

Decision

RIIO-2 NZASP Re-opener Final Determinations: East Coast and Hyline Cymru Hydrogen Network FEED Studies

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This document sets out our¹ Final Determinations (FD) for the following hydrogen network Front End Engineering and Design (FEED) projects:

Company: Project	Application submitted	FD allowances
Cadent: East Coast North	28 March 2024	25.92
Northern Gas Networks (NGN): East Coast	28 March 2024	15.04
National Gas Transmission (NGT): PU²: East Coast	30 April 2024	32.16
Wales & West Utilities (WWU): Hyline Cymru	31 October 2024	00.00
Total		73.12

These projects ('the Projects') were submitted under the Net Zero Pre-construction Work and Small Net Zero Projects (NZASP) re-opener mechanism (Special Condition (SpC) 3.9 of NGN's Gas Transporter Licence).

¹ The terms "we", "us", "our", "Ofgem" and "the Authority" are used interchangeably in this document and refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

² Project Union (PU)

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1.Introduction

- 1.1 Network companies are natural monopolies. Effective regulation of privatised for-profit monopolies is essential to ensure they cannot unfairly exercise their monopoly power to the detriment of their customers. This is particularly important in the case of essential utilities, such as energy, where consumers have no choice on whether or not to pay what they are charged. It is therefore crucial that an effective regulator protects energy consumers by controlling how much network companies can charge their customers. Ofgem does this through periodic price controls that are designed to ensure network companies are properly incentivised to deliver the best possible outcomes for current and future energy consumers. This includes ensuring that consumers only pay for investments that are needed and do not overpay for those investments.
- 1.2 The current price control model is known as RIIO (Revenue = Incentives + Innovation + Outputs). RIIO-2 is the second price control under the RIIO model for electricity transmission, gas transmission and gas distribution, and runs from 1 April 2021 until 31 March 2026. It includes a range of Uncertainty Mechanisms (UMs) that allow us to assess applications for additional funding during RIIO-2 as the need, cost or timing of proposed projects becomes clearer. This ensures that consumers fund projects only when there is clear evidence of benefit, and we have clarity on likely costs and cost efficiency. These mechanisms also ensure that the RIIO-2 price control has flexibility to adapt as the pathways to Net Zero become clearer.
- 1.3 Where possible, we have set automatic UMs, such as the Generation and Demand Connection Volume Drivers, which provide Electricity Transmission Owners with immediate funding when they are required to undertake new customer connection works. In other areas, where the degree of uncertainty is too great to allow for an automatic mechanism, we set 're-openers' which will allow us to assess proposals robustly once information with sufficient accuracy is made available.

What did we consult on?

- 1.4 Cadent, NGN, NGT and WWU applied to Ofgem to request RIIO-2 price control funding for their FEED studies under the NZASP Re-opener mechanism (SpC 3.9).
- 1.5 We issued a consultation on our Draft Determinations (DD), between 28 March 2025 and 25 April 2025.

WWU Hyline Cymru FEED project

- 1.6 We consulted on our DD to not provide interim funding for the WWU Hyline Cymru Hydrogen Network FEED project through the RIIO-2 NZASP Re-opener mechanism.
- 1.7 For access to interim RIIO-2 funding processes we are selecting projects that are likely to be part of the initial phases of a national core hydrogen network.
- 1.8 Our DD concluded that, compared to other proposals, the Hyline Cymru project's new build hydrogen pipeline needs case represented lower gas consumer value, and that the project is not as strong as other projects in terms of the Department of Energy Security and Net Zero (DESNZ) strategic priorities, in particular due to lack of access to large scale geological storage, lower Net Zero impact, and less certain early hydrogen production and demand.
- 1.9 We received eight direct responses to our DD to not fund the Hyline Cymru FEED project.

East Coast FEED Projects

- 1.10 We consulted on our DD to provide RIIO-2 interim funding to Cadent, NGN and NGT for their East Coast FEED projects.
- 1.11 Our DDs concluded that Cadent East Coast North, NGN East Coast and NGT PU: East Coast FEED projects satisfy our gas consumer value and strategic requirements and proposed to award interim RIIO-2 funding for hydrogen network FEED studies totalling £71.23m (see **Table 1** below).
- 1.12 We considered the East Coast application proposals and funding justifications requested in accordance with our principal objective and statutory duties. Our assessment covered the following areas:
 - The needs cases
 - The options assessment and justification for the proposed projects
 - The efficient costs for the proposed projects
 - How the work or project aligns with strategic policy aims
 - Consumer value
 - Whether or not our funding decision will set a precedent for future projects.
- 1.13 For each company, we assessed the submitted information and consulted on our DDs for the additional funding requests.
- 1.14 In addition, we also consulted on our proposal to have a common funding approach for some funding areas.

- 1.15 We consulted on the draft project Deliverables to monitor and keep the project on track and the draft Directions to give effect to our Determinations.
- 1.16 We received twenty-nine direct responses to East Coast FEED projects. Cadent, NGN and NGT responded along with five local authorities and twenty-one other stakeholders.

Purpose of this document

- 1.17 This document summarises the consultation responses received from stakeholders, and an explanation of the changes made to our DD positions since the consultation. It also sets out our FD after carefully considering these responses.
- 1.18 Alongside these FDs, we are publishing Directions to amend the Cadent, NGN and NGT licences to implement our decisions. We also consulted on proposed project Deliverables which sit within the Direction, meaning Deliverables should be met as a condition of receiving funding through the re-opener. These Deliverables are project specific outputs such as key activity milestones and provides evidence that projects are progressing as planned.

Summary of our Final Determinations

- 1.19 Following consideration of the consultation responses, our FDs substantially confirm our DDs. The only change from DD to FD is a relatively small increase in allowances to NGT. Table 1 below summarises our Draft and FDs for the East Coast NZASP applications. Chapter 2 sets out our FDs in detail.

Table 1: Summary of our Draft and Final Determinations for East Coast NZASP application (£m, 2018/19 prices)

Company: Project	Submitted costs	Ofgem's DD allowances	Ofgem's adjustment DD to FD	Ofgem's FD allowances
Cadent: East Coast North	33.39	25.92	0.00	25.92
NGN: East Coast	17.00	15.04	0.00	15.04
NGT: PU: East Coast	81.83	30.27	+1.90	32.16
WWU Hyline Cymru	23.02	00.00	0.00	00.00
Total	155.24	71.23	+1.90	73.12

Response summary

- 1.20 Our consultation attracted a total of thirty-one responses; including four Gas Transporters licensees (GTs), five Local Authorities and twenty-two other stakeholders (potential hydrogen producers and users within the supply chain etc).
- 1.21 Four stakeholders requested confidentiality and one requested anonymity. All non-confidential responses are published along with this document.
- 1.22 All respondents were generally supportive of funding network companies for hydrogen network FEED study projects and hydrogen as a technology option to deal with hard to decarbonise industrial sectors.
- 1.23 Stakeholders mention the economic benefits to the East Coast and South Wales regional economies, through the creation of new high skilled jobs, as well as enabling existing business investment. There were some general comments about the need to improve certainty on hydrogen network development and timelines.

