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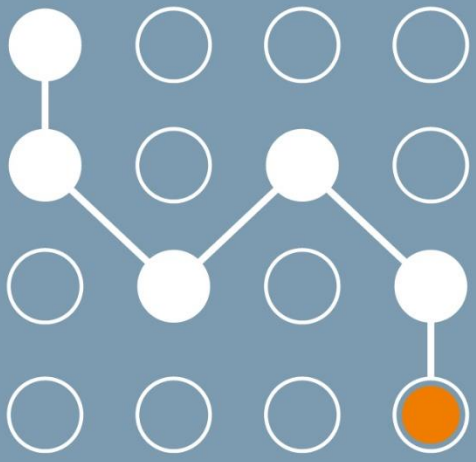

RIIO-GT1 Annual Report 2017-18

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RIIO-GT1 Annual Report 2017-18

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This report outlines our key findings for National Grid Gas Transmission's (NGGT) performance in 2017-18. This is the fifth year of the RIIO-T1 price control, which runs until 2021.

This report gives an overview NGGT's performance against their agreed outputs and incentives, innovative activities, and overall financial performance. It also provides forecasts for the remainder of the price control.

Contents

Executive Summary

The current price control for National Grid Gas Transmission (NGGT) under the RIIO framework runs from 1 April 2013 to 31 March 2021. In RIIO, the focus is on outputs, incentives and innovation as well as total expenditure (Totex).

This report outlines the performance so far of both the transmission owner (TO) and system operator (SO) functions of NGGT. It also outlines Totex forecasts for the whole period.

Output performance and drivers

NGGT has met most of its annual output targets except for two. Under the environmental output, NGGT missed its greenhouse gas (GHG) emissions target. This was primarily driven by the need to operate more compression to manage supply uncertainty and pressure limits to avoid entry constraints resulted in increased venting of GHG.

NGGT also missed a target under its reliability and availability output. NGGT has an obligation under the European Network Code to run the daily capacity auctions. During 2017/18 NGGT experienced system issues that impacted their ability to run daily capacity auctions. These issues are largely attributed to planned and unplanned outages of IT systems. Where there was an unplanned outage, NGGT took steps to process auctions manually and invoked UNC contingency arrangements and fixed data issues.

During 2017/18 there was a reduction in both the customer satisfaction survey score and stakeholder engagement survey scores compared to last year.

NGGT also narrowly missed their target for meeting timescales for connection applications, as specified in UNC Modification 373, with only one connection offer two days outside of the specified timescales.

However, with the exception of greenhouse gas emissions from compressor venting, overall NGGT is on track to meet all of its eight-year outputs which includes meeting targets to maintain the health of its assets and ensuring its compressor fleet complies with environmental legislation.

Financial performance and drivers

We present the financial performance of network companies using the Return on Regulatory Equity (RoRE) measure. We have calculated NGGT's RoRE during RIIO-T1 to be 7% (including financing and tax). This figure is for TO only, and is based on current forecasts and may change during the remaining years of RIIO-T1. The main factor affecting NGGT's RoRE figure is the forecast overspend of the TO business (reducing RoRE). The impact of the incentive performance of the SO business (increasing RoRE) has been excluded from the RoRE calculations.

NGGT (TO) is the only network company from the RIIO-T1 price control to be forecasting an overspend against allowances. It forecasts to overspend its full eight-year allowances (£3,037 million) by £151 million (4.9%). Much of this is driven by costs associated with improving asset health as the network is in a worse condition than forecast at the outset of

RIIO-T1. Under the Totex Incentive Mechanism (TIM), NGGT pays 44% of any overspend, with consumers paying the remainder (subject to tax). However, NGGT (TO) is currently overspending against its forecast allowance (£1,345 million) by 3%. With a large proportion of its project costs scheduled towards the end of RIIO-T1, any cancellation or deferral of projects would reduce this overspend.

1. Introduction and context

Chapter purpose

This chapter summarises NGGT's role as the gas transmission owner and outlines how we regulate via the RIIO price control.

1.1. This report reviews the activities of NGGT in 2017-18. It also covers its progress in the first five years of RIIO-T1 and its forecasts for the remainder of the eight-year period. It reviews NGGT's performance against the outputs we set and the costs incurred against its allowed revenue.

1.2. NGGT is responsible for owning and operating Great Britain's gas transmission network, which consists of high-pressure long-distance gas pipelines and compressors. The network transports gas from offshore, storage and Liquified Natural Gas (LNG) facilities to local gas distribution networks. NGGT is the only gas TO in Great Britain.

1.3. In addition to its TO responsibilities, NGGT is the designated gas SO. This means it is responsible for day-to-day system operation, including residual balancing of the system (ensuring gas supply is matched to demand) and managing any gas flow restrictions on the network.

1.4. To ensure value for money for consumers, we regulate NGGT through periodic price controls that limit the amount by which costs can rise, and that stipulate levels of performance by NGGT.

