Price Control for Northern Ireland's Gas Transmission Networks GT22

Final Determination

About the Utility Regulator

The Utility Regulator is the independent non-ministerial government department responsible for regulating Northern Ireland's electricity, gas, water and sewerage industries, to promote the short and long-term interests of consumers.

We are not a policy-making department of government, but we make sure that the energy and water utility industries in Northern Ireland are regulated and developed within ministerial policy as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly through financial and annual reporting obligations.

We are based at Queens House in the centre of Belfast. The Chief Executive leads a management team of directors representing each of the key functional areas in the organisation: Corporate Affairs, Markets and Networks. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our mission

To protect the short- and long-term interests of consumers of electricity, gas and water.

Our vision

To ensure value and sustainability in energy and water.

Our values

- Be a best practice regulator: transparent, consistent, proportionate, accountable and targeted.
- Be professional – listening, explaining and acting with integrity.
- Be a collaborative, co-operative and learning team.
- Be motivated and empowered to make a difference.

Abstract

We are publishing the final determination for GT22 for the four high pressure gas conveyance licence holders in Northern Ireland, GNI (UK) Ltd, Premier Transmission Ltd (PTL), Belfast Gas Transmission Ltd (BGTL), and West Transmission Ltd (WTL) for the years from October 2022 to September 2027.

The price control will set out the amount the gas transmission companies will have to run their businesses and maintain the gas network. The key decisions for the companies are on operating expenditure, replacement expenditure and the proposed rate of return.

While maintenance and replacement costs are forecast to increase as the pipelines age, savings in other areas mean that the overall forecast is relatively stable.

Audience

This document is most likely to be of interest to: regulated companies, the energy industry, consumers, government and other statutory bodies.

Consumer impact

The price control sets out the allowed transmission revenue for the holders of high pressure gas conveyance licences. Gas transmission pipelines transport gas to gas distribution networks and power stations. Therefore, gas transmission charges apply directly to gas and indirectly to electricity consumers.

Traditionally, the postalised tariff comprises around 10% of the final price for a domestic gas consumer, however this is a reducing proportion at a time of rising wholesale gas prices.

We conclude that transmission charges should at least remain stable as a result of GT22 with the price control implemented not being a direct cause in potential consumer price increases.

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Acronyms and Glossary

AGI	Above Ground Installation
ARR	Actual Required Revenue
BCO	sum of the amount of each item of Controllable Operational Expenditure determined to be reasonable by the Authority according to condition 3.1.6(b) of the PTL licence
BGTL	Belfast Gas Transmission Limited
BGTP	Belfast Gas Transmission Pipeline
C&I Panel	Control & Instrumentation Panel
Capex	Capital expenditure
CAPM	Capital Asset Pricing Model. A model that describes the relationship between risk and expected return.
CJV	Contractual Joint Venture – Single system operation for TSOs
CMA	The Competition and Markets Authority is a non-ministerial government department in the United Kingdom, responsible for strengthening business competition and preventing and reducing anti-competitive activities.
Co.	County
CPI	Consumer Price Index
e.g.	for example
FOIA	Freedom of Information Act 2000
FRR	Forecast Required Revenue
FTE	Full Time Equivalent
GB	Great Britain
GD23	This is the name given to the next price control for the NI GDNs, to cover the period 2023 – 2028 (calendar years).
GMO NI	Gas Market Operator for Northern Ireland, the Contractual Joint Venture to deliver a single system operator
GNI	Gas Networks Ireland, parent company of GNI (UK)
GNI (UK)	Gas TSO operating in Northern Ireland

GT17	This is the name given to the gas transmission price control period from October 2017 to September 2022
GT17 actuals	The period 2017/18 to 2019/20 for which actual expenditure is available
GT22	This is the name given to this price control for high pressure gas conveyance licence holders in Northern Ireland covering October 2022 to September 2027
GT27	The next price control for high pressure gas conveyance licence holders is expected to run from October 2027 to September 2032
IC	Interconnector
ILI	In-line Inspections
ISO	International Organisation for Standardisation
IT	Information Technology
m	Million
MEL	Mutual Energy Limited
MERC	Maintenance and Emergency Response Contract
NIEN	Northern Ireland Electricity Networks
NWP	North-West Pipeline
OBR	Office of Budget Responsibility
Ofgem	Office of Gas and Electricity Markets. Regulates the electricity and gas markets in Great Britain.
Opex	Operating Expenditure
p.a.	Per annum (per year)
PC21	Price Control for NI Water for the years 2021-2026
PLC	Programmable Logic Controllers
PTL	Premier Transmission Limited
Repex	Replacement Expenditure
RIGs	Regulatory Instructions and Guidance
RPEs	Real Price Effects

RPI	Retail Price Index
SCADA	Supervisory Control and Data Acquisition
SEF	Social Enhancement Fund
SGNNG	SGN Natural Gas Limited
Shrinkage	Difference between the amount of gas that was recorded to have entered the distribution system and to have exited it. Includes: • gas loss through theft; • gas loss through leaks/emergencies; • own use.
SNIP	Scotland to Northern Ireland Pipeline
SNP	South-North Pipeline
SONI	System Operator Northern Ireland (electricity network)
Totex	Total expenditure, i.e. the sum of capex and opex.
TSO	GNI (UK), PTL, BGTL and WTL. WTL is not a TSO (Transmission System Operator) as defined by the European Commission but it is referred to as a TSO in this document for simplicity.
UK	United Kingdom
UPS	Universal Power Supply
UR	Utility Regulator
WACC	Weighted Average Cost of Capital
WTL	West Transmission Limited
WTP	West Transmission Pipeline

Executive Summary

This document represents the final determination for the GT22 price control for the high pressure gas network in Northern Ireland (NI) relating to the period starting 1 October 2022 until 30 September 2027. The network comprises five gas transmission pipelines operated by four gas conveyance licence holders, which we refer to as Transmission System Operators (TSOs):

- GNI (UK) Limited (GNI (UK));
- Premier Transmission Limited (PTL);
- Belfast Gas Transmission Limited (BGTL); and
- West Transmission Limited (WTL).

These gas transmission pipelines transport gas from Scotland to the gas distribution networks (Phoenix Natural Gas, Firmus Energy Distribution and SGN Natural Gas) and to the gas-fired power stations, Ballylumford and Coolkeeragh.

GT22 also includes the Gas Market Operator for Northern Ireland (GMO NI), which is a contractual joint venture (CJV) between the TSOs to deliver a single system operator service.

GNI (UK) is subject to a traditional 'revenue cap' incentive framework, while PTL, BGTL and WTL are part of Mutual Energy Limited (MEL) and are subject to a "mutualised" model. In this model, Northern Ireland gas consumers absorb deviations between forecast and actual operating costs in return for an absence of equity funding/ returns from the business, leading to lower costs for consumers.

We published the draft determination in December 2021. We received four responses before the consultation closed in February: three were from the companies involved and the fourth from the Consumer Council (CCNI). We have reviewed the additional information received to arrive at this final determination to apply from October 2022 until September 2027.

Northern Ireland Energy Strategy

GT22 has been developed in parallel with the preparation of a new Energy Strategy for Northern Ireland. This new strategy will enable new and challenging decarbonisation targets, which move towards a net zero target by 2050. We do not have sufficient information yet on the detailed delivery of the Energy Strategy to include any decarbonisation projects in the final determination. We indicated in the draft determination that the current incentive mechanisms, which allow for the consideration of unforeseen costs during the price control period, will be sufficient for projects which arise during GT22.

We have not changed our opinion on this matter. Projects may not be fully costed and ready for consideration at the same time, so it is likely to be more efficient to consider each project separately as it arises. Further, our proposed approach is likely to be quicker than a price control re-opener so will allow us to respond more swiftly where necessary.

Progress since GT17

GMO NI was established at the start of GT17 and has delivered a number of benefits for users of the Northern Ireland gas transmission network. It has streamlined a number of transportation activities, forged stronger engagement with parties who use the transmission network and delivered cost efficiency savings.

We have established an annual reporting mechanism for TSOs, known as Regulatory Instructions and Guidance (RIGs). This process is now well established with the TSOs participating fully and will continue throughout GT22. The information provided has deepened our understanding of the cost drivers and unit costs of repex projects particularly. Having access to this historic information has improved the robustness of the price control.

Review of Opex

The forecast costs were generally reasonably well justified and provided a high degree of confidence in many of the cost lines. We have reviewed the additional information received from the TSOs on the cost areas where we had proposed some disallowances in our provisional decision. Where we are content that the cost lines are now sufficiently justified, we are proposing to add back some of the proposed disallowances within the draft determination.

MEL finalised the procurement process for the Scotland to Northern Ireland Pipeline (SNIP) Agent contract after publication of the draft determination. The contract, which was won by the incumbent, will cost 67% more than the business plan forecast, with the total allowance increasing from £4.21m to £7.03m. Although MEL provided evidence to explain the increase and the procurement process that they followed, it was disappointing that they had not foreseen such a large increase.

MEL provided further supportive information around the additional engineering staff that we proposed to disallow and, on that basis, we have decided to provide some increase to the allowance.

For GNI (UK), we had concerns around the cost escalation for Supervisory Control and Data Acquisition (SCADA) communications. We were satisfied by some of the additional justification provided and have increased the final allowance. For GMO NI, we had concerns around the business case for the planned projects on the Delphi IT system. The additional information received has provided some of the justification

that we sought, but there was still some uncertainty around the Tier 2 costs.

We have been encouraged to see that both MEL and GNI (UK) are developing an ISO55000 accredited asset management system. We expect to see the value of this work by the start of the GT27 price control review, as the companies should provide better data to underpin both their projected repex and maintenance expenditure.

In its response to the draft determination, the Consumer Council Northern Ireland (CCNI) stated that UR had not provided sufficient detail to confirm whether the allowances were appropriate. We have therefore included a fuller explanation of the opex allowances through the publication of Annex 2 – Operational Expenditure.

Review of Repex

Our recommendations on repex were influenced by the high level of change in MEL's GT17 repex programme and GNI (UK)'s delayed repex programme. As with GT17, we propose a category of cost, entitled *'relevant items'*, for which the companies may later seek an allowance once the cost and timing of an identified need are better established. We are approving relevant items for MEL's pipework coating and for cyber security and meter replacement for GNI (UK).

GNI (UK)'s GT17 repex programme continues to be delayed so we have withheld some GT22 repex allowances. We have approved lower allowances on AGI site electrical work, actuators, gas pre-heating system and cyber security upgrades.

For MEL, we have provided lower allowances on SCADA refresh costs, programmable logic controllers (PLC), transformer rectifier replacement, electrical system upgrades, Universal Power Supply (UPS) systems and UPS battery replacement. Other projects such as lagging replacement, metering consistency and *'other items'* have attracted no repex allowance due to lack of justification or provision under maintenance budgets.

Business Plan Assessments

For the first time, we asked the companies to carry out a business plan assessment on how their submissions met the requirements that we had set out. We then carried out an assessment of this process and graded the business plan submissions. We can report that the business plan submissions are "Good".

Each plan had areas that could be improved and required regulatory intervention in the form of a significant number of queries, before we could be sufficiently confident of the forecasts. They all fell short of being an exceptional and stretching plan. However, they were generally good with some areas considered exceptional.

High quality business plans reduce the level of regulatory intervention required by UR. When compared to GT17 this improved quality of business plan reduced the

need for more detailed analysis and further queries, reducing UR resource costs for this work.

Efficiency Analysis – Frontier Shift

We proposed to replace the TSOs' frontier shift assumptions with an RPI - 0.8% rate of cost escalation which aligns to recent decisions by UR and Ofgem.

Since the publication of the draft determination, there has been a marked change in the inflation outlook. The Office for Budgetary Responsibility's latest economic forecasts, published in March 2022 projects that RPI inflation will be around 7.6% during the first year of the GT22 period versus a long term average of 2.9%. Thereafter, RPI inflation is forecast to be slightly below trend.

UR's calculation of allowed revenues in this final determination is based on the simplifying assumption that real input price inflation (also sometimes labelled "real price effects") will be broadly unchanged from the level that we provided for six months ago - i.e. that the acceleration in the rate of increase in revenues will broadly match the acceleration of rate of increase in costs. This means that we retain unchanged our draft determination assumption of a rate of overall frontier shift of RPI - 0.8% per annum.

Weighted Average Cost of Capital

For GNI (UK), we have determined a vanilla weighted average cost of capital (WACC) of 2.66%, on a real CPI-stripped basis.

This is lower than the current rate of return of 3.17%, reflecting the shift downwards in market interest rates since 2017 and the development of wider regulatory thinking in relation to the estimation of the expected market return.

GNI (UK) raised concerns in regards to the proposed cost of capital. They highlighted the proposed figure had been generated during a time of economic uncertainty, with the figure proposed providing no headroom to deal with the resultant potential financial challenges that may arise over the course of the forthcoming price control period.

Having considered all the points raised by GNI (UK) we have concluded that there was no justification to amend the approach taken. The calculations were rerun and derived a reduced WACC figure of 2.51%.

Given the market volatility seen, UR has decided not to move to the lower recalculated WACC and instead we have decided to maintain the figure proposed in the draft determination (2.66%). This has been agreed on the basis that the change between the two figures is minor and enables more flexibility for GNI (UK) allowing for increased overheads due to market changes and uncertainty.

Outputs and Allowances

We are allowing 90% of MEL's submitted amount post efficiency, 92% of GNI (UK)'s submitted amount and 86% of GMO NI's submitted amount. Note that the GNI (UK) percentage excludes the addition of revenue for provision of capacity at Haynestown which had been excluded from the GNI (UK) forecasts and that the GMO NI costs are also included within the costs of the relevant TSO.

	2022-23	2023-24	2024-25	2025-26	2026-27	GT22 Total
GNI (UK) Request (£m)	£9.09	10.07	9.63	10.07	9.39	**£48.24m**
UR Allowance (£m)[1]	8.82	9.38	8.63	9.17	8.71	**£44.71m**
MEL Request (£m)	21.66	19.24	17.90	17.85	18.35	**£94.99m**
UR Allowance (£m)[2]	19.79	17.54	16.13	16.29	16.19	**£85.94m**
GMO NI Request (£m)	2.51	1.89	1.80	1.50	1.68	**£9.39m**
UR Allowance (£m)	2.36	1.75	1.43	1.29	1.27	**£8.10m**

Table 1 - Total opex and repex cost request and UR proposed allowance (post efficiency)

The following graphs summarise the allowances, post efficiency, compared to submitted amounts and show the trend from GT17.

[1] Excludes Haynestown income adjustment.
[2] Figures for MEL and GNI (UK) include their element of GMO costs.