Related Publications

- 1.24 This document is intended to be read alongside:
- The [Re-opener application guidance](#)
 - The [Net Zero Pre-Construction and Small Projects re-opener guidance](#) ('the NZASP Re-opener Guidance')
 - The Special Condition (SpC) 3.9 Net Zero Pre-construction Work and Small Net Zero Projects Re-opener (NZPt) of the Gas Transporter [Licence Special Conditions](#)
 - The [Draft Determinations: East Coast and Hyline Cymru hydrogen network FEED funding applications](#)
 - The re-opener applications:
 - [Cadent East Coast North](#).
 - [Northern Gas Networks \(NGN\) East Coast](#).
 - [National Gas Transmission \(NGT\) PU: East Coast](#).
 - [Wales & West Utilities \(WWU\) Hyline Cymru](#).

2. Final Determinations

Final Determination: WWU Hyline Cymru FEED project

- 2.1 We asked if stakeholders agreed with our DD not to provide funding for the WWU Hyline Cymru project FEED study.
- 2.2 We received eight responses on our Draft Determination to not fund the Hyline Cymru FEED project.
- 2.3 Two stakeholders agreed with our Draft Determination and six respondents disagreed, including Cadent, NGN, NGT, WWU and two stakeholders.
- 2.4 GTs are generally in favour of supporting developing projects across the country so that all gas consumers can benefit. However, in its response, Cadent also acknowledged the funding challenge we face and the necessity to be selective when deciding which projects gas consumers should fund.
- 2.5 We agree with WWU that we have received an eligible application for the Hyline FEED study but consider that we have not received new information that would change our Draft Determination not to fund the Hyline Cymru FEED project.
- 2.6 As detailed in our Draft Determinations, the Hyline Cymru project does not meet our gas consumer and strategic requirements for accessing the interim RIIO-2 funding arrangement for some hydrogen FEED and feasibility studies.
- 2.7 Our FD is to not provide funding for the WWU Hyline Cymru Hydrogen FEED project.

Analysis of responses and decisions

- 2.8 Responses to our Draft Determination for the WWU Hyline Cymru FEED project fell into four main themes:
 - 1. The re-opener process and governance
 - 2. The interim funding arrangement
 - 3. The Hyline Cymru needs case assessment
 - 4. The impact of the funding decision

The re-opener process and governance

- 2.9 In its consultation response, WWU says that selecting projects based on being part of the initial phases of national core hydrogen network for access to interim RIIO-2 funding processes is outside of the scope of the considerations listed in

the NZASP Re-opener guidance and applications requirements. WWU asserts that to not grant funding when the information that meets these requirements has been provided “*does not appear to be in line with the stated governance on the assessment phase*”.

- 2.10 In our Draft Determinations we acknowledged that WWU submitted a legitimate application for RIIO-2 funding of its Hyline Cymru FEED project following the NZASP Re-opener process. We also noted that triggering a re-opener application does not place any obligation on Ofgem to approve a licensee’s proposal or to award any additional funding to the licensee.
- 2.11 WWU provided information required in line with the NZASP Reopener governance and application requirements and we assessed that information against the considerations outlined in 2.14 of the NZASP governance document.
- 2.12 As per the 2.14 NZASP Re-opener requirements, our assessment included a review of the strategic policy aims and whether or not our funding decision will set a precedent for future projects. The likelihood that Hyline Cymru will not be in the initial phases of national core hydrogen network is an important factor when considering strategic policy aims in the context of an interim arrangement with limited availability of RIIO-2 funding.
- 2.13 When we wrote to WWU to ‘trigger’ the submission of the Hyline Cymru funding application we confirmed that the needs case was broadly within the scope of the re-opener. This was on the high-level basis that the project was hydrogen-enabling and net zero facilitating.
- 2.14 When triggering the application, we also indicated that our assessment of the application needs case would consider the extent to which the proposals align with DESNZ policy objectives to facilitate alignment with future DESNZ funding decision processes. We highlighted the important strategic areas identified by DESNZ such as production, demand and storage. We asked for further clarity in these areas in the application, including how the Hyline Cymru FEED proposal might gain access to geological storage options within the project timelines.
- 2.15 As set out in the Draft Determinations, the government’s Hydrogen Transport Business Model (HTBM) is the appropriate mechanism to fund hydrogen network feasibility and construction. However, we have in place an interim arrangement for hydrogen network FEED studies to potentially access RIIO-2 funding on a temporary basis to help facilitate the continuation of development work on

- potential strategically significant hydrogen network projects until DESNZ is ready to introduce the HTBM.
- 2.16 The RIIO-2 temporary funding arrangement for hydrogen network feasibility and FEED projects is not intended to fund all studies. Each application is assessed on a case-by-case basis to determine best value to the gas consumer and the strongest needs cases, and our determinations do not prejudice the outcome of any HTBM project assessments that DESNZ might conduct.
- 2.17 Our assessment necessitates us to consider our interim funding arrangement and the emphasis it places on gas consumer value and strategic alignment with DESNZ objectives, which we consider to be in the interests of current and future gas consumers.
- 2.18 The NZASP Re-opener Guidance advises assessing whether or not our funding decisions will set a precedent for future projects. In addition to the four East Coast and Hyline FEED applications we are aware of at least eight other similar projects in the project pipeline. Therefore, with multiple projects and a time limited funding arrangement, it has been necessary for us to assess which projects are most likely to be selected for build in the first phase of the DESNZ programme and which ones therefore represent greatest consumer and strategic value.
- 2.19 Our position not to fund the Hyline Cymru FEED project is therefore in line with of the provisions of the NZASP Re-opener licence condition (Special Condition 3.9) and in line with our re-opener assessment processes and governance as set out in the NZASP Re-opener Guidance document.
- 2.20 In its response, WWU raised a concern that the DD does not appear aligned to Ofgem’s statements on its role in relation to decarbonised gas infrastructure.
- 2.21 The approved funding mechanism for hydrogen projects is the HTBM. Our interim funding mechanism in RIIO-2 for a few hydrogen FEED studies is therefore adding additional support to help maintain momentum in grid decarbonisation policy.
- 2.22 The intention of the NZASP re-opener, as stated in the network companies’ licence, is to support the achievement of Net Zero Carbon Targets. This must be read in conjunction with our principal objective to protect the interests of current and future consumers. Therefore, not all Net Zero projects will be assessed as meeting the funding requirement for NZASP re-opener funding.
- 2.23 We are confident that our position for Hyline Cymru is aligned with our duties to both protect consumers and promote Net Zero decarbonisation of the gas grid.
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The interim funding arrangement

