Consultation

Making a positive difference for energy consumers

RIIO-3 Sector Specific Methodology Consultation – GT Annex

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We are consulting on the methodologies we will apply for the electricity and gas transmission and gas distribution sectors in the RIIO-3 price control, which will run from 1 April 2026. We would welcome views from all stakeholders with an interest in the regulation of the energy networks. We particularly welcome responses from groups representing consumers of gas and electricity. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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1. Introduction

Structure of this document and associated documents

1.1 In October 2023, we published our decision on frameworks for future systems and network regulation (FSNR),[1] which set out our proposed approach to the RIIO-3 price controls and highlighted the main areas of proposed change from the current RIIO-2 price controls (this is referred to as our 'Framework Decision').

1.2 This consultation comprises the RIIO-3 Sector Specific Methodology (Overview Document), the Regulatory Finance annex (Finance Annex), and sector specific annex documents for gas distribution (GD), gas transmission (GT) and electricity transmission (ET). The sector specific documents are intended to be read alongside the Overview Document and Finance Annex.

1.3 The Overview Document provides detail on how we propose to apply the Framework Decision to areas that are relevant across the sectors. The proposals in the Overview Document apply across the GD, GT and ET networks.

1.4 This document is focused on the application of the RIIO-3 framework, established through our decision on FSNR, to GT specific issues. It sets out our sector specific views on the aspects of the RIIO-3 price control that the gas transmission network needs to understand to be able to put together its business plans.

What is gas transmission?

1.5 Britain’s gas transmission network, the National Transmission System (NTS), is 7,630 km of high-pressure pipeline which transports gas from the entry terminals to gas distribution networks, or directly to power stations and other large industrial users. It is owned and operated by National Gas Transmission (NGT), which is the sole Gas Transmission Owner (GTO) and Gas System Operator (GSO) in Great Britain.

1.6 NGT, in its role as the GTO, owns and maintains the network assets. It is responsible for maintaining the integrity of the networks, developing asset replacement schedules and for providing transmission services to the GSO and network users.

1.7 NGT, in its role as the GSO, is responsible for the day-to-day operation of the NTS, including balancing supply and demand, maintaining satisfactory system

[1] https://www.ofgem.gov.uk/publications/decision-frameworks-future-systems-and-network-regulation

pressures, providing market functions and ensuring gas quality standards are met.

1.8 RIIO-3 will determine allowances and incentives to ensure the GTO develops, maintains and operates a safe and resilient transmission network. For the GSO, RIIO-3 will determine allowances to deliver its GSO functions, eg staff and IT (internal costs). It will also set GSO incentives to help optimise delivery of efficient service from a consumer perspective and minimise system operation costs (external costs).

What are we consulting on?

1.9 This consultation, read alongside the Overview Document and Finance Annex, sets out the key policy considerations that we would like stakeholder views on in advance of reaching a decision on the methodology for RIIO-GT3 in late spring 2024.

1.10 In some areas we set out a relatively detailed policy proposal that is being built on following the Framework Decision. In other areas we are seeking more general views on the performance of RIIO-GT2 mechanisms and how these could be adapted or fundamentally changed for RIIO-GT3.

How to respond

1.11 We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.12 We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

1.13 We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

1.14 You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.15 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you do wish to be kept confidential and those

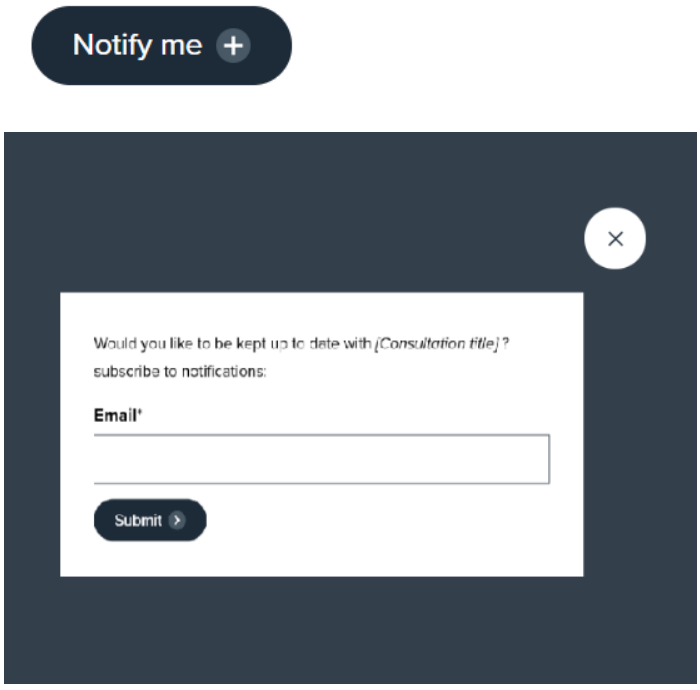
that you do not wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.16 If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 1.

1.17 If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

How to track the progress of the consultation

1.18 You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. Ofgem.gov.uk/consultations



1.19 Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:

Upcoming > Open > Closed (awaiting decision) **> Closed** (with decision)

2. Infrastructure fit for a low-cost transition to net zero

Introduction

2.1 Networks will play a vital role in the energy system transformation which means investing, upgrading, and relocating capacity, and reconsidering the use of the existing network. Natural gas demand is expected to decline in all future scenarios, but it is currently uncertain what impact this will have on the existing gas transmission networks, and when this impact will occur.

2.2 Requirements on the gas network will be different to those of electricity, as we manage the implications of declining use of gas for power generation and electrification of some current gas demand. The speed and location of this transition are uncertain. We consider it is important to develop the flexibility within the RIIO-GT3 price control to manage the uncertainty around the future of gas networks, and to provide funding where appropriate, to ensure secure and resilient supplies.

2.3 Two of the key challenges for economic regulation of gas networks will be sharing the cost of existing assets across a declining number of consumers in a fair manner, and how decommissioning and/or repurposing of the gas network is carried out efficiently and to maintain an appropriate balance of risk allocation between consumers and investors.

2.4 We need to address these challenges in a context whereby the future role of hydrogen is uncertain, with government yet to make a decision on its use for domestic heating. This uncertainty has more pronounced implications for GD than GT, with the latter likely to be required at least in part to develop hydrogen infrastructure to meet the needs of industry and power generation. NGT's Project Union is underway to connect hydrogen production centres to industrial, heat, transport and power consumers.

2.5 Notwithstanding these uncertainties, Ofgem bases decisions on the current stated government position and how that flows into our remit. In setting our price controls, we have regard to the need to that network companies can finance their activities. On this basis, we must plan to recoup past and future investment from current and future consumers. This may mean there is merit in leaving some optionality for transfers of repurposable assets to third parties to protect consumers. Our Finance Annex sets out how these considerations could inform our policy decisions around regulatory depreciation and asset lives to address any perception (or misperception) of asset stranding risk.

2.6 This chapter sets out how we propose to design the RIIO-GT3 price control to deliver the required investment in the gas transmission network to support low-cost transition to net zero, in relation to the following areas:

- the role of strategic planning; and
- minimising networks' impact on the environment.

2.7 This chapter should be read alongside the Overview Document, which considers:

- the future of gas in more detail in Chapter 4;
- cross-sector mechanisms to minimise the impact of networks on the environment in Chapter 6; and
- our approach to managing uncertainty in Chapter 8.

Role of strategic planning

2.8 In 2026, the Future System Operator (FSO) is expected to produce a GT strategic network plan as part of the Centralised Strategic Network Plan (CSNP). During the next price control period the FSO will also become the delivery body for Regional System Energy Planners (RESPs) that will inform distribution level strategic investment across the electricity and gas distribution networks.[2]

2.9 Prior to delivering these outputs, the FSO will coordinate a bespoke gas transmission strategic planning cycle from 2024-26, commencing with a statement of need for the gas network which is expected to be delivered by late 2024/early 2025.

2.10 Given the new FSO responsibilities that are being created we will need to ensure we have the appropriate mechanisms in place for the price control to manage and adapt to this uncertainty.

FSO as a strategic planner

2.11 The Energy Act 2023 provides for the FSO as an expert, impartial body with responsibilities in electricity and gas. It has an important duty to facilitate net zero whilst also maintaining a resilient, and affordable system. The FSO will be operational in advance of the start of RIIO-GT3.

2.12 As outlined in the July 2021 Energy Future System Operator consultation and the Second Policy Consultation and Update in August 2023, the FSO is expected to

[2] Future of local energy institutions and governance (ofgem.gov.uk)

undertake gas strategic network planning, medium to long-term forecasting and market strategy functions from 2024.[3,4,5] NGT will still perform its network capability assessments to facilitate operation and maintenance of the NTS, ensuring safety standards are kept and maintaining security of supply. Data sharing, continued engagement, changes to licences and to the Uniform Network Code will be integral to running of this process.

2.13 One of the key outputs delivered by the FSO will be a whole systems CSNP, to be first published in 2026. However, the FSO is expected to engage on the GT Business Plan development and publish a statement of need for the gas system as part of a bespoke gas strategic planning cycle commencing from 2024. Considering how to integrate these new FSO responsibilities and products into the RIIO-3 framework to inform network investment decisions is an important area to explore. This may require the development of associated Uncertainty Mechanisms (UMs) as these FSO products are expected to come in too late to inform NGT's Business Plan.

The FSO's gas strategic planning process (2024-26)

2.14 In November 2022, we set out our decision on the creation of a new whole system, network planning output (the CSNP),[6] that will be delivered by the new FSO. Prior to the production of the whole system CSNP, the FSO will coordinate a gas strategic planning process for day 1 (2024-26).

2.15 We expect the FSO to develop its capabilities to meet its new gas planning role. The governments' FSO Second Policy Consultation sets out that:[7]

- gas transmission networks will be considered in the first longer-term CSNP, to be published in 2026; and
- between 2024 and 2026, the FSO will run a one-off process to produce a Gas Network Capability and Needs Report (GNCNR) and a subsequent options assessment document, similar to the electricity transmission Network Option Assessment, but for the NTS. It is expected to be produced by late 2024/early 2025 and will provide the foundations for how the NTS will be considered as part of the 2026 CSNP.

[3] Consultation on proposals for a Future System Operator role | Ofgem
[4] Future System Operator - Second Policy Consultation and Update (publishing.service.gov.uk)
[5] The short-term functions, namely real time system operation, customer connections and the responsibility to maintain the HSE Safety case will remain with NGT.
[6] Decision on the initial findings of our Electricity Transmission Network Planning Review | Ofgem
[7] Future System Operator - Second Policy Consultation and Update (publishing.service.gov.uk)

2.16 The gas strategic planning process until 2026 starts with the FSO publishing its view of gas network capability and statement of need for the NTS. The FSO will also outline its triggers and drivers for change, based on its legal duties (including net zero) in the development of its network needs case.

2.17 The government has also provided signals on the role the FSO should play in hydrogen transportation and storage planning. Previously, the government set out its minded-to position that from day 1, the FSO will need to account for hydrogen production, transportation, and storage to the extent it impacts the electricity and natural gas networks. For example, the FSO should consider where hydrogen can add system value by overcoming electricity network constraints and account for the grid implications of potential hydrogen electrolysers. The government's Hydrogen Strategy Delivery Update (to be published 14 December 2023) will set out its plan to consult on the full role the FSO should play in hydrogen transportation and storage planning in summer 2024.[8]

2.18 NGT will respond to the FSO's needs and propose options to meet them, which may include investment or reinforcement. The FSO will assess the options and provide recommendations to Ofgem, including advice on the proposed options and direction of travel, or whether other non-asset-based options should be considered.

2.19 Additional costs driven by changes in RIIO-3 investment needs following the FSOs' GNCNR will be submitted to Ofgem for future project funding decisions. Since this is expected to happen after NGT's Business Plan submission, we think this may require the development of associated UMs.

CSNP outputs and products

2.20 The first longer-term CSNP in 2026 (updated every three years) will assess the network needs for electricity and gas transmission out to 2050, taking into consideration the demand and supply profiles of other energy vectors. It will select optimal projects to meet network requirements against net zero targets, address operability challenges for electricity, and advise the government and industry on energy system planning. NGT will have a vital role in shaping and informing the CSNP. We will need to ensure that the RIIO-3 framework is adaptable to accommodate FSO's recommendations that will be part of the CSNP outputs.

[8] https://www.gov.uk/government/publications/uk-hydrogen-strategy

Implications of FSO strategic planning for RIIO-GT3

2.21 We expect that as a minimum the FSOs' GNCNR and CSNP will provide an independent assessment of network capability to support price control investment decisions. However, delivery of the GNCNR, the first CSNP and the establishment of RESP planning assumptions will be after NGT has submitted its RIIO-3 Business Plan. We think that this will require us to put in UMs to adapt investment funding to changing requirements on the gas transmission network during the price control. It will also have implications for NGT's licence obligation to prepare and publish the Annual Network Capability Assessment Report (ANCAR) (see section Paragraphs 3.5-3.9 for more detail).

