

Decision

Bramford to Twinstead – Project Assessment

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Contact:	Large Transmission Project Delivery
Team:	Large Transmission Project Delivery
Email:	MajorProjects.LTPD@ofgem.gov.uk

This document confirms our decision on the Project Assessment (PA) of National Grid Electricity Transmission's (NGET) Bramford to Twinstead (BTNO) project, under the Accelerated Strategic Transmission Investment (ASTI) mechanism in the RIIO-3 Price Control Framework. In particular, it sets out our final decision on the efficient capital costs that we will allow NGET to recover for the delivery of this project.

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Executive summary

ASTI framework

The British Energy Security Strategy sets out the government's ambition to connect up to 50GW of offshore generation to the electricity network by 2030.¹ We identified that facilitating this ambition will require significant reinforcements to the onshore electricity transmission network and a change to the pre-existing regulatory framework in order to accelerate delivery of large projects.

As such, in December 2022 we published a decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework.² We set out the initial list of ASTI projects, our decision on exempting strategic projects from competition, the new process for assessing and funding ASTI projects and the range of measures we introduced to protect consumers against additional risks that changing the process brings.

Bramford to Twinstead (BTNO) is one of the projects that we included in the ASTI framework³ and it is being delivered by National Grid Electricity Transmission (NGET). BTNO is also included among the list of major projects to enable the government's Clean Power 2030 Action Plan.⁴

In January 2026 we published our consultation on BTNO following Project Assessment (PA).⁵

Summary of our decision on the PA

This document confirms our decision to provide NGET with a total funding allowance of £642.1 million⁶ (2024/25 prices) for NGET to deliver the project. This includes £541.6 million of direct costs as well as £100.6 million of indirect costs and risk.

¹ [British energy security strategy | GOV.UK](#)

² [Consultation on accelerating onshore electricity transmission investment | Ofgem](#)

³ [Decision on accelerating onshore electricity transmission investment | Ofgem](#).

⁴ [Clean Power 2030 Action Plan - GOV.UK](#)

⁵ [Bramford to Twinstead: Project Assessment | Ofgem](#)

⁶ Figures may not sum due to rounding.

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We will use the existing Cost and Output Adjusting Event (COAE) mechanism and utilise the new ASTI Uncertain Cost Re-opener⁷ (AUCR) in order to manage specific risks and areas of uncertainty for this project.

Lastly, we will implement a COAE materiality threshold of 5% (equivalent to a threshold of £32.1 million) specifically for this project.

⁷ We plan to consult upon the ASTI Uncertain Cost Re-opener as part of the wider updates to the ASTI Guidance and Submission Requirements Document later this year.

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1. Introduction

Section summary

This section provides an overview of BTNO and relevant background information.

Context

- 1.1 In December 2022, we published our decision on ASTI and included the BTNO project within the ASTI framework.⁸ Given this, the BTNO PA has been assessed under the ASTI framework. The framework is used to assess, fund and incentivise the accelerated delivery of large, strategic onshore transmission projects required to deliver the government's ambition to connect up to 50GW of offshore wind generation to the network by 2030.
- 1.2 The proposal for BTNO consists of:
- Reconfiguring the existing overhead line (OHL) infrastructure to remove Twinstead Tee and create a dedicated 400kV double circuit route between Bramford and Pelham. This will provide two electrical circuits
 - Construction of a new 400kV double circuit between Bramford and Twinstead to be called RB Route. This will comprise OHL and underground cable sections which will connect the existing 4YLA route close to Alphamstone in the Stour Valley
 - The new 400kV RB Route will require the construction of approximately 18km of new OHL and 11km of underground cable (UGC) between Bramford Substation and the existing 4YLA OHL route close to Alphamstone
 - Removal of 25km of 132kV OHL will be required to construct the new RB Route owned by UKPN (PCB Route east of the Twinstead Tee). Removal of UKPN's 132kV OHL will require construction of a new 400/132kV Grid Supply Point (GSP) Substation to maintain security of supply on UKPN's distribution network
 - Reconfiguration of the existing 4YLA route into an existing Bramford – Bulls Lodge circuit to be migrated from its current arrangement on the 4YLA route to the new RB route. The second circuit on the 4YLA route namely the Pelham – Braintree – Rayleigh main circuit which will be repurposed as the new Bramford – Braintree – Rayleigh circuit
 - Installation of two 200MVar Shunt Reactors (SHRs) at Bramford Substation on the circuit ends of the new RB Route to compensate for the capacitive effects of the underground cable sections.

⁸ [ASTI decision doc - Final Published.pdf](#)

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- 1.3 The project will play a crucial role in alleviating existing and future network constraints, supporting future power flows in East Anglia and enabling the connection of multiple contracted generation projects.
- 1.4 In January 2026, we published our minded-to consultation on the BTNO PA. Summary of this consultation is provided in Chapter 2 of this document.
- 1.5 This document covers our decision on the PA for BTNO under the ASTI framework.⁹

Related Publications

- [Bramford to Twinstead: Project Assessment | Ofgem](#)
- [Decision to modify the special licence conditions in the electricity transmission licences: Accelerated Strategic Transmission Investment | Ofgem](#)
- [Decision on accelerating onshore electricity transmission investment | Ofgem](#)

Decision-making stages

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Consultation open	Consultation closes (awaiting decision). Deadline for responses	Responses reviewed and published	Licence modification decision	Licence modifications come into effect
30/01/26	02/03/26	19/10/2026	Winter 2026	56 days after the licence modification decision

⁹ [Decision to modify the special licence conditions in the electricity transmission licences Accelerated Strategic Transmission Investment.pdf](#) (SpC 3.40, 3.41 and 4.9)

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2. Overview of our minded-to consultation and responses

Section summary

This section outlines the requested cost allowances for BTNO, as submitted by NGET. It sets out the key points of our January 2026 consultation, and an overview of the responses that we received to that consultation.