1.5. To set our price controls we use the RIIO (Revenue = Incentives + Innovation + Outputs) framework.

1.6. We set the baseline revenues NGGT can earn at the start of the price control. Revenues can be adjusted during the price control for some uncertain costs during specified 'reopener' windows. NGGT decides how to spend its allowance to manage its network and deliver against the set outputs and incentives. There are mechanisms to adjust revenues year-on-year depending on NGGT's performance against pre-set targets. There are outputs associated with baseline revenues that NGGT must deliver either on an annual or on an eight-year basis. For some cost categories where there was uncertainty about expenditure requirements at the time of setting allowances, the price controls include a "reopener" mechanism. The mechanism allows network companies to propose adjustments to baseline expenditure allowances for these costs when there is more certainty. The reopener mechanism specifies two windows during which adjustments to allowances may be proposed – one in May 2015 and the other in May 2018.[1]

1.7. Using data and supporting information submitted to us by NGGT, this report reviews how NGGT is delivering against the financial and output requirements of the price control.

[1] https://www.ofgem.gov.uk/publications-and-updates/consultation-riio-1-price-control-reopeners-may-2018

We measure companies' financial performance by the Return on Regulatory Equity (RoRE). The RoRE is driven by NGGT's performance against Totex allowances and its incentives.

1.8. This report provides the headlines on NGGT's performance to date. More detail is provided in the supplementary data file (Appendix 1).

1.9. All costs in this report are provided in 2017-18 prices unless otherwise indicated.

2. Output performance and innovation

Chapter purpose

This chapter explains the performance of NGGT in meeting its output commitments over the RIIO-T1 period.

Output performance

2.1. NGGT must deliver a range of outputs during RIIO-T1. The outputs are grouped into the following categories which outline the key areas of delivery in order to facilitate a sustainable energy sector:

- Safety
- Reliability & Availability
- Customer satisfaction
- Connections
- Environmental

2.2. The outputs reflect the needs of NGGT's customers and other stakeholders. Some outputs may be more generic (eg compliance with health and safety legislation) whereas others may be specific targets (eg targets for amount and cost of gas to run the network). Some outputs should be met annually, whereas others should be met by the end of the RIIO-T1 period.

Table 2.1 below shows NGGT's performance across each output category

	Safety	Reliability & availability	Environment	Customer satisfaction	Connections
Output performance	Met	Met most outputs	Met most outputs	Met	Met most outputs
		System issues, including planned outages, impacted a minority of auctions Minor difference in System Average Price (SAP)	Missed GHG target	Reduction on Stakeholder Engagement Score from previous year	8 of 9 offers timescales met 1 offer two days outside of the specified timescales (timescales agreed with customer)

2.3. NGGT is meeting its RIIO-T1 outputs in most of the output areas, however there have been minor issues that have prevented NGGT from achieving complete compliance during 2017/18, which are discussed below.

Safety

2.4. For the safety output, NGGT must comply with Health and Safety Executive (HSE) legislation and meet BEIS' requirements for enhanced physical site security by 2021. In 2017/18, NGGT achieved full HSE compliance and is currently on track to meet the BEIS requirements.

2.5. NGGT must also undertake a range of Network Output Measures (NOMs) relating to the health of assets in the gas transmission network. NGGT are forecasting to deliver the number of Replacement Priority 1 (RP1) assets reported through the current Network Output Measures (NOM) regime and remain on target to deliver all NOMs in aggregate by the end of RIIO-T1

2.6. In 2017/18 NGGT increased their spend on asset health works by an additional 26% in this category, spending £126.5m compared to £100.1m in 2016/17.

2.7. Under the NOMs framework, NGGT are subject to a reward and penalty mechanism. Where NGGT can justify its over delivery against its NOMs target, we will apply an additional reward. Where NGGT cannot justify an under delivery against its NOMs target, we will apply a penalty.

Reliability and Availability

2.8. In order to meet its reliability and availability outputs and obligations of the UNC, its gas transporter License and the Gas Act (1986), NGGT as system operator (SO) is required to undertake a range of operational measures. Key measures such as maintaining security of supply, meeting constraint management targets, delivering accurate forecasting and meeting residual balancing of linepack targets have all been met.

2.9. However, the output to deliver existing capacity obligations in accordance with the Uniform Network Code (UNC) was missed due to system issues such as planned and unplanned outages of its capacity auctioning platform, which impacted a minority of auctions. In the cases where unplanned outages did occur, NGGT took steps to process auctions manually, invoked UNC contingency arrangements and fixed data issues.

Environmental Outputs

2.10. One of NGGT's environmental outputs in RIIO-T1 relates to greenhouse gas emissions, with NGGT incentivised to reduce the amount of natural gas vented from its compressors. In 2017/18, NGGT vented 3,892 tonnes against a target of 2897 tonnes, missing its target by over 34% and representing an eight percent increase from 2016/17. Under the RIIO-T1 incentive mechanism this resulted in a penalty of approximately £1.4m. NGGT's performance against this output is subject to some exogenous pressure from supply and demand patterns, and the failure to meet the target was primarily driven by the need to operate more compression to manage supply uncertainty and pressure limits in order to avoid entry constraints.