Transparency on selection criteria

- 2.24 Three gas transporters (including WWU) and two stakeholders raised concerns about the “timely clarity and transparency on the selection criterion for funding”.
- 2.25 In its response to the consultation, WWU say that the Draft Determination appears to focus on alignment to strategic policy aims and that these criteria were not being clear at the point of application. WWU feels that this is not a sound basis for such a decision.
- 2.26 A project’s value to gas consumers and its fit with strategic policy goals are some of the most important aspects of any assessment. The NZASP Re-opener Guidance document states that under the Detailed Assessment Phase of a project we will consider how the project aligns with strategic policy aims.
- 2.27 Due to the special circumstances of the interim RIIO-2 funding arrangement for hydrogen FEED studies, and since DESNZ is the ultimate recipient of these FEED studies, we stressed the need for these projects to align closely with DESNZ policy objectives and priorities. This was made clear in communications relating to the preparation of the trigger document (needs case) and also as an application requirement. When writing to WWU we explained that we would expect to see how recent hydrogen policy decisions impact the project.
- 2.28 Since this is an interim funding arrangement, it would be disproportionate for gas consumers to fund every hydrogen FEED study as the total cost is significant. Therefore, each project has been assessed on a case-by-case basis to determine the best value to the gas consumer and the strongest policy fit.
- 2.29 The assessment criteria we use to determine funding decisions is the same as specified in the NZASP Re-opener Guidance, but our assessment has additionally considered the consumer interest in the context of the overall interim funding cost. During our re-opener assessments for hydrogen network FEED funding applications, we communicated our review of the interim funding arrangement to gas transporters.
- 2.30 The RIIO-2 interim funding arrangement for hydrogen FEED studies is atypical and is meant to assist momentum on grid decarbonisation while the HTBM is finalised. The process for assessing these projects under the NZASP Re-opener has not changed but the assessment itself has closely scrutinised strategic fit to DESNZ policies and priorities. This is because DESNZ is the ultimate recipient of

the output of these studies. We therefore disagree that there has been a lack of clarity and transparency on the selection criteria for funding.

Validity of using connection to geological storage timeframe as a criterion

- 2.31 In its consultation response WWU raised concerns that the timeframe for connection to geological storage was not identified as a specific assessment criterion at the time of the application. WWU argues that this is not a reasonable basis for this determination, as demonstrated by the acceptance of WWU's needs case in May 2024.
- 2.32 We identify the most important strategic considerations after reviewing the application and referenced policy documents as part of our assessment. It is not possible to know in advance of the application which detailed policy considerations will be the most important influences on our funding decisions until all factors have been reviewed and assessed.
- 2.33 We are content that the high-level needs case for Hyline Cymru, submitted as part of the application trigger process, was established in principle. The scope for meeting NZASP re-opener applications is quite wide and only requires applicants to meet high level criteria. We accepted the request to trigger the Hyline Cymru application on the basis that it was hydrogen-enabling and net zero facilitating and therefore within scope.
- 2.34 We are content that it is reasonable to identify storage connection timeframes in the assessment period as a critical factor in our funding decisions. Our acceptance of a NZASP application submission has no bearing on our NZASP funding decision.

Validity of using National Infrastructure Commission (NIC) National Infrastructure Assessment (NIA) evidence

- 2.35 In its response submission WWU argues that the NIC's [NIA](#) is an advisory document to government and not a policy framework. WWU say that the applicability of the NIA to the NZASP application process was not made clear in advance, so should not now be used as a basis for this determination.
- 2.36 The importance and relevance of the NIC NIA to the Hyline Cymru project is recognised by WWU itself by referencing the NIC NIA in its application. The NIC NIA findings are used in support of the Hyline Cymru needs case for a hydrogen pipeline in South Wales. WWU reference the NIC NIA in the table of 'UK Government Policies' in the UK Policy section of its application (6.2.1). In its table, WWU note that the NIA report says that "*connecting south Wales depends*

on the role hydrogen plays in decarbonising the steel industry, making up over 90 per cent of emissions in the area".

- 2.37 In its policy table, WWU also reference the DESNZ '[Hydrogen transport and storage networks pathway](#)' document. In its pathway document, DESNZ puts significant weight on the NIC NIA advice, saying that it has "*been guided by existing external forecasts of future energy needs*" and that it "*has drawn on external analysis and recommendations from the Committee on Climate Change (CCC) and National Infrastructure Commission (NIC)*". DESNZ says that it "*agrees in principle with the case set out by the NIC for a core network in its Second National Infrastructure Assessment and the benefits it could provide*".
- 2.38 As part of our assessment process, we consider the evidence contained within the application document and all other relevant external evidence. We review and assess external references supplied within the application document.
- 2.39 The NIC NIA is an important reference document with relevant information useful to our funding decision. The importance of the NIC NIA document is recognised by both WWU and by DESNZ. We are content to use it as evidence in support of our FDs.

Our Hyline Cymru needs case assessment

- 2.40 In its consultation responses WWU and one other stakeholder set out a number of justifications why the Hyline Cymru is a viable project that is important to the South Wales economy and decarbonisation ambitions.
- 2.41 Our Draft Determination did not dispute that Hyline Cymru is a viable project that could bring benefits to the South Wales economy and lower emissions in the South Wales area. Further, our DD did not exclude the possibility that the Hyline Cymru FEED study could be funded by WWU shareholders or other third parties, and does not make it ineligible for funding from DESNZ through the HTBM.
- 2.42 The total cost of all hydrogen FEED studies being proposed is significant. We consider that it is not proportionate to ask gas consumers to fund all hydrogen FEED studies in the context of a temporary funding arrangement.
- 2.43 We do not disagree with WWU's view that HyLine Cymru may fall under the HTBM Allocation Round 2 mechanism. We also do not disagree with its view that HyLine is likely to connect to Project Union later than other projects.
- 2.44 We recognise that that WWU have identified alternatives to geological hydrogen storage but since DESNZ is funding hydrogen infrastructure we must lend weight

- to DESNZ preference for geological storage as set out in its hydrogen pathways document.
- 2.45 We accept that new build may be the most efficient option for a hydrogen pipeline given the existing constraints in Southwest Wales. However, a new pipeline has little direct benefit to most gas consumers who are not industrial users or future consumers of hydrogen.
- 2.46 We also note that there is likely to remain significant demand for hydrogen at Port Talbot, but this is substantially reduced from the previous estimates which assumed the retention of the two blast furnaces. This is why NIC caveated its recommendation on South Wales based on the outcome of steel making.
- 2.47 In its response WWU outlines its hydrogen demand validation exercise post the decision to decommission the iron ore blast furnaces at Port Talbot. We do not dispute the WWU assertion that a hydrogen pipeline may still be a cost-effective means to transport hydrogen within the region, but we do think the steel making changes reduce the strategic value of a hydrogen network pipeline.
- 2.48 One gas transporter and one stakeholder commented in its consultation responses that the NIC NIA states that South Wales is a key site for the core hydrogen network. WWU noted in its Hyline Cymru funding application policy table and its consultation response that recommendation 16 of the NIA states that *"connecting south Wales depends on the role hydrogen plays in decarbonising the steel industry, making up over 90 per cent of emissions in the area"*. However, we note that the NIA also goes on to say that *"If the steel industry does not require hydrogen, then the case for a hydrogen pipeline to the area is weakened"*.
- 2.49 The NIC therefore clearly caveats its assessment of South Wales as a key site for a core hydrogen network on the level of hydrogen demand from steel. We consider that the reduction in demand for hydrogen for steel making in South Wales weakens the case for a hydrogen network pipeline in the area. This does not mean that there isn't a case for industrial hydrogen use but we have concluded that the potential for emissions reduction is weaker than for some other hydrogen FEED projects such as in the East Coast area.
- 2.50 In our assessment of the Hyline Cymru FEED study and other hydrogen network FEED studies we have determined which projects are most likely to progress at the fastest rate, have greatest strategic value and represent the best case for gas consumer funding. Our Draft Determination details the reasons why funding for