- 2.1 The total cost estimate for BTNO project is £729.03 million (2024/25 price base) which includes previously granted Baseline Funding Allowance (BFA) of £164.8 million during RIIO-T2 and an allowance of £26.24 million during RIIO-T1. Funding allowance requested under the PA is £702.8 million.
- 2.2 This current project allowance request for BTNO has changed from its indicative project cost estimate in 2022. Since then, maturity of project definition and a number of design changes including updates to Bramford substation design due to its interaction with other projects and future proofing, combined with inflationary factors, market tendered prices, progress with land and consents and a quantified risk assessment have contributed to the updated cost of £702.8 million in NGET's PA submission.

Direct construction costs

- 2.3 NGET requested £559.4 million to fund direct construction works for BTNO. The high-level scope of BTNO comprises 18km of overhead line (OHL), 11km of underground cables (UGC), a new GSP at Twinstead and an upgrade to Bramford substation.

Indirect costs and risk

- 2.4 NGET requested £143.3 million for indirect costs and a P70 level of confidence funding for the BTNO project. A P70 level of risk funding means funding to ensure that there is a 70% chance that the level of funding is sufficient or higher than required for the project based on the TO's probabilistic modelling of potential risk outcomes.
- 2.5 In line with the government guidance on community funds for transmission infrastructure,¹⁰ the BTNO project had community benefits cost set at £4.24 million.

¹⁰ [Community funds for transmission infrastructure \(accessible webpage\) - GOV.UK](#)

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- 2.6 NGET's submission states that it has committed to deliver a net gain of at least 10% or greater in environmental value (including biodiversity) on all its construction projects which is in line with new legislation for Town and Country Planning Act developments and for Nationally Significant Infrastructure Projects (NSIPs).¹¹ NGET applied for £8.14 million to deliver the 10% or greater environmental value Biodiversity Net Gain (BNG). The estimate used market rates for biodiversity units and was based around initial delivery plus 30 years of management and maintenance.

P70 level of confidence

- 2.7 NGET requested funding based on a P70 level of confidence for BTNO project. Ofgem's approach is to normally fund ASTI projects to a P50 level of confidence.
- 2.8 A project costed at the P50 confidence level means that 50% of estimates exceed the P50 estimate and 50% of estimates are less than the P50, with P50 classed as a middle estimate. A P70 level of funding exceeds a P50 level as a greater volume and value of risk will be funded up front under P70, with a correspondingly greater likelihood that the project will be delivered within that cost estimate, but corresponding risk that the funding may not be required.
- 2.9 For BTNO, the P50 level of funding submitted was [REDACTED] and P70 level of funding was [REDACTED].

Price Adjustment Mechanisms (PAMs)

- 2.10 A supply chain indexation PAM is a contractual mechanism for managing changes to the contract price post award. Costs are treated as pass-through and therefore not pre-determined but treated by an ex-post allowance adjustment, which is trued up on an annual basis based on indices.
- 2.11 NGET's submission stated it will utilise PAMs to adjust the target costs for each Engineering, Procurement and Construction (EPC) package using pre-agreed industry linked indices. The level of uncertainty associated with the commodity price and inflation movements could not be included in the PA costs.
- 2.12 NGET requested the use of a Cost Uncertainty Re-opener for PAMs-related costs for the project.

Cost and Output Adjusting Event (COAE)

- 2.13 Part E of SpC 3.21 provides for a COAE re-opener mechanism to adjust outputs and allowances in Appendix 1 to SpC 3.21 should there be a COAE, as defined in the licence.
- 2.14 NGET had taken an initial view in its submission that 5% was too high a threshold to breach for COAE and that it exposed the project to individual unfunded risks.

¹¹ [The Biodiversity Net Gain Statutory Instruments – explained – Environment](#)

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NGET therefore requested a COAE threshold of 3.6% which is equivalent to £25.3 million. However, during the engagement following its PA submission, NGET requested a revised COAE threshold of 4.6% (£32.3 million) instead of 3.6%.

Cost Uncertainty Funding Mechanism

2.15 To mitigate against unnecessary contingency costs, NGET suggested and requested four specific cost re-openers without a qualifying materiality threshold for i) Horizontal Directional Drilling (HDD) trenchless drilling, ii) PAMs for each EPC contract, iii) final costs associated with BNG and iv) final costs associated with EPC works required at Bramford substation. NGET's justification for suggesting these Re-openers is detailed in paragraph 2.24 of our consultation.

Our minded-to consultation position

2.16 In January 2026, we presented our minded-to position to allow £642.1 million of costs against the total requested project allowance of £702.8 million for the overall delivery of BTNO, risk funding at P50 level of confidence and to maintain the COAE threshold at 5%. Out of the total reduction of £60.6 million, £26.1 million was proposed to be subjected to disallowance while the remaining deferred amount of £34.5 million could be funded through alternative regulatory routes outside the PA funding allowance, subject to Ofgem's assessment of whether the costs are necessary, sufficiently evidenced and efficient.