2.22 We consider that a re-opener would be suitable to manage additional costs driven by changes in investment needs resulting from the FSO's outputs, because at present both costs and scope are uncertain.

2.23 We propose to have annual windows for this re-opener starting from the first year of the price control to accommodate any changes required following the publication of the GNCNR and the CSNP. We believe that this will provide the flexibility required for NGT to accommodate any other investment needs identified by the FSO during the price control.

2.24 We propose to work with NGT ahead of the Sector Specific Methodology Decision (SSMD) for RIIO-3 on the scope, timing and design of this UM to ensure that investments that would be beneficial to GB consumers are not delayed.

GTQ1. Do you agree with our proposal to include a re-opener to manage the impact of introduction of the CSNP and gas strategic planning processes, with annual windows starting from the first year of the price control?

GTQ2. Are there any other areas of our proposed RIIO-3 framework (eg outputs or UMs) that you think may need to adapt to accommodate the future role of the FSO in strategic network planning?

Minimising networks' impact on the environment

2.25 One of our aims for the RIIO-3 price control is to continue to ensure that energy consumers across GB get environmentally sustainable outcomes from their networks.

2.26 Our RIIO-GT2 environmental framework focused on capturing the extent of environmental impacts. NGT does this through the publication of the Annual

Environmental Report (AER)[9] where it tracks progress in achieving its Environmental Action Plan (EAP) commitments and related Output Delivery Incentives (ODI), Price Control Deliverables (PCD) and UMs.

2.27 The AER areas of focus are:

- contribution to energy system decarbonisation;
- climate change impacts;
- resource use and waste;
- sustainable procurement; and
- local environment.

2.28 Consequently, in RIIO-GT2 we designed an outputs package to encourage NGT to focus and stretch itself in these areas. Although we believe that the current package is driving the right behaviours and should be retained in RIIO-GT3, we expect NGT to put forward a well justified ambitious proposal for the environmental outputs and incentives package that would in turn lead to reduced emissions from its operations, thus accelerating its contribution to net zero by 2050.

2.29 Table 1 shows the summary of the RIIO-GT3 proposed outputs for minimising NGT's impact on the environment. Each of these outputs are described further in this chapter or in the Overview Document.

[9] nationalgas.com/document/144461/download

Table 1: Summary of RIIO-GT3 proposed environmental outputs.

Output name	**Output type**[10]	**Licensee Affected**	**Company driven target**[11]	**Comparison to RIIO-2**
EAP and AER	ODI-R	GSO and GTO	Yes	Revise RIIO-2 output
Environmental Scorecard	ODI-F	GSO and GTO	Yes	Propose to remove
Greenhouse Gas Emissions	ODI-F	GSO	No	Revise RIIO-2 output
NTS Shrinkage	ODI-R	GSO	Yes	Revise RIIO-2 output
Redundant Assets	PCD	GTO	No	Retain from RIIO-2
Compressor emissions	PCD	GTO	No	Retain from RIIO-2

GTQ3. What are your views on what the overall focus of the RIIO-GT3 environmental package should be, and should any additional areas be incentivised?

GTQ4. What are your views on each of the current individual environmental outputs presented in this section and the Overview Document?

Environmental Action Plan (EAP) and Annual Environmental Report (AER)

2.30 For details of our proposals on the EAP and the AER, see Chapter 6 of the Overview Document.

Greenhouse Gas Emissions (venting) ODI-F

2.31 Compressor units on the transmission system are sometimes depressurised to move gas from sources of supply to areas of demand. When these assets are depressurised, gas is released which contributes greenhouse gas (GHG) emissions into the atmosphere.

[10] ODI(R/F) = Output Delivery Incentive (Reputational/Financial), PCD= Price Control Deliverable, LO=Licence Obligations

[11] Company driven target signifies an output where we expect to see extensive company-led engagement (including with their Independent Stakeholder Group (ISG)) to justify a stretching performance target.

2.32 The GHG emissions incentive was introduced in RIIO-GT1 as a downside only incentive to encourage the GSO to consider the environment when venting from NTS compressors.

2.33 In RIIO-GT2, the incentive was recalibrated to a symmetrical incentive to encourage the GSO to take a more proactive approach to minimise venting by planning compressors' use and maintenance with methane emissions in mind. The scheme incentivises NGT to take the cost of GHG emissions into account when deciding whether to depressurise compressor units (venting the gas within them) or to avoid venting the compressor units when not in use.

2.34 The incentive compares actual venting quantities against a target level, which is currently set at 2,897 tonnes of natural gas annually (see Figure 1, showing actual venting of natural gas compared to the venting target). For every tonne vented above this target, NGT is subject to a penalty, ie. a venting reference price payment, which is based on the latest non-traded carbon reference venting price published by DESNZ.[12] The penalties above the target add up to a maximum annual penalty of £1.5m. Equally, if the tonnes of natural gas vented are lower than the target, NGT is rewarded for good performance up to a cap of £1.5m.[13]

2.35 In RIIO-GT1, NGT was penalised for its performance in 4 out of 8 years of the price control. In the first two years of RIIO-GT2, NGT has outperformed its target earning £1.5m in 2021/22 and £1.3m in 2022/23 (see Figure).

[12] The annual price is calculated as the average of the latest monthly non-traded central carbon price (£/tCO2e) in the regulatory year as published in advance by DESNZ (or any other government department from time to time taking on this responsibility). The 2023/24 reference price was ~£2.4k per tonne.

[13] The carbon reference venting price has been increasing over the years, meaning that it now takes less under- and/or over-venting to reach the cap and/or collar compared to previous years.

Figure 1: GHG venting performance and incentive reference price

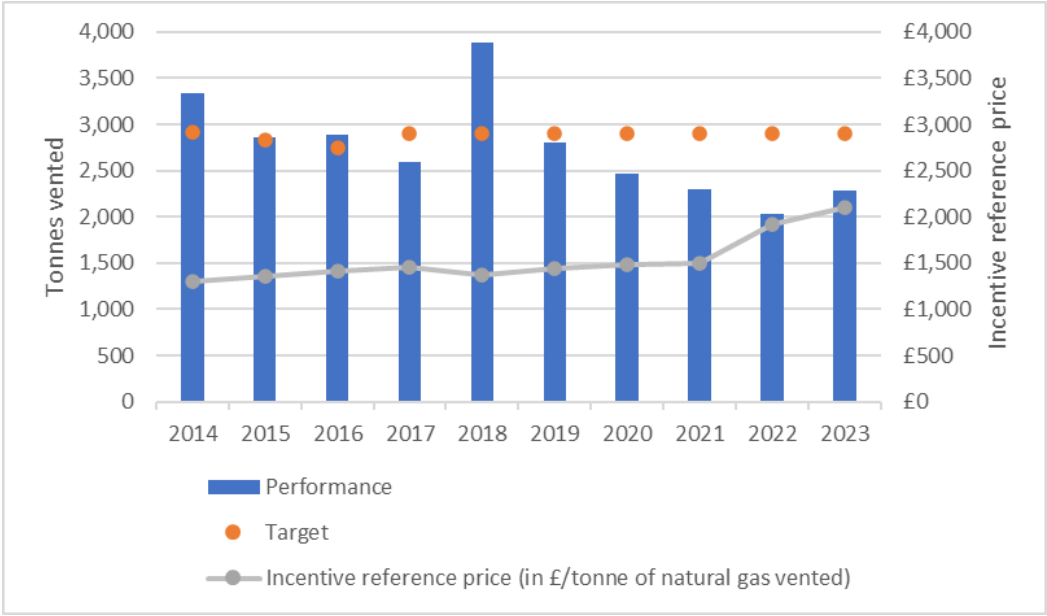
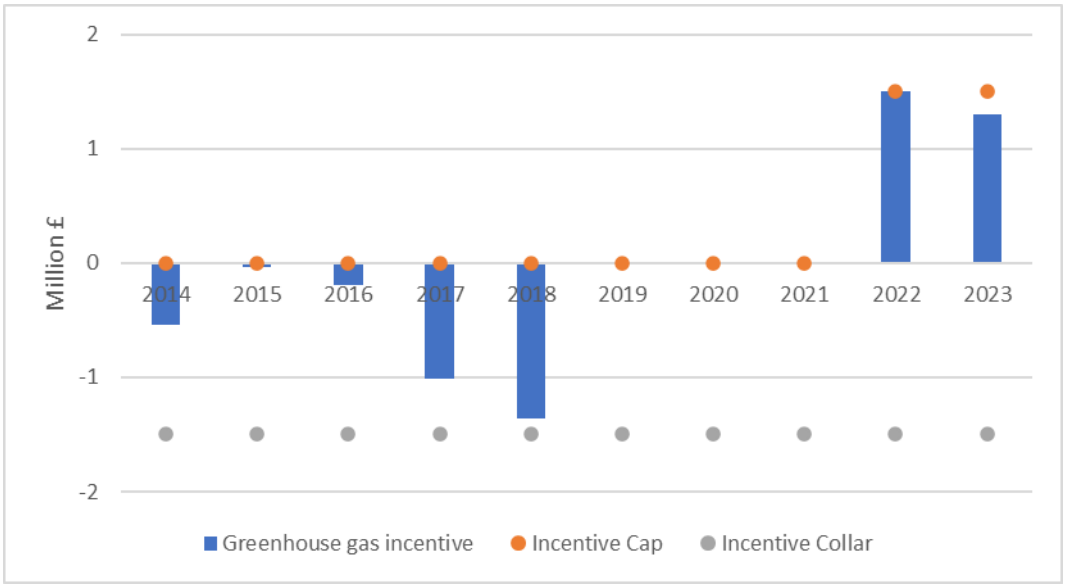


Figure 2: GHG Emissions incentive performance



2.36 NGT has emphasised that it has a limited degree of control when running the compressors and that the increased volatility of the network and changing flow patterns over the past two years has, in general, increased the need to run compressors. Furthermore, when venting, NGT is required to comply with the

existing environmental legislation that further tightens the minimum number of tonnes of GHG emissions that NGT can release (vent).[14]

2.37 Whilst we acknowledge the change in network circumstances, we believe that venting (and wider environmental considerations) is an essential part of NGT's standard business practice. Therefore ahead of RIIO-GT3, we want to better understand the value that a symmetrical upside reward drives for consumers.

2.38 We believe the additional funding that NGT has received should be taken into account when considering the GHG emissions target in RIIO-GT3. For example, through the RIIO-GT2 Net Zero Pre-construction and Small Projects re-opener we approved funding for a number of recompression machines that can be used for pipelines, pigtraps and compressor stations.[15] These assets are expected to play a role in reducing the emissions included in this incentive and we expect NGT to propose a more stretching target as a result.

2.39 The stakeholders we have engaged with through working groups agree with our proposal to review and tighten the incentive. One environmental organisation suggested that both the incentive target and what NGT is aiming to achieve in RIIO-3 should be more ambitious.

2.40 To drive NGTs' environmental performance when venting in RIIO-GT3, we are considering the following two options for the GHG incentive in RIIO-GT3:

- Option 1: Retain the output but as an asymmetrical financial incentive, with a larger cap than collar and a more stretching target. This would encourage NGT to continue to make further improvements to optimise the venting processes to the fullest extent possible; and
- Option 2: Returning to downside only incentive, embedding historical performance and a more stretching target. This option assumes that reduced GHG emissions below the target should be considered business as usual and that only underperformance would be penalised.

[14] There are three main Directives that influence NGT's operations. These are: The Industrial Emissions Directive (IED) that encompasses 7 previous Directives including the Large Combustion Plant (LCP) and Integrated Pollution Prevention and Control (IPPC) Directives; Medium Combustion Plant Directive (MCPD); and Ambient Air Quality Directive. The IED and MCPD are implemented in the UK via the Environmental Permitting (England and Wales) Regulations 2016 (EPR) and the Pollution Prevention and Control (Scotland) Regulations 2012. EPR and PPC require prescribed facilities, such as NGT's compressor stations, to hold a permit to operate. The permit sets out the emissions limits and operating conditions that an installation is required to function within using Best Available Techniques ("BAT"). Within the IED, there are a number of related requirements depending on the scale of the combustion plant.

[15] National Gas Transmission plc | Ofgem

2.41 For both options, we expect NGT to propose a target that is more challenging than the existing target and which takes into account improvements made from the existing emissions reduction funding granted to date.

GTQ5. What are your views on the above two options for the GHG emissions incentive?
GTQ6. What improvements to the incentive would continue to minimise NGT's impact on the environment from venting?