the Hyline Cymru FEED study needs case is not as strong or as urgent as the East Coast FEED projects. Having fully considered all responses, including the responses supporting the needs case, our views for the FD on WWU Hyline Cymru funding are unchanged from our DD.

The impact of our funding decision

- 2.51 In its response, WWU has indicated that there is no other funding mechanisms available to it to progress FEED activities for Hyline Cymru. WWU and one other stakeholder point out that the delay to the design of the project risks the ability and options for industrial decarbonisation in South Wales and economic growth plans.
- 2.52 The agreed mechanism to fund hydrogen projects is the HTBM. The interim RIIO-2 funding arrangement is only to allow some hydrogen feasibility and FEED studies to access our NZASP funding processes as a stop gap measure whilst the HTBM is in development.
- 2.53 When making RIIO-2 funding decisions we are obligated to protect gas consumers and ensure that projects represent value for money. We are prioritising those projects that demonstrate the most consumer value and have the greatest alignment with DESNZ strategic priorities.

Final Determination: East Coast needs cases

- 2.54 We asked in our DDs if stakeholders agreed with our assessment of the needs cases for the three East Coast FEED studies.
- 2.55 Twenty-nine stakeholders, including 5 local authorities, voiced general support for the East Coast needs cases. One stakeholder and WWU provided no comments. No issues were raised.
- 2.56 In general, stakeholders agreed that a hydrogen network is needed to connect the Hydrogen production projects planned for the East Coast region to local industry. They say hydrogen is a solution which offers near-term emission reduction, supporting the decarbonisation of critical industry.
- 2.57 Our FD is that Cadent East Coast North, NGN East Coast and NGT's PU: East Coast proposals are core hydrogen network projects that meet Ofgem interim funding objectives for hydrogen FEED studies. We consider that these projects are Net Zero facilitation projects, as listed in our NZASP Re-opener Guidance

document. We are therefore satisfied these Projects are within the scope of the NZASP Re-opener mechanism in accordance with SpC 3.9 of NGT's Gas Transporter licence.

Final Determinations: standardising our approach to funding

2.58 We asked in our DDs if stakeholders agreed with our proposed approach to protect consumer value by standardising our approach to funding in some areas.

2.59 FD summary for the common treatment of some costs for all East Coast FEED projects:

- **Contingency:** is set at 10%.
- **Private contributions:** to require a 10% minimum cash contribution from all three East Coast projects.
- **The number of FEED studies funded by gas consumers per project:** to fund one FEED study per East Coast project.
- **Additional Costs:** to fund only those costs essential to delivering a standalone FEED study.
- **Land, planning and consent:** costs in these FEED studies does not go beyond non-statutory consultation.
- **Regulatory treatment:** additional Totex via the NZPt
- **TIM impact adjustment:** to calculate East Coast additional Totex allowances using a formula that will negate the impact of the TIM on private contributions.

2.60 Seven respondents provided specific responses to the standardisation of funding for some funding categories. Two stakeholders agreed with the general approach to standardisation of funding. Cadent, NGN and NGT plus two other stakeholders partially agreed. The areas of disagreement are captured below.

Analysis of responses and decisions

Contingency

2.61 Our Draft Determination set the contingency level at 10%. This represents 7.5% from the average risk allowances across the RIIO-2 business plan portfolio plus an additional 2.5% to recognise the First of a Kind (Foak) aspect of these projects.

- 2.62 Cadent, NGN and NGT provided comments. No other stakeholders commented specifically on the proposal to set the contingency level at 10%.
- 2.63 The three East Coast FEED projects face similar risks and delivery challenges. We note that Cadent and NGN agree with the need for a standardised approach to contingency for East Coast FEED project funding whilst NGT disagrees with the standardised approach.
- 2.64 We expect projects and costs to be managed efficiently. The re-opener guidance requires a risk register to assist with monitoring and managing that risk. Our approach is to set a level of contingency that provides a realistic safety net whilst also encouraging tight cost control to protect gas consumers. A two-year FEED study is a relatively short period that should assist confidence in cost estimates.
- 2.65 We note that NGN agrees that 10% is an appropriate risk level for their East Coast FEED project. Cadent and NGT are of the opinion that assessing cost risk at a more granular level provides a robust methodology for determining the contingency level. Cadent suggested that, alternatively, we could standardise contingency at the higher level generated by its bottom-up risk assessment. Cadent's and NGT's risk analyses both resulted in a contingency close to 15%.
- 2.66 We favour an approach that sets the average risk allowances across the RIIO-2 business plan portfolio as a benchmark level with an additional allowance to account for the first of a kind nature of these projects. We are of the opinion that this sets the right level of contingency for this type of project. It balances the need to protect the project budget and promoting tight budget control. We note NGN's assessment that 10% aligns with industry best practice.
- 2.67 When deciding the contingency level, we are also mindful that the Totex TIM mechanism provides a degree of cost overrun protection for both gas consumers and network companies in the event that the approved contingency is too low.
- 2.68 NGT suggests that if we are minded to use our proposed method for setting the contingency level, we could consider using a RIIO-3 benchmark instead of RIIO-2.
- 2.69 We do not consider that the RIIO-3 contingency level is suitable for East Coast FEED RIIO-2 re-opener funding as RIIO-3 review is ongoing and the risk and contingency arrangements will not be finalised until the end of the year. The RIIO-3 contingency level will also represent the average across the period 2026 to 2031. Most of the spend for East Coast FEED projects will be completed by 2027/28.

2.70 We think it is important that in the context of an interim funding arrangement that we protect consumers from over-paying for the financial risks that the contingency would be expected to cover. Our decision does not preclude some or all of the associated costs being recoverable through the HTBM when it becomes operational.

2.71 **FD for contingency:**

No change from DD: We find that a standardised approach for contingency across all three East Coast projects is appropriate and fair. The contingency level is set at 10% based on a RIIO-2 7.5% benchmark plus 2.5% for Foak.