Direct costs

Bramford substation

2.17 NGET's PA submission included a £76.8 million cost estimate for Bramford substation, based on assumptions at the time of submission. NGET indicated that the final contract award price was expected to exceed this estimate due to design changes and market conditions.

2.18 We were minded to providing an allowance of £72.4 million for Bramford substation at PA stage and subjecting the final cost for Bramford substation to the new ASTI Uncertain Cost Re-opener. Any submission in this regard would be expected to demonstrate cost control, procurement efficiency and compliance with the ASTI Guidance. We reserved the option of utilising an independent review to support our assurance of costs and processes if a re-opener for the additional cost is requested.

EPC costs

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- 2.19 NGET included an upfront pain / gain cost of [REDACTED] associated with projected overspends under NEC4 Option C contracts¹² for BTNO, treating this as a fixed cost despite the works being ongoing and any overspend only being determinable at project completion.
- 2.20 We did not consider it appropriate to fund anticipated pain / gain costs not yet incurred and proposed removing the [REDACTED] from the requested EPC costs.
- 2.21 NGET also requested £0.13 million for storage of OHL metalwork, which it has since confirmed is no longer required.
- 2.22 Our minded-to position was to remove £10.7 million of requested EPC costs associated with Bramford substation contractor fee reduction, pain / gain share and storage costs.

Community Benefits

- 2.23 NGET included £4.24 million for community benefits funding within its PA submission. Under RIIO-ET3, eligible community benefit costs can be recovered through the Community Benefit Funding Pass-through mechanism.
- 2.24 Our minded-to position was therefore to remove £4.24 million of community benefits funding from the PA allowance.

BNG

- 2.25 NGET requested funding for BNG costs, including 30 years of management and maintenance. We did not consider it appropriate to fund whole-lifecycle BNG costs upfront at PA stage, particularly where costs remain immature and highly uncertain. We considered these costs would be better managed through alternative regulatory routes, including the ASTI Uncertain Cost Re-opener or future price controls, depending on the nature of the solution.
- 2.26 Our minded-to position was to remove £2.9 million of the requested long-term BNG management and maintenance costs.

Indirect costs and risk

- 2.27 Indirect costs for BTNO include categories such as project management costs including personnel cost, engineering, specialist support, external relations and ASTI overhead costs.

Personnel costs

¹² The NEC4 Engineering and Construction Contract (ECC) Option C is the target cost main works contract with an activity schedule. It can include any level of design, and is ideal for more complex or larger projects where the client and contractor are willing to share project financial risk in a fully collaborative way ([NEC4: Engineering and Construction Contract Option C | Products | NEC Contracts](#))

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- 2.28 NGET requested £54 million for personnel costs for BTNO project management. Our minded-to position was to reduce NGET's personnel cost by £13.1 million. This reflects the fact that BTNO's personnel costs accounted for a higher proportion of direct EPC costs than other comparable ASTI projects and were reduced to align with the median of those values.
- 2.29 We also proposed to remove £21.1 million of the ASTI Overhead costs as further work was in progress with NGET to improve our understanding of this request and identification of an appropriate regulatory route for funding this allowance.

P70 level of confidence

- 2.30 NGET requested risk funding at a P70 level of confidence. Ofgem has been clear that ASTI projects should normally be funded at P50, which we consider provides an efficient balance between incentives, risk management and consumer protection. Our review of the project risk profile indicated that BTNO can proceed at a P50 level of confidence.
- 2.31 Our minded-to position was to reduce the risk allowance by £8.5 million, aligning the project with P50 funding.

PAMs

- 2.32 NGET requested symmetric PAM costs to be allowed through a re-opener in order to prevent excessive allowances or shortfalls. NGET proposed managing commodity price risk through a 0% materiality threshold re-opener.
- 2.33 Consistent with our approach on other ASTI projects, we considered that PAM-related uncertainty should instead be managed through the new ASTI Uncertain Cost Re-opener, allowing efficient incurred costs to be assessed and adjusted up or down. Our minded-to position was therefore to subject PAM-related costs for BTNO to the new ASTI Uncertain Cost Re-opener mechanism.

COAE

- 2.34 NGET proposed a COAE threshold of 4.6%, equivalent to £32.3 million. We were minded to retain the COAE threshold at 5%, equivalent to £32.1 million in line with our minded-to allowance.

HDD Trenchless Drilling Re-opener

- 2.35 NGET requested a Cost Uncertainty Re-opener for HDD trenchless drilling due to geological and delivery risks. Based on supporting information provided by NGET at PA submission, our minded-to position was to disallow the requested re-opener for HDD trenchless drilling. However, we were willing to consider any additional evidence presented by NGET to support its request for a re-opener as part of its response to our consultation.

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The minded-to consultation questions

2.36 We asked for stakeholder views on our minded-to position and feedback on the below questions:

- Q1. Do you agree with our minded-to position on direct costs for BTNO?
- Q2. Do you agree with our minded-to position on non-EPC costs and indirect costs for BTNO?
- Q3. Do you agree with our minded-to position in relation to risk funding for BTNO? If not, could you provide more information on how best to appropriately balance the risk between consumers and the TOs, while incentivising risks to be managed to a level as low as practicable?
- Q4. Do you agree with our minded-to position on the requested 0% materiality threshold re-opener mechanism for BTNO?
- Q5. Do you agree with our minded-to position on the COAE threshold adjustment for BTNO?