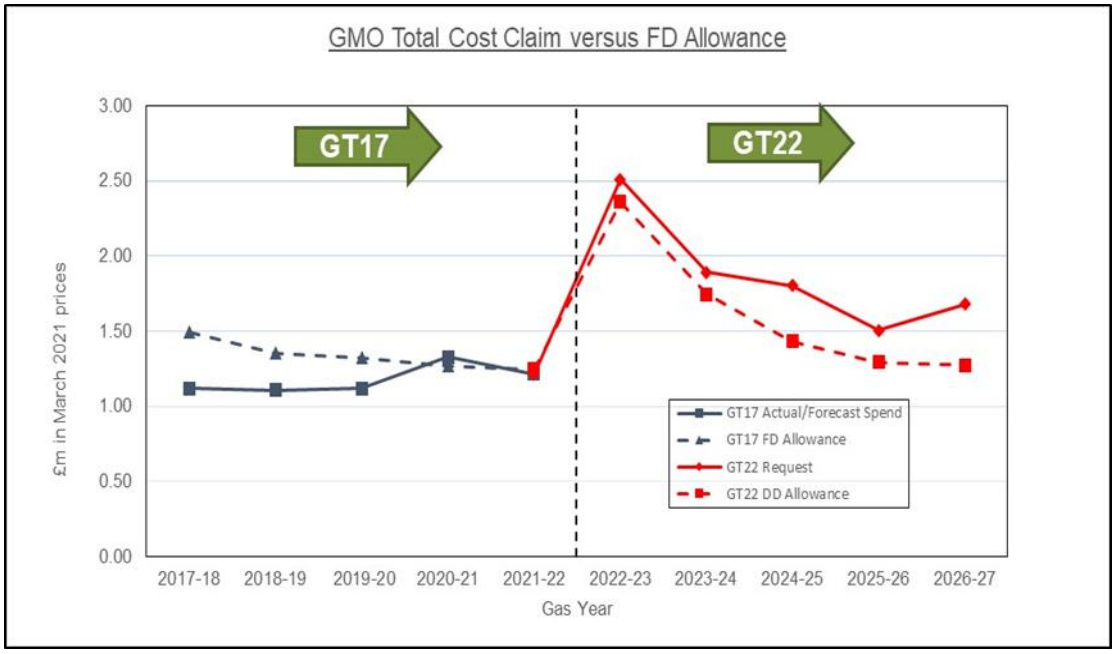

Figure 1 - GMO NI - GT22 proposed allowances, post efficiency

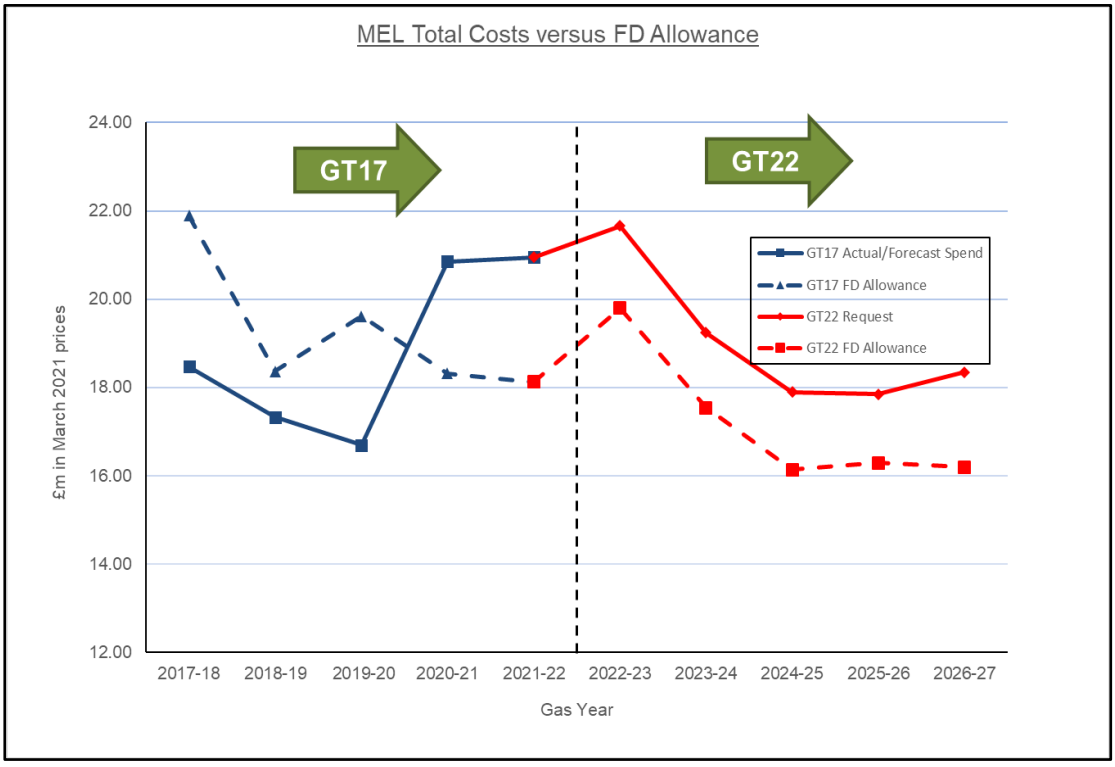

Figure 2 - MEL - GT22 proposed allowances, post efficiency

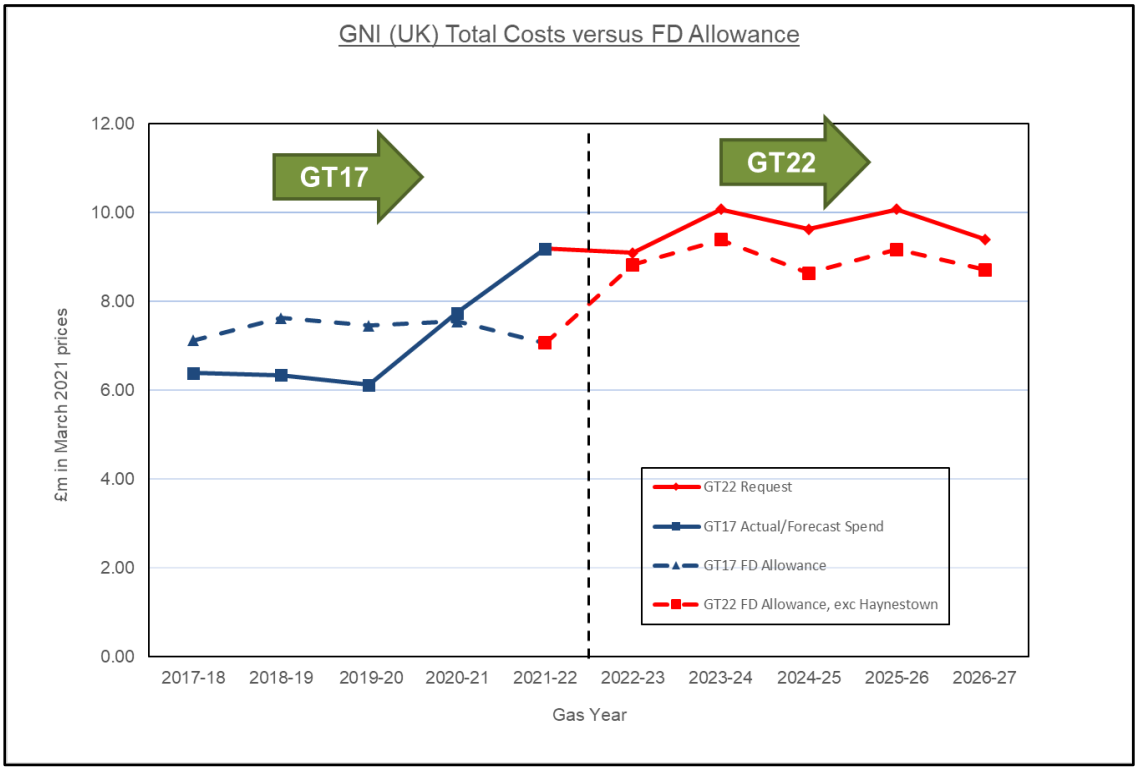

Figure 3 - GNI (UK) proposed allowances, post efficiency

Cost and Output Reporting

The outputs and targets associated with the allowances have been agreed and noted in this report following engagement with the TSOs and external experts to determine allowances that will enable the TSOs to provide a cost effective service. UR expects the TSOs and GMO NI to report against these commitments through the annual RIGs submission. We are considering adding some additional areas for review as a result of GT22, for example:

a) *Asset Management Systems:* We would like to see quantification of the benefits of this investment by the TSOs. We will wish to see how they will track activity through to cost efficiencies from reduced response maintenance.

b) *Stakeholder Engagement:* Following feedback from CCNI we wish to endorse their guidance to track the TSOs' stakeholder engagement plans and outcomes. We wish to see how stakeholder engagement is shaping a whole-system approach and delivering customer benefits. The tracking of stakeholder engagement should be integrated into the business plan assessment process for GT27 to ensure the quality and effectiveness of the TSOs' stakeholder engagement is a foundation of the business plan assessments.

c) *Joint Working*: We will ask the TSOs to report on joint working

initiatives including tracking benefits, financial and non-financial.

d) *Business Carbon Footprint:* We wish to track what the TSOs are doing to reduce their own carbon footprint. Further, we encourage the TSOs to work together to prepare an environmental action plan to demonstrate what they are doing, as organisations, to contribute to the drive to net zero carbon.

Consumer Impact

Our considerations around the GT22 price control come at a time when energy markets are seeing rises in international wholesale fuel costs. These increases have driven a significant rise in gas and electricity tariffs which is unwelcome news for consumers.

We are confident that the outcome of GT22 will not make any noticeable change in the postalised tariff. However, we should point out that the postalised tariff will increase in October 2022 as a result of higher gas costs, which are required to fuel the gas compressors on the Scottish section of pipeline.

Transmission tariffs, also known as postalised tariffs, are calculated using forecast required revenues from the TSOs and forecast capacity and commodity bookings. These are published at the end of May to apply from the beginning of October.

Rising wholesale gas prices means that the postalised tariff makes up a smaller proportion of the final price for a domestic consumer, reducing from around 10% to closer to 5%. Ultimately, the proposed GT22 allowances, combined with growing annual capacity bookings, due to increased volumes, should result in transmission charges at least remaining stable as a result of the GT22 price control.

1. Introduction

Purpose of this Document

1.1 This document represents the final determination for the GT22 price control process.

1.2 GT22 is the name given to the price control for the four high pressure gas networks in Northern Ireland relating to the period starting 1 October 2022 until 30 September 2027. The four gas conveyance licence holders for Northern Ireland high pressure networks are:

a) GNI (UK) Limited (GNI (UK));

b) Premier Transmission Limited (PTL);

c) Belfast Gas Transmission Limited (BGTL); and

d) West Transmission Limited (WTL).

1.3 GT22 also includes the Gas Market Operator for NI (GMO NI), which is a contractual joint venture (CJV) between the Transmission System Operators (TSOs) to deliver a single system operator service.

1.4 GNI (UK) is a subsidiary of Gas Networks Ireland, which operates and maintains the natural gas transmission and distribution network in the Republic of Ireland (RoI). Gas Networks Ireland is a subsidiary of Ervia, a utility infrastructure company owned by the government of RoI, which includes Irish Water. The Irish Government has decided that Irish Water will separate from Ervia in 2023 and Ervia will then integrate into Gas Networks Ireland. GNI (UK) will continue to be part of Gas Networks Ireland.

1.5 GNI (UK) is subject to a traditional 'revenue cap' incentive framework.

1.6 PTL, BGTL and WTL are all part of the Mutual Energy Group (MEL). These companies are subject to a 'mutualised' model. In this model Northern Ireland gas consumers absorb deviations between forecast and actual operating costs in return for an absence of equity funding / returns from the business.

1.7 In this final determination, we detail our proposals with respect to:

a) Operating expenditure (opex) allowances;

b) Maintenance / replacement (repex) allowances; and

c) Weighted average cost of capital (WACC), where relevant.

1.8 In setting out proposals for an efficient level of opex for the review period, we differentiate between:

a) Uncontrollable expenditure the level of which is fully outside the control of the licence holder; and

b) Controllable operating expenditure, i.e. any operating expenditure not classified as uncontrollable.

1.9 Allowances for uncontrollable opex are forecast at the time of the price control review and will be adjusted later on to match actual costs. For controllable opex, the potential impact of these allowances for the licence holders will vary, depending on whether they operate a 'revenue cap' or 'mutualised' model.

1.10 In the case of GNI (UK), the allowance represents a fixed amount the licence holder will recover from consumers. Any variation between this allowance and actual opex is absorbed by the licence holder. In this instance the consumer is exposed to no operating cost risk. Instead this risk is borne entirely by the shareholders of the licence holder and is reflected in the rate of return. This provides the licence holder with a very clear incentive to effectively manage costs.

1.11 In the case of MEL, the allowance represents merely a forecast of future outcomes. Actual allowances that the licence holder will recover from consumers will vary with actual expenditure. The licence holders, in this case PTL, BGTL and WTL, are exposed to none of the potential opex risk. Instead this risk is borne entirely by the Northern Ireland gas consumer.

1.12 However, we continue to determine an efficient level of operating costs as if a 'revenue cap' was in place known as a 'shadow' price control. The licence holders then have a reputational incentive to manage costs effectively in line with the determined 'shadow' allowance.

1.13 In addition, management incentives may be set to align with these allowances as a means of effective operating cost control. Performance against the 'shadow' allowances also provides the Utility Regulator (UR) with a metric to judge whether existing licence conditions continue to facilitate our statutory duties.

Regulatory Changes since GT17

1.14 A significant development in the regulatory regime has been the establishment of GMO NI on 1 October 2017, a single system operator for Northern Ireland. GMO NI has enabled a single point of contact for shippers creating efficiencies and future savings for Northern Ireland consumers.

1.15 GMO NI was established through a contractual joint venture (CJV) between the licence holders and is not a separate legal entity. The funding for the activities of GMO NI must be provided by the licence holders which are party to the CJV. Therefore the TSO forecasts include the costs of GMO NI.

1.16 The Regulatory Instructions and Guidance (RIGs) process became established during GT17, following licence modifications to formalise the approach and establish the licensees' obligations to maintain adequate systems for reporting of information specified within the RIGs. The business plan reporting templates are consistent with the RIGs format.

1.17 The RIGs have provided valuable information on the progress of forecast outputs during the price control period, increasing transparency and allowing for earlier discussions around variances.

Capital Expenditure

1.18 This price control review does not set allowances for capital expenditure (capex) to add to the capacity of the existing pipeline network. Two of the licence holders (PTL and BGTL) purchased existing assets, the Scotland Northern Ireland Pipeline and Belfast Gas Transmission Pipeline respectively. They are therefore not required to fund capital works.

1.19 In the case of the other two licence holders: GNI (UK) which built both the North West and South North Pipelines along with their associated spurs, and WTL which operates the Gas to the West network, capital allowances are set in accordance with a completely separate methodology outside the price control process.

1.20 However, maintenance / replacement expenditure (repex) to replace or upgrade existing equipment is considered. It will be treated in the same way as controllable opex.

Rate of Return

1.21 As with opex and repex, the rate of return / cost of capital has a different treatment depending on the particular licence holder. For GNI (UK), we are required to review the rate of return at each review.

1.22 For the MEL licence holders (PTL, BGTL and WTL), the rate of return on capital is excluded from the price control process. These licence holders are entirely funded by debt finance in the form of a long term bond. The repayments on this bond, including principal and interest, will be made in accordance with a predetermined schedule that has previously been agreed by UR. There is therefore no provision in any of these licences to review the rate of return.

1.23 Table 2 summarises the section above and sets out, for each licence holder, the cost categories that will and will not be determined at this price control review as set out in the individual licences.

Price Control Item	GNI (UK)	Premier Transmission	Belfast Gas Transmission	West Transmission
Controllable operating expenditure (non GMO NI)	Allowance fixed at review	Allowance forecast at review but actual allowance matches actual costs		
Controllable operating expenditure (GMO NI)	Allowance fixed at review	Allowance forecast at review but actual allowance matches actual costs		
Uncontrollable operating expenditure	Allowance forecast at price control review but actual allowance matches actual costs			
Weighted average cost of capital	Allowance fixed at review	Not applicable	Not applicable	Not applicable

Table 2 - Output of Price Control by Licence Holder

1.24 This final determination details the proposals of UR with respect to the GT22 price control period on:

a) Price control allowances;

b) Incentive mechanisms; and

c) Outputs.

1.25 It also considers the expected impact of these proposals on consumers.

Our Statutory Duties and Regulatory Principles

1.26 Our principal objective in carrying out our gas functions is to promote the development and maintenance of an efficient, economic and co-ordinated gas industry in Northern Ireland. We do so consistently by having regard to a number of matters, as set out more fully in the Energy (Northern Ireland) Order 2003.

1.27 High pressure gas networks are natural monopolies. It does not make economic sense for a number of businesses to build, maintain and operate high pressure gas networks in the same geographic area.

1.28 Where a monopoly exists, consumers are not able to change their network operator in order to receive better prices or service levels. In the absence of such competitive pressures, natural monopolies may act against consumer interests by:

- Remaining or becoming inefficient, passing higher costs on to

consumers than would otherwise be necessary; and/or

- Delivering poor levels of service rather than seeking innovative or challenging ways to improve performance while reducing costs.

1.29 By subjecting monopoly service providers to external challenge, independent economic regulation helps ensure that they act in the consumer interest.

1.30 Economic regulators also impose budgetary constraints on the regulated company or companies (while at the same time making sure that they are adequately financed). These constraints are based on direct challenge of the company's proposals, supported by analysis of cost and service to establish the level of performance.

1.31 As GNI (UK), PTL, BGTL and WTL, with their respective pipelines, are the only monopoly providers of high pressure gas networks, a regulatory framework has been put in place to protect the consumers who use their services. In our role as economic regulator, we take action if we consider that any of the companies underperforms or operates less efficiently than its peers. We also set targets for improvement.

1.32 An important part of this regulatory framework is price controls. A price control is a method of setting the total allowed revenues a licence holder is allowed to earn (revenue cap), or maximum tariffs a licence holder is allowed to charge (price cap), during a given period (the price control period).

1.33 As part of a price control, we establish a clearly defined set of outputs that the licence holders must deliver. We also put in place reporting that allows monitoring of actual versus determined target outputs. When selecting these outputs we aim to strike a balance between outputs that are clearly defined while allowing the licence holders the flexibility they need to deliver them in the most effective way.

1.34 In addition to the pre-defined outputs, there are other outcomes a price control will have. These will include for example (but are not necessarily limited to) the impact of the price control on transmission charges and consumer tariffs, on the environment and greenhouse gas emissions and on customer service.

1.35 We interpret our duties, in the context of carrying out price controls, as a broad mandate to:

- Secure the most cost efficient outcome for the protection of consumers and the promotion of the gas industry in Northern Ireland;

- Ensure the licence holders can continue to finance the activities which are the subject of obligations placed on them; and

- Have due regard to all relevant factors.

1.36 It is our aim to do this by:

- Providing a strong foundation for the continued and long-term operation of the Northern Ireland high pressure gas networks, delivering value for money to consumers;
- Challenging the licence holders to improve their efficiency and performance at an achievable and sustainable rate;
- Promoting long-term planning by the licensees and securing the continuity of necessary and efficient investment; and;
- Ensuring that revenues are set at the minimum levels that are consistent with efficient operation.

1.37 The price controls for each of the companies considered are complex, and comprise different elements. In this context, we interpret our obligation to further our principal objective and fulfil our duties as a requirement to do so taking all of the elements of each price control together. This means, the overall price control needs to be considered in the round.

1.38 Certain aspects of each company's price control may make particular contributions to the fulfilment of certain aspects of our objective and duties, but no part of the control should be considered in isolation. We aim to ensure that the balance which we are required to strike, having regard to all of the different elements of our objective and duties, is struck in setting each price control as a totality.

1.39 Our approach to price controls is based on best practice regulation of natural monopolies. Our task essentially consists of creating a framework within which, in return for providing monopoly services to an acceptable quality, the company receives a reasonable assurance of a revenue stream in future years that will cover its costs and ensure fairness for the consumer.

