plan for RIIO-ET2, they identified clusters of prospective transmission reinforcements in their 'best view' plan that it considered suitable for future consideration under the SWW arrangements for delivery during the RIIO-ET1 period.

Table 1: summarising the licensee's existing PE outputs

Transmission Owner ³	Proposed project	Key driver for investment
NGET, SHE Transmission, SPT (joint project)	Eastern subsea HVDC link	Increase in the north-south transfer capacity driven by the expected connection of large volume of onshore wind generation connecting in the north of Scotland in the period up to 2020 (including new offshore generation in the Firth of Forth).
NGET	Hinkley Seabank	Electricity transmission project to connect a new Hinkley Point C nuclear power station.
NGET	Generic	A category not associated with the development of any specific prospective SWW project. It is intended to reflect the dynamic nature of the SWW arrangements and the potential for schemes to reach sufficient maturity within the RIIO-ET1 period to require pre-construction activities and a route to funding.

In broad terms, the PE Outputs were focussed on the delivery of activities to include: routing, siting and optioneering studies, project design, environmental assessments, technical specifications for cost tenders, and planning consents. The total value of the allowed expenditure available to fund pre-construction activities is fixed and cannot be increased or reduced, but the outputs can be changed (and allowed expenditure reallocated) to reflect the dynamic nature of SWW projects. In the event of non-delivery, an adjustment to baseline expenditure would be made to reflect the full value of the funding provision.

May 2018 decision

The development of the Licensee's electricity transmission network has been impacted by several factors since the finalisation of the RIIO-ET1 settlement. In particular, changes to the generation outlook for offshore and onshore generators along with a changing background for delivery of transmission boundary upgrades altered the drivers that existed at the time of the RIIO-ET1 submission. This resulted in the Licensee re-evaluating its

³ There are currently three owners of onshore electricity transmission networks, each known as a "TO": National Grid Electricity Transmission (NGET), which owns the England and Wales transmission system; Scottish Power Transmission (SPT), which owns the network in the South of Scotland; and Scottish Hydro Electric Transmission (SHE Transmission), which owns the network in the North of Scotland.

approach to development of certain schemes and requiring additional works in the development of other schemes.

This led to the submission of a formal OS request in March 2018. The request covered:

- removal of a scheme where the associated pre-construction activity was no longer required (Wylfa - Pembroke HVDC).
- introduction of new outputs (Hinkley Seabank) and reallocation of a proportion of the allowed expenditure made available from step i; and
- creation of a new generic PE Output category that is not directly associated with a specific prospective SWW output and reallocation of the residual allowed expenditure from steps i and ii.

We approved the request in May 2018⁴. The revised PE Outputs and baseline expenditure following the OS are currently specified in Table 1.

Developments since May 2018

Eastern High Voltage Direct Current (EHVDC) link

The need case and scope of the EHVDC link project has changed since the start of RIIO-ET1. The investment required has changed significantly which has influenced the planning, timing, and level of spend incurred on pre-construction activities.

Early in the RIIO-ET1 period, updated analysis by the Electricity System Operator (ESO) and the three TOs indicated that the need for delivery was not certain, and that the technical solution identified ("bootstrap" 2GW HVDC link) was not the optimal one.

- CBA studies recommended that the bootstrap be deferred in favour of onshore reinforcement works.
- The annual Network Options Assessment (NOA) process has recommended the development of various different technical solutions.

In response to these emerging signals, the three TOs paused project development in 2014/15 to avoid unnecessary and inefficient further spend. In 2019, the annual NOA process recommended two HVDC projects: one from Peterhead to Drax (NOA code: E4D3) and one from Torness to Hawthorn Pit (NOA code: E2DC). In response to these signals, work recommenced on the project and an amended spend and activity profile was created

⁴ <https://www.ofgem.gov.uk/publications-and-updates/direction-modify-she-transmission-s-electricity-transmission-licence>

in preparation of constructing the new solutions and with a view to keeping the earliest in service date⁵. This included activity associated with marine surveys and planning consents. The change in scope and timing of activity has resulted in an overall decrease in the total pre-construction expenditure for the project relative to the Licensee's original forecast and the value of baseline allowance currently allocated.