2.11. Overall compressor running hours have increased slightly from 2016/17. Running hours at some specific sites (the most notable Bacton, Easington and Rough entry points) increased significantly due to the change in flow pattern resulting from the changes in volume of supply by location, the regional profile of compressor running hours has changed, with an increase in East/West and a decrease in Scotland.

2.12. Throughout RIIO-T1, NGGT is required to report its business carbon footprint (BCF). In 2017/18, NGGT emitted 688,127 tonnes of CO_2, a very slight decrease from 2016/17, but still over double the level of emissions from 2014/15.

Customer Satisfaction and Stakeholder Engagement

2.13. In RIIO-T1, there is a customer/stakeholder satisfaction output that encourages NGGT to be more responsive to stakeholder and customer needs, and surveys are taken to gauge NGGT's performance. NGGT have outperformed their targets in 2017/18, scoring 7.6/10 for customer satisfaction and 8.0/10 for stakeholder satisfaction against targets of 6.9 and 7.4 respectively. However, the customer satisfaction score has declined slightly from a price-control high of 8.0 in 2016/17.

2.14. NGGT are required to submit an annual stakeholder engagement report for a discretionary reward for its stakeholder engagement. NGGT's score of 4.25/10 for stakeholder engagement was a significant reduction from the score of 6.50 achieved in 2016/17, and the lowest score throughout the current price control period.

Connections

2.15. Under the connections output, NGGT are required to make connection offers in line with the timescales outlined in UNC 373. Eight of nine offers in 2017/18 were made within the requisite timescale, however one offer fell two days outside of this, albeit with the prior agreement of the customer.

Reopeners

2.16. Under RIIO-T1, for some of the cost categories where there was uncertainty about expenditure requirements at the time of setting allowances, the price controls include a "reopener" mechanism. The mechanism allows network companies to propose adjustments to baseline expenditure allowances for these costs when there is more certainty. The reopener mechanism specifies two windows during which adjustments to allowances may be proposed – one in May 2015 and the other in May 2018.

2.17. We received submissions from NGGT during the May 2018 window. NGGT requested a total of £240m additional funding to baselines as part of the one-off asset health, physical site security, enhanced security and quarry and loss reopeners, as well as a £165m reduction to baselines as part of the industrial emissions reopener. After consultation and assessment, it was determined that NGGT's baseline allowances would be reduced by £80m (all 2009/10 prices). Details can be found on our website.[2]

Innovation

2.18. Alongside the Totex Incentive Mechanism, the RIIO-1 price controls include incentives designed to encourage network licensees to innovate in the design, build and operation of their networks. There are two specific innovation schemes that are rolled out

[2] https://www.ofgem.gov.uk/publications-and-updates/consultation-riio-1-price-control-reopeners-may-2018

across all energy sectors: The Network Innovation Allowance (NIA) and the Network Innovation Competition (NIC).

Network Innovation Allowance (NIA)

2.19. The NIA is designed to fund smaller scale research, development and demonstration projects that have the potential to deliver financial benefits to customers, and provides each network licensee with an allowance to spend on innovation projects in line with the NIA Governance Document[3].

1.1. Successful NIA projects should aim to achieve one or more of the following:

- Reduce safety risks and improve reliability of the network
- Reduce the environmental impacts of the network
- Facilitate new connections
- Develop new commercial frameworks
- Strategically develop licensees' networks
- Enhance working processes

Table 2.2

	2013-14	2014-15	2015-16	2016-17	2017-18
NIA Expenditure (£m)	3.0	4.0	3.4	3.9	4.2
Number of projects	52	47	44	43	38

2.20. As Table 2.2 shows, in 2017/18, NGGT has spent £4.2m on the 38 NIA projects it has undertaken, from an allowance of £5.2m allowable NIA expenditure, with the downward trend in the number of projects continuing. Examples of NIA projects include replacing steel pipe supports with Glass Reinforced Plastic, and using a grouted tee to repair corroded sealant lines.

Network Innovation Competition (NIC)

2.21. The NIC encourages network licensees to compete for a portion of an annual allowance to fund a small number of large-scale innovation projects, which should lead to reduced costs for consumers and assist with the energy sector's decarbonisation goals.

2.22. In 2017/18, NGGT had two ongoing projects funded through the NIC worth a combined £3m, with funds allocated at the start of the projects. These are Project CLoCC and Project GRAID. Project CLoCC aims to reduce the cost and time for customers' new connections by using a standardised design, and Project GRAID is a robotic device used for pipeline inspection. NGGT submitted no further applications for NIC funding.

[3] http://www.ofgem.gov.uk/publications-and-updates/version-30-network-innovation-allowance-governance-documents

System Operator

2.23. The current System Operator (SO) incentive arrangements are designed to encourage National Grid to deliver outputs which provide benefits to the industry and consumers. The various incentive schemes provide a focus on key areas where National Grid is able to create value for the industry and consumers, allowing National Grid to retain a share of any value created or conversely being subject to additional costs should targets not be met.