1.40 We are a non-ministerial government department, accountable to the Northern Ireland Assembly.

Market Overview

1.41 The Northern Ireland gas transmission network consists of five pipelines operated by the four licence holders, as follows:

1.42 The **Scotland to Northern Ireland (SNIP) pipeline** connects to the GNI (UK) system at Twynholm in Scotland and has a maximum operating pressure of 75 barg. The pipeline is almost 135km long, runs towards the

coast near Stranraer and crosses the Irish Sea to terminate at Ballylumford Power Station, Islandmagee. The SNIP is owned and operated by PTL.

1.43 The **Belfast Gas Transmission Pipeline (BGTP)** comprises a further 26km of pipeline with a maximum operating pressure of 75 barg and runs from Ballylumford via Carrickfergus to Belfast, where it supplies the Greater Belfast demand.

1.44 The **North-West Pipeline (NWP)** extends a further 112km of 450mm pipeline from Carrickfergus to supply the power station at Coolkeeragh. The NWP is owned and operated by GNI (UK) Ltd.

1.45 A 450mm pipeline connecting the Interconnector System to the NWP was built in 2006. This pipeline, called the **South-North Pipeline (SNP),** is 156km long and extends from the IC2 (interconnector 2) landfall at Gormanston, Co. Meath in Ireland to Ballyalbanagh on the NWP, approximately 12km west off the Carrickfergus AGI (above-ground installation). This pipeline facilitates supplies to towns and industries in the corridor from Newry to Belfast.

1.46 The **West Transmission Pipeline (WTP),** operated by West Transmission Limited, comprises 78km of transmission pipeline commissioned in 2019 to transport gas west of the SNP past Dungannon to Derryhale. It connects into towns through the SGN Natural Gas (SGNNG) distribution network.

1.47 The towns and industries along the Northern Ireland gas transmission network are currently supplied by flow which enters Northern Ireland through the SNIP. The SNP is available to flow gas into Northern Ireland from Gormanston to meet increasing demand in Northern Ireland.

Structure of this Document

1.48 This document is structured in a number of different chapters, each addressing a different aspect of the price control.

- Executive Summary provides an overview of the key findings and proposed key decisions of this price control process.
- Chapter 1 - Introduction provides an overview of the purpose of this GT22 final determination, our statutory duties and regulatory principles as well as the Northern Ireland high pressure gas market.
- Chapter 2 - Approach provides an overview of the price control process and key aspects of same.
- Chapter 3 – Review of GT17 Period provides a look back over GT17 including the Cost and Performance Report and the decision points

from the final determination.

- Chapter 4 – Business Plan Assessments provides our high level view of the TSOs' assessments of their own business plans.
- Chapter 5 – Operating Expenditure (Opex) summarises our proposed pre-efficiency allowances for GT22.
- Chapter 6 – Replacement Expenditure (Repex) summarises our proposed pre-efficiency allowances for GT22.
- Chapter 7 – Efficiency Analysis shows our proposed frontier shift efficiency challenge.
- Chapter 8 – Incentives and Innovation outlines our view with respect to incentive and adjustment mechanisms specifically with regard to the Northern Ireland Energy Strategy.
- Chapter 9 - Financial Aspects discusses different issues relating to the finance implications of the price control, including rate of return, financeability and repayments.
- Chapter 10 - Outputs and Allowances summarises the proposed post-efficiency allowances, GT22 outputs, impact on consumer bills and environmental impacts. It also highlights some recommendations for the GT22 period.

1.49 These chapters are complemented by Annexes, listed in chapter 11.

2. Approach

Stakeholder Responses to Approach Document

2.1 In December 2020 we published an approach document[3] setting out how we intended to conduct the price control review, inviting responses from stakeholders on our proposals.

2.2 We received four responses from MEL, GNI (UK), GMO NI and the Consumer Council for Northern Ireland (CCNI). While all broadly supported the approach we have set out, each raised specific issues for us to consider, which we commented on in the final approach document[4], published in March 2021.

Stakeholder Responses to Draft Determination

2.3 The Draft Determination was published on the 16th of December 2021. The consultation period ran until the 21st of February 2022. Responses were received from MEL, GNI (UK), GMO NI and CCNI.

2.4 The main concerns expressed by the respondents were based around cost lines where the proposed allowances were below the submitted forecasts.

2.5 CCNI advised that UR should focus on any areas of weakness within the business plan assessments to ensure the companies move to "exceptional" quality. It advised that UR provides more information on the allowed expenditure including forecast outputs. It suggested improved tracking of stakeholder engagement and encouraged mechanisms to encourage innovation.

2.6 Through continued stakeholder engagement in the form of queries and meetings, we received further justification and validation and have increased several allowances as a result.

2.7 Where we continue to consider that cost forecasts have a demonstrated need but insufficient information on cost or timing, these have been designated as "relevant items" that can be reviewed during the GT22 timeline once further information is available.

2.8 Annex 4 summarises the issues raised by the four respondents and the UR response provided which has in certain instances utilised additional guidance from expert independent advisors.

[3] https://www.uregni.gov.uk/publications/gt22-approach-consultation-document
[4] https://www.uregni.gov.uk/publications/gt22-price-control-approach-document

Environmental Impact, Decarbonisation and Energy Efficiency

2.9 GT22 was considered in parallel with the preparation of a new Energy Strategy for Northern Ireland. This new strategy sets out new and challenging decarbonisation targets, which move towards a net zero target by 2050.

2.10 All respondents commented on the Energy Strategy and how GT22 should take account of future requirements.

2.11 CCNI emphasised that UR should ensure that this FD is aligned with the Energy Strategy, reflecting the priorities and objectives. It states that this means providing sufficient funding to deliver strategic outcomes and providing incentives to take account of the needs of consumers.

2.12 GMO NI requests that the mechanisms which allow for consideration of unforeseen costs during the price control period be used in an efficient and flexible manner to ensure the industry can support the delivery of the Northern Ireland Energy Strategy. It stresses that GMO NI and the TSOs will need to make substantial investment and dedicate resources for this purpose.

2.13 GNI (UK) proposes a pragmatic approach by UR to enable the investment requirements of actions to deliver the Energy Strategy to be considered during the GT22 period as unforeseen operating expenditure. GNI (UK) stated that it is committed to ensure that such investments are justified in the context of delivering necessary decarbonisation of the Northern Ireland gas networks.

2.14 MEL does not refer to the Energy Strategy in its response to the draft determination, but had provided its thoughts during the submission stage and requested that UR establish a specific mechanism to allow recovery of net zero costs. It highlighted that consideration of any future projects needs to address three particular challenges:

a) Agility – decisions will need to made and implemented quickly.

b) Risk – managing the risk of investing in incorrect solutions or not adapting to a changing environment.

c) Uncertainty – the scheduling of works should prioritise the “no regrets” work while still continuing to achieve set goals.

2.15 During the query stage following the draft determination, MEL provided target outputs for the proposed Energy Transition staff, which included:

a) Actively contribute to the development of energy policy and regulation in Northern Ireland, GB and RoI, including promoting a "whole system" approach to policy development.

b) Develop a programme, with other gas network operators, to deliver decarbonisation of gas supplies by 2050, including a credible and budgeted work plan.

2.16 We indicated in the draft determination that we consider the current incentive mechanisms, which allow for consideration of unforeseen cost during the price control period, will be sufficient during GT22. In this final determination, we have decided that is still the appropriate approach.

2.17 Further information on this topic is provided from paragraph 8.7.

2.18 We will set a high bar in terms of evidence required for projects to be considered within the GT22 period, particularly where these could lead to increased prices. Our assessment criteria will include, but may not be limited to the following information which we expect to be provided by the licence holder requesting such funding:

a) Quantified and robust cost benefit analysis;

b) Detailed and robust project plan for the decarbonisation project;

c) Credible and binding commitments from any project partners to participate in/contribute to funding the project, as well as proposed contingency arrangements in case project partners should fall short of their obligations;

d) Explanation of how the licence holder has arrived at this project and how this interacts with other investments planned under the normal price control;

e) Explanation of how the project can be justified in consultation with consumers and other stakeholders;

f) Details on what deliverables / benefits may be expected for local consumers from the project; and

g) Detailed risk assessment as well as details on and justification of proposed treatment of risk and reward.

Price Control Process

2.19 In addressing the key areas of this price control, we have been mindful of the need to keep the regulatory burden to a minimum while addressing the

information asymmetry that exists between us and the companies. We adopted and applied a number of principles to ensure that our approach is proportionate. These principles are:

- A business plan reporting template along with the accompanying instructions was developed with the assistance of the licence holders.
- Areas of high expenditure received more scrutiny and analysis than low value items, along with operating expenditure which had varied significantly from GT17 allowances.
- We used benchmarking where appropriate to consider if allowances are efficient and that efficiency targets are reasonable but challenging.
- Where possible, the allowances are aligned to clearly defined outputs and relevant drivers.
- This price control has been based on a standard RPI-X framework, to incentivise the licence holders to control their costs through the setting of efficiency targets.
- Allowances will not be given for profit margins to any affiliated business to which contracts have been awarded.
- Allowances will not be given for contingency elements within budgets.

2.20 We have adopted a light touch approach where:

- There was evidence to show that the licence holder is comparatively efficient.
- Past costs were a strong indicator of future costs.

2.21 We adopted a more detailed approach where:

- The licence holder may have been comparatively inefficient.
- Past costs were not indicative of future costs.
- Cost lines were increasing and were of a material nature.

2.22 The licence holders generally provided the data necessary to support a robust assessment of expenditure and outputs. Where there was insufficient data, we asked for more information through the query process.

2.23 Where that did not provide all the information we wanted, we have either disallowed the forecast, or designated the forecast item as a *"Relevant Item"* which can be allowed later in the price control period on provision of

satisfactory information.

2.24 For the first time since it was set up in 2017, GMO NI has submitted a business plan, which aligns with the business plans submitted by the TSOs. As GMO NI is not a legal entity, it is unable to enter into a contract with the supplier of any of the resources necessary to deliver single system operation. The contracts are held by the relevant TSO and the allocation of cost to GMO NI has been identified in each of the business plans.

2.25 In the approach document we outlined the steps in the price control process as they relate to the activities of GMO NI, repeated here in Figure 4.

Price Control Process
Step 1 – UR will issue a business plan cost template. This will cover all Transmission System Operation (TSO) activities with a separate return for GMO NI costs.
↓
Step 2 – TSOs will discuss what GMO NI activities are required and the estimated cost of each e.g. rent, staff, IT cost, General Manager cost etc.
↓
Step 3 – TSOs to decide the split of activities and cost between themselves.
↓
Step 4 – Companies will submit a joint GMO NI cost submission in early July 2021. This will include a five year forecast of total GMO NI costs split by TSO.
↓
Step 5 – UR will consider the joint cost submission and the efficiency factor (if any) to be applied to GMO NI. This may differ from efficiency targets for the rest of the business.
↓
Step 6 – UR will decide the global allowance for the term of the price control. Revenue for GMO NI will be allocated to licensees based on the determined method.
↓
Step 7 – The General Manager and TSO governing committee will manage the annual GMO NI budget
↓
Step 8 – The TSOs will be required to submit a report of actual expenditure incurred during the previous gas year in annual Regulatory Instructions and Guidance returns.

Figure 4 - GMO NI Price Control Process

2.26 Only the direct costs of delivering the activity of system operation, such as staff and IT systems, will be treated this way. General overheads and allocated cost, such as corporate functions, will be included within the licence holder's non-system operation cost category.

2.27 This approach has been adopted in order to facilitate the creation of a clear and transparent distinction between GMO NI system operation and other cost categories. This mitigates the risk of cost shifting within and between licence holders.

Introduction of Business Plan Assessments

2.28 One of our aims for GT22 was that the TSOs would produce high quality, well evidenced business plans which could be accepted following limited scrutiny.

2.29 Following on from our recent price control for SONI and the GD23 price control process for Gas Distribution Network (GDN's) companies, we introduced a business plan assessment process in GT22 which is structured around three key themes, set out below:

- Service contribution to good outcomes;
- Services and costs; and
- Trust in delivery.

2.30 As part of their business plan submissions, the TSOs completed a self-assessment of their submission, which included a statement setting out how they approached the preparation of an exceptional business plan in line with the three key theme areas, backed up by reference to the section of the business plan which provides the supporting evidence.

2.31 We indicated that we would not publish our detailed assessment but would engage with each individual company on the areas where improvement could be made for future submissions. A high-level view of our findings is provided in Chapter 4.

2.32 This has been a valuable addition to the price control process, one that has reduced the level of regulatory intervention required by UR, therefore reducing the regulatory cost of this process.

Duration of the Price Control

2.33 The necessary licence modifications were made at the outset of GT17 to align review dates of Mutual Energy Limited licence holders with the schedule applicable to GNI (UK). GT22 will apply from 1 October 2022 until 30 September 2027.

Timeline and Stages

2.34 This final determination is the culmination of UR's considerations around the

business plan submissions from the TSOs. This document has been created following a consultation period and time to consider TSO responses. The TSOs' cost allowances will form the basis of their submission for the setting of the transmission tariffs to apply from 1 October 2022.

2.35 All financial figures throughout this document are expressed in March 2021 prices unless otherwise stated.

3. Review of GT17 Period

Cost and Performance Review of GT17

3.1 We reported on progress of the first three years of GT17 in the Cost and Performance Report[5] in August 2021. We concluded that, in overall terms, the first three years of GT17 can be considered successful. GMO NI has been implemented effectively and has delivered cost savings as well as practical benefits to shippers by way of:

- One point of contact for all queries/issues.
- Single transmission code and invoicing system.
- 24-hour telephone service and website.

3.2 The key indicators of GMO NI performance demonstrates good levels of compliance and shipper surveys suggest overall satisfaction with market operation.

3.3 For the TSOs, both MEL and GNI (UK) have been effective in delivering below budget and collaborating for the benefit of the industry as a whole. RIGs reporting has been useful in providing clarity on costs and outputs.

3.4 MEL has made good progress against its scheduled repex projects as well as undertaking some unscheduled work. GNI (UK) has experienced some problems in terms of asset replacements schemes, but we accept that Covid-19 has had an impact on delivery.

3.5 The TSOs have undertaken the GT17 requirement to consider the feasibility of a single control room. However, the conclusion is that it is not practical at this time given legal and procurement concerns. This is disappointing, especially given the success of the GMO NI. This is something we expect to revisit in the future. Otherwise, performance in the first three years of GT17 can be considered good.

Actual Expenditure of GNI (UK)

3.6 The below table provides an outline of the actual spend by GNI (UK) through the duration of GT17 up to February 2022. The table clearly illustrates that GNI (UK)'s repex programme continues to be delayed with many projects not yet started or able to be completed by the construction date noted.

[5] https://www.uregni.gov.uk/publications/gas-transmission-cost-and-performance-report

Project Name	Forecast GT17 Spend	Actual Spend to Feb 22	Complete Y/N	In progress	Construction End Date
Cathodic Protection	£0.22m	£0.05m	N	Y	Q4 2022
Instrumentation Refurbishment	£0.32m	£0.08m	N	Y	Q3 2022
Aerial Markers	£0.12m	£0.01m	N	Y	Q4 2022
Boiler Replacement	£0.52m	£0.04m	N	Y	Q4 2022
Control System Refurbishment	£0.10m	£0.03m	N	Y	Q3 2022
Carrick AGI Operation Mode	£0.24m	£0.13m	Y	Y	Q1 2022
Emergency Escape Upgrades	£0.41m	£0.00m	N	Y	Q3 2022
Cyber Security	£0.27m	£0.19m	N	Y	Q4 2022
Meter Refurbishment	£0.53m	£0.06m	N	Y	Q4 2022
Other	£0.10m	£0.11m	Y	n/a	n/a
Total Cost	**£2.83m**	**£0.71m**			

Table 3 - Status of unspent GNI (UK) GT17 repex allowances at February 2022

3.7 As a result of this significantly delayed programme, we have disallowed some repex forecasts to ensure no duplication of project funding during GT22. Where we were satisfied there was evidence of a need for a project but insufficient detail had been provided, we designated them as *'relevant items'*, which means that they can be added to GNI (UK)'s allowance at the appropriate time subject to proper justification.

Establishment of GMO NI

3.8 GMO NI has delivered a number of benefits for users of the Northern Ireland gas transmission network. It has streamlined a number of transportation activities, including operating a single Network Code, a single point of contact for shippers, a single IT system interface and a single set of invoicing and credit arrangements. Through its fora, it has forged stronger engagements which has resulted in a greater understanding by all parties of the moving parts of the transmission charging regime.

3.9 These improvements have delivered cost efficiency savings, both in the costs of operating the network, as seen through the price control, but also in reducing network code charges to shippers, through increased focus on good nomination behaviour.

3.10 GMO NI operates to a set of KPIs to measure their performance in the following areas of:

a) Accuracy and timeliness of invoices;

b) Debtors adherence to payment terms;

c) Metrics on response to shipper queries;

d) Shipper satisfaction levels; and

e) Budgeting and cost control targets.

3.11 GMO NI reports average KPI scoring in the first three years of GT17 at 96%, along with implementing improvements which were suggested in the shipper satisfaction surveys. In its business plan submission, it outlined that it will continue to use KPIs, satisfaction surveys and engagement channels to continuously review and improve Northern Ireland gas market arrangements in order to deliver more streamlined and efficient resourcing.