Private contributions

2.72 Our Draft Determination proposed to require a 10% minimum cash contribution from all three East Coast projects.

2.73 Cadent and NGN were generally supportive of private contributions, but NGN provided comments in relation to its request for benefits in kind to be accepted. NGT do not agree with the standard approach to contributions.

2.74 Only one other stakeholder provided a specific comment on private contributions. They indicated a preference for NGT to offer private contributions in line with the other projects.

2.75 In its application NGN have offered a 10% contribution as a 'benefit in kind'. NZASP Re-opener Guidance makes clear that licensees can include benefits-in-kind where there is a contractual commitment and the contribution is directly related to activities being funded by Ofgem.

2.76 In its consultation response, NGN explained that it had previously privately invested £3m in the upstream elements of the Redcar Village Trial (HVT) and the benefits realised can be directly attributed to supporting the success of its East Coast FEED study. It requested that 50% of their previous HVT contribution be considered as its benefit in kind contribution for the East Coast FEED project, representing a 10% contribution.

2.77 In its response, Cadent commented that if our decision changed to accept the NGN benefit in kind proposal then, to ensure consistency, it would like consideration of a similar arrangement in respect of its HVT contribution.

2.78 HVT construction was to be jointly funded by Ofgem and DESNZ. The additional upstream costs were allocated to DESNZ and were not wider gas network related

costs allocated to Ofgem. DESNZ has not agreed to fund these additional costs, and we have previously ruled out gas consumers paying for them.

- 2.79 Under these unusual circumstances, we are assessing requests for benefits in kind carefully. Costs related to HVT are unrelated to the East Coast FEED projects, and therefore any benefits in kind contributions on HVT should not be used to reduce private contributions (and consequently increase cost to gas consumers) on the East Coast FEED projects. Our decision is that it is not proportionate for gas consumers to pay the full cost of the FEED study and that the NGN benefit in kind proposal is not in line with our NZASP funding objectives.
- 2.80 It remains our opinion that HVT related costs do not meet the NZASP benefits in kind requirements for NGN or Cadent's East Coast FEED studies.
- 2.81 NGT does not agree with our approach to 10% contributions and therefore also disagrees with the associated TIM adjustment.
- 2.82 NGT makes the case that the NZASP governance states that contributions should only be considered where a potential NZASP project is 'substantially innovation related' and that FEED studies are not in themselves innovative.
- 2.83 Our view remains that although the FEED study is an established process, the primary aim of the FEED study is to deliver the design of a hydrogen network which is highly innovative at this scale. The design of the NGT hydrogen network qualifies as substantially innovative for several reasons, including:
- The degree of collaboration and research required;
 - That there are no large-scale hydrogen networks globally and the challenge of delivering a workable and affordable design is significant;
 - That the design of a large-scale hydrogen network will incorporate new technology, new equipment, new methodologies and novel practices;
 - Our view that the policy landscape for a hydrogen network remains uncertain with Government still to decide on the future of a national hydrogen network and the degree to which domestic hydrogen for heat may play a role in supporting that network; and
 - The design of a large-scale hydrogen network carries significant risk due to the uncertainty and inter-dependencies of several factors including; the scale of hydrogen production ramp up, uncertain demand, storage challenges, CCUS operation and the availability of key skills and investment.

- 2.84 The factors above taken together make the design of a hydrogen network particularly innovative, complex and challenging.
- 2.85 In its consultation response NGT says that it does not think it is appropriate for Ofgem to expect contributions beyond the significant contributions it has made to other related research projects. NGT says that given the scale of Project Union (PU), private contributions could become cost prohibitive for shareholders.
- 2.86 NGT private contributions, as required under the NZASP Re-opener Guidance, will not apply across the full scale of PU as claimed as we are only considering the funding of three out of a total of seven PU projects under our interim funding arrangement.
- 2.87 As this is an interim funding arrangement, we are paying close attention to our principal objective to protect the interests of gas consumers. It is our opinion that gas consumers should not bear all of the project risk, especially when there is a reasonable prospect that the deployment of a hydrogen network may have a direct commercial value to NGT shareholders.
- 2.88 The interim funding arrangement for hydrogen FEED studies is not BAU, and in our view, a 10% private contribution presents the right funding risk balance between shareholders and gas consumers.
- 2.89 In its response, NGT compare the delivery of critical net zero projects of a similar scope and size in Electricity Transmission and make the point that there is no precedent of network companies being required to provide a contribution in the electricity sector. It says that mandatory requirements for contributions could become prohibitive to realising Governments ambition.
- 2.90 NGT have applied for funding via the NZASP re-opener and the guidance for that uncertainty mechanism apply.
- 2.91 We have put in place an interim funding arrangement to assist DESNZ strategic aims. DESNZ will further set out the requirements to support its strategic ambitions for hydrogen transport via the HTBM. We do not know what level of private contributions will be required, if any, in future funding under the HTBM regime.
- 2.92 **FD for private contributions:**
- No change from DD: After consideration of all responses, our FD is that it is appropriate to require a 10% minimum cash contribution from all three East Coast projects.

The number of FEED studies funded by gas consumers per project

- 2.93 Our Draft Determination is to fund only one hydrogen network FEED study per project.
- 2.94 Cadent and NGN did not comment on the number of FEED studies allowed per project. NGT believes that there is value in commencing its new build FEED in parallel.
- 2.95 Only one other stakeholder provided a specific comment on the number of FEED studies to be funded. They disagreed with the Draft Determination to limit NGT to a hybrid FEED only.
- 2.96 In its consultation response NGT argued that an additional new build FEED study will provide more certainty over the delivery timeline and government decarbonisation targets.
- 2.97 NGT points to its 'option value' analysis that shows that there would only need to be a 9% probability of repurposing being unviable to make funding a new build FEED study worthwhile. The analysis assumes that there would be either increased construction costs to reduce the construction period to make up for lost time or there would-be carbon costs for missing decarbonisation targets.
- 2.98 Whilst the benefit to wider society is an important consideration, the cost of these FEED studies are being paid by gas consumers who are unlikely to benefit from new build hydrogen infrastructure. In accordance with our principal objective to protect gas consumers and in the context of an interim funding arrangement, our opinion is that consumers should not be paying more than is reasonably needed to keep some hydrogen network projects moving forward.
- 2.99 It would be unusual for us to fund two FEED studies for one project. The cost of funding two FEED studies in parallel represents a potential additional cost to gas consumers of £21.5m. Our opinion is that this is not a justifiable cost when considering the objectives of our interim funding arrangement.
- 2.100 NGT request that we consider who is best placed to manage the repurposing risk. Based on NGT's own analysis, the risk of requiring a new build FEED study is low. The potential risk on delivery timelines of drafting a new build FEED study at a later stage is not a proportionate cost for gas consumers to pay. The risk on costs or timelines is ultimately for the HTBM process to manage.

2.101 In its response, NGT go onto say that if our FD is to fund only the hybrid FEED, there will need to be an appropriate mechanism to pivot to the new build option should repurposing no longer be viable.