The Licensee anticipates pre-construction expenditure in the RIIO-ET1 period of £5.027m (2009/10 price base).

Hinkley-Seabank (HSB) project⁶

The total allowed expenditure for the HSB project remains unchanged (£22.765m in 2009/10 price base).

North West Coast Connection (NWCC)

The NWCC was initiated in 2009 following a connection request for a 3.4GW nuclear power station at Moorside, in Cumbria. The technical solution identified two 400kV double circuits running from Moorside north to Harker and two double circuits south to Middleton. The northern connection was planned to be an overhead line and the southern connection was a combination of underground cable and overhead lines.

In 2016/17, in accordance with Section 42 of the Planning Act 2008 the NWCC project was in the process of consultation on the proposed connection and was progressing towards submitting a Develop Consent Order (DCO)⁷. In May 2017, the developer put the nuclear power station project on hold pending an internal strategic review. The Licensee explains that work was immediately paused on the NWCC project, other than a limited number of activities nearing completion that would have longer term relevance (e.g. ongoing environmental surveys were completed).

In November 2018, the developer terminated its connection contract with the Licensee. The Licensee confirms that all work on the NWCC project ceased at this point.

The OS request seeks to substitute a proportion of total fixed allowed expenditure (£18.212m in 2009/10 price base) to fund pre-construction activities on the NWCC project.

⁵ The earliest date when the project could be delivered and put into service if investment in the project was started immediately.

⁶ Appendix 3 sets out further background information on the methodology applied by the licensee in relation to the HSB project. We note that the costs incurred by the licensee will be the subject of a separate assessment process by Ofgem.

⁷ As part of the process of seeking a DCO, there is a requirement to carry out pre-application consultation with specified local authorities, prescribed consultees, and those with specified interests in affected land.

The request reflects the Licensee's expectation that, from a regulatory perspective, the scale of investment was considered suitable for future consideration under the SWW arrangements for delivery during the RIIO-ET1 period.

OS Request

The Licensee's request to reallocate allowed expenditure is comprised of three main elements:

- i. To reduce the value of allowed expenditure associated with the EHVDC link project.
- ii. to remove the generic PE Output category that is not directly associated with a specific prospective SWW output.
- iii. to allocate the residual amount of the fixed total of allowed expenditure (made available as a result of steps i and ii above) to a new PE Output to recover the costs of pre-construction activity undertaken during RIIO-ET1 to develop the scope of the NWCC project.

Each point is briefly discussed in turn below.

In relation to point i, pre-construction activities associated with the development of the EHVDC link project were included within the initial funding for the current price control period RIIO-ET1.

As noted in the previous section, the need case and scope of the EHVDC link project has changed substantially since the finalisation of the RIIO-ET1 settlement. The signal from the NOA assessment process remained at a hold position until 2018/19, when further work was initiated. An Initial Needs Case submission was subsequently made to Ofgem in October 2020⁸ from the three TOs for the EHVDC link project.

We have been assessing the need for the proposed project under our 'Large Onshore Transmission Investment' (LOTI)⁹ mechanism within our RIIO-ET2 price control arrangements. The LOTI mechanism has replaced the previous SWW arrangements for assessing large transmission projects deemed necessary during a price control.

⁸ Our consultation on the Initial Needs Case and the competitive options is available from our website: https://www.ofgem.gov.uk/system/files/docs/2021/05/ehvdc_inc_consultation_final.pdf.

⁹ Special Condition 3.13 of the Electricity Transmission Licence.