Regulatory Instructions and Guidance (RIGs)

3.12 Following GT17, we established a reporting mechanism for the TSOs, with three elements:

a) TSO cost reporting – Financial data to be provided in line with the business plan template. Commentary should be included focusing on areas of spend where costs have risen/fallen or are substantially different from the price control allowance.

b) TSO output monitoring – This table focuses on the delivery of major repex and maintenance projects (such as sub-sea surveys). It will also record spend associated with such schemes.

c) GMO NI Monitoring – A report from the GMO NI on its performance, governance, costs, KPIs etc.

3.13 This mechanism was implemented following licence modifications which established obligations on the TSOs to report annually on their costs and outputs[6], known as Regulatory Instructions and Guidance (RIGs). These are intended to allow UR to monitor performance and, over time, provide a database of performance to inform subsequent price controls.

3.14 The TSOs are required to complete a data reporting template, in MS Excel format, which is consistent with the format of price control submissions. The relevant reporting year is the gas year, 1 October to 30 September, with the

[6] Licence condition 1.21 in the gas conveyance licences

submission required four months after the end of the reporting year, which is 31 January.

3.15 Following analysis and discussion with the TSOs, a summary of the annual returns are published on the UR website[7].

3.16 This process is now well established with the TSOs participating fully and this will continue throughout GT22. The information provided has deepened our understanding of the cost drivers and unit costs of repex projects particularly. Having access to this historic information has improved the robustness of the price control.

Progress on Decision Points in GT17

3.17 In GT17, we made further decision points and recommendations, which have since been progressed.

3.18 We said that *"setting allowances after the **Revenue Recovery Period** is a significant matter",* referring to the end of the capital recovery period for GNI (UK). The current licence does not make provision for this and the NWP recovery ends 30 September 2029. We still consider this is a significant matter and we intend to consider this further in the GT22 period.

3.19 There were a number of items which were designated as ***Relevant Items*** in GT17 because there was insufficient clarity or justification of the forecast for us to allow them in the final determination. It has transpired that this was a positive move, as the projects generally have not progressed during GT17, but the costs could have been added had they been required.

3.20 ***Defined outputs*** were produced as part of the GT17 allowance and we said they would be monitored. We said that any outputs deferred would impact on further allowances in the next period. The information received through the annual RIGs process has allowed us to carry out this monitoring and we have taken account of actual and deferred outputs in our considerations of proposed allowances.

3.21 In GT17, we said that we intended to carry out a ***Governance Review*** of MEL and the GT22 forecasts continue to forecast high salary costs, relative to GNI (UK)[8]. We undertook this review and then engaged with MEL at Board level and with MEL members to deliver more effective governance. Further engagement with MEL members will continue to seek continuous improvement of MEL governance in the future,

3.22 We said in GT17 that we consider the value of the ***Social Enhancement***

[7] https://www.uregni.gov.uk/tso-gmo-annual-returns
[8] See chapter 5 for more detail.

Fund (SEF) to be unclear and that it should be reviewed as part of the governance review. We also said that no further monies should be allocated to the fund. We subsequently allowed some outperformance to be put into it, as part of the 2020-21 reconciliation to form a Covid-19 buffer.

3.23 There are a number of options that could be considered for the SEF, from building on its use as a buffer to absorb large year-end reconciliations, to being used as a fund for Energy Strategy projects. We consider it is appropriate to discuss this once there is more clarity on future Energy Strategy projects.

3.24 We said that we expect the TSOs to improve their ***Asset Management Information*** and we have been encouraged that both MEL and GNI (UK) are developing an ISO55000 and ISO55001 accredited asset management system. We expect to see the value of this work by the start of the GT27 price control review. At this point the companies should provide better data to underpin both their projected repex and maintenance expenditure.

4. Business Plan Assessments

4.1 In our approach document for GT22, we stated that one of our aims is that the TSOs should produce high quality, well evidenced business plans which can be accepted following limited scrutiny. We therefore introduced a business plan assessment into GT22, structured around three themes:

- Service contribution to good outcomes;
- Services and costs; and
- Trust in delivery.

4.2 We provided the TSOs with detailed guidance on our expectations, including guidance on the potential features of an exceptional plan.

4.3 We asked the TSOs to complete a self-assessment of their business plan submissions, which should include:

a) A statement setting out how the TSOs have approached delivering an exceptional business plan in line with the three key themes.

b) A reference to the key documentation in the business plan which provides the supporting evidence to these statements.

4.4 We said we would assess how each performed against each theme and provide feedback to the company of our assessment of its business plan. As we stated, we will not publish this detailed assessment but we have engaged with each company on the areas where improvements can be made in the future.

4.5 We indicated that the TSOs' business role, services and activities should be well aligned with the interests of customers, consumers, other stakeholders and the wider energy system, so this assessment was intended to:

a) Allow TSOs to take ownership of their plans.

b) Clarify that lesser regulatory intervention can be expected if the TSO's business plan is of higher quality.

c) Gives TSOs greater opportunity to shape their role over the price control period, the activities and level of service that are funded through the price control, and aspects of the regulatory framework.

d) Clarify that there will be a higher level of trust in the TSOs if its business plan is of higher quality.

4.6 We indicated that we would provide a high level view of our findings within the final determination.

4.7 The themes provided a strong basis for us to provide clear regulatory expectations and policy priorities. They helped us to work out how and where to dedicate assessment time to the business plan submissions. This has been important given the time constraints involved in the price control process. This has allowed us to reduce the extent of regulatory intervention and therefore reduce the regulatory cost of carrying out this price control.

4.8 We have assessed the TSOs' business plans, based on the categorisation below for each of the theme areas.

Theme 1 - Service contribution to good outcomes.

- Area 1: Delivering value for money for consumers.

Theme 2 - Services and costs

- Area 2: Delivering services and outcomes.
- Area 3: Aligning risk and return.

Theme 3 - Trust in delivery

- Area 4: Engaging customers, consumers and other stakeholders.
- Area 5: Ensuring resilience.
- Area 6: Accounting for past delivery.

4.9 We set out our categorisation expectations in the following table.

Category	Features
A: Exceptional	• Exceptional and stretching business plan. • Excellent responses across most test areas. • Limited regulatory intervention to translate to price control package. • Relatively high degree of trust in company.
B: Good	• Good plan but falling short of being an exceptional and stretching plan. • Excellent responses in some test areas. • Some regulatory intervention and therefore less trust than category A.
C: Meeting Basic Expectations	• Plan does not evidence how best to serve customers and stakeholders. • Significant concerns and lack of excellent responses across all test areas. • Extensive regulatory intervention and therefore less trust than category B.
D: Poor	• Self-serving business plan with poor responses in multiple test areas. • Extensive regulatory intervention to translate to price control package. • Severe concerns about company's ability to deliver outcomes for stakeholders and consumers. • Requirement for detailed monitoring of company during the price control period.

Table 4 - Business Plan Assessment Categories

TSO Self- Assessment

4.10 This section discusses our view of the TSO self-assessments. We highlight areas which demonstrate good practice and areas where we feel there is scope for improvement.

4.11 The TSOs embraced this approach and their business plans generally reflected the themes. Following the themes has provided us with useful information that has supported our assessment of the business plans. We have taken this into account in our recommendations.

4.12 We said in our approach document that we did not intend to publish our detailed assessment but rather to engage with each company on areas where improvements can be made. We have therefore provided a brief, high-level view of our findings.

Assessment of GNI (UK) Business Plan

4.13 GNI (UK) has structured its submission to align to our three themes and that runs throughout the submission and shows significant improvement since the GT17 submission. The submission sets out five strategic objectives:

a) Continue to provide safe and reliable gas transportation services;

b) Safeguard the security of supply of the gas network;

c) Drive efficiencies within GNI (UK);

d) Continue to embrace stakeholder insight; and

e) Support any emerging Northern Ireland Energy Strategy initiatives.

4.14 We note that these are more like aims than objectives, as they do not all have measurable outputs with timelines. The forecast outputs for objectives 1 and 2 are linked to the asset replacement and asset management plans. The attainment of objective 3 is expected to be met by the frontier shift.

4.15 For objectives 4 and 5, although the outcomes are not as easily quantified, the submission would have been improved with some measurable, time-bound outputs provided. We considered the stakeholder engagement section good but could also have been improved with some measurable outputs.

4.16 The executive summary clearly outlines how GNI (UK) will deliver on those objectives with cross references to the more detailed sections. It is aligned to the UR themes of *Service Contribution to Good Outcomes*, *Services and Costs* and *Trust in Delivery*. In some areas, there is good information on delivery of outputs, for example, the forecast outputs from the asset

replacement plans. However, other sections would have been improved with some outputs to back up the statements being made. For example, the statement of *"world-class levels of safety and service reliability"* in the GNI (UK) business plan would have been improved with some evidence or data to support it.

4.17 The business plan submission would have been improved with greater explanation and justification for the key cost items, particularly where cost are increasing, such as insurance and MERC contractor. It would also have benefited from breakdown of the costs, the derivation of assumptions and the options considered for the repex projects, as well as justifications such as cost benefit analyses or risk assessments.

4.18 The WACC proposal was clearly and comprehensively explained, particularly in the accompanying annex.

4.19 Overall, this is a **GOOD** business plan with exceptional responses in some test areas but required some regulatory intervention and therefore falls short of being an exceptional plan.

Assessment of MEL Business Plan

4.20 The plan was structured to cover the six areas within UR's three themes. Its approach sets out MEL's GT22 forecast and considers how it will deliver value for money, rather than putting value for money upfront followed by the steps taken to ensure it is delivered.

4.21 The plan would have provided greater confidence had the measurable outputs and timescales from the MEL group's revised strategy been provided. We would have expected to see how MEL will measure its own success as well as an indication of how its strategic objectives were drivers for the cost forecast. Nevertheless, the plan provided cost saving examples to demonstrate that cost savings have been sought.

4.22 The stakeholder engagement section is weak and does not give confidence that MEL is proactively engaging with its stakeholders in order to shape the direction of the business plan. It outlines specific GT22 engagement which, although positive, we would have expected to be an ongoing process.

4.23 MEL demonstrated some strong engagement activities at our query meeting, for example with the Department of Finance on cyber security and HSENI on safety matters. This would have strengthened the business plan submission if referenced.

4.24 The business plan omitted an explanation on how repex projects are prioritised and how asset management systems work together. Although

there are improvements from past submissions in the form of useful cost breakdowns the basis of many cost assumptions are missing and it is not clear if other options have been considered.

4.25 There is scant explanation of material cost increases. An example of this is the submission on pipeline inspection. MEL gives a number of reasons but does not quantify each item or really explain what is changing except for referencing the new compliance requirements. It would have been beneficial to provide examples to back up statements where costs are increasing. Furthermore, we would have welcome greater provision of well-defined outputs from the planned investments.

4.26 We considered the submission on GT17 performance explaining how cost differed from forecast as good.

4.27 Overall, this is a **GOOD** business plan with exceptional responses in some test areas but required some regulatory intervention and therefore falls short of being an exceptional plan.

Assessment of GMO NI Business Plan

4.28 As GMO NI's first price control business plan, this is a good document. There is a clear focus on high quality service provision with clear information on what has been achieved to date and the priorities for GT22 period.

4.29 The stakeholder engagement section is good, setting out the clear purpose of the various engagement activities, both structured and unstructured. It could have been improved with more information on the frequency of engagement activities and the outcomes achieved.

4.30 By actively seeking the views of shippers, and by actively measuring its own KPI attainment, GMO NI can be confident that its services are meeting the needs of users. This builds UR's confidence in this business plan.

4.31 The priorities for GT22 are well defined and lead into the cost forecasts. This would have been improved with increased explanation and justification where costs are increasing materially. We would have welcomed the rationale for time or resource estimates, the influence of historic costs or vendor quotes, where available.

4.32 We welcome the information around the *"impact assessment framework"* to identify matters to be addressed through the improvement register process. This section would have been improved with some examples of risks which have been successfully mitigated, to demonstrate the impact of this framework, the cost of non-action and what alternative options were considered.

4.33 The business plan does not refer to the three UR themes and six areas that we had asked for in the guidance document. However, they are all covered within the plan. Its top priority is to become more streamlined and minimise external support, demonstrating their focus on doing more, better.

4.34 Overall, this is a **GOOD** business plan but required some regulatory intervention and therefore falls short of being an exceptional plan

UR Overall Assessment of Business Plans

4.35 UR's has assessed the business plans as follows:

a) GNI (UK) – B: Good

b) MEL – B: Good

c) GMO NI – B: Good

4.36 Each plan had areas that could be improved and required regulatory intervention in the form of a significant number of queries, before we could be sufficiently confident of the forecasts. They all fell short of being an exceptional and stretching plan. However, they were generally GOOD with some exceptional areas.

4.37 Following consultation with CCNI in regards to the business plan assessments, CCNI have opined that further focus should be placed on the areas where the company business plans showed the greatest weakness or required the greatest regulatory scrutiny.

4.38 Going forward for future proposals these areas of weakness should be placed under particular scrutiny with further requirements to ensure that the business plans can be brought up to the "exceptional" standard from the current "good" standard given to all three business plans provided.

4.39 We would like to see a more strategic approach to stakeholder engagement across the companies. We outline what we would expect to happen in paragraph 10.34 and we also outline how we will track progress on this through the RIGs.

4.40 Overall, these business plan submissions showed significant improvements since GT17 and we commend the TSOs on their progress.

4.41 These high quality business plans reduced the level of regulatory intervention required by UR, compared to GT17, which reduced the staff time required, therefore delivering savings.

5. Operating Expenditure (Opex)

Detailed Approach – UR Determination

5.1 When assessing the appropriateness of the opex requests, our starting point is that costs should be in line with past allowances / actual costs observed in the previous price control period. This is particularly true if there has been no material change in the level and type of activities that are required to operate the network.

5.2 Opex for GNI (UK) and MEL is grouped into three main areas: Controllable non-GMO costs, GMO NI and uncontrollable costs. Replacement expenditure (repex) is covered separately in the following chapter.

5.3 Uncontrollable expenditure is that which is fully outside the control of the licence holder. In GT17, we indicated that we would consider categorising business rates as controllable in GT22, in recognition that the TSOs have some element of control. We have decided not to make this change for GT22 but will consider again for GT27.

5.4 With regards to the GMO NI costs, we have made our final determination on the basis of the jointly agreed business plan. Each licence holder will be allocated a price control allowance in accordance with the pattern of resource contracts set out in the business plan.

5.5 Each licence holder would be exposed to the same cost risk mechanism that applies to other categories of controllable operating cost. For GNI (UK) this would be a 'revenue cap' mechanism while for MEL an 'operating cost pass-through' mechanism would apply.

5.6 In determining allowances for GMO NI we have been guided by the principle that we are determining allowances for a single entity and not separate licence holders.

5.7 In its response to the draft determination, CCNI stated that UR had provided insufficient detail to confirm whether the allowance is appropriate. We have increased the provided information through the inclusion of Annex 2 – Operational Expenditure.

5.8 All costs shown in this section are pre-efficiency and are in £ millions unless otherwise stated.

Bottom-up Assessment

5.9 As indicated in the approach document, we used a bottom-up approach to assess the business plans, due to the lack of effective comparators for a top-down approach. Where comparative data was available, it was used as additional evidence.

5.10 For GT22 we used a common cost reporting template for the TSOs. This provides some comparability, certainty and an understanding of cost movements over time. This is the same format that we used at GT17 and the same format that we use for the RIGs.

5.11 We used specialist consultants to assist our evaluation of the opex submissions.

5.12 We reviewed both the narrative of plans and underlying costs/forecast costs submitted by the companies and identified issues to discuss with them. We generated questions to be discussed at workshops with the companies followed up by further queries.

5.13 We took a proportionate approach, consistent with our approach document. We focused on anomalies in the forecasts and on the largest areas of cost in each main cost category.

Overview of Business Plan Submissions

5.14 Viewed as a total forecast, the GT22 business plan forecasts were relatively stable from GT17, as illustrated in the graph below.