2.102 Our view is that this situation is out of the scope of the RIIO-2 interim funding arrangement for hydrogen network FEED studies and would require NGT to investigate other potential funding routes.

2.103 FD on the number of FEED studies funded per project:

No change from DD: To fund one FEED study per East Coast project. In the case of NGT, to only fund its hybrid FEED study.

Additional costs

2.104 Our Draft Determination is to fund only those costs essential to delivering a standalone FEED study and not to fund costs that are associated with future projects or wider programmes which may or may not proceed.

2.105 Cadent and NGN did not comment on additional costs. NGT's detailed view on the proposed treatment of additional costs is covered in its responses to Question 6.

2.106 Only one stakeholder provided a specific comment on additional costs. Their response indicated that enabling costs should be excluded from East Coast FEED funding costs.

2.107 NGT believes that its work packages outlined in the PU: East Coast Re-opener are linked to the development of the East Coast FEED study and should be funded.

2.108 Given our principal objective, we have determined that hydrogen network projects funded via the RIIO-2 interim arrangement should have clear direct benefits to gas consumers.

2.109 Some costs submitted by NGT as enabling costs can be included in the FEED study as they are directly linked. We deal with these in Q6 decisions.

2.110 FD on additional costs:

No change from DD: To fund only those costs essential to delivering a standalone FEED study. Therefore, we are not funding costs in the East Coast applications that are associated with future projects or wider programmes which may or may not proceed or are better suited to other funding arrangements.

Land, planning and consent costs

- 2.111 Our Draft Determination proposed that funding for land, planning and consent would be limited to activities that are necessary for the purposes of the FEED study and the future funding decision, including non-statutory consultation and preparation for the Development Consent Order (DCO).
- 2.112 In its response, Cadent stated a belief that consenting through to the end of the potential Judicial Review period following a DCO decision, represents the lowest risk and most efficient overall delivery for the project programme. Cadent accepts that there is a risk of some projects not proceeding to completion.
- 2.113 NGN had no comments. NGT agreed with our proposed treatment as it is in line with its re-opener submission.
- 2.114 No other stakeholders provided a specific comment on the treatment of land, planning and consent costs.
- 2.115 From an interim funding perspective, our objective is to avoid gas consumers paying for additional costs that are not necessary to meet our interim funding objectives. Land, planning and consent costs incurred during the FEED study should not go beyond the point where there is sufficient information for DESNZ to make project selections and move to the next stage of funding.
- 2.116 Cadent suggested that a potential break in the project schedule due to having to move from one funding mechanism to another introduces additional risk of delay and an increased cost of subsequent phases.
- 2.117 We recognise this risk, but our view is that we are only providing temporary and limited funding for FEED studies in RIIO-2 to assist DESNZ whilst the HTBM is in development. This is a risk that we would expect the gas networks to manage. We anticipate that the HTBM may be ready to provide answers to future funding questions before East Coast FEED studies near completion in 2027/28.
- 2.118 **FD on land, planning and consent costs:**

No change from DD: That the preparation for the DCO does not go beyond what is sufficient for the purposes of the FEED study and the future funding decision. To not fund beyond non-statutory consultation.

Regulatory treatment

- 2.119 Our Draft Determination was to provide additional Totex funded via the NZPt term in the licence.

- 2.120 Two stakeholders provided a specific comment on the regulatory treatment in support of distributing costs to all gas consumers. The national importance of the projects and the benefit of carbon reduction to society were cited as justification.
- 2.121 Cadent sees no strong justification to treat this funding as anything but 100% fast money, as it represents a cleaner approach than creating a notional asset in the regulatory asset base.
- 2.122 In its response Cadent notes that previous funding mechanisms for similar works have recovered the costs nationally. Cadent warns that if early innovative and evidence building projects do not have their costs widely socialised, then the benefits and efficiencies realised by later projects arising from the learning from earlier schemes, will have been paid for by a different body of gas customers. Cadent's view is that this does not seem appropriate of consistent with a duty to protect current and future customers.
- 2.123 We note that previous funding was for domestic heat trial FEED studies and a feasibility study. The outputs of previous FEED studies were designed to explore the possibility of rolling out hydrogen to domestic properties nationally. Since all gas consumers could directly benefit, it was right to distribute costs to all consumers for these other projects.
- 2.124 NGN responded that the NZPt re-opener mechanism, features a Totex Capitalisation Rate of 70% (i.e. 70% slow money and 30% fast money³). NGN says that if Totex is the FD then it would like Ofgem to apply a Capitalisation Rate of 34% (as applied to some other costs), which it says would more accurately reflect the nature of project expenditure.
- 2.125 In its response, Cadent voiced concerns about the proposed approach to funding in terms of fast vs slow money. With no assets being created, there is no asset to capitalise the costs against, therefore these costs will be treated as operating expenditure.
- 2.126 Our view is that the split between fast and slow money is not intended to mirror the distinction between operating expense and capital expenditure in financial accounting. Just as amounts may be added to the RAV when they are expensed in the financial accounts, so the converse will also happen as items capitalised in

³ Fast money is recovered through consumer bills in the year in which the network company incurs the costs, whereas slow money is added to the Regulatory Asset Base (RAV) and recovered, with additional rates of return, over the depreciation period (usually around 45 years).

the financial accounts are partially added to fast money in the PCFM. Re-openers are subject to capitalisation of 70% and we do not think it would be appropriate to deviate from this.

- 2.127 NGN agrees with the Totex approach but prefer that Totex is distributed via Special Condition 6.1 (Transportation owner pass-through items) in the NTS Operator's licence (NZPSt) distributed across all gas consumers to minimise the impact on regional consumer bills.
- 2.128 NGT agrees with our Draft Determination that all East Coast projects should be funded through a Totex slow funded approach on the basis this is in line with the RIIO-2 principles.
- 2.129 The East Coast projects are intended to explore industrial hydrogen use which has limited direct benefit to most gas consumers. We understand there are societal benefits to decarbonisation in general. However, hydrogen consumers and the local population will be the main beneficiaries from the East Coast hydrogen network development.
- 2.130 A fast funded approach represents an increased materiality on consumer bills compared to a slow funded approach. Additional Totex provides intergenerational cost allocation over 45 years which reduces the in-year bill impacts to consumers.
- 2.131 The Totex approach will mean that some costs are passed to national gas consumers via NGT's NZPt. The Totex approach therefore provides a good balance between distributing these costs between regional and national consumers.
- 2.132 The TIM is designed to encourage network companies to improve their efficiency in delivery and ensures that the benefits of these efficiencies are shared with consumers. It also provides some protection to consumers from any company overspend of their allowances as the cost of these overspends are shared with consumers.
- 2.133 **FD on regulatory treatment:**
- No change from DD: Our FD is that additional Totex via the NZPt is the right regulatory approach for funding these FEED studies.

