

Decision

Decision to extend the National Gas Transmission's Network Innovation Allowance funding to support additional hydrogen innovation during RIIO-2

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This document confirms our decision to approve a reduced level of additional NIA funding for NGT hydrogen innovation activities during the RIIO-2 period, which aligns with our original consultation position.

This document outlines our consultation position, responses to the consultation, view of the responses, and final position. Non-confidential responses are published alongside this decision.

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Executive Summary

On 7 March 2025, we consulted¹ on a proposal to direct an additional £5.115m (2023/24 prices) to National Gas Transmission's (NGT) Network Innovation Allowance (NIA) via the Hydrogen Innovation funding mechanism (HYINT). This proposal aimed to support NGT's continued innovation in adapting the gas transmission network for hydrogen, ensuring the network's readiness for a low-carbon future.

The consultation was conducted under the Hydrogen innovation funding licence term found in Special Condition (SpC) 5.2 of NGT's Gas Transporter Licence to reflect NGT's request for additional NIA funding to support five key hydrogen innovation workstreams:

1. Hydrogen Materials Capability Evidence
2. Operational Procedures for Hydrogen
3. Safety Approach for Hydrogen
4. Measurement and Control
5. Supporting Digital Tools for Hydrogen

These workstreams were designed to help prepare the gas transmission network for a potential transition to hydrogen and support the UK's Net Zero targets.

Decision

Following our consultation, we have decided to maintain our original mindset and to position ourselves not to fund the full HYNT proposal from NGT. However, we will direct a reduced level of funding to support hydrogen innovation workstreams, focusing on priority areas that offer the most immediate benefits that align with consumer interests. This reduced funding reflects our assessment of the scope and impact of the proposed workstreams, ensuring that innovation continues within the context of the RIIO-2 framework while maintaining a balanced approach to consumer value and system readiness.

¹ [Consultation on a proposal to extend the National Gas Transmission's Network Innovation Allowance funding to support additional hydrogen innovation during RIIO-2](#)

1. Context

- 1.1 This document is our decision on the proposal to direct an additional £5.115m (2023/24 prices)² to National Gas Transmission's (NGT) Network Innovation Allowance (NIA) via the Hydrogen Innovation funding mechanism (HYINT).
- 1.2 Chapter 2 summarises the funding request and our consultation position, the responses we received, and our views regarding those responses.
- 1.3 Chapter 3 sets out our decision considering the consultation responses.
- 1.4 Chapter 4 sets out the next steps.

² In line with the consultation and for consistency, we have opted to give all amounts in 2023/24 prices.

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2. Funding assessment

A brief overview of the funding request

- 2.1 NGT has sought £7.4 million from NIA funding via SpC 5.2 of the Gas Transporter Licence to facilitate the execution of the project portfolio that supports the transition to hydrogen and its associated safety case.
- 2.2 This extra funding would support the creation of the hydrogen safety case, aiding in the adaptation of the National Transmission System (NTS) for use with hydrogen.
- 2.3 NGT collaborated with the Health and Safety Executive (HSE) to determine the necessary evidence for the NTS to prove their ability to repurpose safely. They have outlined the essential project portfolio for innovation.
- 2.4 NGT contends that achieving this result would provide considerable advantages for current methane users regarding asset exchanges, which could significantly lessen any possible stranding hazards and expenses.
- 2.5 If this appeal for additional funding fails, NGT claim that they will not be able to finalise the submission of the evidence for the hydrogen safety case during the RIIO-2 timeframe and will need to halt operations until the RIIO-3 phase.
- 2.6 NGT indicates that such a delay will adversely affect the Project Union Safety Case and may hinder the start of construction in 2026.
- 2.7 NGT has broken down its request into the following submissions:
 - Submission 1 Hydrogen Materials Capability Evidence
 - Submission 2 Operational Procedures for Hydrogen
 - Submission 3 Safety Approach for Hydrogen
 - Submission 4 Measurement and Control
 - Submission 5 Supporting Digital Tools for Hydrogen

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Our Initial Consultation Position