NTS shrinkage ODI-R

2.42 Shrinkage describes the energy that 'shrinks' in the operation of the gas network. The current NTS Shrinkage incentive is a reputational incentive across three components of shrinkage. This ODI-R incentivises the GSO to efficiently procure the use of its own gas and electricity for the operation of compressors and energy that cannot be billed, and to reduce the cost of shrinkage on the NTS.

2.43 Shrinkage is comprised of three components:

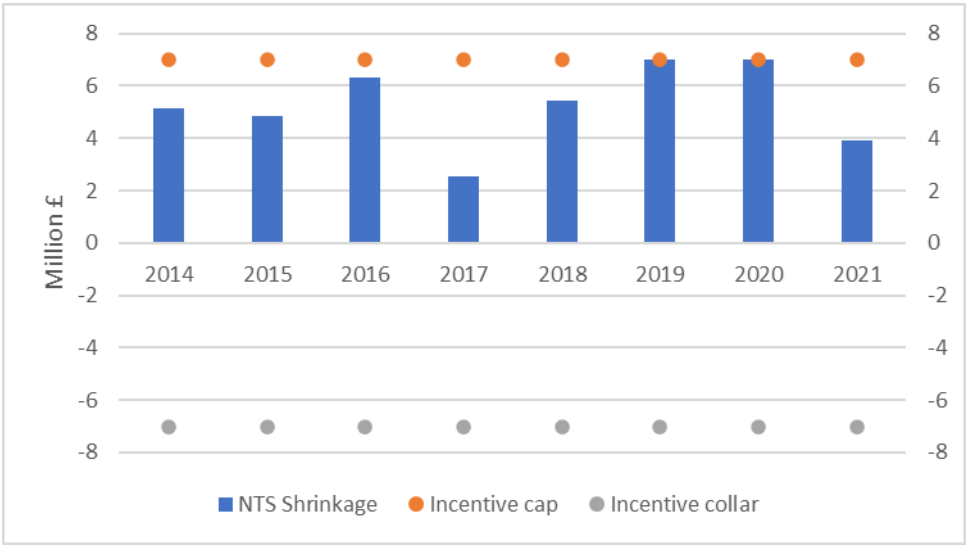
- Compressor Fuel Use ('CFU'), also described as Own Use Gas ('OUG'): The energy (electricity and gas) used to run compressors to transport gas through the NTS;
- Calorific Value Shrinkage ('CVS'): The energy which cannot be billed due to the provisions of the Gas (Calculation of Thermal Energy) Regulations 1996;[16] and
- Unaccounted for Gas ('UAG'): The residual component of shrinkage gas which is generally considered attributable to metering errors.

2.44 In RIIO-GT1, the NTS Shrinkage incentive was a financial incentive against which NGT performed well (see Figure 3 below). As part of RIIO-GT2, we consulted on changes to the incentive. Stakeholders expressed concerns in relation to target transparency[17] and its consumer value if NGT is unable to fully control shrinkage volumes and costs.

[16] The Gas (Calculation of Thermal Energy) Regulations 1996 (legislation.gov.uk). The maximum daily CV average permitted by the regulations is equal to 1.0 MJ/m³ above the lowest measured daily CV of the supplied gas into that charging area. If the supplied gas into a charging area has, at any point, a CV outside of this range, a capped CV (lowest CV + 1MJ/m³) is applied to the whole region for billing purposes.

[17] The target cost of shrinkage in RIIO-GT1 was set in accordance with the NTS Shrinkage Incentive Methodology Statement produced by NGT. The Statement described the steps NGT took to set its shrinkage target each year. NGT conducted regular reviews of the NTS Shrinkage Methodology Statements, but the feedback received from stakeholders was that target-setting was not transparent and might not have been producing targets that were challenging enough.

Figure 3: NGT's Shrinkage Incentive Revenue in RIIO-GT1



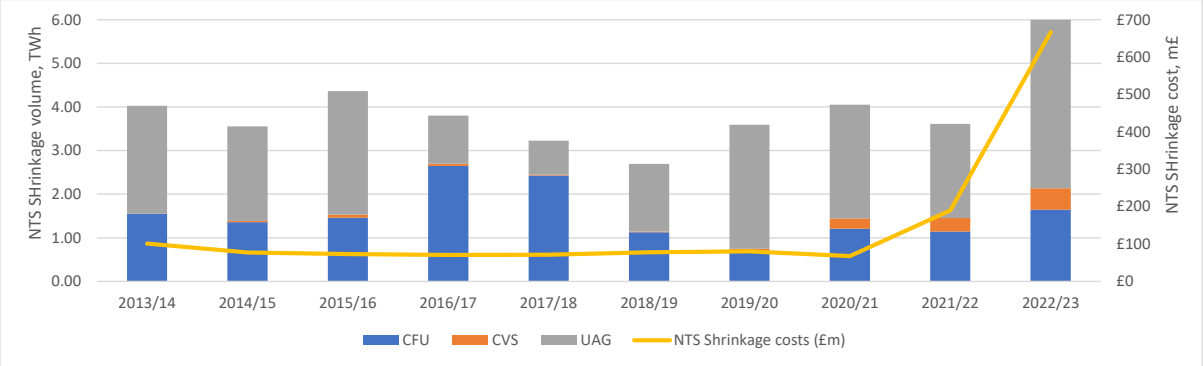
2.45 In its RIIO-GT2 Business Plan, NGT acknowledged its limited ability to control the volumes of shrinkage, especially since the UAG and CVS volume components are influenced by potential errors in data and tolerance of existing meters. We also noted that NGT's control over the CFU component of the NTS Shrinkage incentive is also limited by: flow patterns (Liquid Natural Gas supplies, St Fergus flows); network constraints that affect compressor running hours; and environmental regulations that NGT needs to comply with when running compressors (see Footnote 14).

2.46 NGT has an obligation to control the volumes of shrinkage where able to meet its duty under the Gas Act 1986 to develop and maintain an efficient and economical pipe-line system for the conveyance of gas.[18] Under the gas transporter licence, NGT is also obliged to report on the forecast, actual and average shrinkage costs, and investigate causes of UAG and CVS and report to us regularly. With these legal obligations and consumer value concerns in mind, the NTS Shrinkage incentive became a reputational-only incentive in RIIO-GT2.

2.47 In the first two years of RIIO-GT2, gas prices spiked and consequently, shrinkage costs increased from approximately an average of £77m annually in RIIO-GT1 to over £600m in 2022/23 alone (see Figure 4). Although the total cost of NTS shrinkage gas is expected to decrease from the inflated recent costs, the forecast costs are still considerably higher than in RIIO-GT1, raising the question of whether a financial incentive should be introduced if it can demonstrate consumer value.

[18] See section 9(1)(a).

Figure 4: NTS Shrinkage in TWh and cost of NTS Shrinkage



Note: NTS Shrinkage costs in the above figure show costs of procuring shrinkage gas and electricity.

2.48 The composition of the NTS shrinkage costs has changed over the past few years. Since 2013, CFU and UAG volumes have been on average 42% and 54% of total shrinkage gas respectively, although there is a large variance from year to year, with UAG accounting an increasing proportion of shrinkage volume in recent years.

2.49 Stakeholders we have engaged with in working groups agreed that this incentive is complex and had mixed views on whether it should be financially incentivised in RIIO-GT3. Two shippers urged caution when considering the reintroduction of a financial incentive given increased costs are largely due to the current high gas prices, which is largely outside of NGT's control. One shipper suggested that a financial reward could drive NGTs' performance improvement if it puts more focus on the management of these costs.

2.50 Stakeholders agreed that the UAG component of shrinkage needs to be reviewed. In particular, the reasons behind any potential metering errors should be reviewed to increase transparency around the issue. Two stakeholders said that they expect CVS to increase in the future with the potential introduction of hydrogen blending and green gases moving onto the NTS.

2.51 We have considered the following options in relation to the NTS Shrinkage incentive:

- Option 1: Continue with NTS Shrinkage as a reputational incentive. The underlying assumption of this approach is that NGT has limited control over procurement and volume of shrinkage gas. This, coupled with the target transparency question, is why we decided to set the NTS Shrinkage incentive as a reputational incentive in RIIO-GT2;

- Option 2: Reintroduce NTS Shrinkage financial incentive but with a collar and a cap that is proportionate to the annual shrinkage costs. This option would introduce a reward and penalty complementing the pass-through of shrinkage costs. An incentive scheme with a similar structure to that used in RIIO-GT1 would reinstate a financial incentive for efficient purchasing of shrinkage. A separate consideration is whether there might be scope for defining a further incentive component that can effectively deliver a direct incentive to reduce the energy quantity associated with shrinkage; and
- Option 3: Introduce a financial incentive for the UAG and CVS components. This option explicitly focuses on UAG and CVS as the two components with increasing volumes of shrinkage gas and the underlying reasons behind that require further investigation and mitigation. It could encourage NGT to take proactive actions to minimise the price and/or volume of CVS and UAG. We acknowledge that the UAG shrinkage gas may primarily be due to metering errors at entry and exit NTS points, and that the meters are owned by NGT's customers. However, NGT has bilateral contracts with the meter owners to ensure that the meters provide accurate readings to minimise costs to consumers.

2.52 Regardless of the above options, there is a question about the forecast and actual GSO costs that NGT incurs to operate its network, eg. to procure shrinkage gas, and how these are recovered. Whilst NGT is incentivised to forecast its costs as accurately as possible and obliged to operate its network in an economic and efficient manner, some of the GSO costs are particularly impacted by the spiking gas and electricity prices. In the first two years of RIIO-GT2 the GSO costs have increased significantly due to gas price volatility, and this has impacted the GSO allowed revenues due to the difference between forecast and outturn prices.

2.53 We propose to review how to incorporate and mitigate the risks of over- and/or under-recovery of GSO costs in RIIO-GT3 to minimise the risk and impact on consumers. In parallel, as an additional incentive for NGT to minimise the costs of shrinkage gas as much as possible, we could consider including NTS shrinkage costs within NGT's baseline totex allowance, exposing NGT to the totex incentive mechanism as a means to drive NGT to reduce costs.

GTQ7. What are your views on the above three options for the NTS Shrinkage incentive?

GTQ8. What are your views on reviewing the way the GSO costs, including costs for procuring NTS shrinkage gas, are forecast and recovered?

GTQ9. What are your views on including NTS Shrinkage costs within NGT's baseline totex allowance?

Redundant Assets Price Control Deliverable (PCD)

2.54 The requirements on the NTS will change as energy supply and demand patterns evolve to meet net zero. This may mean that there will be assets on the network that will no longer be required by NGT to operate the system - these are defined as redundant assets.

2.55 As outlined in Chapter 4 of the Overview Document, future government policy decisions, eg. on hydrogen heating, will affect the extent and speed of any decommissioning and repurposing of the existing gas network.

2.56 As set out in our Open Letter Decision on the Future of Gas Price Controls, our understanding is that it is unlikely that major parts of the gas network will start to become de-energised in a systematic way before the early 2030s.[19]

2.57 While we are not anticipating large-scale decommissioning costs during the RIIO-3 price control period, it is possible that government policy decisions or changes to the speed of the energy transition could lead to some decommissioning costs needing to be incurred during RIIO-3.

2.58 This is why we propose that the Redundant Assets PCD continues in RIIO-GT3 to provide funding for NGT to decommission network assets that are now redundant. We will review this policy with stakeholders through working groups in the coming months. Using a PCD will protect consumers by ensuring the return of any unspent allowances if the full scope of work is not delivered during RIIO-GT3.

GTQ10. Do you have any views on the future of this PCD?

Compressor Emissions Re-opener and PCD

2.59 NGT operates a number of gas fired compressor units across the NTS. These units emit air pollutants that NGT is obliged under law to control and manage.

2.60 During the RIIO-GT2 Business Plan review, NGT demonstrated the need for a Compressor Emissions Re-opener and PCD. In some circumstances, NGT were not able to fully justify the needs case for investment. This re-opener and PCD ensures that NGT can fund projects whilst protecting consumers from inefficient

[19] Open Letter Decision on the Future of Gas Price Controls, Ofgem website, p8, https://www.ofgem.gov.uk/publications/open-letter-decision-future-gas-price-controls

expenditure. We applied the re-opener mechanism to four projects (St Fergus, Wormington, King's Lynn and Peterborough) in RIIO-GT2 and have now made decisions on each of these.[20,21,22] We provided baseline funding to deliver the Hatton compressor emissions project in our RIIO-2 final determination.[23]

2.61 We propose to maintain the option of setting PCDs in RIIO-GT3 to hold NGT to account for delivery if compressor emissions projects are brought forward and if NGT shows it needs to replace some of its compressors due to the Industrial Emissions Directive (IED) regulation requirements. We expect to have full visibility of any required investment in NGT's Business Plan. We consider that the Hatton PCD is no longer required for RIIO-GT3 as the work should be completed by the end of RIIO-GT2, but PCDs for St Fergus, Wormington, King's Lynn and Peterborough will need to be retained until delivered during RIIO-GT3.