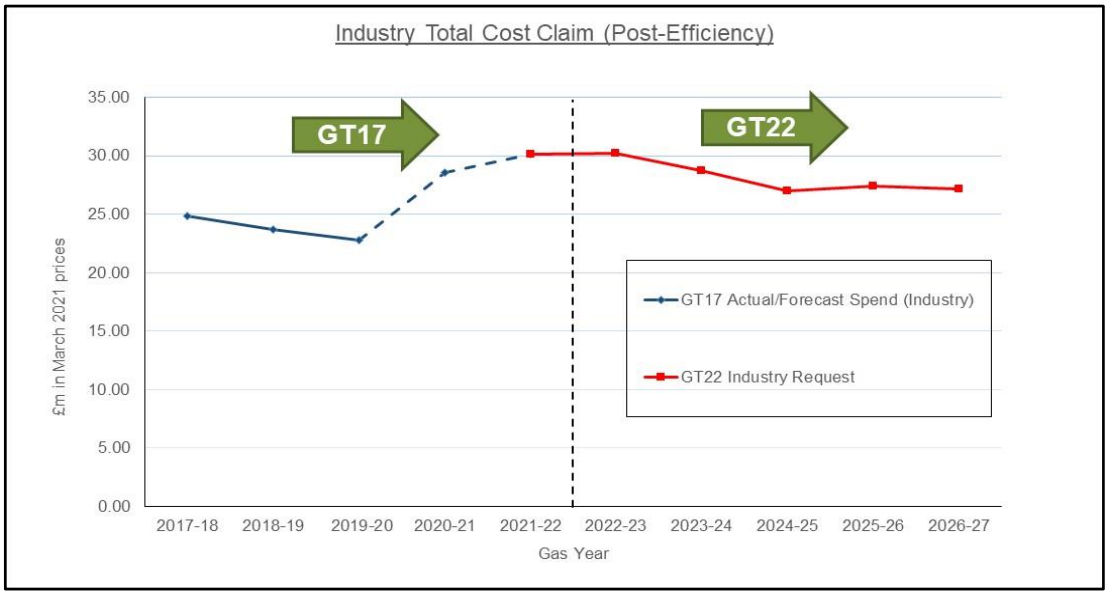

Figure 5 - GT22 forecasts for GNI (UK) and MEL (includes GMO NI)

5.15 MEL is forecasting lower uncontrollable costs due to a decrease in Scottish costs as a result of the Transportation Agreement renegotiations. However, even when excluding repex, there is a material upward trend in the controllable opex lines, as illustrated below:

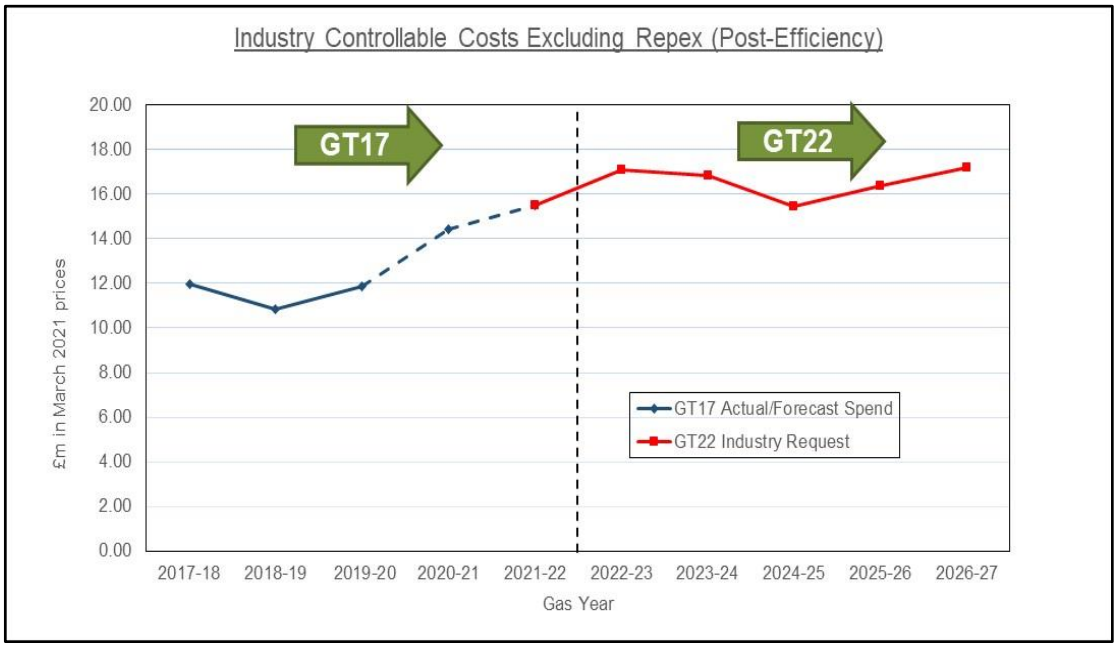

Figure 6 – GNI (UK) and MEL Controllable Opex (including GMO NI)

5.16 This is partly due to the growth of the MEL network during GT17 with the addition of the 76km WTP which increased its network by 44% and doubled the number of AGIs. However, there is also increasing maintenance activity required as the pipelines get older.

Overview

5.17 The tables below present a summary of the pre-efficiency proposals for each of GNI (UK), MEL and GMO NI respectively. The figures for MEL and GNI (UK) exclude the market operator costs. Our final determinations are further discussed in the following paragraphs.

GNI (UK) - Cost area	Submission (£m)	Recommendation DD (£m)	FD Allowance (£m)	Rationale for disallowance
Administration costs				
Pipeline insurance	0.74	0.74	0.74	
Support staff	2.40	2.40	2.40	
Intra-company recharges	1.55	1.24 *(80%)*	1.55	
Other overheads	0.37	0.37	0.37	
Asset replacement				
Repex	6.37	4.00 *(63%)*	4.54 *(71%)*	Proposed repex spend is only partly justified and we have concerns about the planning and timing of works.
Planned maintenance				
Asset management	0.82	0.82	0.82	
Emergency response	1.01	1.01	1.01	
Pipeline inspection	2.14	2.14	2.14	
Routine maintenance	12.35	11.62 *(94%)*	11.76 *(95%)*	Concerns remain about the scale of the MERC rates uplift predicted in the last two years of the price control.
Engineering staff	2.54	2.25 *(88%)*	2.54	GNI have explained that of its cost allocation changes are generally related to the proportion of NI assets, which seems sensible. The full allowance has been granted.
Unplanned maintenance				
Drainage	1.09	1.09	1.09	
Fault repairs	1.58	1.17 *(74%)*	1.58	GNI (UK) has provided further explanation that additional costs for unplanned maintenance will be required due to projected work following surveys, inspections and pressure reviews. The full allowance has been granted.
Other	0.36	0.0	0.0	Lack of evidence provided and costs properly funded via the fault repairs allowance.
System Operation (TSO)				
Grid control	1.88	1.88	1.88	
SCADA & Comms	0.98	0.30 *(30%)*	0.79 *(81%)*	The need for dual communication maintenance has been noted. However, a lack of evidence has been provided to justify the large increase in cost in later years.

GNI (UK) - Cost area	Submission (£m)	Recommendation DD (£m)	FD Allowance (£m)	Rationale for disallowance
Uncontrollable opex				
Business rates	3.00	3.00	3.00	
Licence fees	5.11	5.11	5.11	
Haynestown revenue	0.00	-4.50	-4.50	The revenue stream from Haynestown is omitted.
Total	**44.29**	**39.14** ***(88%)***	**41.31** ***(93%)***	**Note the Haynestown revenue is omitted for percentage calculation**

Table 5 – Final Determination Opex Summary for GNI (UK)

MEL - Cost area	Submission (£m)	Recommendation DD (£m)	FD Allowance (£m)	Rationale for disallowance
Administration costs				
Pipeline insurance	4.01	4.01	4.01	
Support staff	1.25	1.25	1.25	
Intra-company recharges	2.30	2.30	2.30	
Other overheads	0.15	0.15	0.15	
Mutualisation costs	2.67	2.48 (93%)	2.48 (93%)	Lower allowances set for Chair and NED fees, based on benchmark.
Asset replacement				
Repex	9.17	*4.88 (53%)*	6.12 (67%)	Concerns about some projects need, costs and timing of proposed works in GT22 based on the substantial uplift to programme from GT17 levels.
Planned maintenance				
Asset management	1.61	1.61	1.61	
Emergency response	2.18	2.18	2.18	
Pipeline inspection	4.61	4.61	4.61	
Routine maintenance	9.72	9.85 (101%)	9.87 (101%)	Concerns about the level of cost escalation in the MERC contract is adjusted through frontier shift. £150k of civils work moved to AGI maintenance from repex
Engineering staff	6.14	3.75 (61%)	4.76 (77%)	Lack of adequate justification to explain material increases in GT22 business plan.
Unplanned maintenance				
Drainage	2.09	1.46 *(70%)*	1.46 *(70%)*	Lack of evidence provided to justify the increase in costs.
Other	0.63	0.63	0.63	
System Operation (TSO)				
Contract and licences	0.86	0.86	0.86	
Grid control	7.03	4.21	7.03	The TSO request increased substantially post draft determination as a result of the letting of the SNIP Agent contract.

MEL - Cost area	Submission (£m)	Recommendation DD (£m)	FD Allowance (£m)	Rationale for disallowance
SCADA & Comms	0.59	0.59	0.00	No provision was made in the final determination for these costs as they are fully provided for in the SNIP Agent allowance for grid control.
Uncontrollable opex				
Business rates	11.12	11.12	11.12	
Licence fees	6.00	6.00	6.00	
Fuel/Shrinkage	5.52	5.52	5.52	
Scottish costs	14.71	14.71	14.71	
Stranraer income	-3.52	-3.52	-3.52	
Total	**88.85**	**78.65**	**83.16 (94%)**	

Table 6 – Final Determination Opex Summary for MEL

GMO NI - Cost area	Submission (£m)	Recommendation DD (£m)	Recommendation FD (£m)	Rationale for disallowance
GNI (UK)				
Contracts and Licences	4.50	2.66 (59%)	3.72 (83%)	Lack of evidence provided to justify the increase in costs and concerns regarding the need for some elements of spend.
MEL				
GMO Administration	0.65	0.65	0.65	
Contracts and Licences	0.57	0.57	0.57	
Network Code Development	0.50	0.50	0.50	
European Compliance	0.20	0.20	0.20	
GMO NI staff				
Staff costs	2.64	2.64	2.64	
Total	**9.06**	**7.22** ***(80%)***	**8.28** ***(91%)***	

Table 7 – Final Determination Opex Summary for GMO NI

Summary of UR Determinations

5.18 Following our review we consider that in large part, the business plans present adequate justification for the finalised controllable costs.

5.19 We are adjusting the companies' staff costs (including board costs and engineering staff) and/or numbers. This is more material in respect of MEL's plan than for GNI (UK).

5.20 We have reduced the *Other Mutualisation* costs in the MEL forecasts by 20% to reflect external benchmarking indicating that lower costs for Chairperson and Non-Executive Directors is appropriate. This figure has been determined using data from similar organisations and MEL's own analysis.

5.21 MEL proposed to increase its engineering staff number to 12 FTEs, from the GT17 allowance of 5.8 and the actual average headcount of 9.3. In the draft decision, we proposed to reduce the allowed staff cost and to allow two of the additional staff above GT17 allowances. In MEL's response, it provided additional information outlining savings as a result of bringing work in-house and providing objectives for the two energy transition staff.

5.22 The savings were difficult to confirm and it seemed questionable that the additional FTEs could be fully justified. We have therefore made provision for 10 FTEs for engineering staff, which is an additional 4.2 FTEs from GT17. This will account for WTL assets, energy transition, connections and increased work scope.

5.23 For GNI (UK)'s costs, we are concerned about cost escalation for Supervisory Control and Data Acquisition (SCADA) and communications following the withdrawal of the Kilostream system and whether the costs of its replacement offer value for money.

5.24 Similarly for the GMO (NI) there are concerns about the business case and value for money of planned projects on the Delphi IT system. In both cases we have partially reduced the allowances. Following further consultation with the TSO the figure for GNI (UK)'s SCADA has been increased from £0.3m in the draft determination to £0.8m in the final determination. However, it still remains unclear why the overall cost submission increased materially in the final two years of the price control.

5.25 MEL and GNI (UK) both forecast real price increases on Maintenance and Emergency Response Contract (MERC). We have curtailed the allowances as we did not consider this increase was justified. For GNI (UK), we applied a 5% reduction on allowances to achieve this outcome. Consequently, we have adjusted the AGI maintenance allowance to ensure that the combined reduction (-£0.29m) is in line with our experts recommendations, to which

GNI (UK) had raised no objections.

5.26 We have taken a different approach for MEL as we consider the reduction to its forecast will happen through our frontier shift. MEL's real price effects (RPE) forecast[9] was higher than RPI and we propose not to accept this in favour of an RPI–X approach. We are comfortable that the post-efficiency allowances for MEL already dampen future costs and no further disallowance is required.

5.27 One of MEL's repex projects, entitled *Civil Works*, will have no allowance in the repex budget, but we consider that the costs may be required as maintenance activities, so £30k per year has been added to the maintenance budget.

5.28 We consider it reasonable to see the value of the work that both companies are undertaking in respect of their asset management systems by the start of the GT27 price control review. At that point the companies should provide better data to underpin both their projected repex and maintenance expenditure.

5.29 GNI (UK) did not provide a forecast income for the reserved capacity at Haynestown, so we have included a forecast income of £0.9m per year under uncontrollable opex. This income has been excluded from the total cost assessment to allow a clearer comparison.

5.30 MEL finalised the procurement process for the SNIP Agent contract after publication of the draft determination. The contract, which was won by the incumbent, will cost 67% more than the business plan forecast, with the total allowance increasing from £4.21m to £7.03m. Although MEL provided some evidence to explain the increase and the procurement process that they followed, it was disappointing that they had not foreseen such a large cost increase.

5.31 UR allowances, compared to the company submissions are summarised in the following tables. These tables include the TSO forecasts including repex and market opex, GMO NI costs and are shown pre-efficiency adjustments.

[9] See chapter 7 on frontier shift.

	MEL Request (£m)	UR Allowance DD (£m)	UR Allowance FD (£m)	% Allowance
Administration	10.38	10.19	10.19	**98.1%**
Planned Maintenance	24.26	21.99	23.02	**94.9%**
Unplanned Maintenance	2.72	2.10	2.10	**77.0%**
System Operation (TSO)	8.48	5.67	7.89	**93.0%**
Grand Total	**45.85**	**39.94**	**43.20**	**94.2%**

Table 8 - MEL controllable cost - submission and FD allowance

	GNI (UK) Request (£m)	UR Allowance DD (£m)	UR Allowance FD (£m)	% Allowance
Administration	5.06	4.75	5.06	**100.0%**
Planned Maintenance	18.86	17.84	18.27	**96.9%**
Unplanned Maintenance	3.03	2.26	2.66	**88.0%**
System Operation (TSO)	2.86	2.18	2.68	**93.5%**
Grand Total	**29.81**	**27.03**	**28.67**	**96.2%**

Table 9 - GNI (UK) controllable costs - submission and FD allowance

	GMO NI Request (£m)	UR Allowance DD (£m)	UR Allowance FD (£m)	% Allowance
GMO Staff Costs	2.64	2.64	2.64	100.0%
GMO Administration	0.65	0.65	0.65	100.0%
Contracts and Licences	5.07	3.23	4.29	84.6%
Network Code Development	0.50	0.50	0.50	100.0%
UK Compliance	0.20	0.20	0.20	100.0%
Total GMO Costs	**9.06**	**7.22**	**8.28**	**91.4%**

Table 10 - GMO NI - submission and FD allowance

5.32 Overall, we have approved 94% of MEL's submitted amount (pre-efficiency) for controllable opex, not accounting for the market operator. Similarly we have approved 96%[10] of GNI (UK)'s submitted amount and 91% of GMO NI's request.

[10] This percentage of GNI (UK) forecast to be allowed excludes the addition of the Haynestown

6. Replacement Expenditure (Repex)

Detailed Approach – UR Determinations

6.1 Capital expenditure allowances are outside the scope of this price control review process. Although the TSOs carry out work which might be described as capital expenditure in terms of accounting rules, we consider it as being maintenance or replacement expenditure (repex). It does not add to the capacity of the existing pipeline network but rather replaces or upgrades existing equipment. We treat such expenditure in the same way as controllable operating expenditure.

6.2 As part of their business plans, the TSOs submitted repex projects for which they sought an allowance. We considered whether each project was justified to be carried out during the price control period and what the appropriate allowance would be.

6.3 These projects tend to meet a specific need rather than being periodic or ongoing, so they must be individually assessed. We considered the need for the project as well as the forecast cost. We benchmarked with similar work carried out in other transmission networks and we also considered the TSOs' performance over GT17.

6.4 We have concerns about the way that both companies are planning and delivering repex. We propose a mix of disallowance and use of the 'relevant item' approach that we introduced in GT17. The relevant item approach is considered where a project has a clearly justified need but the cost or the required timing were not clear and may only become clear during GT22.

6.5 A project which is designated as a "relevant item" will have no allowance made at this stage, but costs can be requested during the GT22 period when the scale and timing of spend is better understood.

6.6 We have therefore categorised the repex projects as follows:

- **Category 1** – The need, cost and timing are well supported and justified. These projects attract full or majority allowance.
- **Category 2** – While the need is established, either the cost or the timing are not supported. These projects can be subject to partial allowance if UR has a clear view on the reasonable level of spend.
- **Category 3** – The need is established, but the cost or the timing is very uncertain. These projects can be considered as a relevant item,

revenue adjustment.

where no ex-ante allowance is given but costs can be requested during the GT22 period when the scale of spend is better understood.

- **Category 4** – The need, cost and timing were unjustified and the projects are subject to full disallowance.

6.7 Our full considerations on the repex projects is provided in *Annex 1 – Replacement Expenditure*, summarised in the sections below.

MEL – UR Determination

6.8 The PTL and BGTL pipeline networks are around 25 years old so a significant portion of MEL's GT22 repex projects are to mitigate failure of ageing assets.

6.9 We consider that the high level of change in the GT17 repex programme raises questions around MEL's business planning processes and ability to forecast expenditure with a reasonable degree of accuracy. MEL has acknowledged this in its business plan submission, when it said:

> *"The timing of the projects start and end times are hard to predict and inevitably some may well end up being brought forward or delayed within the period. The experience gained over the last number of years has been applied into the assessment, both in terms of costs and timings, and we believe the GT22 period timings are robust."*

6.10 The table below sets out, for each of the repex projects, the request included in the business plan and our final determination for MEL.