- 2.8 In accordance with section SpC 5.2.7 of the Gas Transporter Licence, we must begin by evaluating if the current NIA funding from NGT is sufficient to support their hydrogen innovation projects.
- 2.9 The original NIA funding allocated to NGT was set at £25 million in the RIIO 2 Final Determinations NGGT Annex, reflecting pricing from the 2018/19 period.
- 2.10 When factoring in NGT's obligatory 10% input, the total rises to £27,777,778 in 2018/19 terms, translating to nearly £33,990,000 for the financial year 2023/24.
- 2.11 As of June 2024, NGT has allocated £27,261,711 for expenses associated with NIA funding, calculated based on pricing for 2023/24. Furthermore, they have provided a comprehensive portfolio and timelines for the remaining duration of RIIO-2, signifying an additional £13,774,859 earmarked for future initiatives. This results in a shortfall of £7.04 million. Following engagements with NGT, this deficit has been updated to the £7.4 million they are pursuing.
- 2.12 We consider this information sufficient to conclude that the total NIA funding allocated for NGT is inadequate for fostering the progress of their hydrogen-focused innovation efforts.

Our view on whether the project(s) should continue

- 2.13 Our principal objective is to protect the interests of current and future consumers, including our net zero and growth duty. This means ensuring the energy system evolves to support the transition while avoiding unnecessary consumer costs.
- 2.14 In our RIIO 3 Sector Specific Methodology Decision, we outlined that hydrogen could have a role in decarbonising the UK economy but that its future demand and end uses are still uncertain, pending several key government decisions on the future role of hydrogen.
- 2.15 NGT's Project Union is exploring possibly repurposing its transmission network to link hydrogen production areas with future industrial cluster users. The project timeline hinges on deploying industrial clusters and their hydrogen needs.
- 2.16 Based on NGT's submission and the above reasons, we are satisfied that the proposed work packages will create evidence of the potential future use of the gas network and is consistent with our principal objective to protect

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consumers' interests regarding our decarbonisation targets. To avoid stranded assets and unnecessary costs from building new infrastructure or decommissioning projects, supporting the initial phase of hydrogen transmission asset repurposing is crucial for consumers' future benefit.

- 2.17 We decided not to fund infrastructure in the upcoming gas transmission price control (RIIO-3) to prevent duplication with the government's Hydrogen Transport Business Model (HTBM).
- 2.18 This decision applies to innovation projects but does not limit potential NIA extensions under the HYINT mechanism during RIIO-2. NGT has claimed that all projects associated with this request are to be completed in RIIO-2 and are aligned to their current work, delivering evidence of network capability to the HSE. Based on the available information, we believe that projects with an end date before April 2026 are appropriate and have no crossover with HTBM.

Consultation Responses

- 2.19 We received four written responses to our consultation on the decision to extend the National Gas Transmission's Network Innovation Allowance funding to support additional hydrogen innovation during RIIO-2.
- 2.20 All respondents came from gas distribution network licenses. We welcome the diverse views and thank respondents for their submissions.
- 2.21 We consulted on two questions, which can be found in Appendix 1.
- 2.22 In this section, we have structured the responses around the five individual submission requests.
- 2.23 For each, we outline our initial minded-to position, summarise the consultation responses received, and provide our response to the consultation.

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3. Q1. Do you agree with our minded-to decision to approve additional funding for the projects listed in this chapter under the HYINT licence term and at the value proposed?

Submission 1

- 3.1 NGT requested £1.6m more in Submission 1.
- 3.2 NGT received HSE feedback on hydrogen's impact on their materials. Our consultation proposed extending funding for hydrogen innovation during RIIO-2. NGT views these issues as necessary to resolve before finalising the safety case.

Our Consultation position

- 3.3 We believe NGT's submitted projects meet RIIO-2 NIA Governance Document criteria. These projects can aid energy transition and benefit consumers by enhancing network safety. They involve testing hydrogen's impact on materials and generating evidence for NGT's safety case beyond their usual operations. We proposed fully funding NGT's £1.6m projects under submission 1.

Consultation responses

- 3.4 All networks agreed on our consultation position.

Submission 2

- 3.5 NGT requested an additional £2.4m under Submission 2.
- 3.6 NGT's work in the RIIO-2 period has been focused on proving its asset capability and finding opportunities for repurposing. The operational aspects started last year, and NGT claims this has highlighted a need to support the creation of operational and maintenance procedures for hydrogen.

Our Consultation Position

- 3.7 Based on our assessment of NGT's submission, we proposed to fund £1.96m of Submission 2 for projects a, c, d, and e as they meet both the eligibility

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criteria of the RIIO-2 NIA Governance Document, and we consider this as critical evidence in NGT's safety case for hydrogen that goes beyond BAU.