The activities considered necessary to the preparation of large-scale construction activities incurred during T1 are not included in the T2 baseline pre-construction funding or in the LOTI mechanism. Any adjustment to a Licensee's RIIO-ET2 allowed expenditure determined through the LOTI arrangements will not cover any pre-construction works.¹⁰

It is appropriate, therefore, for the Licensee to undertake activities in preparation of the construction of the EHVDC link project and for such activities to be considered under this OS request.

The Licensee proposes to reduce the allowed expenditure value for delivery of the PE Output to reflect the reduced scope and level of pre-construction activity. The proposed reduction to the original value of the EHVDC link PE Output is £14.083m.

In relation to point ii, the Licensee is seeking to remove the generic PE Output category that is not associated with the development of any specific prospective SWW project. This is in line with Ofgem's expectation as set out in the May 2018 Direction that the generic PE output category will be replaced with a named project.

The Licensee proposes the substitution of the original value of the generic PE Output (£4.129m in 2009/10 price base) to the delivery of a new PE Output.

In relation to point iii, pre-construction activities associated with the development of the NWCC project were not included within the initial funding for the RIIO-ET1 price control period. This is because there was uncertainty about the project's economic need, scope, and final costs. There was an expectation that the scale of investment would be considered suitable for future consideration under the SWW arrangements for delivery during the RIIO-ET1 period.

The Licensee proposes that the NWCC project development activities are captured under a new PE output category and the substitution of a proportion of the fixed total of allowed expenditure (made available as a result of steps i and ii above) to this output to create a baseline allowance of £18.212m (2009/10 price base).

The Licensee has applied the high-level principles agreed in the May 2018 substitution process to identify the appropriate split of pre-construction activities and construction activities applicable to the project. Appendix 3 set out further details of the agreed principles.

¹⁰ A separate RIIO-ET2 re-opener allows TOs to bring forward funding requests for pre-construction works for projects that may be brought forward through the LOTI re-opener, see Special Condition 3.15 of the Electricity Transmission Licence. The re-opener will only be used for projects which did not receive baseline funding or where costs are expected to be more than double the amount provided for in the baseline allowance.

The Licensee explains that the apportionment method for NWCC differs in application to that applied in May 2018 to the HSB project. The result is that the percentage allocations across cost categories for the NWCC project are different to that derived during the HSB exercise in support of the May 2018 OS request. The difference is driven by the stage of project development.

In the case of the HSB project the Licensee's DCO for the new circuit route was granted in January 2016. In undertaking this development work, the Licensee had undertaken pre-construction activities and incurred costs. Using the principles agreed in May 2018 the Licensee agreed that all pre-construction activity ceased by 31 March 2016. From 1 April 2016, the Licensee's business activity focus shifted to discharging the planning conditions and delivery of the project (construction). However, several activities supported the achievement of both pre-construction deliverables and construction project deliverables. A cost allocation was applied by the Licensee based on its knowledge of activities after the project had achieved consent and pre-construction spend had ceased.

The allocation process applied to the NWCC project reflects a different stage of project development (i.e. it was aborted without consent being reached). Although the principles applied are the same, the apportionment values vary from Hinkley as the method inherently means that the balance between construction and pre-construction varies over time based on the activities undertaken.

The assessment process

We allowed £46.004 million in the RIIO-ET1 price control for the Licensee to deliver engineering activities in preparation of constructing infrastructure projects expected to be considered under the SWW arrangements.

The Licensee raised an initial request in March 2020¹¹ to amend the details of the PE Outputs prescribed in the RIIO-ET1 licence through an OS request. The Licensee submitted that there had been a significant change in the future outlook for generation connections or demand requirements and that to deliver certain PE Outputs that were contained within in Table 1 of Special Condition 3L of their RIIO-ET1 licence was no longer economical and efficient

¹¹ Given the resource demands throughout the Draft and Final Determinations for RIIO-ET2 our assessment of the OS was postponed. A finalised OS request, taking into account the actual expenditure for the final year of RIIO-ET1 and responses received to further clarificatory data requests, was confirmed in June 2021.