Private contributions and the TIM impact adjustment

- 2.134 Our Draft Determination is to calculate East Coast allowances using a formula that will negate the impact of TIM on private contributions and ensure that the GTs provide a 10% minimum contribution. Without this measure the TIM would

return a share of the company's Totex funding, and this would reduce the 10% company contribution.

- 2.135 Cadent did not provide a response on the TIM impact adjustment. NGN accepts Ofgem's Draft Determination to implement a TIM adjustment mechanism. NGT disagreed with the need for private contributions and therefore disagree with the need for a TIM adjustment.
- 2.136 NGT pointed out that the Totex Incentive Strength (TIS) for RIIO-3 has not yet been published, if this changes the allowance for 2026/27 this may require an update to the Final Direction for this re-opener.
- 2.137 NGT is correct and we have made a provision in the Directions to update allowances scheduled to be paid in the RIIO-3 period should the TIS change.
- 2.138 We have set the minimum level of private contributions at 10% and decided that the additional allowances are provided by Totex. The TIM is a feature of Totex and cannot be disapplied. To ensure a minimum contribution, we must apply a formula to negate the impact of the TIM.
- 2.139 **FD on private contributions and the TIM impact adjustment:**

Change from DD: Our FD confirms our DD approach to calculate East Coast additional Totex allowances using the formula below which will negate the impact of TIM.

$$[Allowance, £m] = [Assessed Efficient Cost, £m] - [Company Contribution, £m] / [TIS, \%]$$

Where TIS means the [Totex Incentive Strength](#).

However, we have modified the draft Direction to provide for an allowance adjustment in the event of a change in TIS value from RIIO-2 to RIIO-3.

Final Determination: Cadent East Coast North FEED project

- 2.140 We asked in our DDs if stakeholders agreed with our proposal to approve funding for the Cadent East Coast North project under the NZASP Re-opener mechanism, and at the value proposed.
- 2.141 We received nine direct responses to this question; six stakeholders and Cadent, NGN and NGT. All supported our proposal to award funding to Cadent's East Coast North project.
- 2.142 Cadent responses on contingency, land planning and consent and Totex are covered in our FDs for Q3.

2.143 We have made no changes to Cadent's draft allowances.

Table 2: Allowances for Cadent's East Coast North project (£m, 2018/19 prices)

Cost category	Draft Allowances	Ofgem adjustments	Final Allowances
Project Cost	17.24	0.00	17.24
Land, planning and consent costs	12.21	0.00	12.21
Contingency	2.95	0.00	2.95
Efficient Project Costs	32.40	0.00	32.40
Private contribution (10%)	-3.24	0.00	-3.24
TIM impact adjustment	-3.24	0.00	-3.24
Total allowance	25.92	0.00	25.92

2.144 **FD** for Cadent's East Coast North FEED Project: £25.92m

Final Determination: NGN East Coast FEED project

2.145 We asked stakeholders in our DDs if they agreed with our minded-to decision to approve funding for the NGN East Coast project under the NZASP Re-opener mechanism, and at the value proposed.

2.146 We received eight direct responses to this question; five stakeholders and Cadent, NGN and NGT. All supported our proposal to award funding to NGN's East Coast North project.

2.147 NGN responses to our decision regarding 10% cash-based private contribution and the proposed TIM adjustment mechanism are covered in our FDs for Q3.

2.148 We have made no changes to NGN's draft allowances.

Table 3: Allowances for NGN East Coast project (£m, 2018/19 prices)

Cost category	Draft Allowances	Ofgem adjustments	Final Allowances
Project Cost	13.59	0.00	13.59
Land, planning and consent costs	3.57	0.00	3.57
Contingency	1.72	0.00	1.72
Efficient Project Costs	18.88	0.00	18.88
Private contribution (10%)	-1.88	0.00	-1.88
TIM impact adjustment	-1.96	0.00	-1.96
Total allowance	15.04	0.00	15.04

2.149 **FD** for NGN’s East Coast FEED Project: £15.04m

Final Determination: NGT PU: East Coast FEED project

2.150 We asked in our DDs if stakeholders agreed with our minded-to decision to approve funding for the NGT PU: East Coast project under the NZASP Re-opener mechanism, and at the value proposed.

2.151 We received thirteen direct responses to question six; ten stakeholders and Cadent, NGN and NGT. All supported our proposal to award funding to NGT’s East Coast North project.

2.152 NGT responses to our decisions regarding contingency, contributions, number of FEED studies allowed, and the proposed TIM adjustment mechanism are covered in our FDs for Q3.

2.153 We have increased NGT allowances for ‘enabling activities’ (see paragraphs 2.156 to 2.179 below for explanation).

Table 4: Allowances for NGT’s PU: East Coast project (£m, 2018/19 prices)

Cost category	Draft Allowances	Ofgem adjustments	Final Allowances
Project Cost	23.83	-	23.83
Land, planning and consent costs	8.82	-	8.82
Enabling activities	4.35	+2.33	6.68
Contingency	3.70	+0.23	3.93
Efficient Project Costs	40.71	+2.56	43.26
Private contribution (10%)	-4.07	-0.26	-4.33
TIM impact adjustment	-6.37	-0.40	-6.77
Total allowance	30.27	+1.90	32.16

2.154 Applying NGT's assessed efficient costs (£43.26m) and NGT contribution (£4.33m) values as per Table 4 above, in addition to NGT's Totex Incentive Strength of 39%⁴, gives the following allowance:

$$\begin{aligned}
 [Allowance] &= [43.26] - \left[\frac{4.33}{39\%} \right] \\
 &= £32.16m
 \end{aligned}$$

2.155 **FD** for NGT's PU: East Coast FEED [Project: £32.16m](#).

Enabling activities: analysis of responses and decisions

2.156 In our Draft Determination, we proposed not to fund some of the additional costs associated with 'enabling activities', which we judged were not essential to the delivery of the NGT PU: East Coast FEED study. The work packages that we proposed not to fund were:

1. Implementation Strategy
2. Hydrogen Policy
3. Supply Chain

⁴ as per NGT's licence

4. System Operations
5. Engineering Policy
6. Data storage
7. Asset Strategy
8. People

- 2.157 Eight stakeholders directly commented on enabling activities. One stakeholder agreed “with the exclusion of non-essential enabling costs”. Seven stakeholders voiced various levels of disagreement with our proposal to not fund enabling activities and support for funding the wider PU programme.
- 2.158 One stakeholder suggested that we could consider if these activities could be carried over to the RIIO-3 business plans.
- 2.159 Decisions relating to hydrogen activities in the RIIO-3 business plan is a separate process and out of scope for this NZASP re-opener funding decision.
- 2.160 Amongst stakeholders there was most support for retaining funding in system operations, engineering policy/new standards, supply chain development, asset strategy work packages.

Hydrogen policy and People work packages

- 2.161 In its response, NGT indicates an acceptance of our Draft Determinations for the hydrogen policy and people work packages and will consider taking these forward under the HTBM AR1 mechanism instead.