Project Name	MEL Request	UR DD Allowance	UR FD Allowance	FD Decision
SCADA Refresh[11]	£2.31m	£1.73m	£2.20m	Category 2 – Near full allowance
PLC Panel Replacement	£0.69m	£0.46m	£0.62m	Cat. 2 - £150k per PLC
Transformer Rectifier Replacement	£0.30m	£0.21m	£0.21m	Cat. 2 - £26k per TR allowed
Lagging Replacement	£0.03m	-	-	Cat.4 - No allowance
UPS and UPS Battery Replacement	£0.20m	£0.05m	£0.05m	Cat.2 - £50k provision for UPS
Pipework Coating	£0.70m	£0.12m	£0.12m	Cat.2/3 - Material disallowance
Site Meters	£1.49m	£0.74m	£1.19m	Cat.2/3 - 80% allowance
Larne Boiler House	£0.39m	£0.39m	£0.39m	Cat.1 - Full allowance
Larne Inlet	£0.30m	£0.30m	£0.30m	Cat.1 - Full allowance
Electrical System Upgrades	£0.49m	£0.28m	£0.31m	Cat.2 - Material disallowance
Actuator Replacement	£0.37m	£0.37m	£0.37m	Cat.1 - Full allowance

[11] Request amended from business plan due to uplifted contract costs.

Throttle Flow at Block Valves	£0.12m	£0.12m	£0.12m	Cat.1 - Full allowance
Gas Chromatograph	£0.26m	-	£0.18m	Cat.3 - £180k allowance
ROVs	£0.06m	£0.06m	£0.06m	Cat.1 - Full allowance
Civil - Kiosks, Roads & Site General	£0.22m	-	-	Cat. 3/4 - No repex allowance
Metering Consistency	£0.16m	-	-	Cat. 4 - No allowance
Security System Upgrades	£0.06m	£0.06m	-	Cat.1 - No allowance
Legacy Projects	£0.01m	-	-	Cat. 4 - No allowance
Other items	£1.01m	-	-	Cat. 4 No allowance
Total Cost	**£9.17m**	**£4.88m**	**£6.12m**	

Table 11 - UR proposed allowances for MEL repex (pre-efficiency)

6.11 Following the completion of the procurement stage MEL were able to provide a detailed cost breakdown of the SCADA refresh project. A holding allowance of £1.73m was proposed in the draft determination given the lack of detail available at the time. However, following MEL's engagement and providing the costs as requested, we are now proposing an allowance of £2.2m which is close to the original request.

6.12 An increase in the cost of *pipework coating* can be expected with the addition of the WTP, however it appears to be planned to start earlier than similar activity by GNI (UK). We will allow costs on PTL assets and designate the work on the other AGIs as a relevant item.

6.13 For the *meter replacement* programme, we would need further explanation on the basis and certainty of the cost forecast. We also wish to understand the scale of cost differences compared to the GNI (UK) programme, even though it is accepted that scope differences exist. An overall allowance of 80% will be provided.

6.14 MEL requested funds for a variety of smaller projects which added up to £1m. Some of these might be expected to be addressed via normal maintenance processes and others had material costs without any associated outputs. We are proposing no allowance.

GNI (UK) – UR Determination

6.15 UR's Cost and Performance Review highlighted that GNI (UK) had experienced some problems in terms of its GT17 asset replacements schemes.

6.16 Although we recognise that Covid-19 had an impact on delivery, the schemes continue to be delayed with most not completed, and 93% of spend reforecast to the last two years of GT17.

6.17 The table below summarises information provided by GNI (UK) in their March 2022 response to a follow-up query:

Project Name	Forecast GT17 Spend	Actual Spend to Feb 22	Complete Y/N	In progress	Construction End Date
Cathodic Protection	£0.22m	£0.05m	N	Y	Q4 2022
Instrumentation Refurbishment	£0.32m	£0.08m	N	Y	Q3 2022
Aerial Markers	£0.12m	£0.01m	N	Y	Q4 2022
Boiler Replacement	£0.52m	£0.04m	N	Y	Q4 2022
Control System Refurbishment	£0.10m	£0.03m	N	Y	Q3 2022
Carrick AGI Operation Mode	£0.24m	£0.13m	Y	Y	Q1 2022
Emergency Escape Upgrades	£0.41m	£0.00m	N	Y	Q3 2022
Cyber Security	£0.27m	£0.19m	N	Y	Q4 2022
Meter Refurbishment	£0.53m	£0.06m	N	Y	Q4 2022
Other	£0.10m	£0.11m	Y	n/a	n/a
Total Cost	**£2.83m**	**£0.71m**			

Table 12 - Progress of GNI (UK) GT17 repex projects at March 2022

6.18 Whilst GNI (UK) are forecasting that most of the schemes will be undertaken, the table indicates that nearly all the work will be completed towards the end of the GT17 period. We have concerns about the feasibility of delivery and have taken account of the delayed GT17 repex programme when considering the GT22 projects.

6.19 The repex forecasts which we have approved were justified on the following basis:

a) The repex programme is primarily driven by the requirement to comply with relevant gas industry safety legislation.

b) Similarly, cyber security spend is aimed at achieving compliance with the NIS Directive[12] and the requirements of the Department of Finance as the Competent Authority on cyber security.

c) The asset management approach to identifying and prioritising assets for replacement as described by GNI (UK) in its business plan submission is in accordance with the requirements of ISO 55001 and

[12] https://www.gov.uk/government/collections/nis-directive-and-nis-regulations-2018

good industry practice.

d) Additionally, the scope of the assets to be replaced is consistent with what occurs in the repex programmes of National Grid Gas (Transmission) in GB, Gas Networks Ireland in RoI and other TSOs elsewhere.

6.20 The table below summarises our approved allowances.

Project Name	GNI (UK) Request	UR DD Allowance	UR FD Allowance	FD Decisions
Cathodic Protection	£0.17m	£0.17m	£0.17m	Category 1 - Full allowance
AGI Site Instrumentation	£0.76m	£0.38m	£0.76m	Cat. 2 - Full allowance
AGI Site Electrical	£1.05m	£0.52m	£0.52m	Cat. 2 - 50% allowance
Security Refurbishments	£0.60m	£0.60m	£0.60m	Cat. 1 - Full allowance
Aerial Markers	£0.21m	£0.16m	£0.21m	Cat. 2 – Full allowance
Actuators	£0.26m	£0.10m	£0.21m	Cat. 2 - Lower unit rate
BM5 Valve Controllers	£0.12m	£0.12m	£0.12m	Cat. 1 - Full allowance
Gas Pre-Heating Systems	£0.83m	£0.59m	£0.59m	Cat. 2/3 - Removed GT17 underspend
Stabilising Pilot Valves	£0.10m	£0.10m	£0.10m	Cat. 1 - Full allowance
Cyber Security	£1.26m	£1.00m	£1.00m	Cat. 2/3 - Partial allowance
Meter Replacement / Refurbishment	£1.01m	£0.25m	£0.25m	Cat. 3 - 25% allowance
Total Cost	**£6.37m**	**£4.00m**	**£4.54m**	

Table 13 - UR allowances for GNI (UK) repex projects

6.21 The *AGI site instrumentation* project is similar to a project delayed in GT17, and with higher costs in GT22. The TSO has provided additional information to provide clarity and justify the provision of the full allowance. Following the consideration of the extra information the full allowance has consequently been granted.

6.22 Although the *AGI site electrical* project is new, so is not affected by the GT17 delays, we had concerns over the cost and timing of the activities and have approved a 50% allowance on the basis that much of the work will fall into the GT27 price control.

6.23 The need for the heating system replacement project seems reasonable given the asset life of boilers. The allowance has however been reduced by

the estimated GT17 underspend of £0.24m[13].

6.24 While we have no concern with the need for the cyber security project, we did not receive a clear breakdown of the project costs. A holding allowance of £1m has been approved until the planned procurement exercise provides greater visibility of costs. The remaining forecast will remain a relevant item that can be revisited at the TSO's request.

6.25 The forecast cost of the meter replacement programme appear reasonable but virtually no spend has occurred in the GT17 meter programme. With GNI (UK) undertaking some in-service testing of the meters, the timing of the programme is uncertain. A limited allowance of £0.25m has been determined with the remainder designated as a relevant item until GNI (UK) can provide more certainty of need for replacement during GT22 at the proposed sites.

6.26 We have been encouraged to see that both MEL and GNI (UK) are developing an ISO55000 accredited asset management system. We expect to see the value of this work during the GT27 price control review. At this point the companies should be able to provide better data to underpin both their projected repex and maintenance expenditure.

Summary

6.27 The graph below summarises the TSO submissions and the approved allowances.

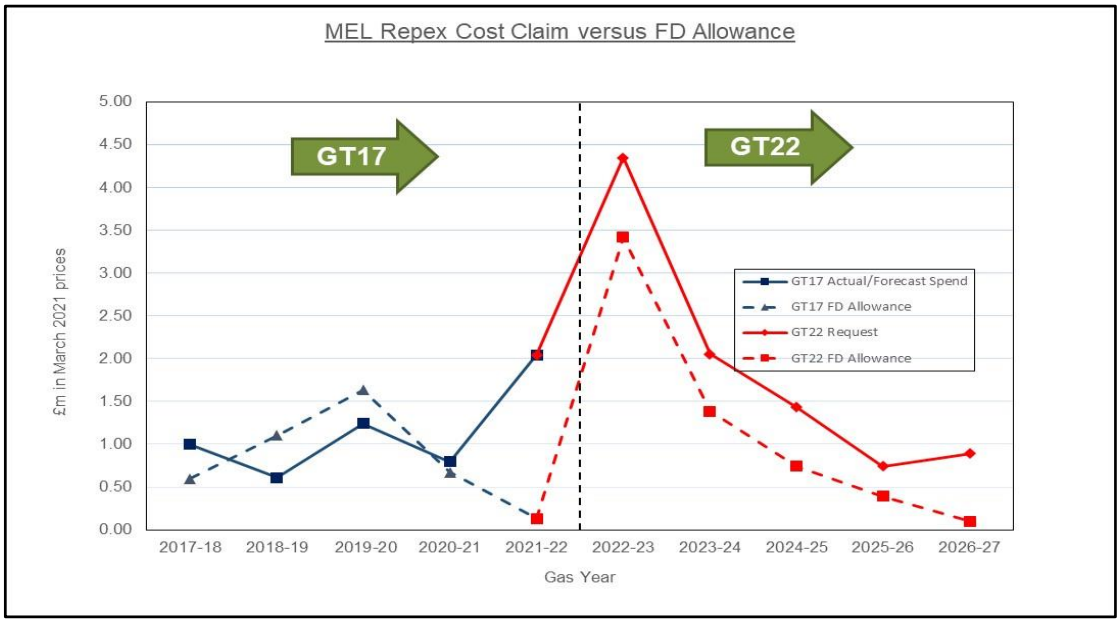

Figure 7 – MEL Repex Request vs Allowance (Post Efficiency)

[13] Underspend was shown in GNI (UK)'s submission, Annex 2, Table 2.

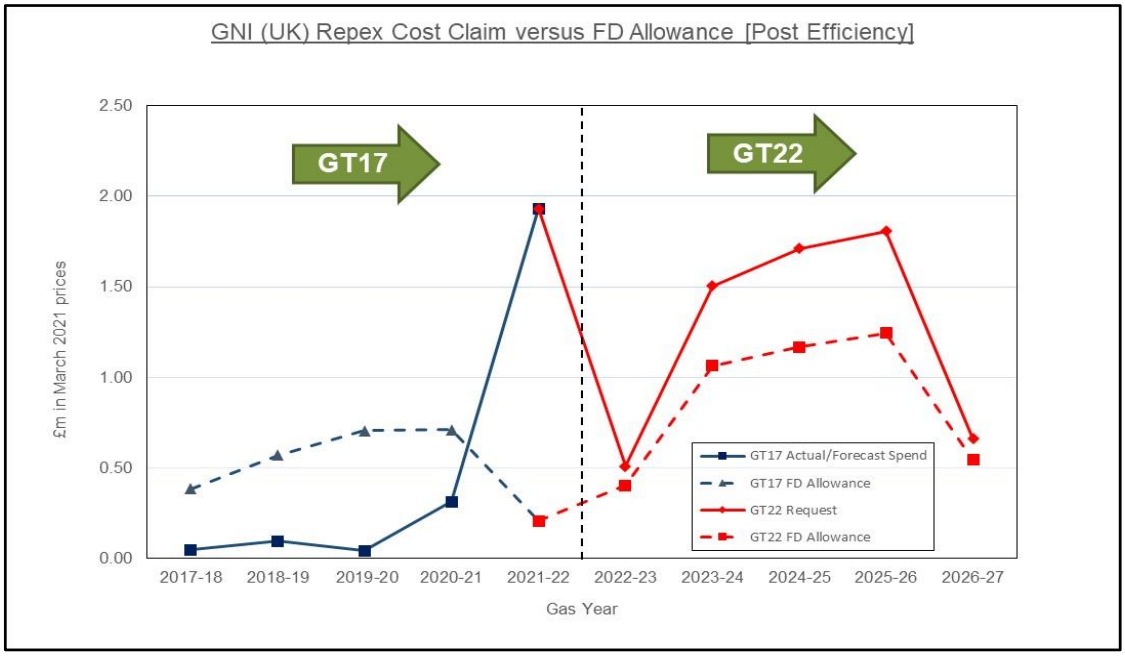

Figure 8 – GNI (UK) Repex Request vs Allowance (Post Efficiency)

7. Efficiency Analysis

Frontier Shift

7.1 When assembling the opex and repex allowances for the GT22 period, we need to account for the natural, underlying rate of year-to-year change in an efficient gas transmission network's costs. We term this 'frontier shift' – i.e. the rate at which the sector's efficiency frontier shifts over time.

7.2 This frontier shift has two main components – input price inflation and productivity growth – as follows:

Frontier shift in real terms = nominal input price inflation minus productivity growth minus RPI inflation

7.3 In our GT22 approach document, we said that we would apply a single frontier shift assumption to all four network licence holders and GMO NI.

7.4 The TSOs subsequently set out their views on the rate of frontier shift in their business plans. Table 14 records the figures put forward by GNI (UK), MEL and GMO NI.

	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Annual average
GNI (UK)	0.6%	-0.7%	-1.3%	-1.4%	-1.2%	-1.1%	-0.9%
MEL	2.1%	0.7%	0.4%	0.4%	0.5%	0.6%	0.8%
GMO NI	2.1%	0.7%	0.4%	0.4%	0.5%	0.6%	0.8%

Table 14 - rates of frontier shift identified in business plans

7.5 There were somewhat diverging views across the licence holders, with GNI (UK) identifying underlying scope for costs to fall in real terms relative to RPI inflation and MEL and GMO NI assuming that a frontier company's costs will increase at a faster rate than RPI inflation.

UR assessment

7.6 Table 17 provides a summary of the assumptions that regulators have made about post-2021 frontier shift in a number of recent reviews.

Review, sector, date	Average annualised frontier shift assumption
UR, PC21 – NI Water, 2021	RPI – 0.5% (opex) RPI – 0.6% (capex)
UR, SONI, 2020	CPIH + 0.1%
Ofgem[14], RIIO-2 – gas transmission, 2020 Ofgem, RIIO-2 – gas transmission SO, 2020 Ofgem, RIIO-2 – gas distribution, 2020	CPIH + 0.2% (totex) CPIH + 0% (totex) CPIH + 0.1% (totex)
Ofwat, PR19 – water and sewerage companies, 2019	CPIH – 0.5% (totex)

Table 15 - frontier shift assumptions in recent periodic reviews

7.7 A comparison between Table 14 and Table 15 indicates that GNI (UK)'s assumed rate of frontier shift is within the range of assumptions made recently by UK regulators. It should be noted that frontier shift figures expressed relative to CPIH can be converted to frontier shift relative to RPI by deducting approximately 1 percentage point to account for the RPI-CPIH wedge, e.g. Ofwat's CPIH – 0.5% estimate is equivalent to approximately RPI – 1.5%.

7.8 We were therefore broadly content with GNI (UK)'s calculations.

7.9 By contrast, MEL's and GMO NI's assumed rate of frontier shift is significantly higher than any of the assumptions made recently in UK price reviews. It is also markedly higher than GNI (UK)'s assessment. We therefore conducted further investigation to understand the factors that have led MEL and GMO NI to arrive at such an atypically high set of figures. We identified three key factors which we found difficult to reconcile:

a) MEL and GMO NI provided in their plans for a 5% per annum nominal increase in grid maintenance input price inflation. This compares to GNI (UK)'s projected price increases of 2% per annum;

b) MEL and GMO NI provided in their plans for a 3.3% per annum nominal increase in repex / grid construction input price inflation. This compares to GNI (UK)'s projected price increases of 2% per annum;

c) MEL and GMO NI assumed that RPI inflation in 2021/22 would be only 0.6%, significantly below both the Office for Budget Responsibility's March 2022 inflation forecast and the current rate of RPI inflation.

[14] The entries for Ofgem exclude the 0.2% "innovation uplift" that was removed by the CMA in its October 2021 appeal decision

7.10 We estimated that these three factors add more than 1% per annum to MEL's and GMO NI's proposed frontier shift figures.

Draft Determination Conclusion

7.11 Our provisional decision was that there was no basis for factoring the rate of frontier shift that MEL and GMO NI had calculated into gas transmission opex allowances. We gave weight to the lower estimates made by GNI (UK) for the above-mentioned common cost items, as the other licence holder is conducting similar activities in the same sector in a similar geography.

7.12 We also considered that there should not be a significant divergence between the frontier shift assumption in this GT22 review and the frontier shift assumptions that regulators have made in other price reviews, particularly Ofgem's RIIO-2 decisions and UR's SONI price control decision.