Table 2 below summarises the key details of the OS request received from the Licensee, covering five categories:

- no change to the description or to the allocation of allowed expenditure.
- removal of the generic PE output category and replacement with a new PE output associated with activities required in the preparation of constructing a specific reinforcement project on the Licensee's system.
- establish a level of allowed expenditure associated with the delivery of the new PE output formed in step ii to reflect the value of costs incurred within the RIIO-ET1 period.
- identify the collective reduction in the actual level of pre-construction expenditure across four existing projects to deliver the PE Outputs relative to the level of allowed expenditure allocated in Table 1 SC 3L; and
- reallocation of the remaining proportion of the fixed allowed expenditure made available because of steps ii, iii and iv. The reallocation is spread across activities required in the delivery of PE outputs for three existing projects requiring additional expenditure.

Table 2: summarising the Licensee's OS request¹²

Driver	Current PE Outputs	Current allowed expenditure	Description of proposal	Proposed allowed expenditure	£m change
i.	Eastern HVDC link	£19.110m	No descriptive change. Allowed expenditure reduced and reallocated.	£5.027m	-14.083
ii.	Hinkley Seabank (HSB)	£22.765m	No change.	£22.765m	-
iii.	Prospective future SWW	£4.129m	Removed. Allowed expenditure reallocated.	-	-4.129
iv.	NWCC	-	New output. Allowed expenditure reallocated from steps i and iii.	£18.212m	+18.212
TOTAL		£46.004m		£46.004m	0

¹² All financial values are shown in the 2009/10 price base.

Ofgem decision

In assessing the Licensee's OS request we reviewed the notice and supporting material, as well as supplementary responses provided by the Licensee to our follow up queries. We examined the information provided in the OS request to confirm that the scope and quality of the information are appropriate. We also considered the costs of the main activities and/or deliverables involved in each project to get a break down of total pre-construction costs to ensure these are economical and efficient.

We relied on supporting information provided by the Licensee about the scope of tasks included in each activity to determine the specific costs incurred in relation to progressing only pre-construction works. We sought additional information in instances where the breakdown of common activity was not sufficiently explained.

On 1 April 2021, the Licensee's Electricity Transmission Licence was modified to implement the Licensee's RIIO-2 price control settlement ("RIIO-ET2"). As such, we have conducted this assessment in accordance with the legacy terms of the Licensee's RIIO-ET1 licence¹³.

Special Condition 3L of the Licensee's RIIO-ET1 licence¹⁴ provided for the circumstances where an OS would have effect (Part B) and the assessment procedure for the Authority in assessing the OS request.

We have assessed the OS request in accordance with Part B and Part C of Special Condition 3L of Licensee's ET's RIIO-ET1 licence, as it was in force prior to 1 April 2021. Following this assessment, and based on the information provided, we are satisfied that OS request is justified as being economical and efficient.

Any impact of this decision on closeout will be consulted on as part of the statutory consultation on RIIO-ET1 closeout in due course.

In terms of the closeout process,

- we require the licensee to submit a report on any variance between actual costs and outputs and those specified in table 1 of this letter.

¹³ Electricity Transmission Licence granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 in force prior to 1 April 2021

¹⁴ Electricity Transmission Licence granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 in force prior to 1 April 2021

- in the event that the licensee does not deliver or only partially delivers one or more of the prescribed PE Outputs, the associated level of allowed expenditure will be further considered as part of the RIIO-ET1 close out process.
- we will set out the outcome of our assessment and adjust baseline expenditure to return any unspent allowance to consumers.

As the Licensee's RIIO-ET2 Licence will not be modified following this decision, this decision letter gives effect to our decision on the OS request from the Licensee relating to the PE Outputs for prospective SWW scheme of the RIIO-ET1 price control period.

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Steve McMahon,
Deputy Director, Networks
Duly authorised on behalf of the Authority

30 July 2021