Table 2.3

2009-10 prices		
	TO	SO
- Stakeholder satisfaction output [1]	2.7	
- Permit arrangements [1]		
- Constraint management incentive[1]		9.6
- NTS transportation support services incentive[1]		-3.8
- NTS shrinkage incentive		4.3
- Residual gas balancing		0.5
- Quality of demand forecasting incentive		2.0
- Greenhouse gas emissions incentive		- 1.1
- Maintenance incentive		0.5
Total incentives	**2.7**	**12.1**

2017-18 prices		
	TO	SO
- Stakeholder satisfaction output [1]	3.38	
- Permit arrangements [1]		
- Constraint management incentive[1]		12.2
- NTS transportation support services incentive[1]		-4.8
- NTS shrinkage incentive		5.4
- Residual gas balancing		0.6
- Quality of demand forecasting incentive		2.6
- Greenhouse gas emissions incentive		-1.4
- Maintenance incentive		0.7
Total incentives	**3.4**	**15.4**

[1] There is a 2 year lag for these incentives so 2017-18 performance will be paid in 2019-20.

2.24. Table 2.3 above shows the level of incentive payment/ penalty NGGT has received for 2017/18.

2.25. We require National Grid to publish an annual report[4] detailing their performance against their incentive targets. National Grids Incentive performance summary report 2017/18 can be found here.

2.26. The overall level of performance has been driven predominantly by the Constraint Management incentive, which incentivises the overall cost of System Operator constraint management actions through efficient system operation and optimisation of strategies

Maintenance

[4] https://www.nationalgridgas.com/sites/gas/files/documents/2017-18%20Incentive%20Performance%20Summary%20-%20Supporting%20Information%20v9.0.pdf

2.27. The Maintenance Incentive is comprised of two incentives. Firstly, the Maintenance Days Used incentive is designed to reduce the impact on customers when NGGT undertake routine maintenance activities. For 2017/18 the incentive only included maintenance days for Remote Valve Operations (RVO); the In-Line Inspections (ILIs) element of the scheme ceased in 2015/16.

2.28. Where possible, NGGT have aligned their routine valve maintenance work with customer outages and only three Maintenance Days for RVOs were requested ahead of the summer maintenance period (April to October). This was reduced down to one after realigning the work with customers.

2.29. Secondly, the Maintenance Day Changes incentive is to reduce the impact maintenance activities have on customers where NGGT make changes to their planned maintenance schedule.

2.30. In 2017/18 there were no changes initiated by NGGT during the maintenance period.

2.31. This performance was primarily delivered by several improvements in NGGT's planning processes and telephoning/emailing customers prior to the planned maintenance affecting them.

Constraint Management Incentive Scheme

2.32. The Constraint Management incentive is designed to incentivise National Grid to maximise available capacity on the network and minimise constraint management costs through the efficient and economic planning and operation of the NTS. NGGT are incentivised to release as much capacity as possible and develop effective constraint management strategies and make economic and efficient NTS investment and planning decisions.

2.33. In 2017/18 NGGT managed an ongoing constraint risk with the continuation of a turndown contract which was first put in place in December 2016 for a total of 12 months. This turndown contract helped mitigate risk of an Entry constraint at a certain point on the NTS.

2.34. In July 2017, NGGT also carried out a four-week planned outage at Aberdeen compressor to complete essential maintenance works. Whilst this piece of maintenance work was underway, capability at St Fergus was reduced. Following recent years of high flows at St Fergus, a physical and commercial strategy was put in place to ensure the network was optimised to accommodate flows in the period of reduced capability.

2.35. During Winter 2017/18, the NTS experienced higher than expected flows through Bacton Interconnector combined with unplanned outages at both Huntingdon compressor and Kings Lynn compressor, both of which are imperative for minimising the risk of constraints specifically in the South East and South West, under this high flow scenario. With regard to the aforementioned unplanned compressor outages; to ensure that the high flows at the Bacton ASEP were effectively managed from a physical and commercial point of view, the following actions were undertaken:

i. NGGT mobilised engineers to ensure Kings Lynn compressor was locally manned. This meant having an Operative onsite to man the compressor site 24 hours a day for additional resilience whilst the gas flows at the Bacton ASEP were high and the additional compression was required.

ii. A joint physical and commercial strategy was also compiled to minimise the risk of constraint should one of the Huntingdon compressor units fail unexpectedly. This strategy provided alternate options and steps to take should there be a unit failure.

Demand Forecasting Incentive Schemes

2.36. The aim of the Demand Forecasting Incentive (which comprises of two elements, Day Ahead and Two-Five Day Ahead) is to incentivise NGGT to improve their forecasting capability.