7.13 We therefore proposed to replace the TSOs' frontier shift assumptions with an RPI – 0.8% rate of cost escalation. This aligns to:

a) GNI (UK)'s average annual frontier shift calculation;

b) The RIIO-2 frontier shift assumptions; and

c) Our recent decision for SONI[15].

7.14 An RPI – 0.8% rate of frontier shift also sits appropriately next to the rate of frontier shift used in our recent PC21 decision for NI Water, recognising that there are differences between the sectors and in the timing of our estimates (and associated macroeconomic backdrops).

7.15 The different input price inflation approach taken by the TSOs appeared to have been a factor in the differing forecasts for similar line items. For example, MEL forecast a lower increase for the renewal of the MERC contracts later in the GT22 period than GNI (UK), but this would have been balanced by higher input price inflation assumptions. We have taken this into account in our considerations.

Inflationary Changes since Draft Determination

7.16 Since the publication of the draft determination, there has been a marked change in the inflation outlook. The Office for Budgetary Responsibility's latest economic forecasts, published in March 2022 projects that RPI inflation will be around 7.6% during the first year of the GT22 period versus a

[15] The SONI decision was CPIH+0.08% which is equivalent to RPI-0.92%

long term average of 2.9%. Thereafter, RPI inflation is forecast to be slightly below trend.

7.17 Due to the change of inflation occurring very suddenly, UR has not had the opportunity to assess in detail how changes in inflation will affect the costs of the basket of inputs (i.e. labour, materials, plant and equipment, etc.) that the transmission networks use in the course of their activities.

7.18 We nevertheless expect that nominal input inflation is likely to be higher than foreseen at the time of the draft determination. Set against this, we also note that the network companies will benefit from the inflation indexation of regulated price caps.

7.19 UR's calculation of allowed revenues in this final determination is based on the simplifying assumption that real input price inflation (also sometimes labelled "real price effects") will be broadly unchanged from the level that we provided for six months ago - i.e. that the acceleration in the rate of increase in revenues will broadly match the acceleration of rate of increase in costs. This means that we retain unchanged our draft determination assumption of a rate of overall frontier shift of RPI - 0.8% per annum.

8. Incentives and Innovation

Detailed Approach – UR Determinations

8.1 The TSOs have different incentive mechanisms to deal with uncertainty which arises during the price control period. These incentive mechanisms can also be used to introduce innovation or facilitate implementation of changes as a result of legislative/ regulatory amendments.

8.2 GNI (UK) is subject to a revenue cap incentive mechanism, which means it is exposed to the cash flow risk associated with deviations between allowed revenue and actual costs. This risk is then mitigated, to some extent, by two mechanisms:

a) The ability to seek allowances for unforeseen operating expenditure.[16]

b) The ability to seek a forecast expenditure review should actual spend be greater than 15% above the allowance in any gas year.[17]

8.3 The other three licence holders, PTL, BGTL and WTL, operate under an operating cost pass-through mechanism, whereby gas consumers bear all cost risk in return for an absence of shareholder equity and returns. Governance arrangements are in place to prevent inappropriate behaviour by management against the interests of gas consumers.

Innovation Projects

8.4 At present there is no specific mechanism to encourage innovation as there is within other price controls. We have no plans at present to modify the licences and introduce a specific mechanism.

8.5 However, we encouraged licence holders to include innovations in their business plans that would lead to improved efficiency and/or improved customer service. We indicated that these will be considered if a robust and appropriate business case has been submitted which sets out clearly the detailed costs and benefits as well as how risks will be allocated.

8.6 The TSOs were clear that they anticipate the need for investment to develop projects to meet targets, as yet unknown, in the Energy Strategy, as outlined in the next few paragraphs. They did not propose alternative innovation projects which were not related to the Energy Strategy.

[16] GNI (UK) Gas Conveyance Licence Condition 2.2.4 (j).
[17] GNI (UK) Gas Conveyance Licence Condition 2.2.4 (i).

Environmental Impact, Decarbonisation and Energy Efficiency

8.7 The TSOs provided their thoughts on how future decarbonisation projects should be considered and funded.

8.8 GNI (UK) states that it, *"cannot wait for future price controls to initiate the integration of renewable and low carbon gases into the Northern Ireland gas network."* It requests that UR sets out the mechanisms for how funds will be made available.

8.9 MEL says that, *"funding is vital to the success of any NI network readiness preparation."* It then outlines the areas of asset integrity and operation which would be impacted by the introduction of hydrogen blending. MEL requested that UR establish a specific mechanism to allow recovery of net zero costs.

8.10 MEL then provided additional thoughts on the challenges that it considered a re-opener process would need to address:

a) Agility – decisions will need to made and implemented quickly.

b) Risk – managing the risk of investing in incorrect solutions or not adapting to a changing environment.

c) Uncertainty – the scheduling of works should prioritise the "no regrets" work while still continuing to achieve set goals.

8.11 MEL then outlined three potential re-opener methods:

a) Full business plan resubmission – although this would be a comprehensive method, it would cause substantial delay and there may not be sufficient clarity in the early stages to allow any certainty.

b) Use-it-or-lose-it allowance – this would achieve the agile challenge but unlikely to allow significant business reorganisation. MEL indicates that this was the approach taken by Ofgem.

c) Net zero innovation funding – this could use funds from the SEF to bring in other organisations.

8.12 In the draft determination, we stated that we anticipate that it will take some time to prepare to implement the Energy Strategy, particularly where legislative changes will be required. We do not anticipate that a price control re-opener would be beneficial.

8.13 Neither do we consider that it is appropriate, at this stage, to establish a specific innovation fund. We acknowledge the suggestion by MEL that the

SEF be used to fund decarbonisation projects and we will consider this at a later stage.

8.14 In lieu of a price control re-opener, for the duration of GT22 the incentive mechanisms currently in place will enable the TSOs to request additional consideration in the event of unforeseen expenditure. In this instance, evidence will need to be presented to provide justification and convey that there is a need for additional funds.

8.15 We intend to set a high bar in terms of evidence required for projects to be considered within the GT22 period, particularly where these could lead to increased prices. Our assessment criteria will include, but may not be limited to, the following information which we expect to be provided by the licence holder requesting such funding:

- Quantified and robust cost benefit analysis;
- Detailed and robust project plan for the decarbonisation project;
- Credible and binding commitments from any project partners to participate in/contribute to funding the project, as well as proposed contingency arrangements in case project partners should fall short of their obligations;
- Explanation of how the licence holder has arrived at this project and how this interacts with other investments planned under the normal price control;
- Explanation of how the project can be justified in consultation with consumers and other stakeholders;
- Details on what deliverables / benefits may be expected for local consumers from the project; and
- Detailed risk assessment as well as details on and justification of proposed treatment of risk and reward.

8.16 All respondents commented on the Energy Strategy and how GT22 should take account of future requirements.

8.17 CCNI emphasised that UR should ensure that its Final Determination is aligned with the Energy Strategy, reflecting the priorities and objectives. It states that this means providing sufficient funding to deliver strategic outcomes and providing incentives to take account of the needs of consumers.

8.18 GMO NI requested that the mechanisms which allow for consideration of

unforeseen costs during the price control period be used in an efficient and flexible manner to ensure the industry can support the delivery of the Northern Ireland Energy Strategy. It stresses that GMO NI and the TSOs will need to make substantial investment and dedicate resources for this purpose.

8.19 GNI (UK) proposes a pragmatic approach by UR to enable the investment requirements of actions to deliver the Energy Strategy to be considered during the GT22 period as unforeseen operating expenditure. GNI (UK) stated that it is committed to ensure that such investments are justified in the context of delivering necessary decarbonisation of the gas network.

8.20 During the query stage following the draft determination, MEL provided target outputs for the proposed Energy Transition staff, which included:

a) Actively contribute to the development of energy policy and regulation in Northern Ireland, GB and RoI, including promoting a "whole system" approach to policy development.

b) Developing a programme, with other gas network operators, to deliver decarbonisation of gas supplies by 2050, including a credible and budgeted work plan.

8.21 We have not changed our opinion on this matter. Projects may not be fully costed and ready for consideration at the same time, so it is likely to be more efficient to consider each project separately as it arises. Further, our proposed approach is likely to be quicker than a price control re-opener so will allow us to respond more swiftly where necessary.

9. Financial Aspects

Weighted Average Cost of Capital

9.1 The MEL companies are excluded from this section as these entities are financed by the issuance of long maturity bonds. The schedule of bond payments has been previously accepted by UR and these payments, known as *fixed amounts*[18], are included in the calculation of annual allowed revenue without adjustment.

9.2 We set out our approach for considering the weighted average cost of capital (WACC) for GNI (UK) in our approach document.

9.3 We intend to set a rate of return that reflects the cost of capital, both debt and equity, that the market will bear given the level of risk associated with the business.

9.4 This section is structured as follows:

a) UR decision with respect to WACC for GNI (UK) and consideration of related issues;

b) Capital repayments; and

c) Financeability.

GNI (UK) Proposal

9.5 In June 2016 we approved a modification to the GNI (UK) licence which amended the parameters within which the rate of return on capital employed by the licence holder over a price control period may be set. As a result, UR may determine the cost of debt, the cost of equity, and the gearing ratio at each price control review taking relevant considerations into account.

9.6 Previously the cost of equity and gearing ratio were fixed, but now the rate of return on capital will be determined by UR at each price control period to best reflect prevailing capital market conditions and the level of risk borne by the licence holder.

9.7 GNI (UK) proposed that its WACC for GT22 should be in the range of 2.58% to 3.39% with a point estimate of 3.07%. Its submission stated that it drew on the GT17 determination, other regulatory precedent and conditions being faced by GNI (UK) to propose a rate of return that it considers can efficiently

[18] PTL and BGTL Gas Conveyance Licence condition 3.1.4 and WTL Gas Conveyance Licence condition 6.5.1.

and adequately finance its business plan activities.

WACC Approach

9.8 The cost of capital that we consider in this paper is a forward-looking estimate of the real, Retail Price Index (RPI)-stripped rate of return that the GNI (UK) pipelines need to provide to investors in order to attract and retain capital within the business. It has been estimated independently from GNI (UK)'s current ownership arrangements so that the return on offer through the price control is capable of supporting any reasonable and efficient investor set.

9.9 The cost of capital is the weighted average of the cost of equity (K_e) and the cost of debt (K_d). The relative importance of each is determined by the weighting, or gearing (g), to reflect the relative importance of each type of financing in a firm's capital structure, shown in this formula:

$$Vanilla\ WACC = g\ .\ K_d + (\ 1 - g\ )\ .\ K_e$$

9.10 The prevailing market cost of debt is directly measurable and we can use empirical evidence to see this rate. The cost of equity is modelled on the returns that we would expect a shareholder to demand in exchange for holding shares in the GNI (UK) business.

9.11 This uses a standard Capital Asset Pricing Model (CAPM) methodology, which relates the cost of equity to the risk-free rate (R_f), the expected return on the market portfolio (R_m) and a business-specific measure of investors' exposure to systematic risk (beta or β_e):

$$K_e = R_f + \beta_e\ .\ (R_m - R_f)$$

9.12 We have drawn on primary market data, as far as possible, and taken account of regulatory precedent, particularly the Office of Gas and Electricity Markets (Ofgem's) RIIO-2 price control determinations in December 2020 and the views expressed by the Competition and Markets Authority (CMA).

9.13 The full analysis is shown in *Annex 3 – Cost of Capital* and is summarised in the following paragraphs.

Inflation Index

9.14 In reaching our estimate of an appropriate rate of return for GNI (UK), we have converted from nominal to real market data by applying the Consumer Prices Index (CPI) to align with the financial model set out in the GNI (UK) licence. Other economic regulators tend to use the Retail Prices Index (RPI) measure of inflation. In order to facilitate comparison with other relevant regulatory decisions, we have presented some comparisons using RPI data.

Riskiness and Beta

9.15 A firm's equity beta is a measure of the riskiness of a firm, relative to the market portfolio. As GNI (UK) is not a listed firm, we cannot use market data to estimate this, so we used beta estimates from companies which are similar.

9.16 However, the gearing level can influence the equity beta, as a firm with higher gearing will exhibit a higher equity beta comparatively. The equity beta can therefore be considered in two parts - the asset beta is a hypothetical measure of the beta if a firm had no debt and were financed entirely by equity, and the debt beta. A firm's debt beta is not directly observable, so we have used a constant of 0.075, which is also used by Ofgem and the CMA for similar companies.

9.17 We considered comparator data for the asset beta which indicated that GNI (UK) sits in the range of 0.31 to 0.39. We then considered where GNI (UK) site relative to the comparators. This involved considering the four main determinants of the shareholder risk: demand variability, cost variability, regulatory control and the cost / revenue structure, which is based on the size of asset base compared to ongoing revenues. This comparison is set out in the Annex.

9.18 We concluded that GNI (UK) was squarely "in the pack" with the comparative values, so we saw no reason to deviate from the 0.35 figure that Ofgem used in RIIO-T2.

Gearing

9.19 We considered regulatory precedent where the regulator sought to select a figure for gearing which is consistent with the regulated company maintaining an A to BBB/Baa credit rating.

9.20 This returned a range of 50% to 60%, so we have proposed 60% to align with Ofgem's notional gearing for the GB transmission businesses.

Cost of Debt

9.21 Our task was to use available data to estimate the interest that we would expect an efficiently financed business with an A to BBB credit rating to pay on its borrowings. GNI (UK)'s debt takes the form of loans from its parent company, so its licence suggests that the allowed cost of debt should be benchmarked to the market interest rates that a company with GNI (UK)'s character would expect to pay if it were to borrow directly from the markets.

9.22 We used the iBoxx secondary market bond indices as benchmarks for the

cost of debt that must be paid by a network company borrower. At the end of September 2021, yields were approximately 2.35% for A rated debt and 2.60% for BBB rated debt. We do not agree with GNI (UK)'s suggestion that UR should take a trailing average of historical rates, as we do not consider that it possesses any embedded fixed rate debt that would need referenced.

9.23 We start with the average yield on A and BBB bonds of 2.475% and allow for a small move up in borrowing costs to be consistent with forward gilt rates. The markets are pricing around 15 basis points increase by October 2022 and around 70 basis points increase by September 2027. We consider it is prudent to increase the 2.475% estimate of market interest rates by a flat five-year average uplift of 0.425% to give an average nominal GT22 cost of debt of 2.9%.

9.24 This figure needs to be converted into a real, CPI-stripped cost of capital computation. At the time of the draft determination, CPI was being forecast at an average inflation rate of 2%[19]. This means that we convert the nominal cost of debt into a real, CPI-stripped cost of debt of 0.9%. We also add an allowance for fees of 25 basis points, giving a final cost of debt figure of 1.15%.

Cost of Equity – risk-free rate

9.25 An estimate of the risk-free rate is needed solely for the purpose of estimating the cost of equity. The CMA has suggested that readings of the CAPM risk-free rate can be obtained by examining the yields on government gilts and AAA rated corporate bonds. The data, our calculations and comparative data are outlined in the Annex to show how we have arrived at a figure of -0.8%.

Cost of Equity - expected market return

9.26 Rather than estimating an equity-risk premium, we have estimated the expected market return directly, like Ofgem and the CMA, to ensure there is no inconsistency in the cost of equity calculation.

9.27 We note that the values for expected market return in recent price control calculations have been noticeably lower than the figure of 7.7% (real, CPI stripped terms) that we used in GT17, understood to be a consequence of revisions to the estimates of the real returns that investors have historically taken from UK stock market investments. Looking at the extensive review of the evidence on expected market return as part of the CMA's recent review of water price controls, the PR19 review, we have proposed an expected

[19] https://obr.uk/forecasts-in-depth/the-economy-forecast/inflation/#CPI

market return of 6.5%.

Overall Cost of Capital Calculation

UR proposed GT22 Cost of Capital	Point Estimate
Gearing	0.6
Cost of debt (%)	1.15
Risk-free rate (%)	*-1.1*
Market return (%)	*6.8*
Asset beta	*0.35*
Equity beta	*0.76*
Post-tax cost of equity (%)	4.92
Vanilla WACC (%)	**2.66**

Table 16 - Cost of Capital Calculation

9.29 The calculations give a vanilla cost of capital of 2.66%. These are lower than the current rate of return of 3.17%, reflecting the downwards shift in market interest rates since 2017 and the development of wider regulatory thinking in relation to the estimation of the expected market return.

Final Determination

9.30 GNI (UK) raised concerns in regards to the proposed cost of capital. They have highlighted the proposed figure had been generated during a time of economic uncertainty, with the figure proposed provided no headroom to deal with the resultant potential financial challenges that may arise over the course of the forthcoming price control period.

9.31 Having considered all the points raised by GNI (UK) we have concluded that there was no justification to amend the approach taken by UR. The detailed response is outlined in Annex 4 – Summary of Responses and Matters Raised. The calculations were rerun in April 2022 and these calculations derived a reduced WACC figure of 2.51%, which is outlined in the following table.

	Lower End Figure	Final Determination
Gearing	0.6	0.6

Cost of debt (%)	1.0	1.15
Risk-free rate (%)	*-0.74*	*-1.1*
Market return (%)	*6.5*	*6.8*
Asset beta	*0.35*	*0.35*
Equity beta	*0.76*	*0.76*
Post-tax cost of equity (%)	4.77	4.92
Vanilla WACC (%)	**2.51**	**2.66**

Table 17 – WACC proposal comparison

9.33 However given the market volatility seen, UR has decided not to implement the April 2022 recalculated figure and maintain the proposed WACC in the draft determination (2.66%). This has been agreed on the basis that the change between the two figures is minor and enables more flexibility for GNI (UK) allowing for increased volatility due to market changes and uncertainty.