- 3.8 We proposed to remove NGT's proposed costs of £0.44m for projects b and f. From the information provided, we consider establishing specifications for operational tools and equipment and developing training material as a BAU activity. We are not persuaded that this meets eligibility criterion 5 of the NIA Governance Document to be innovative simply by being associated with hydrogen (as opposed to, for example, natural gas).

Consultation Position

- 3.9 Several respondents supported funding operational procedure development to support the transition to hydrogen. Respondents highlighted activities such as installation techniques, such as physical testing, recompression, and safe venting, as critical to ensuring systems are ready for hydrogen use.
- 3.10 Opinions on including tools and equipment are mixed. Some respondents argued that these are not yet standardised or commercially available for hydrogen, while others view them as less essential for managing emerging safety and operational risks.
- 3.11 There was also strong support for investment in training; several responses emphasise the importance of developing workforce skills, including using new training technologies that could improve learning outcomes and speed up readiness.
- 3.12 Respondents also highlighted the need to build operational capability across the sector to support hydrogen and other low-carbon gases.

Our Response

- 3.13 We acknowledge the argument for funding operational tools and equipment where it can be demonstrated that the necessary technology is not currently available in the market and that development to technology readiness level 9 is required. In such cases, we consider this a justified area for innovation funding.
- 3.14 However, we do not consider AI-based training programmes specific to hydrogen-related activity. These approaches will likely have broader organisational applications and should be delivered through existing internal processes or in standard operational improvement.

Submission 3

- 3.15 NGT requested an additional £1.6m under Submission 3.

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3.16 The development and delivery of safety cases for hydrogen has been reviewed through the RIIO-2 period. NGT claims a need to consider the impact of hydrogen in the documents that they produce and share with the HSE, working with the HSE to make the process more efficient.

Our Position

3.17 We proposed to fund £1m for projects a and f, as they provide essential evidence for NGT's hydrogen safety case and meet the NIA eligibility criteria.

3.18 We do not propose to fund the remaining £1.5m for projects b,c,d and e. Given previous submissions to the HSE, the proposed risk manager's value is unclear. Other projects related to regulatory compliance and operational procedures, which we consider as part of NGT's existing responsibilities and therefore ineligible under criterion 5.

Consultation Response

3.19 Respondents expressed support for the TD/1 digitalisation and ignition risk projects. However, they disagreed with rejecting a hydrogen-specific quantified risk assessment (QRA), highlighting that hydrogen presents unique risks that cannot be addressed under existing operational frameworks.

3.20 There was a strong consensus on the need to update regulatory frameworks such as PSR/PSSR and GSMR to accommodate hydrogen-blended gases. Respondents also emphasised the necessity for modular, digital safety case systems. Existing Safe Control Operations (SCO) procedures designed for methane were considered insufficient for hydrogen's faster response demands.

3.21 One respondent highlighted concern regarding the risk of explosion and the cost of ensuring safety, linking these concerns to the insufficiency of current SCO procedures for hydrogen.

3.22 Additionally, emergency response procedures for hydrogen were seen as requiring different approaches to communication, fleet management, and training, which respondents argued cannot be delivered through existing practices. Support was expressed for consolidating hydrogen-related policies into a unified system in line with regulatory requirements while recognising the challenges in developing the required digital tools.

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Our Decision

- 3.23 Our position remains unchanged. We do not consider the nature of the work being hydrogen-related alone to be sufficient justification for it to be classified as innovation.

Submission 4

- 3.24 NGT requested an additional £1.4m under Submission 4.
- 3.25 NGT claimed several questions have arisen from their work on measurement that need further work for the safety case.

Our Position

- 3.26 We proposed approving £1.255m for projects a, c, and d, which align with RIIO-2 NIA requirements, supporting NGT's hydrogen safety case. We suggested excluding the £0.145 million for Project b due to the lack of clarity on its innovation qualification under the RIIO-2 NIA Governance Document.

Consultation responses

- 3.27 All networks support this.

Submission 5

- 3.28 NGT requested an additional £0.4m under Submission 5.
- 3.29 NGT emphasised optimising the hydrogen transition, ensuring data availability, prompt emergency responses, and prioritising cyber security to develop innovative information handling methods effectively.

Our Position

- 3.30 We proposed to allocate £0.2m to project b for integrating CVD³ and HyNTS to meet RIIO-2 NIA eligibility criteria, essential for NGT's hydrogen safety case.
- 3.31 Additionally, we proposed removing £0.2m for NGT's project a, Secure Comms. The justification for this cost exclusion was based on the lack of details in NGT's submission regarding the innovative nature of the upgrade work under criterion 5 of the RIIO-2 NIA Governance Document.