Implementation strategy work package

- 2.162 NGT makes the case that the implementation strategy work package will ensure that the development of the FEED Deliverables is coherent and aligned with the overarching needs case of the project.
- 2.163 Our decision is to accept the NGT proposal that £0.209m is required to continue for PU: East Coast specifically.

Supply chain work package

- 2.164 Consumers are not funding East Coast network construction, and our view is that the overall strategic procurement strategy and a procurement model for PU as outlined in the proposal for the supply chain work package is not in the FEED scope. We understand that there may be efficiencies for a programme led

approach but in the context of a temporary funding arrangement there is little value to gas consumers of this approach.

2.165 In its response NGT has identified the activities in the supply chain work package that relate only to the East Coast FEED. NGT considers this work is essential to the successful delivery of the East Coast FEED by securing the right FEED contractors, delivering more robust FEED cost estimates, de-risking delivery and ultimately lower devex costs and bills for consumers.

2.166 We accept that some supply chain costs are essential to the delivery of the PU: East cost FEED. We also recognise the importance of accurate FEED cost estimates in enabling future decisions by DESNZ. Our decision is therefore to accept the £1.326m cost of delivering the supply chain scope specific to PU East Coast FEED.

Systems operation work package

2.167 NGT makes the case that much of the activities in the system operation work package is specifically focused on operating PU: East Coast. The design of the East Coast network requires an assessment of the IT and control infrastructure requirements and developing physical and commercial operations. NGT will need to monitor developments on national frameworks as changes could feed into the design.

2.168 In our further conversations on this work package, we gained a greater understanding of the importance of assessing the IT and control infrastructure requirements as part of the FEED work for PU: East Coast. We have decided to accept the PU East Coast FEED only costs for this activity which is forecast at £0.794m.

Engineering policy work package

2.169 In its response, NGT highlights that that it is necessary for the knowledge developed from hydrogen research to be documented within its engineering policies. The work required to develop technical engineering standards for hydrogen is significant and was not anticipated.

2.170 We recognise that the task to develop a hydrogen safety management system framework, including engineering policies may be significant and critical to transitioning to a safely operable hydrogen network. However, we are of the opinion that this is a wider work package that sits outside the scope of our RIIO-2 interim funding arrangement for FEED studies.

2.171 Our decision is to not fund this work package through the NZASP re-opener. NGT may wish to consider if this work package is a suitable project for funding via other funding mechanisms.

Data work package

2.172 In its response, NGT makes the case that repurposing its existing pipeline infrastructure for hydrogen demands a more granular and specific standard of data than that which has traditionally been required for methane. Without making this data more accessible and trustworthy, it says that it risks delays and gaps in the evidence base that could impact project timelines and safety.

2.173 Whilst we understand that enhancing hydrogen data accessibility and quality will improve decision-making for hydrogen assessments our view is that this is a wider work package that is not essential to the scope of the PU: East Coast FEED study and the objectives of our temporary funding arrangements.

2.174 NGT may wish to consider if this work package is a suitable project for funding via other funding mechanisms.

Asset strategy work package

2.175 The NGT response on this work package emphasises that this a one-off activity to ensure that the long-term risk to the retained methane network is fully understood to enable repurposing decisions to consider the impact to end-consumers.

2.176 Our opinion is that this work might be a valuable piece of research helpful to future DESNZ decision making but it is not within the scope of East Coast FEED study re-opener funding.

2.177 NGT may wish to consider if this work package is a suitable project for funding via other funding mechanisms.

FD on 'enabling activity' costs

2.178 We will include an additional [£2.33m](#) of costs in the implementation strategy, supply chain and systems operations work packages that have been identified by NGT as specific to PU: East Coast.

2.179 We confirm that we will not be funding hydrogen policy, engineering policy, data, asset strategy and people work packages as we do not deem these as being within the scope of our interim funding arrangement for hydrogen network FEED studies.

Final Determination: Cadent, NGN and NGT Deliverables

2.180 We asked stakeholders in our DDs if they agreed with our proposed Deliverables for Cadent, NGN and NGT.

2.181 FD on Deliverables:

We have made no changes to the Deliverables from those that were presented in the Draft Determination. The Deliverables are listed in the company Directions which are published alongside our Final Deliverables document.

2.182 We received seven direct responses on Deliverables, four from stakeholders and also responses from Cadent, NGN and NGT. Stakeholders were in favour of requiring Deliverables and the GTs reported that they are generally acceptable.

2.183 One stakeholder said that they would like to see the final FEED report.

2.184 Companies are free to publish or share their FEED studies if they choose to do so. The NZASP re-opener guidance (2.21) sets out that we can require network licensees to share knowledge in our funding decision. Our interim funding arrangement is in support of DESNZ hydrogen objectives, and the FEED studies are not directly for Ofgem use.

2.185 Although we encourage collaborative behaviour and transparency we do not normally insist that companies publish close down reports or FEED studies. In this case, the HTBM may have potentially different publishing and confidentiality requirements, and so we have decided not to mandate publication or sharing of the FEED study.

2.186 One stakeholder asked for a firm set of delivery timelines.

2.187 Due to the complexity of the projects and the challenges on resources, the deliverable deadlines for each company have been drafted to be 'anticipated' rather than firm. We will review delivery timelines regularly with companies. Our decision is to retain the anticipated delivery dates.

2.188 We note the point from NGN that there is a co-dependency between the timing of the NGN and NGT FEED studies. Any delay to the Deliverables of one will impact the other.

2.189 NGT indicated it would like the opportunity to revisit the Deliverables as set out in the Direction should repurposing no longer be a viable option. We agree that this

scenario would necessitate a revaluation of project viability within our interim funding arrangement.

Final Determination: Cadent, NGN and NGT Directions

- 2.190 We asked in our DDs if stakeholders agreed with our proposed Directions for Cadent, NGN and NGT.
- 2.191 **FD on Directions:** We have updated the text in the Cadent, NGN and NGT Directions to allow for any change to Totex strength in RIIO-3 as it applies to the TIM adjustment factor. We have updated the allowance in the NGT Direction to account for some additional funding for enabling activities that are specifically relevant to the PU: East Coast project. Otherwise, there are no other material changes from the draft Directions presented in the Draft Determinations.
- 2.192 We received five direct responses to this question. Two stakeholders and Cadent, NGN and NGT were in broad agreement with the Directions.
- 2.193 NGT disagree with the 10% contribution requirement in the Direction which has been addressed in our response to Q3 in this document.
- 2.194 NGT has pointed out that the NGT draft Direction contained a naming error which we have corrected in the Direction.
- 2.195 We have updated the Directions for Cadent, NGN and NGT to allow for any change to Totex strength in RIIO-3 as it applies to the TIM adjustment factor as detailed in Q3 responses.
- 2.196 The Directions for Cadent, NGN and NGT are published separately and alongside this Final Deliverables document.