2.62 In RIIO-GT2 the projects proposed were in an early stage of development and therefore had significant uncertainty around outturn costs. Our intention in RIIO-3 is to baseline compressor emission costs. However, if necessary, we will consider whether an associated re-opener is required. We will continue to develop this policy through working groups with stakeholders in the coming months.

GTQ11. Do you have any views on the proposed removal of this re-opener?

GTQ12. Do you have any views on the above proposed PCD for RIIO-GT3, including on the Hatton PCD and on baselining compressor emission costs for the next price control?

[20] Decision - St Fergus Compressor Emissions - Final Preferred Option | Ofgem
[21] Decision - Wormington Compressor Emissions Final Preferred Option | Ofgem
[22] Decision - King's Lynn Compressor Emissions and Peterborough Huntingdon Compressor Emissions, Final Preferred Options | Ofgem
[23] RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem

3. Secure and resilient supplies

3.1 Network companies need to deliver a safe and resilient network that is also efficient and responsive to change. This chapter should be read in parallel with Chapter 6 of the Overview Document which describes our proposed RIIO-3 cross-sector approach to:

- the Network Asset Risk Metric (NARM);
- physical security;
- cyber security; and
- climate resilience.

3.2 This package of measures reflects the importance of maintaining safety and reliability against a backdrop of significant changes in how the energy system operates.

3.3 In this chapter, we focus on the sector specific challenge of ensuring that the GTO plans and manages outages efficiently in cooperation with the GSO.

3.4 Table 2 shows the summary of the RIIO-GT3 proposed outputs for NGT to deliver a safe and resilient network.

Table 2: Summary of RIIO-GT3 proposed outputs for secure and resilient supplies

Output name	**Output type**	**Licensee Affected**	**Company driven target**	**Comparison to RIIO-2**
Annual network capability assessment report	LO	GSO and GTO	No	Propose to remove
Asset health - non-lead assets	PCD	GTO	No	Retained from RIIO-2
Bacton terminal site redevelopment	Re-opener and PCD	GTO	No	Propose to remove
King's Lynn subsidence Re-opener and PCD	Re-opener and PCD	GTO	No	Propose to remove

Annual network capability assessment report (ANCAR) Licence Obligation (LO)

3.5 At the start of RIIO-GT2 we introduced a new LO on NGT to submit an ANCAR on an annual basis. We believed that the Network Capability Assessment could deliver value by providing a sound basis for NGT to make future network investment decisions. We wanted to encourage NGT to demonstrate greater transparency about the physical capability of the NTS, and to facilitate better understanding of how this impacts new network investment, operational constraint management and the management of network access.

3.6 NGT's Network Capability Assessment process enables it to calculate and demonstrate the physical capability of the NTS and how that capability compares to the needs of its current customers and into the future. The assessment is carried out against a range of future supply and demand scenarios using a range of inputs including the ESO's Future Energy Scenarios (FES).

3.7 The output of this assessment helps inform and evaluate potential changes to physical assets and justify investment needed to ensure the continued safe and economic operation of the NTS. It also helps set the trajectories and targets for constraint management outputs, used in the Capacity Constraint Management (CCM) incentive (see Paragraph 4.48 below).

3.8 In Chapter 2, we outlined the FSO's responsibilities to deliver a GNCNR and CSNP. There will be a transitional period until the FSO licence comes into effect and period before it will publish the GNCNR.

3.9 Our understanding is that NGT's NCA will help inform its Business Plans for the next price control. However, given the new responsibilities of the FSO for the network capability assessment in relation to gas strategic planning, we need to review whether there is still value in NGT producing the ANCAR.

GTQ13. Do you have any views on whether the ANCAR will still be required as an output in RIIO-GT3 and on its need for RIIO-GT2 business planning?

Asset health – non-lead assets PCD

3.10 In RIIO-GT2 the majority of NGT’s asset health plan on work that is necessary to maintain the safety and reliability of the network was covered by NARM. The remainder was other work such as civils and electrical investment, which is necessary for the protection of, and safe access to, operational network assets. As this is not covered by NARM, we introduced a PCD to ensure the delivery of

this output. The PCD protects consumers from the non-delivery of allowed volumes for non-lead assets.

3.11 We believe that the work ensuring protection of, and safe access to, operational network assets will remain important in RIIO-GT3 and we are minded to retain this PCD. We recognise the need to assess the benefits delivered by this PCD alongside any alterations to the scope and operation of NARM to ensure coherence, but currently envisage that these assets will remain outside of NARM.

GTQ14. Do you have any views on the effectiveness of this PCD?

Bacton terminal site redevelopment Re-opener and PCD

3.12 The Bacton terminal brings in flows from a number of North Sea gas fields, as well as hosting interconnectors to the Netherlands and Belgium. In RIIO-GT1 NGT encountered issues operating the equipment at the site and has undertaken a significant program of asset replacement.

3.13 With gas flows forecast to continue at the site for the foreseeable future, NGT proposed investment in RIIO-GT2 to provide an enduring solution and allow the connected terminals to continue to operate into the 2040s. We agreed that there was a long-term requirement, so we put in place a PCD to hold NGT to account for the delivery of the Bacton terminal redevelopment.

3.14 At the time, NGT's RIIO-GT2 business plan was submitted, the project was still in an early development stage and there was significant uncertainty around the costs. Due to this uncertainty, we accepted the request for a re-opener for the costs of this project.

3.15 For RIIO-GT3, we propose to remove the re-opener mechanism as the cost uncertainty has been resolved in RIIO-GT2. We intend to keep the PCD in place to hold NGT to account for delivery which is expected by 2030. We do not expect there to be additional funding requested by NGT associated with this PCD.

GTQ15. Do you have any views on our proposal to remove the Bacton re-opener mechanism but retain the PCD?

King’s Lynn subsidence Re-opener and PCD

3.16 Ahead of RIIO-GT2, NGT identified issues with bi-directional flow pipelines at King’s Lynn compressor station where subsidence issues were causing stress on the pipework at the site, causing safety, security of supply and environmental

risks. We created a PCD to deliver the necessary works to address these concerns and applied a re-opener to enable cost uncertainty to be addressed in-period.

3.17 The King's Lynn output has been delivered. Therefore, we see no reason to continue the King's Lynn subsidence PCD or re-opener in RIIO-GT3.

GTQ16. Do you have any views on this re-opener?

4. High quality of service from regulated firms

4.1 NGT, in its role as the GTO, is the asset owner and maintainer responsible for the transportation of gas through the NTS from supply points to exit offtake points safely, efficiently and reliably. Overall levels of gas demand have declined by 18% since 2010 (see Chapter 5 in the Overview Document). At the same time, the gas crisis has introduced increased volatility in the market resulting in unprecedented supply and demand patterns.[24] NGT in its role as the GSO has to take this volatility into account when managing network constraints, forecasting demand, maintaining the network, and performing its role as a residual balancer, whilst minimising costs for consumers.

4.2 In RIIO-GT2 we designed the financial and reputational ODI package to encourage NGT to deliver outputs and service quality that consumers and wider stakeholders wanted to see. As stated in our Framework Decision, we expect the network companies in RIIO-3 to deliver high quality services that meet the needs of consumers and network users and enable the transition to net zero.

4.3 To this end, we propose that the majority of the outputs from RIIO-GT2 are preserved for RIIO-3. We have begun to discuss potential changes in stakeholder working groups, and this will continue ahead of our SSMD.

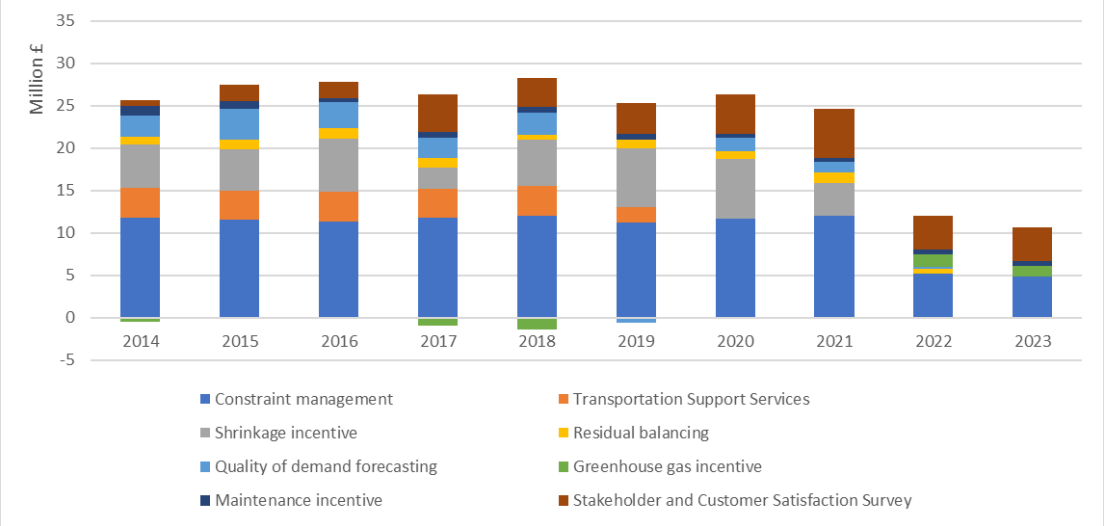
Setting ambitious outputs for NGT to deliver beyond business as usual

4.4 One of the key aspects for the RIIO-GT3 price control will be challenging NGT to build on its current levels of performance and make further improvements regarding system operation and asset ownership, in light of the above challenges. Our proposed outputs package will aim to achieve this outcome.

4.5 Our analysis of gas incentive performance during RIIO-GT1 and the first two years of RIIO-GT2 indicates that NGT has performed well against its incentive targets (see Figure 5 below). Going forward, we want to ensure that incentives are set at a level that delivers value to consumers and other NTS users and challenge NGT to go beyond 'business as usual'.

[24] Over the longer term, even though overall gas demand is expected to decline in the context of decarbonisation, peak demand is anticipated to remain relatively higher during the transition. The gas supply picture is also changing, with declining production of gas from the UK Continental Shelf (UKCS) and, though more slowly, gas from the Norwegian Continental Shelf (NCS).

Figure 5: NGT's performance against the key GSO and GTO incentives in RIIO-GT1 and GT2.[25]



4.6 We propose to retain most of the RIIO-GT2 incentives, but consider that the Entry and Exit Capacity Constraint Management Incentive and the NTS Shrinkage Incentive require a particular focus to ensure they remain ambitious and drive the right behaviours. We also expect NGT to work with us and stakeholders to strengthen its overall environmental incentive package (as outlined in Chapter 2 of this document and in Chapter 6 of the Overview Document).

Summary of RIIO-GT3 proposed outputs or options for outputs for high quality of service

4.7 Table 3 below shows the summary of the RIIO-GT3 proposed outputs for high quality of service provided by NGT.

Table 3: Summary of RIIO-GT3 proposed outputs or options for outputs for high quality of service.

Output Name	Output Type	Licensee Affected	Company Driven Target	Comparison to RIIO-2
Customer satisfaction survey	ODI-F	GTO	Yes	Revised RIIO-2 output

[25] Performance in RIIO-GT1 is in 2009/10 prices, for RIIO-GT2 in 2018/19 prices. The years listed are the years ending, eg 2014 denotes April 2013 to March 2014 performance. Stakeholder satisfaction survey rewards in RIIO-GT1 include revenue from the Customer Satisfaction survey.