2.37. Throughout 2017/18 NGGT have undertaken several activities to drive improvements in the accuracy of their demand forecasts, including:

- Ongoing process improvements to improve forecasting Power Stations and Local Demand Zones (LDZ).
- Process improvements – investigate changes to LDZ demand patterns to see if improvements can be made to modelling algorithms.
- Monitor weather forecasting errors and discuss performance with the provider.

Residual Balancing Incentive Scheme

2.38. The aim of the Residual Balancing Incentive Scheme is comprised of two incentives:

- The linepack performance measure (LPM) incentivises NGGT to minimise differences in linepack volumes between the start and end of each gas day. This is to ensure that any system imbalances within the day are resolved, and that any associated costs are levied across those system users responsible for that day's imbalance.
- The price performance measure (PPM) evaluates the impact NGGT have on the market as part of their Residual Balancing role by measuring the price range of their trading actions compared to the System Average Price (SAP). This incentivises the System Operator to minimise the impact it has on market prices

2.39. In 2017/18 trades were required to balance the system on 148 days during the year (41%). This is an increase from the last year where trades were only required on 90 days throughout the year (25%).

Transportation Support Services Incentive Scheme

2.40. The TSS scheme incentivises NGGT to minimise the cost of procuring specific tools to support gas demand in the South West as an alternative to network investment.

2.41. NGGT determined that it was not economic or efficient to procure any TSS services in 2017/18. This meant any increase in the risk of network constraints was managed through the Constraint Management incentive scheme.

Greenhouse Gas (GHG) Emissions Incentive

2.42. The GHG Emissions Incentive was developed to ensure NGGT took into consideration the venting of GHG during its compressor operation. The total amount of natural gas vented from compressors in 2017/18 was 3,928 tonnes, which was 36% or 1,031 tonnes higher than the target allowance set for 2017/18. The increase is mainly due to the entry supply imbalance and an increase in the within-day and end-of-day variability, resulting in less predictable regional demands, which in turn has led to more compressor running hours.

2.43. In 2017/18, three specific areas accounted for 71% of the total volume vented: Operational Process vents (which result from running and maintaining the compressor); Static Seal emissions (key design element of a pressurised compressor, while not running), and; Emergency Shut-downs (automatic shut-down and vent in response to safety alerts).

NTS Shrinkage Incentive

2.44. The aim of the Shrinkage incentive scheme is to encourage NGGT to minimise the costs they incur in their role as NTS Shrinkage Provider. These costs are recharged back to users as part of NTS commodity charges.

2.45. The overall volume of shrinkage gas and electricity procured for the combined elements of Shrinkage (Compressor Fuel Usage (CFU), Unaccounted for Gas (UAG) and calorific value (CV) shrinkage) was 3,816 GWh gas equivalent in 2017/18. This represents a decrease in overall volume of 930 GWh gas equivalent from 2016/17. This is largely due to a decrease of 413 GWh gas equivalent in the volume of CFU, and a decrease of 489 GWh in the volume of UAG.

3. Financial Performance

Chapter Purpose

In this chapter we summarise the NGGT's total expenditure (Totex) performance for 2017-18, their financial performance and the impact on customer bills. We also discuss NGGTs' returns, as measured by the Return on Regulatory Equity (RoRE).

Totex performance

3.1. For each year of the price control we set NGGT's cost allowances making up its allowed Totex[5]. This is to enable investment to maintain the existing network, accommodate new network infrastructure, and to deliver agreed outputs. NGGT must report its actual Totex, explaining its performance compared to the allowed Totex annually. NGGT must also forecast its Totex performance to the end of the price control.

3.2. As Totex refers to total controllable expenditure, it comprises both capital expenditure (capex) and operational expenditure (opex). Therefore, NGGT is incentivised to deliver outputs based on total whole life costs, rather than being driven to prefer either capex or opex.[6] This better incentivises NGGT to select the best overall solutions for customers.

Actual expenditure

3.3. We set a Totex allowance of £2.2 billion for the full eight years of the price control period for NGGT TO and SO. Table 3.1 shows NGGT's allowed and actual expenditure for 2017/18. The allowance for 2017-18 was £416m, and actual expenditure was £474m. Therefore, there was an overspend of £59 million or 14%. Chapter 4 and Appendix 1 give more detail on the expenditure against allowances for specific cost categories.

Table 3.1: Pre-tax Totex in 2017-18 (£m)

	TO	SO
Total allowed expenditure	320	96
Actual expenditure	388	86
Overspend (underspend)	68	-10
Totex incentive mechanism (company share)	44.36%	44.36%
Allowed expenditure after sharing[5]	358	91

[5] Includes only controllable costs, excluding uncontrollable costs such as business rates, and licence fees.
[6] Historically capex solutions have been preferred, as the cost was capitalised and increased a company's regulatory asset value (RAV). Under the Totex approach a company spends money on a solution, the same percentage is capitalised irrespective of whether that solution involves opex or capex. Also, we set the same totex incentive rate (the percentage that the licensee bears of an under or overspend against allowances) for both capex and opex solutions.