Summary of responses to our minded-to consultation

2.37 We received 3 responses to our minded-to consultation on BTNO. We have published non-confidential responses alongside this decision.¹³

Direct costs

- 2.38 Respondents were generally supportive of Ofgem’s minded-to position on direct construction costs. NGET broadly agreed with the disallowance of storage costs relating to OHL metalworks and anticipated pain / gain costs. NGET also welcomed the availability of a re-opener for determining final allowance for Bramford substation and confirmed that detailed evidence would be submitted in support of any future request.
- 2.39 A respondent raised concerns regarding Ofgem’s minded-to position on the treatment of pain / gain share under the target cost (NEC ECC Option C) contracts, noting increasing reliance on such models where suppliers are unwilling to accept fixed-price risk. The respondent highlighted differences in how pain / gain costs under target cost contracts have been treated across decisions and was of the view that TOs require access to an appropriate regulatory mechanism to recover pain / gain costs where these are not funded upfront.

Community Benefits

¹³ [Bramford to Twinstead: Project Assessment | Ofgem](#)

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- 2.40 NGET agreed with Ofgem’s minded-to position to remove community benefits funding from the PA allowance and to recover eligible costs through the RIIO-ET3 Community Benefits pass-through mechanism, while requesting that an alternative recovery route be made available should this mechanism change in future. It also highlighted that community benefits funding cost had been updated to £4.54 million in line with latest policy and legislation.

Biodiversity Net Gain (BNG)

- 2.41 NGET agreed with Ofgem’s proposal to limit BNG funding to one year beyond project delivery and to recover longer-term costs through an uncertainty mechanism. In case the re-opener mechanism was not made available for BNG cost recovery, NGET requested for an alternative route to be made available for this purpose if required. Another TO also commented on this issue, questioning whether limiting funding to one year provides a sufficiently holistic assessment of project value at PA stage. It suggested either funding several years of post-delivery costs through the PA determination, or extending the Uncertain Cost Re-Opener beyond ASTI to cover ongoing environmental maintenance, expressing a preference for the former to reduce regulatory burden.

Personnel costs

- 2.42 In relation to personnel costs, NGET disagreed with the proposed reduction and requested that Ofgem revisit its assessment of the proposed reduction, citing additional justification included within its consultation response.

ASTI overheads

- 2.43 NGET agreed in principle with the RIIO-ET3 approach to funding ASTI overheads through the ASTI PA process, but raised concerns if these costs were to be recovered through an ex-post uncertainty mechanism. NGET considered such costs to be more akin to ex-ante baseline funding. Another TO did not comment on ASTI overheads specifically but raised related concerns around the treatment of ongoing project costs beyond construction.

HDD Re-opener and COAE threshold

- 2.44 NGET welcomed our minded-to position on HDD and the opportunity to provide further evidence. While reaffirming its view that a cost and efficiency challenge is appropriate, NGET argued that the current proposal of applying a 5% ASTI COAE threshold would expose the company to disproportionate risk if HDD-specific execution risks materialise. NGET highlighted that under a 5% COAE threshold, it could be required to absorb material costs before accessing regulatory protection, even where reverting to a higher-cost alternative such as micro-tunnelling would not breach the threshold.
- 2.45 NGET stated that a HDD-specific COAE threshold of no more than 1% would strike an appropriate balance by maintaining incentives for efficient delivery while

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avoiding undue penalisation for selecting a technically challenging but consumer-beneficial solution. Absent such protection, NGET stated that it would need to revisit the HDD risk allowance, potentially increasing costs to consumers. NGET considers that a $\leq 1\%$ threshold would provide regulatory balance, support efficient decision-making, and set a positive precedent for the adoption of delivery methods that prioritise consumer outcomes over risk minimisation.

- 2.46 A TO suggested following the wider price control practice and flexibilities allowed under ASTI guidance when responding to Ofgem's view on a standard 5% COAE materiality threshold across ASTI projects. It argued that COAE thresholds should be calibrated on a project-by-project basis, taking account of ex-ante risk funding levels and other mitigations to ensure an appropriate balance of risk between consumers and TOs for ASTI-scale projects.

ASTI risk and contingency funding – P50 position

- 2.47 While respondents acknowledged Ofgem's objective of balancing risk and cost control, they raised concerns about whether a P50 benchmark adequately reflects the risk characteristics of large, complex transmission projects delivered under the ASTI framework.
- 2.48 NGET continued to emphasise the importance of a P70 approach, noting that, in its view, funding at this level could constrain incentives for TOs to pursue innovative or higher-risk delivery solutions that may enable acceleration and help mitigate wider constraint costs borne by consumers. NGET also highlighted interdependency and portfolio-level risks across ASTI projects that may not be fully reflected in project-specific Quantitative Cost Risk Analysis (QCRA). It raised concerns that mitigation actions may be less effective or efficient where funding is set at too low a confidence level. NGET's response likewise supported the use of QCRA triangulation with Reference Class Forecasting (RCF) to improve risk estimation.
- 2.49 As a way forward, NGET proposed to use P-mean of an updated QCRA for risk funding of BTNO project as in its view, funding at the expected value (P-mean) including correction for unknown risks constituted a fair approach.
- 2.50 A respondent highlighted that a judgement-based approach to set a P50 for all projects does not provide an accurate view of the TO's risk exposure. It introduces a much wider range of potential downside and does not allow for systemic portfolio-level risks or the exposure arising from interface risks and dependencies.
- 2.51 Another respondent also noted that applying a standard confidence level across projects may leave TOs exposed to unquantified portfolio-level risks, particularly low-probability, high-impact events. It further observed that mechanisms designed to incentivise efficiency, such as the Totex Incentive Mechanism (TIM), may not be well suited to addressing broader portfolio risk and should not be relied upon as a substitute for robust risk forecasting.