Consultation Position

³ Collaborative Visual Data Twin

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- 3.32 Respondents strongly support the secure communications project, arguing that it is not BAU and is critical for operational connectivity and resilience.
- 3.33 It was noted that poor network connectivity continues to hinder digital transformation, particularly in field operations. Stakeholders highlighted the need for satellite communications to support critical tools such as digital twins, lone worker systems, and real-time risk monitoring.
- 3.34 There was also a broader endorsement for digital solutions that enhanced network resilience, asset management, workforce efficiency, and protection against cyber threats.

Decision

- 3.35 Our position remains unchanged. The information provided does not sufficiently demonstrate the innovative aspects of the secure communications solution, nor does it establish a compelling case for its necessity or added value. Consequently, we deem this item to be unjustified at this stage.
- 3.36 However, we recognise that the introduction aligns with the principles of a well-founded development project and contributes meaningfully to the broader objectives. As such, we consider it a justified initiative.

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4.Q2. Do you have any views on the proposed direction for the project contained in the Appendix?

- 4.1 We also consulted on the proposed direction for the project, which is contained in Appendix 2.
- 4.2 All respondents agreed and had no additional comments.

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5. Our decision

- 5.1 We have decided to approve a reduced level of additional NIA funding for NGT hydrogen innovation activities during the RIIO-2 period, which aligns with our original consultation position.
- 5.2 We have determined that several proposed projects provide critical evidence to support the NGTS hydrogen safety case to meet the eligibility criteria in the RIIO-2 NIA governance document.
- 5.3 These include activities related to materials testing operational procedures and specific digital tools that go beyond standard operational requirements and offer direct consumer benefits. However, we maintain that some proposed projects do not sufficiently demonstrate the required level of innovation.
- 5.4 Where the submissions lacked clarity or failed to establish a clear consumer value case, we have not approved the requested funding.

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6.Next Steps

- 6.1 We are publishing our position on 2nd June 2025
- 6.2 The position is being published and will take effect on 2nd June 2025

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7. Appendix 1 – Consultation Questions

Q1. Do you agree with our minded-to decision to approve additional funding for the projects listed in this chapter under the HYINT licence term and at the value proposed?

Q2. Do you have any views on the proposed direction for the project contained in Appendix 2?

8. Appendix 2 - Proposed direction to NGT

Introductory note

- 8.1 Following our assessment of NGT's request, we have established our minded-to position. Any decision to direct a value for HYINT term in SpC5.2 of the Gas Transporter Licence will be implemented into NGT's licence via a direction
- 8.2 This Appendix provides a draft of the direction to implement our Final Determination, as required by SpC 5.2. Following consultation, and proper consideration of consultation responses, we intend to confirm the direction at the same time as setting out our final decision.
- 8.3 This draft direction is subject to responses to our minded-to position. Any representations concerning the minded-to position and/or associated draft direction below must be made by email to networks.innovation@ofgem.gov.uk on or before 4 April 2025.

Draft direction

To:

National Gas Transmission Ltd

Direction of a positive value for the HYINT licence term found in Special Condition (SpC) 5.2 of NGT's Gas Transporter Licence to add allowances to NIA allocation

- 1. The licensee to whom this document is addressed is the holder of a licence granted or treated as granted under section 7 of the Gas Act 1986 ('the Act').*
- 2. Special Condition 5.2 provides mechanisms by which the licensee may seek additional funding to their Network Innovation Allowance to proceed with hydrogen related innovation during the RIIO-2 price control period.*
- 3. On 9 December 2024, the licensee submitted a request for extension of their NIA funding via the HYINT licence term to the amount of £7.4m (23/24 prices). On [x] we consulted on our assessment and minded-to position on this request.*
- 4. We received x responses and have placed all non-confidential responses on our website. Having considered the consultation responses, we have decided to proceed with making this direction.*

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5. This direction is issued pursuant to Special Condition 5.2 and directs a value for the HYINT term of [x] (23/24 prices). This direction applies for the regulatory year starting 1 April 2025.

This direction will take effect immediately. This direction constitutes notice stating the reasons for the decision for the purposes of section 38A of the Act.

Marzia Zafar

Duly authorised on behalf of the Gas and Electric Markets Authority.

02/06/2025