Stakeholder satisfaction survey	ODI-R	GTO	No	Remove
Quality of demand forecasting (D-1 and D-2 to D-5)	ODI-F for D-1 ODI-R for D-2 to D-5	GSO	Yes	Revised RIIO-2 output
Maintenance	ODI-F	GSO	Yes	Revised RIIO-2 output
Entry and Exit Constraint Management	ODI-F	GSO	Yes	Revised RIIO-2 output
Residual Balancing	ODI-F	GSO	Yes	Revised RIIO-2 output

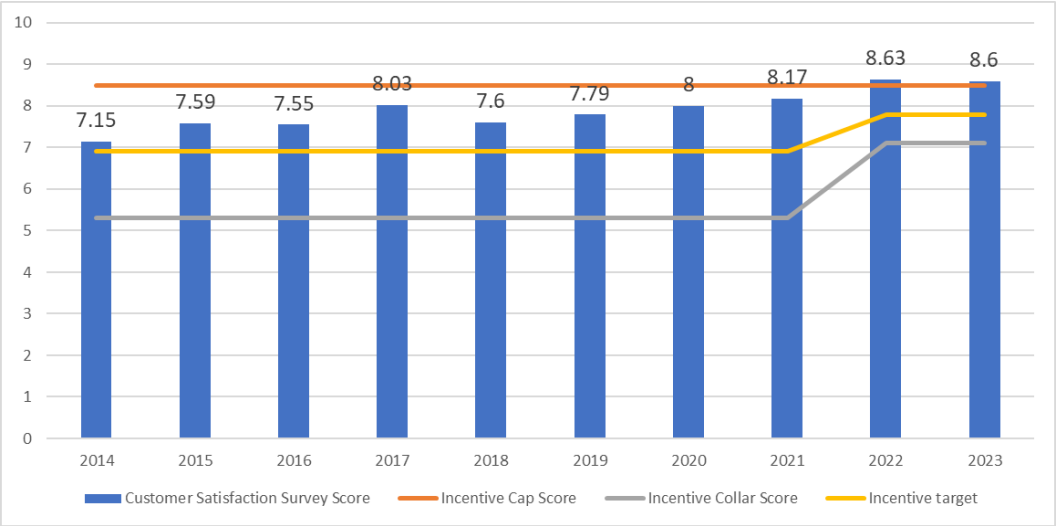
Customer Satisfaction Survey ODI-F

4.8 The original purpose of the Customer Satisfaction Survey financial incentive in RIIO-GT1 was to encourage NGT to become more outwardly focused by allowing it to earn revenue from surveying customers on their experiences of working with NGT. In RIIO-GT2 the incentive has continued to drive improvements in the quality of NGT's customer service, measured through customer satisfaction surveys.

4.9 The incentive works by rewarding/penalising NGT if annual average customer satisfaction scores for the general service touchpoint satisfaction question are higher/lower than target.[26] In RIIO-GT2, the target is 7.8 points (out of the maximum 10), with symmetrical rewards/penalties +/- 0.07% of annual average ex-ante Base Revenue for each incremental performance deviation from the target to a maximum +/-0.5% of annual average ex-ante Base Revenue for scores of 8.5/10 and above or 7.1/10 and below (see Figure 6 below).

[26] See Special Licence condition 4.2.7 for service touchpoints: Planning application process, The future use of our network, Gas construction, Gas markets policy and change services, Connections / disconnections and diversions services, Day to day account management, Energy balancing services (including allocations and measurements), Maintenance services, Events, Engagements, Forums, Capacity auctions.

Figure 6: Customer Satisfaction Survey Incentive.



4.10 In the first two years of RIIO-GT2, NGT have outperformed both the target and the incentive cap score of 8.5, achieving a score of 8.63 in 2021/22 and 8.60 in 2022/23. This has earned it rewards of around £4 million a year. We recognise the improvement in customer satisfaction scores since the start of RIIO-GT1 when NGT's score was 7.2/10. NGT consider further incremental improvements to be harder to deliver.

4.11 Given NGT's good performance against the target so far, consideration is needed as to whether good customer service has become business as usual and whether the target is challenging enough to incentive further improvements.

4.12 We have identified the following three options for this incentive in RIIO-GT3:

- Option 1 (preferred): Setting a more challenging target, recalibrating the incentive, including consideration of the scaler applied to out or underperformance, with a narrower cap and collar, whilst at the same time reviewing the range of touchpoints and considering expanding the areas of engagement to eg. introduce new survey areas, survey channels etc;
- Option 2: Replacing the incentive with a penalty only incentive; or
- Option 3: Removing a financial incentive and setting a reputational incentive.

4.13 Option 1 would embed the improvements we are seeing in RIIO-GT2 and continue to encourage NGT to provide a consistently high quality of service to its users including suppliers, gas shippers, distribution network operators, generators and large demand customers, and would be our preferred option. It would improve the existing financial incentive by encouraging NGT to expand the areas of

engagement, ie. widen the touchpoint areas for engagement and to introduce new survey channels.

4.14 However, Options 2 and 3 would to different extents consider high-quality interaction and customer satisfaction to be in NGT's own interest and thus business as usual. Although NGT would be obliged to engage with its customers to collect feedback on its performance, it would not be financially rewarded for its performance. Option 2 would still penalise NGT for not meeting its target. Option 3 is purely reputational.

4.15 Stakeholders with whom we have engaged in working groups generally agreed with our view that Option 1 is appropriate. Some stakeholders suggested that the incentive (and thus the satisfaction target) is broken down to cover more granular and touchpoint-specific areas eg. where NGT's scores are currently lower.

4.16 One way in which the target could be raised to drive the appropriate level of ambition is to weight the scores in a way that encourages NGT to focus on these areas with lower scores.

4.17 We consider that lowering the cap for this incentive reflects our ambition to maintain high standards, whilst recognising that customers may place less value, in terms of rewards, to drive up satisfaction further. We invite NGT to put forward proposals to improve continuous improvement in customer service and increase transparency of the survey results, including considering an option of publishing the results of customer service on its website.

4.18 We could also consider introducing asymmetry to the incentive value so the value of a penalty could be greater than the value of a reward. This would ensure that NGT's performance does not deteriorate. It would also recognise that the level of risk should appropriately correspond with the level of any reward.

GTQ17. Do you have any views on our options for the Customer Satisfaction Survey Incentive? In particular, do you see merit in recalibrating target performance to NGT's most recent performance?

GTQ18. Do you have any ideas how the strength of the incentive and the range between capped and collared outcomes should be set?

GTQ19. Which new touchpoint areas could be added to the incentive, and which new engagement and survey channels could be introduced to help NGT improve in the delivery of its services to customers?

GTQ20. Do you have any views related to the transparency of the customer survey results?

GTQ21. Do you have any views on how positive changes in NGT's behaviour and customer service could be incentivised?

Stakeholder Satisfaction Survey ODI-R

4.19 In addition to the Customer Satisfaction Survey, which measures customer satisfaction across several touchpoints defined in NGT's licence, NGT is also encouraged to provide high levels of stakeholder satisfaction generally across its business.

4.20 This ODI-R requires NGT to report the levels of stakeholder satisfaction measured through a stakeholder satisfaction survey with all the stakeholder organisations it interacts with, not only its customers. NGT is not financially rewarded or penalised for its performance above/below a target of 7.4 out of 10. The survey provides insights that help NGT meet its stakeholders' expectations.

4.21 In RIIO-GT1 and in the first two years of RIIO-GT2, NGT has outperformed the target, achieving a score of 8.55 and 8.69 in 2021/22 and 2022/23 respectively. Although we recognise the improvement in stakeholder satisfaction scores since the start of RIIO-GT1 when the score was 7.8/10, we consider engaging with stakeholders and delivering stakeholder satisfaction to be business as usual for NGT in RIIO-GT3.

4.22 Further, we are unclear whether there is additional value in incentivising NGT's customer satisfaction and NGT's stakeholder satisfaction separately. We think there is some overlap between the two mechanisms across the 12 service touchpoint areas surveyed (see Special Licence condition 4.2.7 and Footnote 26). This risk of duplication is particularly relevant in light of our proposed Option 1 for the Customer Satisfaction Survey, i.e. widening the incentive to include new touchpoint areas in the Customer Satisfaction Survey incentive.

4.23 We encourage NGT to continue to improve on stakeholder satisfaction levels but consider that, similar to other sectors, there should be one single customer satisfaction incentive for NGT. As such we propose that the current reputational Stakeholder Satisfaction Survey incentive is removed from the ODI package.

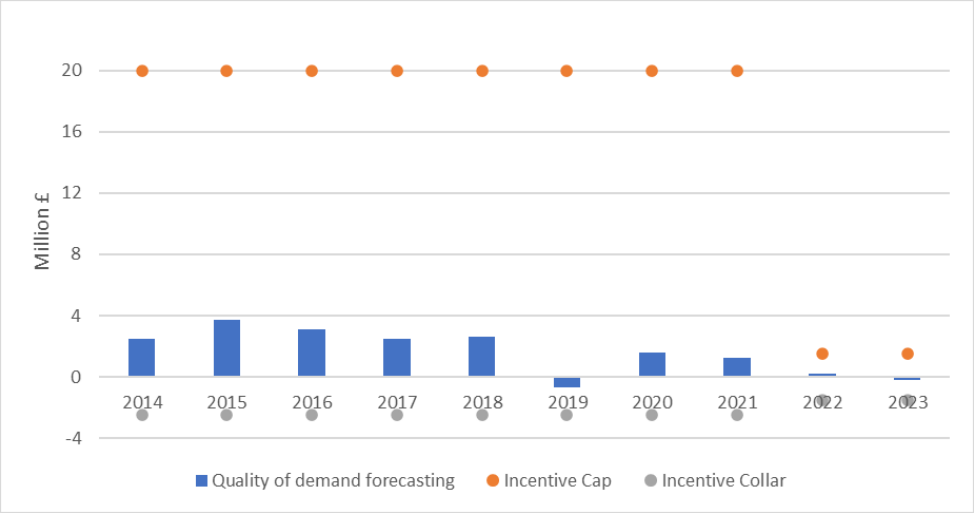
GTQ22. What are your views on our proposal to remove the Stakeholder Satisfaction Survey reputational incentive?

Quality of Demand Forecasting ODI-F (D-1) and ODI-R (D-2 to D-5)

4.24 NGT, in its role as the GSO, produces forecasts of gas demand to help users of the gas transmission system (shippers, power generators, distribution networks etc.) make efficient operational and commercial decisions to put gas on and take gas off the NTS.

4.25 NGT forecasts demand on a day-ahead (D-1) and D-2 to D-5 basis. Currently, NGT is subject to a financial incentive based upon the accuracy of its day-ahead (D-1) forecast. It also has a reputational incentive based upon the accuracy of its D-2 to D-5 forecast. As a result of the Quality of Demand Forecast incentive, accuracy of NGT's forecasts of gas demand has improved, giving shippers an early view of system balance position and resulting in reduced operating costs and further reducing consumers gas bills.

Figure 7: Demand Forecasting Incentive Performance.



Note: In RIIO-GT2, only D-1 is incentivised financially.

D-1 Demand Forecasting ODI-F

4.26 The D-1 Demand Forecasting ODI-F was in place during RIIO-GT1. Following extensive consultation and feedback from stakeholders, the incentive strength was adjusted at the start of RIIO-GT2 to ensure that the rewards and penalties provide a sharp incentive to maintain and improve demand forecasting accuracy.

4.27 In RIIO-GT2, NGT has an annual average absolute forecast error target of 8.35 million cubic metres/day (mcm/d) with a demand forecast storage adjustment up to +1mcm/d. The cap and collar on the forecast have been tightened around the target to 4.5mcm/d (cap) and 12.2mcm/d (collar). This means that each

incremental 1mcm/d performance movement from the target leads to a reward / penalty of +/- £390k.

4.28 In the first year of RIIO-GT2 NGT has earned £0.180m out of the maximum £1.5m. In 2022/23 NGT was penalised -£0.192m for its performance.[27] NGT indicate this was due to the high and increasing volatility of the gas and electricity market and consequently the increased need to invest heavily to maintain forecasting performance.

4.29 Stakeholders engaged to date in working groups have supported our proposal to retain this incentive in RIIO-GT3, acknowledging that it provides particular value to smaller shippers and suppliers without their own modelling capabilities. Smaller shippers and suppliers did not attend our working groups and are typically resource-constrained to engage with and respond to RIIO consultations.

4.30 It has also been queried whether the accuracy of D-1 forecasting could be further improved and whether a more challenging target and higher upside would incentivise NGT to further improve the quality of its forecasts.

4.31 We see value in continuing to encourage NGT to invest in its own forecasting models and in-house expertise to enhance modelling accuracy, which in turn will support more efficient decision-making by the industry and NGT. Given the recent enhancements to the Demand Side Response (DSR) arrangements,[28] we think it is also paramount that the demand forecasts are as accurate as possible and we expect this to be taken into account when revising the incentive target for RIIO-GT3.

4.32 Other improvements to the D-1 incentive for consideration may include reviewing whether:

- the storage adjuster is still needed; and
- the D-1 target should be seasonal as throughput values vary considerably between the summer and the winter and errors when forecasting demand in winter mean significantly larger volumes.

4.33 We welcome stakeholder views on our minded to position, and in particular, whether any changes to the incentive, including its cap, collar, target adjusters, forecast parameters (eg. excluding components such as interconnector export

[27] In the first two years of RIIO-GT2 the annual average absolute error for the D-1 forecasts was 8.5 and 9.0 respectively.

[28] UNC845: Enhancements to Demand Side Response (DSR) Arrangements including a D-5 Product - Decision (ofgem.gov.uk)

and storage from the forecast) and seasonal targets should be made in RIIO-GT3, as well as what other improvements to the D-1 incentive could be considered.

D-2 to D-5 Demand Forecasting ODI-R

4.34 In RIIO-GT2, D-2 to D-5 Demand forecasting is incentivised reputationally as while it is seen as important by some consumers to have visibility of NGT's performance in this area, calibrating a financial reward/penalty is difficult. The D-2 to D-5 reputational incentive requires that NGT reports annually the average annual absolute forecasting error of its D-2 to D-5 forecasts.