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3. Our Decision

Section summary

This section sets out our decision, including any key changes from what was proposed in the consultation, following consideration of consultation responses.

Our view

- 3.1 This section sets out our views on the points raised by NGET and other respondents in their consultation responses and how these informed our final decision. It also covers our decision regarding the cost allowances for BTNO. In reaching our decision, we have considered the provisions available under the ASTI framework as well as project-specific context, such as its scale and complexity.

Direct costs

- 3.2 Consistent with our minded-to position, we have decided to remove £17.9 million of requested costs derived from the contractor fee reduction for Bramford substation [REDACTED], upfront cost for pain / gain share [REDACTED], storage costs (£0.13 million), Community Benefits funding costs (£4.24 million) and BNG costs (£2.9 million), and to allow the direct costs of £541.6 million for the project.

Pain / gain cost

- 3.3 Pain / gain share has been identified as a “Fixed Cost” by NGET despite the fact that the works are ongoing and it is not clear that any overspend will be incurred. The pain / gain position is 50 / 50, capped at 110% of each contract’s value. This amount is not currently due and any overspend would only be calculated at project completion where NGET and the contractor would look at any allocation of costs. This arrangement ensures both NGET and its contractor face a shared incentive to ensure risks are managed efficiently and costs minimised.
- 3.4 Therefore, the upfront cost forecast for pain / gain share cannot be substantiated at this time and NGET can recover an appropriate share of any applicable costs, should they materialise, through the sharing factor under TIM subject to the applicable requirements.

Bramford Substation

- 3.5 We have decided to subject the final cost of Bramford substation to the new ASTI Uncertain Cost Re-opener, guidance for which will be consulted upon later this year. In its response to our minded-to consultation, NGET has stated that it will aim to provide robust and transparent evidence to support any cost variations, demonstrating the underpinning drivers and the steps taken to ensure that expenditure remains prudent, efficient and aligned with delivering value for consumers.

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- 3.6 We will scrutinise NGET's submission under the ASTI Uncertain Cost Re-opener in depth and reserve the option of utilising an independent review to support our assurance of costs and processes.
- 3.7 Although NGET did not provide any further information related to Bramford substation works as part of its consultation response, we would expect any future submission to provide robust justification of the drivers of any cost increase with a clear demonstration of how costs have been controlled to a level as low as practicable throughout the development, design and procurement of the Bramford substation works. It should also set out the specific changes in clear detail, both in terms of costs and activities on site as compared to the assumptions behind the original £76.8 million estimate. In particular, we would require a compelling case for NGET's strategic decision making in ensuring the competitiveness and efficiency of the procurement process to demonstrate the efficiency of any submitted costs.
- 3.8 Any submission should clearly and fully comply with the requirements set out in our ASTI Guidance and any associated guidance on first submission.

Community Benefits

- 3.9 Our minded-to position was to remove £4.24 million of community benefits funding from the funding awarded through this PA, in view of the route available for NGET to recover eligible costs related to community benefits funding through the RIIO-ET3 Community Benefit Funding Pass-through mechanism. However, NGET has shared the updated costs for community benefits funding amounting to £4.54 million in line with the latest government policy and legislation.¹⁴ Since the community benefits funding is to be dealt with outside the PA process as a pass-through cost, NGET did not change / update this number in the cost model.
- 3.10 We have therefore decided to remove £4.24 million of community benefits funding from this PA allowance. NGET will be able to recover the eligible cost through the RIIO-ET3 Community Benefit Funding Pass-through mechanism.

Biodiversity Net Gain (BNG)

- 3.11 We have decided to remove £2.9 million out of the 30-year management and maintenance costs of BNG and to allow NGET to recover costs incurred complying with BNG legislation through the new ASTI Uncertain Cost Re-opener. Where NGET considers it best to transfer lifetime obligations to 3rd parties we will review on a case-by-case basis under the new Re-opener. Where we agree it is best to transfer the obligations the efficient costs will be recoverable.
- 3.12 Where BNG solutions involve ongoing operational costs over 30 years, we will consider funding for efficient cost incurred in this process beyond the first year through future price controls. Any funding will be determined in accordance with

¹⁴ [Community funds for transmission infrastructure \(accessible webpage\) - GOV.UK](#)

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the applicable price-control framework and will remain subject to Ofgem's assessment of whether the costs are necessary, sufficiently evidenced and efficient.