3.4. Table 3.2 shows NGGT's performance for the first four years of RIIO-T1 and its forecast performance for the full eight years of RIIO-T1.

Table 3.2: Forecast of final allowed and actual totex (£m)

	2013-14 to 2017-18				Forecast: 2013-2021			
(£m 17/18)	Allowance	Actual	Difference		Allowance	Actual	Difference	
NGGT TO	1345.1	1384.8	39.7	3%	2198.8	2437.1	238.3	10.80%
NGGT SO	524.6	457.7	-66.9	-13%	838.2	750.8	-87.4	-10.40%
Total	**1869.7**	**1842.5**	**-27.2**	**1.45%**	**3037.0**	**3187.9**	**150.9**	**4.97%**

Forecast expenditure

3.5. To date NGGT (TO) has overspent by £40 million (3%); forecasts also indicate an overspend by £238 million (11%) by the end of RIIO-T1. NGGT (SO) has underspent by £67 million (13%) and forecasts to underspend by £87 million (10%) by the end of RIIO-T1. This equates to a forecast over spend of £151m (5%).

Totex incentive mechanism

3.6. NGGT is incentivised to outperform its Totex allowance. Under RIIO-T1, companies that submit better forecasts in their price control business plans (ie closer to our view of efficient cost) receive a higher Totex efficiency incentive rate, meaning companies get to keep more of any underspend.[7] Therefore, efficient spending leads to better returns for investors and lower network charges for customers. Equivalently, any overspend is shared between investors and customers. Under the scheme, NGGT is exposed to 44.36% of any under or overspend and the consumer is exposed to the remaining 55.64% (subject to tax).

Financial Performance

3.7. Accompanying this report we have included a Regulatory Financial Performance Annex[8]. This sets out our detailed assessment of the network companies'[9] regulatory financial performances, based on the information they submitted using the new Regulatory Finance Performance Reporting (RFPR) process. This provides more targeted, detailed financial information on performance under RIIO-1, namely the impact on each company's returns of that company's level of gearing, cost of debt and actual tax payments.

3.8. In that Annex we set out our view of the following:

- RoRE for the RIIO-1 period

[7] The efficiency incentive rate is used to calculate the revenue adjustment NGGT receives as a result of overspend or underspend versus its allowed expenditure. It is symmetric and fixed for the duration of the price control period. The higher the efficiency incentive rate, the more of any overspend is borne by NGGT and the more of any underspend it retains.

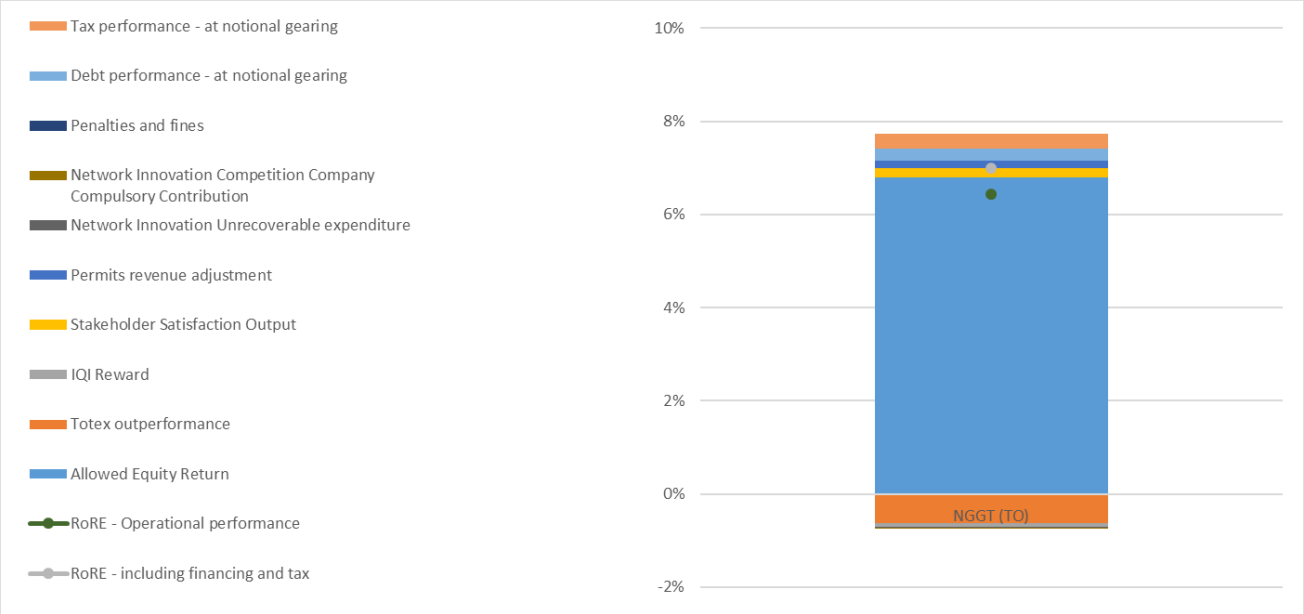
[8] https://www.ofgem.gov.uk/publications-and-updates/regulatory-financial-performance-annex-riio-1-annual-reports-2017-18

[9] This includes financial performance for all sectors – RIIO-GD1, RIIO-T1 and RIIO-ED1.