4.35 In the first two years of RIIO-GT2, the annual forecast errors were reported as 12.37 and 13.95 mcm/day respectively. The target annual forecast error for NGT's D-2 to D-5 reputational demand forecasting incentive is 13.70 mcm.

4.36 Whilst the target forecast error can be considered a reasonable level of uncertainty for D-2 to D-5 forecasts, in light of the new DSR arrangements, a question arises whether a more challenging target should be set to encourage NGT to improve the accuracy of the forecasts further and whether it should be financially incentivised to invest in the tools to improve its modelling capability.

4.37 We are mindful from the RIIO-GT2 consultation process and stakeholder feedback that not all users attach value to D-2 to D-5 forecasts, partly because they rely on their own forecasting tools and partly due to the difficulty to forecast demand further ahead accurately.

4.38 In our working groups stakeholders, all of whom represented larger organisations with their own modelling capabilities, generally supported our position to retain the incentive as a reputational incentive. However, one stakeholder questioned whether D-2 to D-5 should be brought back as a financial incentive, given the accuracy of the forecast should be expected to improve.

4.39 We have identified the following two options for this incentive:

- Option 1: Retain this incentive as a reputational incentive, acknowledging NGT's past performance to forecast in line with and/or close to the target of 13.70 mcm, and considering that tougher targets are challenging to achieve the further ahead gas demand is forecasted; and
- Option 2: Set more challenging targets and introduce a financial, symmetrical incentive for NGT to improve the accuracy of the D-2 to D-5 forecasts, which would in turn benefit NGT's customers and better support DSR arrangements. This option would stretch NGT's performance by rewarding it an upside for improved performance and a penalty for deteriorating accuracy.

4.40 We welcome stakeholder views on the value of this output and on the above two options for RIIO-GT3. In particular, what changes if any should be made to improve the accuracy of the D-2 to D-5 forecasts.

4.41 Furthermore, we want the Quality of Demand Forecasting incentive to encourage NGT to make continuing improvements related to demand forecasting and provide value to its users. We are therefore seeking stakeholder views on whether there are other demand forecasting areas (ie. in addition to D-1 and D-2 to D-5 forecasts) that would be of value to incentivise.

4.42 We encourage NGT to engage its stakeholders as part of its RIIO-GT3 business plan development. There may be grounds to widen the scope of the incentive given the recent market volatility, changing supply patterns, changes to the DSR regulation and the increased pressure from shippers and suppliers to obtain as accurate demand data as soon as possible to mitigate price and other risks. If proved to be of value, we expect NGT to put forward proposals for widening the Quality of Demand Forecasting incentive to potentially include other new areas of forecasting such as D-7, regional- or/and entry/exit point specific, month-ahead forecasts.

GTQ23. What are your views on our minded-to proposal to retain D-1 Quality of Demand Forecasting incentive as a financial incentive with a tighter target?

GTQ24. What are your views on the options presented for the D-2 to D-5 Quality of Demand Forecasting incentive?

GTQ25. What improvements to the D-1 and D-2 to D-5 incentive could be considered?

GTQ26. Does NGT's D-2 to D-5 forecasts of demand provide a service that is valued by consumers and network users? Please explain why.

GTQ27. Should the Quality of Demand Forecasting incentive be widened to include other areas of demand forecasts? If yes, which ones?

Maintenance Incentive ODI-F

4.43 In its role as a GSO, NGT undertakes regular network maintenance of the NTS pipeline system to ensure it functions well and efficiently. As a result of NGT's maintenance, NTS users may experience disruption, such as outages and a reduction in the flexibility at exit connections.

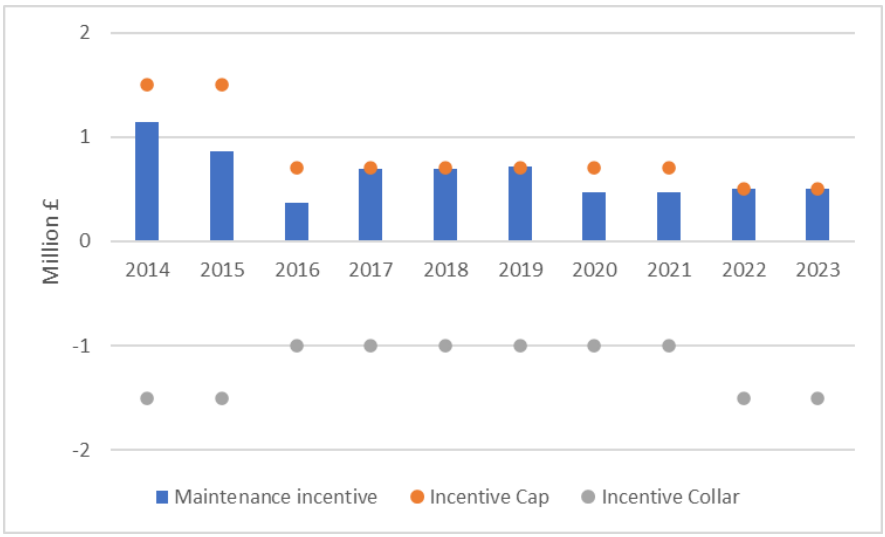
4.44 The RIIO-GT2 price control includes a Maintenance financial incentive that incentivises the GSO to deliver efficient planning of network maintenance and minimise the impact of maintenance work on NGT's customers at exit point

connections, as well as minimise disruption to customer operations. The incentive is split into three elements as follows:

- Use of Days scheme to minimise the number of days used to perform Remote Valve Operations (RVO) maintenance. This is a downside only scheme. If the number of days used exceeds the target of 11 days, then NGT incurs a penalty of £20,000 per day up to a total of -£0.5m;
- Changes scheme to perform maintenance works aligned with the maintenance plans. This is a downside only scheme. The number of days changed from the maintenance plan should not exceed 7.25% of the total maintenance plan days in the year. If the number of days changed exceeds the target, then a penalty of £50,000 per change more than the target is accrued to a scheme collar of -£0.5m; and
- Use of Days (symmetrical) scheme to minimise the number of days for non-RVO work with a target to align 75% of customer impacting work with customer outage on non-VO work. This element to the RIIO-2 scheme includes customer impacting aligned works and excludes NGT VO and Maintenance Days +/-£0.5m a year.

4.45 Despite NGT's concerns that maintenance work was likely to increase exponentially due to the ageing assets and that achieving the targets would be challenging, it has performed well in the first two years of RIIO-GT2 on the Maintenance incentive (earning a maximum reward of £0.5m a year).

Figure 8: Maintenance Incentive Performance.



4.46 Initial stakeholder feedback suggests that there has been an improvement in NGT's approach to maintenance and general appreciation from NGT's customers

for minimised disruption on the networks. Stakeholders believe that the financial incentive has encouraged NGT to complete maintenance work earlier than the target. We also note that there may be other factors, such as changing flow patterns that may reduce flexibility to consistently deliver high performance eg. high summer exports.

4.47 In our view the incentive has been successful in driving the behaviours that users want. We wish to encourage NGT to continue to improve efficient network planning and execution of network maintenance. This should be taken into account when revising incentive targets for RIIO-GT3.

GTQ28. Do you agree with our minded-to position to retain all three elements of the maintenance incentive as a financial incentive in RIIO-GT3?

GTQ29. Should the Maintenance incentive include any other types of maintenance work that are currently not included in the incentive? If yes, please explain which one.

Entry and Exit Capacity Constraint Management Incentive ODI-F

4.48 Capacity release obligations may occasionally exceed the physical capability of the NTS. The Entry and Exit Constraint Management scheme financially incentivises NGT in its role as GSO to efficiently manage the constraint risks that this creates. It is rewarded for minimising the overall cost to the industry and consumers of constraint management actions on the NTS against a forecast/target. It also encourages NGT to release additional capacity and earn revenue from this. This contributes to a reliable gas network, which in turn makes GB an attractive destination for gas in a competitive global market.

4.49 We believe that it is vital that NGT takes the most cost-efficient course of action when managing constraints on the NTS using both commercial tools available, and where necessary, making network investments where needed. NGT is expected to efficiently balance the level of risk of constraints against the cost of network investments in terms of what actions are undertaken to manage constraints.

4.50 If NGT can't accommodate shippers' flow requirements, it can undertake constraint management actions such as:

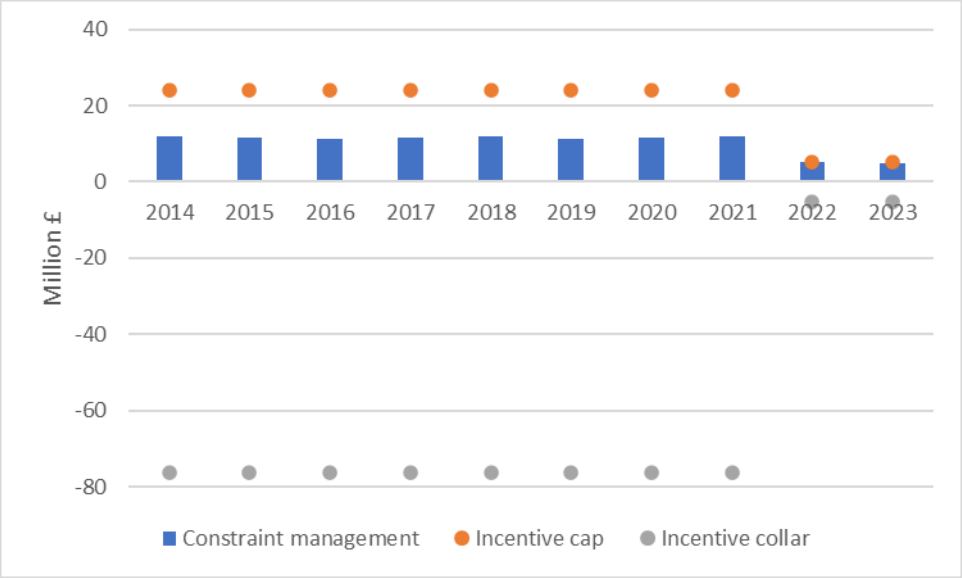
- Withholding the sale of remaining, unsold firm capacity in the Daily Entry and Exit Auctions;
- Locational Energy Trades – buying or selling gas at specific locations on the NTS;

- Capacity Buybacks – buying back sold Firm Entry or Exit Capacity;
- Investment constraint management actions, ie. actions taken by NGT to manage longer term issues associated with the provision of additional capacity on the network, such as where physical reinforcement is not delivered to the party requesting additional capacity; and
- Turn-Up/Turn-Down Contracts – contracts to manage forecast constraint risks.

4.51 When undertaking constraint management actions, NGT may incur a cost or receive revenue from the sale of capacity and/or commodity at specific locations, or from selling non-obligated capacity. Incentive performance is driven by the difference between a performance measure (a proxy designed to represent the net constraint management costs over a year (ie. constraint management costs minus revenues from the sale of certain capacity products)) and a target value (set at £8.5 million annually in RIIO-GT2). All costs and revenues associated with the scheme are passed through to shippers. Currently, NGT receives a maximum reward or penalty of £5.2m annually according to whether actual performance measure is higher or lower than the incentive target.

4.52 In RIIO-GT1, NGT significantly outperformed against this incentive earning approximately £12m a year. Although the cap, collar and target of the incentive was tightened for the RIIO-GT2 price control, NGT has again performed well against the constraint management cost target in RIIO-GT2 earning maximum reward of £5.2m in 2021/22 and slightly lower at £4.8m in 2022/23.

Figure 9: CCM Incentive performance in RIIO-GT1 and RIIO-GT2



4.53 Significantly lower capacity constraint management costs than the cost forecasts at the start of RIIO-GT2, averaging at £0.4m a year, and high revenue from the sale of capacity since the start of RIIO-GT1 have been the key drivers for NGT's strong performance.

4.54 Stakeholders we have engaged so far through working groups indicated that the incentive is complex and further transparency is needed. This includes how the cost of constraints is reflected in the performance measure and how the CCM incentive influences NGT's decision making and choice of tools used for constraint management actions. Gas shippers in particular reflected on recent Milford Haven constraint events[29] and pessimistic predictions by NGT at the start of the year. They expressed concerns in relation to the estimated potential constraint management costs, as well as the way in which the constraint was managed by constricting capacity for network users.

4.55 Several stakeholders called for a thorough review of this incentive ahead of RIIO-GT3. They suggested the review should take into account the wider context, including asset replacement requests and decisions, charging reforms, Ofgem capacity decisions and restructuring and recalibration of the incentive.