Indirect Costs

Personnel Costs

- 3.13 In our minded-to consultation, we proposed to reduce NGET's requested personnel costs by £13.1 million. We identified that BTNO's owner-side project management and personnel costs were high relative to direct construction costs and required stronger project-specific substantiation.
- 3.14 NGET argued that BTNO requires a substantial owner-side team because of the project's scale, accelerated programme, multiple work packages, NEC4 contract management, Development Consent Order (DCO) obligations, environmental and land requirements, and stakeholder and technical interfaces. NGET also argued that BTNO compares favourably with other ASTI projects when internal and external resources are assessed consistently.
- 3.15 Comparing NGET's personnel costs as a proportion of total direct EPC costs, we have benchmarked BTNO against other recent comparable ASTI projects. Our benchmarking identified NGET's personnel costs for BTNO to be higher compared with other NGET ASTI projects being delivered currently. This benchmarking guided our assessment by highlighting these costs as a concern. To further aid our analysis for setting an efficient allowance for personnel costs, we expect appropriately granular information / first principles build up indicating the basis and logic for resource and costs to be provided in support of allowance requests, which we found lacking for BTNO in the first instance.
- 3.16 As part of our further analysis, we have considered NGET's consultation response, subsequent resource explanations, revised cost model and comparisons with other ASTI projects. This evidence provides a clearer explanation of why a number of project functions are required. It does not, however, demonstrate that the full number, duration, timing and cost of the resources included in NGET's forecast are economic and efficient.
- 3.17 NGET also relied on six external sources to support its requested allowance by benchmarking against the data reported in these sources. We have reviewed the underlying material and given it limited weight. The sources used different project scales, definitions and cost boundaries. Some figures attributed to the sources were not reported in them, and some combined owner-side, contractor, engineering or wider developer costs. The sources therefore did not provide reliable like-for-like validation of BTNO's client-side personnel costs. We identified potential reductions of c. £19.4 million in our expert review of NGET preliminaries, largely concerning roles which appeared potentially overlapping or insufficiently justified against the project's delivery and risk profile.

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- 3.18 NGET's own cost-transparency appendix submitted alongside the BTNO PA demonstrates its recognition that robust assessment of project management resources requires granular information on roles, responsibilities, hours, rates and monthly resource profiles. These principles are relevant to whether NGET's own personnel forecast is transparent and auditable. NGET provided role descriptions, rates, monthly allocations and further narrative, but did not provide a complete resource build-up fully linking each role to identifiable workload, deliverables, work packages, project milestones, effort and duration, which we would generally expect to be available as the basis for submitted costs.
- 3.19 NGET also asserted that there was no duplication between project personnel, contractor functions and ASTI portfolio overheads. However, it did not provide a sufficiently complete reconciliation of the respective role inventories, responsibilities and funding routes for Ofgem independently to verify that conclusion. The additional evidence improved the explanation of why categories of resource were needed, but did not clearly establish the efficient amount or resolve potential overlap between project, contractor and portfolio functions.
- 3.20 Our scrutiny pointed to material inconsistencies contained in the cost model evidence in terms of the total staffing resource, the corresponding staff days allocation and cost build up. These inconsistencies remained throughout the various iterations of the cost model submissions. NGET however reduced its personnel-cost forecast from £48.9 million to £46.8 million, excluding pre-construction costs. NGET attributed the reduced forecast to efficient use of non-personnel alternatives.
- 3.21 We considered NGET's explanation related to cost model inconsistencies. However, the later cost models did not reproduce a stable historical position and NGET did not provide a complete role-by-role reconciliation of the changes. This limited the weight that we could place on the cost model as evidence of the full efficient allowance.
- 3.22 Having considered the evidence in the round, we have decided to maintain the £13.1 million reduction proposed in our minded-to consultation. In reaching this decision, we have taken account of our ASTI benchmarking, the wider potential adjustment identified through the external technical review, the scale of the overall project management burden, the limitations in NGET's external benchmarking, and the absence of a sufficiently complete and reconciled project-specific resource build-up, including evidence resolving potential overlap.
- 3.23 The resulting allowance represents the level of personnel cost that we consider sufficiently supported as economic and efficient on the evidence available. It provides substantial funding for NGET to maintain an appropriately skilled owner-side team, while protecting consumers from costs that have not been substantiated.

ASTI Overheads

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3.24 We have decided to remove 21.1 million of the ASTI Overhead costs from the BTNO PA funding allowance. These are part of the proposed costs for NGET's Strategic Investment overheads, a central cost hub set up to enable the delivery of the ASTI portfolio. As per our RIIO-ET3 Final Determination,¹⁵ these portfolio-level overhead costs will be assessed through the ASTI route discussions for which are underway with NGET.

HDD Trenchless Drilling and COAE Threshold

3.25 Following our minded-to consultation, we have decided to retain BTNO's project-wide COAE threshold at 5% and to provide NGET with access to a targeted re-opener for the defined HDD uncertainty under the new ASTI Uncertain Cost Re-opener mechanism. We have decided to set a materiality threshold of £6.4 million (2024/25 price base) to trigger this re-opener.

3.26 NGET selected HDD as the proposed method for a number of sensitive crossings because it considered this to be lower cost, quicker and less disruptive than the available alternatives. However, NGET has identified a risk that site conditions may mean that continuing with the approved HDD solution is no longer reasonably practicable and that a materially different, higher-cost construction method is required.

3.27 Based on the additional information provided by NGET following our consultation, we recognise that this may be a genuine project-specific uncertainty. We also consider that the project-wide 5% COAE threshold, equivalent to £32.1 million, may not provide an effective route for this particular event because the efficient additional cost of an alternative method could be material without reaching that threshold. Therefore, as set out above, we have set the materiality threshold for use of the HDD re-opener to £6.4 million (2024/25 price base), as requested by NGET.

3.28 We do not, however, consider that NGET has demonstrated a case for lowering the COAE threshold for the project as a whole or for providing HDD protection without a materiality threshold.

3.29 The targeted re-opener therefore provides a proportionate route for defined HDD fallback plan costs if they arise, while preserving NGET's incentive to manage the works and associated risks efficiently. It also avoids funding the full potential cost of an alternative construction method in advance where that cost may never arise.