- Allowed revenue and the Annual Iteration Process (AIP)
- Gearing and financing
- Regulatory Asset Value (RAV); and

3.9. A summary of NGGTs' RoRE performance is shown in Figure 3.1. (excluding SO RoRE contributions please see RFPR Annex)

Figure 3.1: RoRE based on Notional Gearing – RIIO-GT1 period



Customer bill impact

3.10. Our Default Tariff Cap[10] provides an estimate of the overall cost of domestic energy bills. This includes estimates of the proportion of the overall cost of energy which is gas transmission costs. Our methodology uses an average electricity/gas demand applied uniformly across all regions and over time.[11] Actual customer bills are sensitive to geographic region, consumption volume and the timing and duration of contracts.

3.11. Our latest bill estimates using this methodology are reported in Figure 3.2 and in Table 3.3. We estimate that the average GB customer in 2019-20 will pay £10 per annum (in Real 2017-18 price terms) for gas transmission costs. Charges differ considerably depending on the region in which a domestic consumer resides: ranging from £4 in Scotia Gas Networks Scotland to £15 in Wales and West Utilities (in 2017-18 price terms), see Table 3.4 for details.

[10] We used the latest data as per the Default Tariff Cap: https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-april-2019-30-september-2019. This report assumes charges remain unchanged throughout 2019-20. However when the Default Tariff Cap is updated in late summer 2019 it will reflect the latest data available. For this report, the DTC nominal bills have been deflated using RPI data.
[11] Using median domestic consumption behaviour (volume and timing of use) for a 12-month fixed price contract.

Figure 3.2: Estimates of typical GB consumer costs to meet allowed revenue

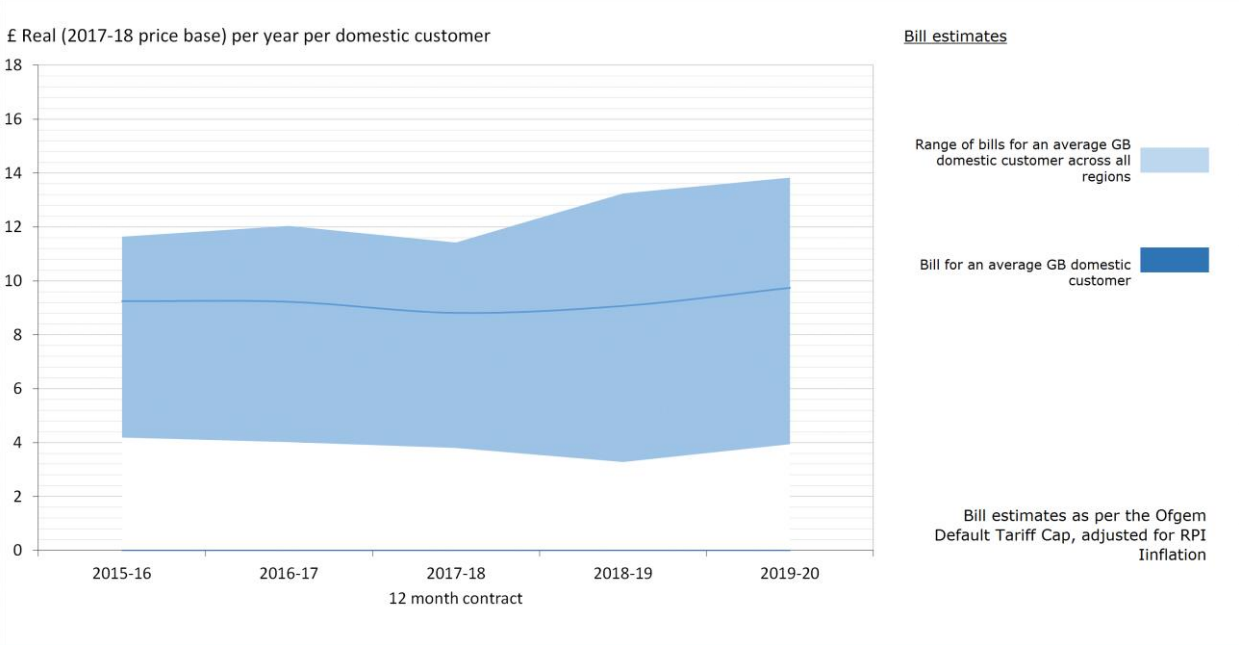


Table 3.3: Regional estimates of typical GB consumer cost to meet allowed revenue (£ Real (2017-18 price base) customer bill per typical domestic consumer)

Year:	Apr-15	Apr-16	Apr-17	Apr-18	Apr-19
GB average:	**9**	**9**	**9**	**9**	**10**
Licensee					
Cadent - East of England	9	8	7	7	8
Cadent - London	10	10	9	8	9
Cadent - North West	13	13	13	12	12
Cadent - West Midlands	11	10	10	10	10
Northern Gas Networks	6	6	6	5	6
Scotia Gas Networks - Scotland	5	4	4	4	4
Scotia Gas Networks - Southern	13	13	13	12	13
Wales and West Utilities	10	10	10	15	15

4. Totex performance drivers

Chapter Purpose

This chapter outlines Ofgem's view on the reasons behind NGGT's total expenditure performance. It provides comment on the drivers behind this performance to determine whether this is due to genuine efficiency or any other factors.