4.56 The target and the estimate of the number of constraints that NGT predicted for the RIIO-2 period, including the volumes and their costs, were highlighted in our RIIO-GT2 Draft Determinations as an area that required further scrutiny, given that a) constraints were difficult to predict; b) historic constraint management costs incurred in RIIO-GT1 were low; and c) NGT had business as usual mitigation procedures to offset these costs and thus minimise the chances of them occurring. Due to this, the RIIO-GT2 incentive was recalibrated as outlined above.

4.57 As observed in NGT's Network Capability Assessments, there are areas on the network where constraints are more likely to occur (eg. Milford Haven, Bacton exit). One cause of this increased risk is misalignment of baseline capacity requirements with both the physical capacity of the network and seasonal demand fluctuations. It may be that adjusting baseline capacity in line with these

[29] In summer 2022, NGT warned that an unexpected increase in LNG imports via the Milford Haven Entry Point could result in significant capacity constraints. NGT argued that the risk of this was high and that the management costs incurred would be considerable. To prevent this, Ofgem allowed for a temporary reduction in baseline capacity at Milford Haven, during periods that NGT identified as high risk. The forecast constraints failed to materialise, and Ofgem rejected a similar request for Summer 2023.

demand variations would help to manage physical congestion at these high risk points.

4.58 The use of seasonal baselines is not currently recognised in NGT's Licence. If introduced in RIIO-GT3 it would require substantial reform of access arrangements.

4.59 As highlighted in Chapter 2, the FSO will begin to produce and develop a statement of need covering the gas transmission system. We expect that NGT and the FSO engage from 2024 to consider the outputs from NGT's Capability Assessments and the assumptions underpinning the RIIO-GT3 business plan submission.

4.60 We have identified the following options for this incentive in RIIO-GT3:

- Option 1: A thorough review of the mechanics of this incentive, its structure (including calculation of constraint management costs and revenues, constraint management actions choices, and the impact that these actions have on the market), target setting, and risk exposure for NGT);
- Option 2: Replacing the incentive with a penalty only incentive; and
- Option 3: Removing the financial incentive and setting an ex-post price control for constraint management actions.

4.61 Our preferred option is Option 1. We believe NGT should continue to be incentivised to release capacity in time of constraint and minimise the impact of outages on customer flows through scheduling and smart working practices (a few recent examples of the CCM actions cited by NGT include assessing commercial and physical risks of unforeseen events by performing analysis on assets without the need to isolate and impact the customer). However, the target should reflect more realistic, historical constraint management costs and the risk that NGT takes. We need to assure ourselves that the operation of the incentive delivers consumer benefit.

GTQ30. Do you agree with our minded-to option (option 1) for the CCM incentive? Please provide reasons for your position.

GTQ31. Do you have any views on introducing seasonal baselines into NGT's licence at the start of the RIIO-GT3 price control?

The Residual Balancing Incentive ODI-F

4.62 In its roles as the GSO, NGT performs residual balancing actions to balance daily supply and demand and operates the system within safe operational limits, whilst

minimising impact on market prices. NGT has some choice regarding how it fulfils these requirements. The Residual Balancing incentive was put in place originally to encourage NGT to enter the market and send signals to shippers to balance their positions.

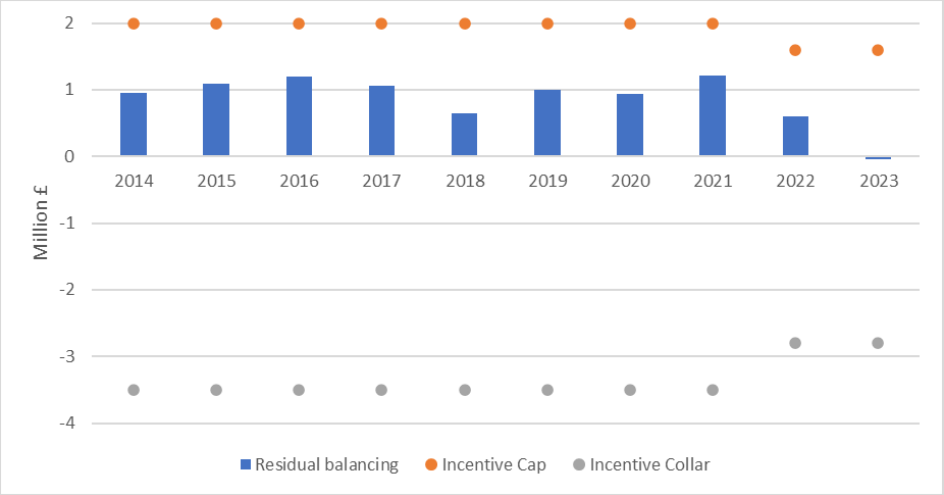
4.63 The Residual Balancing Incentive has two elements:

- Linepack Performance Measure (LPM) limits the end-of-day stock (linepack) level to be within 2.8mcm/d of the opening level. If the LPM is less than 2.8mcm on a given Gas Day, then NGT receives an incentive payment up to a maximum of £3,200. This maximum applies at 1.5mcm, so there is no incentive for NGT to balance the system beyond this point. Conversely if the LPM is above 2.8mcm, then NGT incurs a penalty up to a maximum of £24,000 for a single day which is the penalty for linepack movement of more than 15mcm; and
- Price Performance Measure (PPM) encourages NGT to execute any residual balancing trades at prices that are in a small range compared to the System Average Price (SAP) for the day. The threshold is set to 1.5% of the SAP. If the PPM is less than 1.5% on a given Gas Day, then NGT receives an incentive payment up to a maximum of £1,200 per day. Conversely if the PPM is above 1.5%, then NGT incurs a penalty up to a maximum of £24,000 per day, which is the penalty for a trading range equal to 76% or more of SAP.

4.64 The sum of all the daily payments for the PPM and LPM under the Residual Balancing incentive are annually capped at £1.6m and collared at £2.8m.

4.65 The incentive recognises the requirement for linepack stock to be higher in the winter than summer to operate the network efficiently. As a result, during the 'shoulder months' (October, November, February and March) the incentive provides no revenue or penalty for a daily linepack change of between 2.8mcm and 5.6mcm.

Figure 10: Residual Balancing Incentive Performance.



4.66 NGT earned £0.58m on the Residual Balancing incentive in the first year of RIIO-GT2 but lost £0.04m in the second year. This was largely due to increased market volatility and changed flows, which saw NGT take more residual-balancing actions on 75% of the days of 2022/23, compared to the RIIO-GT1 average of ~60% days.

4.67 NGT proposed a review of the incentive, in particular of the PPM element, to reflect the recent increases in price volatility and frequency of shipper imbalance. However, stakeholders we have engaged in working groups have suggested that the incentive is driving the right behaviour.

4.68 Whilst we recognise that changed supply and demand patterns in the first two years of RIIO-GT2 has increased the need for NGT to take more residual-balancing actions, we think residual balancing actions are a core business as usual activity. We think that the incentive design is appropriate for the RIIO-GT3 price control and should be retained in its current format.

GTQ32. Do you agree with our minded-to position to retain the Residual Balancing Incentive in its current format? Is there merit in considering a recalibration? Please provide reasons for your position.

5. Cost of service

5.1 It is important to ensure that the transition to net zero comes at low cost for existing and future consumers. To this aim, we expect network companies to deliver services as efficiently and economically as possible. The assessment of the efficient level of costs that will enable network companies to carry out their activities and deliver an appropriate level of outputs for consumers is a core element of price control setting.

5.2 This chapter provides our initial thinking on our approach to assessing the efficient level of costs and invites views from stakeholders. Once developed, we will use this approach to assess NGT's RIIO-GT3 Business Plan in terms of cost efficiency and robustness of the supporting cost justifications.

5.3 We will be holding working groups with NGT and other stakeholders who are interested in engaging in the development of the price control methodology. The Cost Assessment Working Group (CAWG) will be the main forum to discuss our potential approach to cost assessment. We will hold these groups in the coming months to facilitate ongoing dialogue, transparency and development of our approach. A timeline of working group meetings and summaries of pertinent issues raised throughout the RIIO-GT3 working groups process will be published on our website with a possibility to provide a view on the approach as it develops.

5.4 In the remainder of this chapter we:

- briefly summarise our approach to assessing costs in RIIO-GT2;
- discuss some of our thinking on the proposed cost assessment approach for RIIO-GT3;
- outline some of our proposals regarding GT specific Business Plans; and
- set out our next steps.

RIIO-GT2 Cost Assessment

5.5 In RIIO-GT1 and RIIO-GT2, we used a toolkit of methodologies to assess NGT's cost efficiency and to set baseline cost allowances.

5.6 In those price controls, NGT submitted historical and forecast cost data in its Business Plan along with supporting information and justification. We developed an Engineering Justification Paper (EJP) assessment framework to ensure that the EJPs met the published guidance and provided sufficient evidence for the proposed investments. We used this to form a view of the expected efficient costs of delivering outputs and long-term value for money. We set baselines for

individual activities based on this. In some circumstances we had low confidence in the justifications put forward by NGT and used PCDs and UMs to mitigate risks for both NGT and consumers. We used a range of techniques across cost categories and individual activities to assess the most efficient costs, including unit cost assessment, expert review and benchmarking where this was appropriate.

5.7 For each of the techniques we focussed on cost category reviews as well as reviews of specific projects named in the Business Plan. Unit cost assessment was undertaken where we had sufficient historical information to do so. Expert review was undertaken across cost categories to supplement our overall approach and specifically where we were unable to independently assess costs.

5.8 Some benchmarking was also applied cross-sectorally where there were suitable comparators. Where there was significant uncertainty in either the cost or volumes of work across the price control, we dealt with these through a project specific approach using UMs and PCDs.

5.9 We based our final cost allowances on a combination of the outcomes of these methods for each applicable cost category and project.

Options for RIIO-GT3

Overview

5.10 We propose to evolve the RIIO-GT2 cost assessment approach for RIIO-GT3, rather than establish a whole new methodology.

5.11 Informed by meetings with stakeholders, we set out below some of our current thinking on the RIIO-GT2 approach that we may evolve for RIIO-GT3. These include:

- levels at which we choose to assess costs, ie. cost categories, either by expenditure areas (ie. totex, capex, opex) or activity (eg. maintenance, business support costs etc.);
- appropriate cost drivers;
- our assessment toolkit, for example unit cost assessment and expert reviews, and the time series of data we use; and
- the method by which we combine our analysis to determine a final cost allowance.

5.12 There are a number of other policies under development that are likely to impact our views of efficient costs once they have been decided upon, for example the network capability review, whole system approaches, competition and compressor emissions compliance. We will keep developments in these areas under review during the course of our Business Plan assessment process.

Cost Categories

5.13 In RIIO-GT2 we simplified our structure to align our cost categorisation with the Totex approach. This approach improved our ability to reconcile outputs and allowances, improve ongoing performance monitoring and avoid cost re-categorisation. We used the following main cost categories:

- Load related expenditure;
- Non-load related expenditure;
- Operational expenditure; and
- Non-operational expenditure.

5.14 We welcome views on defining cost categories for RIIO-GT3. This includes considering end to end processes, combining activities where trade-offs exist and aligning cost categories with other sectors.

5.15 We propose to work with NGT to ensure we have sufficient granularity on some cost categories to improve our cost assessment capability. We will progress this through our Business Plan Data Template (BPDT) development.

5.16 For RIIO-GT3, we propose to continue to ensure that there is transparency and a clear separation between costs incurred by, and associated revenues attributed to, the GSO and GTO. We propose to review the interaction of costs, revenues and incentive adjustments across the GSO and GTO in more detail. This includes working with NGT to review our approach to setting allowances for the GSO internal costs and SO rewards and penalties from the ODIs (external costs). We also need to review holistically which outputs and incentives should continue to apply to the GTO and/or GSO part of the business only.

GTQ33. Do you agree with our proposed approach to cost categorisation?

GTQ34. What are your views on setting allowances for internal costs and SO rewards and penalties from the ODIs?

GTQ35. Do you support the need for greater granularity and transparency in cost reporting and to better understand the relationship between GTO and GSO costs to further develop our cost assessment capability?

Cost assessment toolkit

5.17 Our cost assessment toolkit for RIIO-GT2 comprised both unit cost assessment and expert review. This was supported by historical cost assessment, as well as benchmarking (where appropriate). We intend to use a similar toolkit for RIIO-GT3 as outlined below.

Unit Cost

5.18 Where it is appropriate for the cost category and we have sufficient information to do so, we propose to undertake unit cost assessment to determine the efficient costs. We recognise that there are often multiple activities that need to be undertaken to deliver projects and it may be appropriate to consider multiple cost drivers.

5.19 In developing the unit cost models we would expect NGT to provide information on appropriate cost drivers. For instance, if we were to use unit cost assessments to consider efficient costs of new compressor units, we would expect NGT to provide evidence on the most appropriate cost driver to use. In past price controls, we used rated thermal power (in MW) as the cost driver, but it is possible that additional cost drivers may be needed to explain the variations observed in actual historical costs.