Eligibility and assessment

3.30 The efficient additional costs of deploying alternative technical solutions, where the planned HDD solution is demonstrated to be infeasible may be considered under the ASTI Uncertain Cost Re-opener. This decision identifies the scope

¹⁵ [RIIO-3-Final-Determinations-ET.pdf](#)

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within which NGET may make an application. It does not create an entitlement to an allowance, approve NGET's submitted fallback plan cost estimate, or predetermine the outcome of any future assessment.

- 3.31 The detailed requirements governing the timing, form, evidence and assessment of any application will be set out in the applicable licence provisions and the revised ASTI Guidance and Submission Requirements Document. The introduction and detailed operation of the ASTI Uncertain Cost Re-opener remain subject to the relevant consultation and decision processes.
- 3.32 In assessing any application relating to the BTNO HDD uncertain cost area, Ofgem will consider the evidence available at that time and may take account of all matters it considers relevant, including:
1. whether continuing with the approved HDD solution at the relevant crossing is no longer reasonably practicable
 2. whether the proposed alternative and the associated costs are economic and efficient, with increases offset by any savings where a lower cost alternative is feasible elsewhere on the project
 3. whether the costs claimed are incremental to, and not otherwise funded or recoverable through, existing allowances and risk contingency, contractual arrangements, insurance, third-party recovery or another regulatory mechanism
 4. the actions taken by NGET to avoid, mitigate or reduce additional costs, including its use of relevant contractual rights and remedies; and
 5. any other requirements or considerations arising under the applicable licence provisions and ASTI Guidance.
- 3.33 Routine HDD delivery difficulties, ordinary productivity losses, general cable-route risks and contractor cost overruns will not, without further evidence demonstrating that they arise from the defined HDD uncertainty, fall within the scope of this uncertain cost area.
- 3.34 Ofgem may require such information and assurance as it considers reasonably necessary and proportionate to assess the eligibility, causation, efficiency and value of the costs claimed. Meeting the scope of this uncertain cost area will not guarantee that any costs are allowed. Following its assessment, Ofgem may determine an allowance that is lower than the amount requested.

Scope and regulatory effect

- 3.35 This HDD uncertain cost area is specific to the defined BTNO uncertainty. It does not alter the project-wide 5% COAE threshold and does not establish a general entitlement to technology-specific re-openers for other projects.
- 3.36 Any application, assessment and resulting allowance decision will be governed by the applicable licence provisions and ASTI Guidance in force at the relevant time.

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Ofgem’s assessment of regulatory allowances will remain separate from, and will not determine, the contractual rights or liabilities of NGET or its contractors.

Risk Contingency

- 3.37 While we note NGET’s position in relation to higher upfront allowances for risk and contingency funding, we do not consider that sufficient evidence has been provided to justify a change to our minded-to position for BTNO. The responses received do not fully reflect the design of the ASTI framework, which intentionally separates upfront funding (at an appropriate starting point) from targeted mechanisms to address more extreme, low-probability and high-impact risks that are inherently more uncertain at this stage, as well as the role of the TIM in providing protection against full exposure to risks and an ongoing efficiency incentive to mitigate risk.
- 3.38 The respondents acknowledge there is limited use of RCF or comparable empirical datasets to demonstrate how proposed contingency levels compare to historical project performance. In practice, funding cases based solely on QCRA are increasingly difficult to defend without triangulation against RCF or other benchmark data, as highlighted in wider UK public sector guidance.
- 3.39 While the respondents note the likelihood of inappropriate risk allowances driving sub-optimal project delivery outcomes, no evidence of the occurrence of this has been demonstrated in responses. The supporting evidence would benefit from stronger empirical benchmarking and greater transparency on excluded risks.
- 3.40 In particular, NGET’s response advances a broader portfolio-wide argument on the suitability of P50 as a baseline for ASTI projects. The analysis presented, including the use of RCF and QCRA outputs, does not clearly demonstrate why BTNO specifically should be funded at P70 rather than P50.
- 3.41 However, within the ASTI framework, the use of a P50-based funding position reflects the objective to balance an efficient funding mechanism with appropriate consumer protections, rather than fully funding all potential risks upfront. This is achieved in part by limiting initial contingency and relying on uncertainty mechanisms, including COAEs, ASTI Uncertain Cost Re-opener and TIM to manage risk during delivery. Accordingly, the choice of funding percentile is less about identifying a single “correct” confidence level and more about how risk is allocated between upfront allowances and subsequent regulatory mechanisms.
- 3.42 The practical application of NGET’s proposed use of P-mean (the mean average across the QCRA risk distribution, as opposed to the median average reflected in P50 funding) as a basis for funding is limited. It is highly sensitive to assumptions regarding low-probability, high-impact risks and does not clearly communicate a level of confidence or probability of exceedance. As such, it is less aligned with governance and decision-making frameworks, which are typically based on percentile measures. While P-mean may be useful as a diagnostic or cross-

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checking metric, it is not suitable as a primary basis for setting upfront funding allowances.