Overview

4.1. NGGT is incentivised to achieve its outputs using efficient expenditure. Where it underspends its allowances it retains a share; but where it overspends it must bear a portion of this too. NGGT is the only company from the RIIO-T1 and RIIO-GD1 price controls to forecast an overspend. This is a concern for Ofgem, as consumers will face higher costs over the eight year of RIIO-T1.

4.2. In other sectors, we have tried to explain whether the performance of companies is due to one of three factors: efficiency in delivery, provision in the price control settlement (assumptions made within the RIIO-T1 settlement that have varied against the actual position), or external factors such as weather or economic conditions. We haven't taken this approach for gas transmission as NGGT is forecasting an overspend.

4.3. Instead, our report focuses on the drivers of the overspend. If NGGT does overspend against its allowances, we want to ensure that this is the right thing for consumers and that its costs in doing so are efficient.

Totex performance (TO)

Asset health

4.4. NGGT has increased the workload for its asset health programmes leading to forecast costs of £665 million (£57 million above allowances). Work has been prioritised to improve asset health at some key gas transmission sites as well as improving the health of certain asset types across the network.

4.5. This is a result of continued observations that the actual network condition is at a lower level than National Grids's modelled view.

4.6. The key asset health campaigns (and spend in 2017/18) that have commenced and/or delivered over the year are:

- National AGI Renovation Campaign (NARC) – Year 1 (£36m)
- St Fergus Campaign (£11.8m)
- Bacton Campaign (£9.8m)

- Compressor Programme (£6.6m)

4.7. However, NGGT are forecasting to spend below allowances on the Aylesbury Industrial Emissions Directive (IED) -Large Combustion Plant (LCP) works delivering a catalyst solution.

Compressor emissions

4.8. In May 2018 NGGT made five regulatory submissions to Ofgem to adjust their allowed funding through the reopener uncertainty mechanism. The submissions covered the Industrial Emission Directive (IED), One-off Asset Health Costs (Feeder 9), Enhanced Physical Security, Enhanced Security (operational) and Quarry and Loss.

4.9. Following consultation and assessment of the reopener submissions, we have decided to reduce NGGT's baseline allowance by £287.5m (2009/10 prices), thereby allowing NGGT to retain £0.53m of its allowances for emissions control work.

4.10. Our view is that NGGT would not retain £123.4m of funding for compliance with emissions control legislation, with the exception of £0.53m for work that has been done at Wisbech.

4.11. As a result, NGGT is currently forecast to spend £319.5 million on ensuring its fleet of compressors are compliant with the relevant emissions legislation. This is compared to its forecast allowance of £323million (2017/18 prices).

4.12. However, as noted in previous annual reports, NGGT has also incurred significant costs in relation to compressor projects that were funded under the previous price control (TPCR4).

Operational Support

4.13. NGGT are forecasting to spend above allowances on Business Support costs and Closely Associated Indirect costs. Costs in this area are to deliver the increase in asset health spend, which also has an impact on Business Support costs, in support of the larger business.

4.14. Closely Associated Indirect costs have increased year-on-year in real terms by £1.4m. The increase has been largely driven by a reclassification of vehicle costs with a corresponding reduction reported in direct costs such as network engineering costs.

Business Support costs have increased year-on-year in real terms by £4.9m. The main increases in costs related to Data and Technology spend to support the transformation project (£1.8m), the realignment of the UK Assurance team from Corporate Centre reflecting the UK focus of work (£1.2m), consultancy and staff costs relating to deep dives on Sarbanes Oxley controls and change in external auditors (£1.7m) and RIIO-T2 preparation (£0.5m).

Totex performance (SO)

4.15. NGGT forecasts to spend £750.8 million against an allowance of £838.2 million – an underspend of £87 million (10%).

4.16. The underspend is mainly driven by lower forecast costs on telemetry and its Gemini[12] strategy where NGGT proposes to refresh the system rather than replacement.

[12] The system used for NTS capacity and gas nominations and gas energy balancing.

5. Appendix

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1	Supplementary data file	1

Appendix 1 - Supplementary data file

The supplementary data file provides detailed information on expenditure and performance. Its contents and the associated chapter is provided below it can be found: https://www.ofgem.gov.uk/publications-and-updates/riio-electricity-distribution-annual-report-2017-18