5.20 In deriving unit costs, we would seek to cross-check these models using historical data and expert view where this is available, but may use international comparators, or other justifiable means where it is not.

Historical Trend Analysis

5.21 We expect to use historically incurred costs as an important part of our evidential base for RIIO-GT3 cost assessment, where they are a good indicator of future trends. Where we use volumes to drive our assessment we would ensure the items are comparable and we will, where possible, supplement this with robust external data.

Expert Review

5.22 We expect to use expert review to supplement our overall approach, using multiple assessment techniques to ensure our assessment is robust. Using industry subject matter experts with access to additional knowledge and data with which to compare costs will also improve our ability to assess efficient costs. In situations where activities are unique to the network or have insufficient

historical performance data to assess efficient costs we may also use engineering assessment by subject matter experts.

Project Assessment

5.23 Where specific investment projects are outlined in the Business Plan we may carry out individual cost assessment using techniques appropriate for the project type and at a proportionate level of scrutiny. For such projects we may require additional levels of granularity in reporting to fully assess efficient costs. This may include, for example, labour, plant, materials, risk and project management costs.

5.24 Some projects may contain uncertainty around the needs case or timing but have reasonably firm cost information. In this case, we may consider the merits of leaving cost assessment until the needs case is more certain during RIIO-GT3, or conduct an assessment of the efficient costs and incorporate the result in a relevant UM or PCD, triggered when the need is clear.

Benchmarking

5.25 Where an activity is applicable across multiple companies, sectors or industries, we would seek to leverage this extended base of data to enable us to perform a more robust technical assessment of costs. For example, business support costs are common across both gas transmission and gas distribution which enables cross-sectoral benchmarking.

GTQ36. Is the proposed toolkit appropriate or are there other assessment techniques that we should consider for RIIO-GT3?

Uncertainty mechanisms in RIIO-GT2

5.26 In RIIO-GT2, where there was significant uncertainty in either the cost or volumes of work across the price control period, we introduced UMs. The cost assessment process we used supported the design of those UMs, helping identify the relevant drivers and parameter values. Most outputs and UMs implemented in RIIO-GT2 are discussed in the previous chapters or in the Overview Document. For completeness, Table 4 below provides an overview of those not covered elsewhere in this document or the Overview Document.

Table 4 RIIO-GT2 uncertainty mechanisms not covered in previous chapters and initial thoughts for RIIO-GT3

UM Type	Description	Initial thoughts for RIIO-GT3
Re-opener Chapter 2	**Quarry and Loss** - this re-opener allows for the adjustment NGT's allowances for Quarry and Loss claims if they incur material costs during RIIO-GT2.	We don't believe this re-opener is necessary in the next price control as the uncertainty has been dealt with in RIIO-2.
Re-opener Chapter 2	**Pipeline Diversions** - this re-opener allows for the adjustment of NGT's allowances for uncertain costs incurred diverting pipelines during RIIO-GT2.	We see there being rationale for the retention of this re-opener as we believe it ensures good value for consumers. We will work with NGT and stakeholders to review whether the re-opener has been used as expected during GT2 and see if there are any improvements that can be made.
Re-opener Chapter 4	**Funded incremental obligated capacity** - This allows for an adjustment to NGT's allowed expenditure in the event of a request for the release of Firm Entry/Exit Capacity which constitutes Incremental Obligated Entry/Exit Capacity and which cannot be satisfied through the use of Entry/Exit Capacity substitution.	We are minded to retain this re-opener as we believe it ensures good value for consumers. We still see a need to manage the potential costs associated with the release of incremental capacity.
Re-opener Chapter 3	**Asset Health** - this re-opener adjusts NGT revenues due to uncertainty in the costs associated with above ground Plant and Equipment and Cab Infrastructure assets and the remediation of defects on the actuating gas ring main at St Fergus during RIIO-GT2.	Funding for asset health not covered by NARM is likely to be needed in the next price control. The rationale for this re-opener needs to be reviewed in parallel with setting NARM funding.
Pass-through Chapter 5	Policing costs	We intend to continue to treat these costs as pass-through.
Pass-through Chapter 5	PARCA Termination Value	We intend to continue to treat these costs as pass-through.
Pass-through Chapter 5	Hynet FEED Study	The Hynet design study will be completed by Cadent in RIIO-2, therefore we propose to remove this mechanism for RIIO-3.
Pass-through Chapter 5	Adjustment to the Net Zero Pre-construction Work and Small Projects re-opener	We intend to continue to treat these costs as pass-through.
Pass-through Chapter 5	Gas Conveyed to Independent Systems	We intend to continue to treat these costs as pass-through.

UM Type	Description	Initial thoughts for RIIO-GT3
Pass-through Chapter 5	Central Data Service Provider Costs	We intend to continue to treat these costs as pass-through.

5.27 We welcome stakeholders' views on which RIIO-GT2 UMs could be remain for RIIO-GT3, how they could be evolved, or whether they could be removed. Also whether there are new UMs required for RIIO-GT3.

GTQ37. Do you have any views on the UMs needed for RIIO-GT3?

Proposals for GT Business Plans

5.28 As highlighted in the Overview Document, we will develop Business Plan Guidance, EJP Guidance and Cost Benefit Analysis (CBA) Guidance to ensure consistent and streamlined submission of Business Plans for RIIO-GT3. Alongside, we will develop the BPDTs and associated instructions that will enable data collection from NGT. In this section, we set out some of our initial views on the development of BPDTs specific to the GT sector.

Approach

5.29 We propose that both the RIIO-GT2 BPDTs and the RIIO-GT2 Regulatory Reporting Packs (RRPs) should form the basis of the data templates for RIIO-GT3. From this baseline, we propose to work with NGT and other TOs over the coming months to develop draft RIIO-GT3 BPDTs and associated instructions. We aim to share BPDTs alongside Business Plan Guidance in spring 2024 (with draft versions shared beforehand). We expect network companies' Draft BPDTs submissions in summer 2024. We reserve the right to revise BPDTs to reflect any changes we consider appropriate in light of the summer Draft BPDTs submissions.

5.30 We will work with NGT to identify and resolve inconsistencies in reporting between RIIO-GT2 BPDTs and RIIO-GT2 Regulatory Instructions and Guidance (RIGs). We will work with NGT to add further clarification on reporting requirements and format, when necessary, to improve consistency for the BPDTs. This reporting guidance will be reflected in the BPDT instructions. To help facilitate our cost assessment, we will work with NGT to ensure that there is clarity in the BPDTs of costs and volumes related to the potential future repurposing of assets or use of hydrogen. It is important for NGT to consider, and develop, their reporting systems to be able to capture and separate this information from their work on natural gas.

BPDT content

5.31 We expect to ask for similar data in the RIIO-GT3 BPDTs as we collect annually in RIIO-GT2 RRPs and as we collected in RIIO-GT2 BPDTs. Some areas and features we are currently reviewing are:

- data that helps inform policy, for example to enable us to assess costs associated with proposed PCDs, to determine output targets;
- data that helps inform how we develop our cost assessment approach;
- data that helps capture cost drivers suitable to feed into our cost assessment approach, including for 'shared drivers' schemes where a more holistic approach to reporting might be warranted;
- where we think the context or the level of uncertainty has changed from RIIO-GT2 to RIIO-GT3 with consequences for what data we need in order to assess costs;
- the BPDTs format that will adapt reporting requirements while improving our cost analysis process and aligning with best practice;
- change to clarify and/or simplify reporting requirements in selected categories, if it will improve our cost assessment approach, for example on NARM.

5.32 A guide to the key principles for EJPs and CBAs will be presented in cross-sector business plan guidance. We expect to develop more detailed sector-specific requirements through the stakeholder engagement process.

GTQ38. Do you have any views on current reporting requirements and structure at the cost category level and how this may be adapted to better suit RIIO-GT3 and related development of BPDTs?

Next steps

5.33 We will be holding a series of working group meetings to advance our thinking and policy development in 2024. Details of these meetings and how to engage will be shared with stakeholders. We will use these working groups to help us develop our approach to RIIO-GT3 cost assessment.

5.34 We will not decide on our final approach to RIIO-GT3 assessment of efficient costs until after we have received final Business Plan submissions in December 2024, as Business Plan evidence may warrant a different approach.

Appendix 1 Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

We will not sure you personal data with any other person or organisation.

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for 12 months after the project ends.

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it

- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3r parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system.

10. More information For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".

Appendix 2 Consultation Questions

Infrastructure fit for a low-cost transition to net zero

GTQ1. Do you agree with our proposal to include a re-opener to manage the impact of introduction of the CSNP and gas strategic planning processes, with annual windows starting from the first year of the price control?

GTQ2. Are there any other areas of our proposed RIIO-3 framework (eg outputs or UMs) that you think may need to adapt to accommodate the future role of the FSO in strategic network planning?

GTQ3. What are your views on what the overall focus of the RIIO-GT3 environmental package should be, and should any additional areas be incentivised?

GTQ4. What are your views on each of the current individual environmental outputs presented in this section and the Overview Document?

GTQ5. What are your views on the above two options for the GHG emissions incentive?

GTQ6. What improvements to the incentive would continue to minimise NGT's impact on the environment from venting?

GTQ7. What are your views on the above three options for the NTS Shrinkage incentive?

GTQ8. What are your views on reviewing the way the GSO costs, including costs for procuring NTS shrinkage gas, are forecast and recovered?

GTQ9. What are your views on including NTS Shrinkage costs within NGT's baseline totex allowance?

GTQ10. Do you have any views on the future of this PCD?

GTQ11. Do you have any views on the proposed removal of this re-opener?

GTQ12. Do you have any views on the above proposed PCD for RIIO-GT3, including on the Hatton PCD and on baselining compressor emission costs for the next price control?

Secure and resilient supplies

GTQ13. Do you have any views on whether the ANCAR will still be required as an output in RIIO-GT3 and on its need for RIIO-GT2 business planning?

GTQ14. Do you have any views on the effectiveness of this PCD?

GTQ15. Do you have any views on our proposal to remove the Bacton re-opener mechanism but retain the PCD?

GTQ16. Do you have any views on this re-opener?

High quality of service from regulated firms

GTQ17. Do you have any views on our options for the Customer Satisfaction Survey Incentive? In particular, do you see merit in recalibrating target performance to NGT's most recent performance?

GTQ18. Do you have any ideas how the strength of the incentive and the range between capped and collared outcomes should be set?

GTQ19. Which new touchpoint areas could be added to the incentive, and which new engagement and survey channels could be introduced to help NGT improve in the delivery of its services to customers?

GTQ20. Do you have any views related to the transparency of the customer survey results?

GTQ21. Do you have any views on how positive changes in NGT's behaviour and customer service could be incentivised?

GTQ22. What are your views on our proposal to remove the Stakeholder Satisfaction Survey reputational incentive?

GTQ23. What are your views on our minded-to proposal to retain D-1 Quality of Demand Forecasting incentive as a financial incentive with a tighter target?

GTQ24. What are your views on the options presented for the D-2 to D-5 Quality of Demand Forecasting incentive?

GTQ25. What improvements to the D-1 and D-2 to D-5 incentive could be considered?

GTQ26. Does NGT's D-2 to D-5 forecasts of demand provide a service that is valued by consumers and network users? Please explain why.

GTQ27. Should the Quality of Demand Forecasting incentive be widened to include other areas of demand forecasts? If yes, which ones?

GTQ28. Do you agree with our minded-to position to retain all three elements of the maintenance incentive as a financial incentive in RIIO-GT3?

GTQ29. Should the Maintenance incentive include any other types of maintenance work that are currently not included in the incentive? If yes, please explain which one.

GTQ30. Do you agree with our minded-to option (option 1) for the CCM incentive? Please provide reasons for your position.

GTQ31. Do you have any views on introducing seasonal baselines into NGT's licence at the start of the RIIO-GT3 price control?

GTQ32. Do you agree with our minded-to position to retain the Residual Balancing Incentive in its current format? Is there merit in considering a recalibration? Please provide reasons for your position.

Cost of service

GTQ33. Do you agree with our proposed approach to cost categorisation?

GTQ34. What are your views on setting allowances for internal costs and SO rewards and penalties from the ODIs?

GTQ35. Do you support the need for greater granularity and transparency in cost reporting and to better understand the relationship between GTO and GSO costs to further develop our cost assessment capability?

GTQ36. Is the proposed toolkit appropriate or are there other assessment techniques that we should consider for RIIO-GT3?

GTQ37. Do you have any views on the UMs needed for RIIO-GT3?

GTQ38. Do you have any views on current reporting requirements and structure at the cost category level and how this may be adapted to better suit RIIO-GT3 and related development of BPDTs?