- 3.43 To justify any deviation from a P50-based approach, including movement to higher percentiles such as P70, TOs would need to provide robust evidence, including a quantification of risks excluded from QCRA (such as estimating uncertainty and prolongation), demonstration of cash flow constraints, benchmarking against comparable projects using RCF or historical outturn data. They would also need to demonstrate that all existing ASTI mechanisms are insufficient to manage these risks.
- 3.44 Given the range of provisions under the ASTI framework for risk sharing, the overall level of upfront risk funding should be appropriate and proportionate in view of the total project cost and key features. Higher levels of upfront funding requests may also suggest inefficient risk management approaches or undue inclusion of tail risks / high impact low probability risks which can distort the risk profile. Funding these risks upfront can result in over-allocation of contingency funding to consumer detriment. Therefore, such risks are treated via different mechanisms under the ASTI framework such as COAE.
- 3.45 We note NGET's acknowledgement that COAEs relate to events outside its reasonable control for which it could not have economically and efficiently planned a contingency, and that risks qualifying for treatment under the COAE mechanism should not feature in the QCRA. In its response to our minded-to consultation, NGET stated that its risk-funding assessment deliberately excluded risks defined as COAE or Delay Events. The supporting report prepared by Frontier Economics further stated that NGET had used professional judgement alongside the ASTI Guidance to exclude from the QCRA risks covered by these mechanisms, including risks qualifying for COAE treatment. This treatment is consistent with our approach that risks, or components of risks, intended to be addressed through the COAE mechanism should not also contribute to the calculation of ex-ante risk contingency.
- 3.46 To test whether NGET's requested risk allowance was proportionate, we also used our P50 level benchmark for efficient risk expenditure as a percentage of total project cost. Review of the resource profile and risk positions has shown that the project can be submitted under a P50 level of confidence. We are of the view that having considered all these factors represents the optimal mix of balancing risk while mitigating the costs from escalating. We have also considered the level of maturity of BTNO relative to the wider ASTI portfolio. BTNO has a relatively long development history and a greater degree of project maturity than may be the case for some other ASTI projects. Overall, NGET's response does not provide sufficient evidence of residual risk exposure after accounting for contract risk transfer, TIM and the availability of re-opener mechanisms.

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3.47 Taking these factors together, we do not consider there to be a robust basis to move away from a P50 starting point for BTNO. We have therefore decided to retain the P50 level of confidence for risk funding for BTNO.

Overview of our decision on cost allowances

3.48 Following the close of our January 2026 consultation we considered the responses we received and engaged with NGET to clarify aspects of its response to ensure that the final position which we set out in this decision is robust.

3.49 In summary, we have decided to allow £642.1 million¹⁶ of costs for the overall delivery of BTNO under this PA. This includes £541.6 million for direct costs and £100.6 million for indirect costs and risk. Out of the total reduction of £60.6 million, £26.1 million is subjected to disallowance. The remaining deferred amount of £34.5 million can be funded through alternative regulatory routes outside the PA funding allowance, and will remain subject to Ofgem’s assessment of whether the costs are necessary, sufficiently evidenced and efficient.

3.50 We have also decided to maintain the COAE threshold at 5%.

3.51 We will subject the following items to the new ASTI Uncertain Cost Re-opener in line with the conditions associated to each of these items as explained above:

- BNG
- Bramford Substation
- HDD Trenchless Drilling
- PAMs

All non-PAM costs are set ex-ante and will be linked to the Consumer Prices Index including owner occupiers' housing costs (CPI-H). For PAM costs, we expect NGET to submit these as actual incurred costs, which will be reviewed ex post. Once reviewed and included in the total project allowance, the PAM figure will not be subject to any further inflationary protection.

Summary of submitted and proposed funding

3.52 The table below summarises the final cost allowances under the ASTI Re-opener for BTNO.

¹⁶ Figures may not sum due to rounding.

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Cost Category	Submitted Cost (£)	Adjustment (£)	Subject to new ASTI Uncertain Cost Re-opener	Final Allowance (£)
Indirect Costs, P50 and Risk	143,354,418	-42,783,666		100,570,752
Direct Construction Costs	559,439,380	-17,863,056		541,576,324
Total ASTI Reopener Funding	702,793,798	-60,646,722	PAMs BNG HDD Trenchless Drilling Bramford Substation	642,147,076
COAE	4.6%	+0.4%		5%

Table 1: Final cost allowance under the ASTI Re-opener for the Bramford to Twinstead Project (in 24/25 prices)

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- 3.53 We aim to publish a statutory consultation on the proposed modifications to TOs' licence conditions that will give effect to this decision later this year. Our final decision regarding the elements covered in this decision is subject to consideration of any further information and views submitted in response to the statutory consultation.

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Send us your feedback

We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this decision. We would also like to get your answers to these questions:

- Do you have any comments about the quality of this document?
- Do you have any comments about its tone and content?
- Was it easy to read and understand? Or could it have been better written?
- Are its conclusions balanced?
- Did it make reasoned recommendations?
- Do you have any further comments?

Please send your feedback to stakeholders@ofgem.gov.uk.

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Appendix 1. Final cost allowance under the ASTI Re-opener for the Bramford to Twinstead Project (in 23/24 prices)

Cost Category	Submitted Cost (£)	Adjustment (£)	Subject to new ASTI Uncertain Cost Re-opener	Final Allowance (£)
Indirect Costs, P50 and Risk	138,996,443	-41,483,042		97,513,401
Direct Construction Costs	542,432,422	-17,320,019		525,112,403
Total ASTI Reopener Funding¹⁷	681,428,865	-58,803,061	PAMs BNG HDD Trenchless Drilling Bramford Substation	622,625,804
COAE	4.6%	+0.4%		5%

¹⁷ Totals may differ from the sum of individual rows due to rounding following price-base conversion.