Comparisons

9.34 The first comparison is between our final WACC to the GNI (UK) proposal.

FD GT22 Cost of Capital, real, CPI-stripped	UR GT22 FD	GNI (UK) proposal
Gearing	0.6	0.65
Cost of debt (%)	1.15	1.21
Risk-free rate (%)	*-1.1*	*-1.26 to -0.24*
Market return (%)	*6.8*	*6.58 to 7.44*
Asset beta	*0.35*	*0.35 to 0.38*
Equity beta	*0.76*	*0.81 to 1.00*
Post-tax cost of equity (%)	4.92	5.13 to 7.44
Vanilla WACC (%)	**2.66**	**2.58 to 3.39**

Table 18 - Comparison to GNI (UK) proposal

9.36 The next comparison looks at what the rate would be if it were viewed in RPI-stripped terms, based on annual RPI inflation rate of 2.9%.

FD GT22 Cost of Capital	CPI-stripped	RPI-stripped
Gearing	0.6	0.6
Cost of debt (%)	1.15	0.27
Risk-free rate (%)	*-1.1*	*-1.97*
Market return (%)	*6.8*	*5.87*
Asset beta	*0.35*	*0.35*
Equity beta	*0.76*	*0.76*
Post-tax cost of equity (%)	4.92	4.01
Vanilla WACC (%)	**2.66**	**1.76**

Table 19 - Comparing CPI-stripped to RPI-stripped

9.38 Finally, this table is a comparison against the GT17 rate, in RPI stripped terms.

RPI-stripped Comparison	GT22 FD	GT17 FD
Gearing	0.6	0.65
Cost of debt (%)	0.27	0.2
Risk-free rate (%)	*-1.97*	*1.25*
Market return (%)	*5.87*	*6.5*
Asset beta	*0.35*	*0.34*
Equity beta	*0.76*	*0.79*
Post-tax cost of equity (%)	4.01	5.38
Vanilla WACC (%)	**1.76**	**2.01**

Table 20 - Comparing GT22 allowed return to GT17 allowed return

Capital Repayments

9.40 The GNI (UK) capital repayments calculated in its capital repayment model for the 22/23 Gas Year using the GT17 WACC are £12.21m, expressed in October 2022 monies. We estimate that this will reduce to £12.05m with the new WACC, a reduction of £0.17m per year, a total of £0.89m over GT22, also expressed in October 2022 monies.

Financeability

9.41 Article 14 of the Energy (Northern Ireland) Order 2003 requires us to carry out our functions in the manner we consider is best calculated to further our principal objective, having regard to the need to secure that licence holders are able to finance their licence obligations (amongst other things).

9.42 This duty is framed similarly to the financing duties of other UK regulators. It can broadly be taken in practice to mean that the price control ought to be set at a level which would allow an efficient network company to finance its licensed activities.

9.43 PTL, BGTL and WTL are entirely financed by means of bonds that were issued to fund the purchase of existing transmission assets. It is not envisaged that these licence holders will be required to invest further capital in these networks. UR agreed, by means of the Direction, to fully fund the repayments on these bonds through the postalised transmission tariff.

9.44 The three licences include an operating cost pass through mechanism. This means that allowed revenues will always match actual costs. In effect, PTL, BGTL and WTL do not face any cash flow risk and so financeability is not a relevant issue for these licence holders.

9.45 In assessing whether our final determination leaves GNI (UK) in a position where it will be able to finance their activities during the GT22 period, we have considered the ability that the company will have to utilise both equity and debt finance.

9.46 The key determinant of GNI (UK)'s ability to access equity finance is the allowed return on equity. As set out in the relevant report that accompanied our draft determination. We have fixed returns after considering the level of returns that investors are likely to be able to get from other equity investments and by positioning the return offered by GNI (UK) logically against these alternative investments.

9.47 Our proposed equity returns are slightly higher, on a like for-like basis, than the returns that Ofgem factored into its recent RIIO-GT2 price control calculations. Accordingly, we are satisfied that GNI (UK) ought to be capable of securing equity finance on an ongoing basis throughout the next five years.

9.48 GNI (UK) does not have a published credit rating. However, we note that the GB transmission and distribution networks have been able to maintain investment-grade credit ratings on the basis of the lower equity returns provided by Ofgem in its RIIO-2 framework. Given that GNI (UK) also benefits from a lower cost of debt and from the cash flows, and hence

interest cover, associated with the pay back of its historical investments, we would expect GNI (UK) to be no less credit worthy in the eyes of lenders.

9.49 These considerations enable us to conclude that GNI (UK) will be capable of financing its activities during the GT22 period via a prudent choice of capital structure.

10. Outputs and Allowances

Overview

10.1 The principal legal duty of UR in relation to gas is:

"to promote the development and maintenance of an efficient, economic and co-ordinated gas industry in Northern Ireland." [20]

10.2 This must be done having regard to the interests of gas consumers and ensuring that licence holders are able to finance their activities.

10.3 This is demonstrated by setting out the allowances for each company as well as the associated outputs, targets and outcomes. Such an approach provides transparency for the licence holders, network users, consumers, stakeholders and UR.

10.4 This chapter outlines the allowances that we propose under GT22, along with the cost reporting processes that will follow. The chapter then considers some other matters, which are not directly cost related but have some impact on the service provided by the TSOs. It finishes by considering the consumer impact of the proposed allowances. The chapter is structured as follows:

- GMO NI – Price control output summary;
- MEL – Price control output summary;
- GNI (UK) – Price control output summary;
- Cost and output reporting;
- Recommendations:
    - (i) Stakeholder engagement;
    - (ii) Joint working;
    - (iii) Forecasting accuracy;
    - (iv) Environmental management action plans;
- Business carbon reporting; and
- Consumer impact.

[20] The Energy (NI) Order 2003, Article 14 (1) http://www.legislation.gov.uk/nisi/2003/419/contents/made.

GMO NI – Price Control Output Summary

10.5 We have approved allowances on the basis of the GMO NI business plan submission. The relevant licence holder (GNI (UK), PTL, BGTL or WTL) has been allocated a price control allowance in accordance with the pattern of resource contracts set out in their business plans.

10.6 Each licence holder is exposed to the same cost risk mechanism that applies to other categories of controllable operating cost. For GNI (UK) this would be a 'revenue cap' mechanism while for the other three licence holders an 'operating cost pass-through' mechanism would apply.

10.7 In determining allowances for GMO NI we have been guided by the principle that we are determining allowances for a single entity and not for separate licence holders.

10.8 In order to deliver on its KPIs, the following allowance has been proposed for GMO NI. This represents 86% of the requested amounts (post efficiency) with a notable disallowance on Delphi IT upgrade costs. The final determination is however a 21% uplift from GT17 allowances.

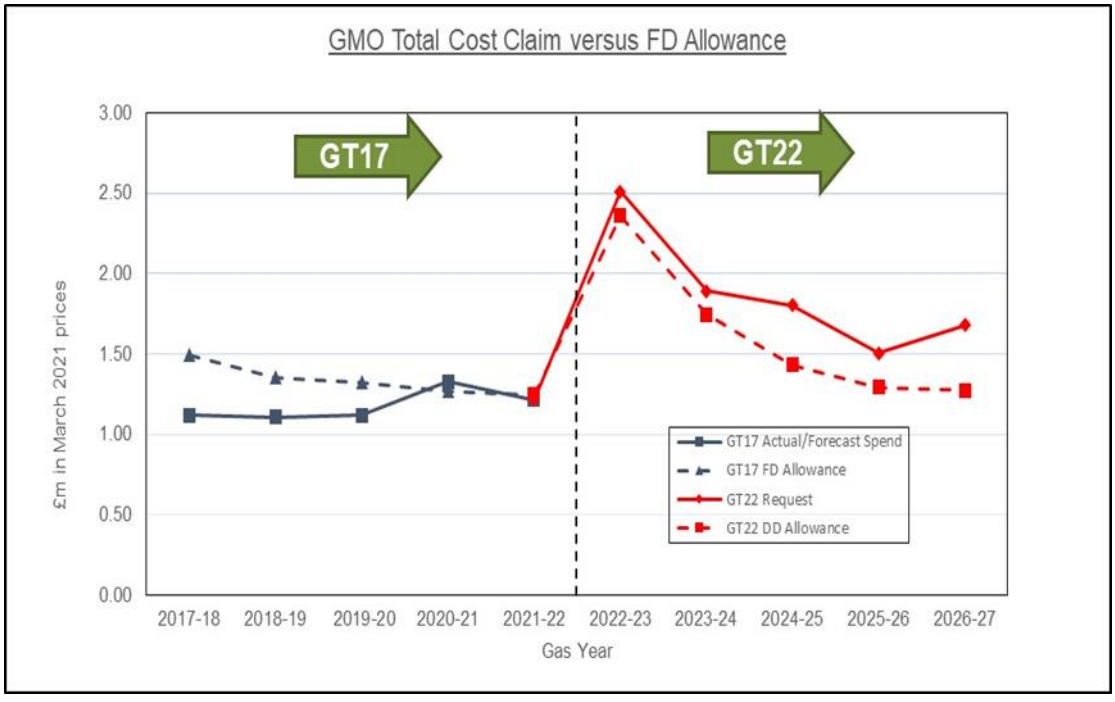

Figure 9 - GMO NI - GT22 proposed allowance post efficiency

MEL – Price Control Output Summary

10.9 For MEL, the price control allowance is advisory. The company has an opex pass though mechanism, whilst the capital repayments are fixed outside of this price control. However, we expect MEL to operate in a responsible and

efficient manner.

10.10 The proposed total allowances post efficiency are set out below.

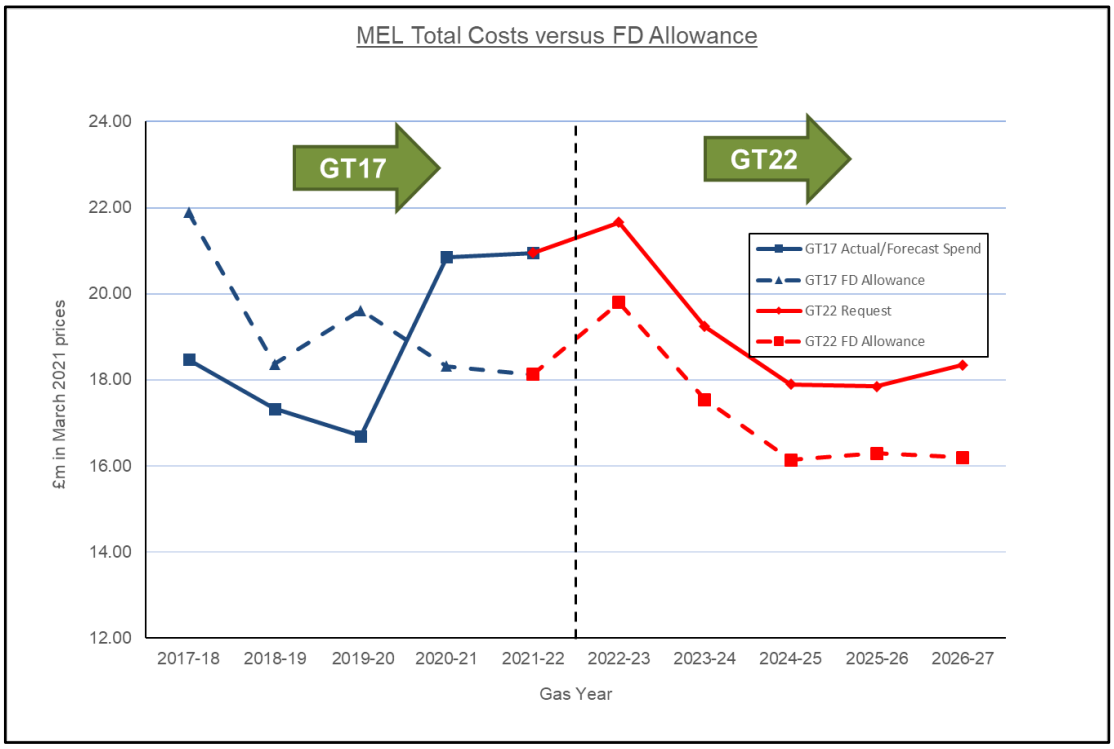

Figure 10 - MEL total costs and FD allowance post efficiency

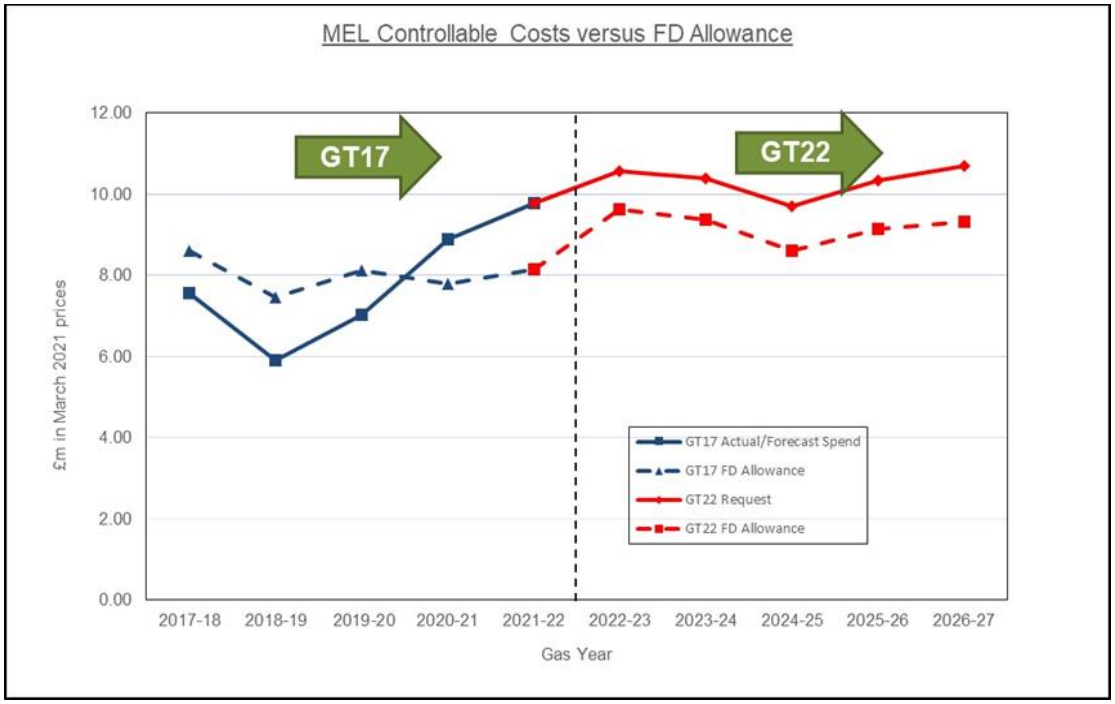

Figure 11 - MEL controllable costs and FD allowance post efficiency

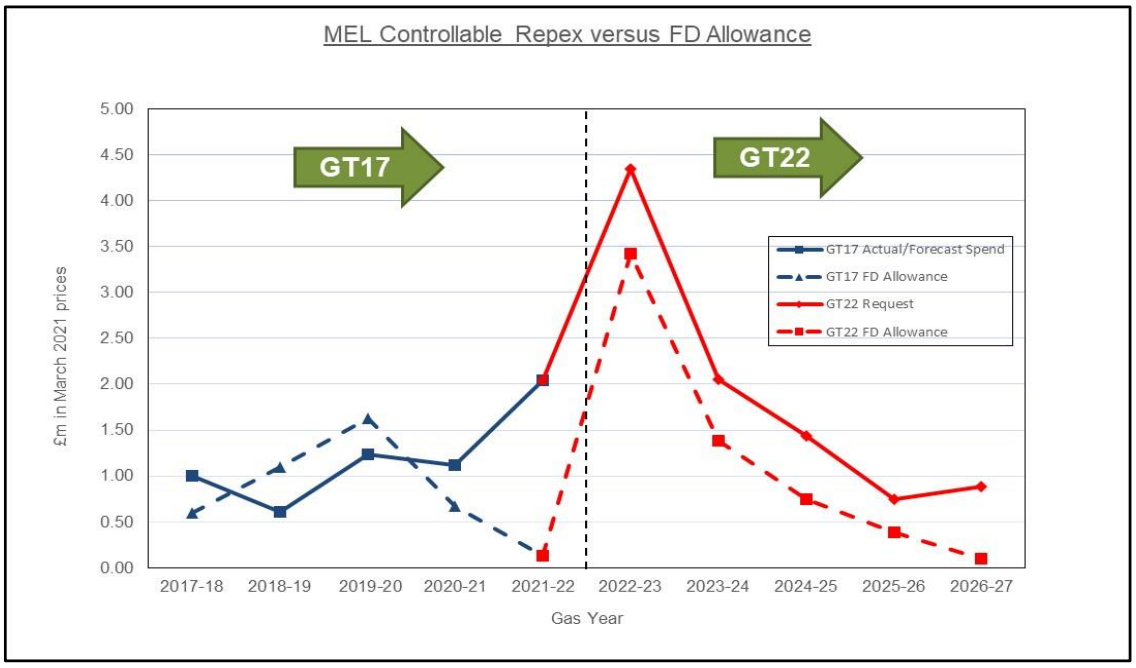

Figure 12 - MEL repex and FD allowance post efficiency

10.11 The price control represents an allowance of 90% of what the company requested. Proportionally this can be viewed as follows:

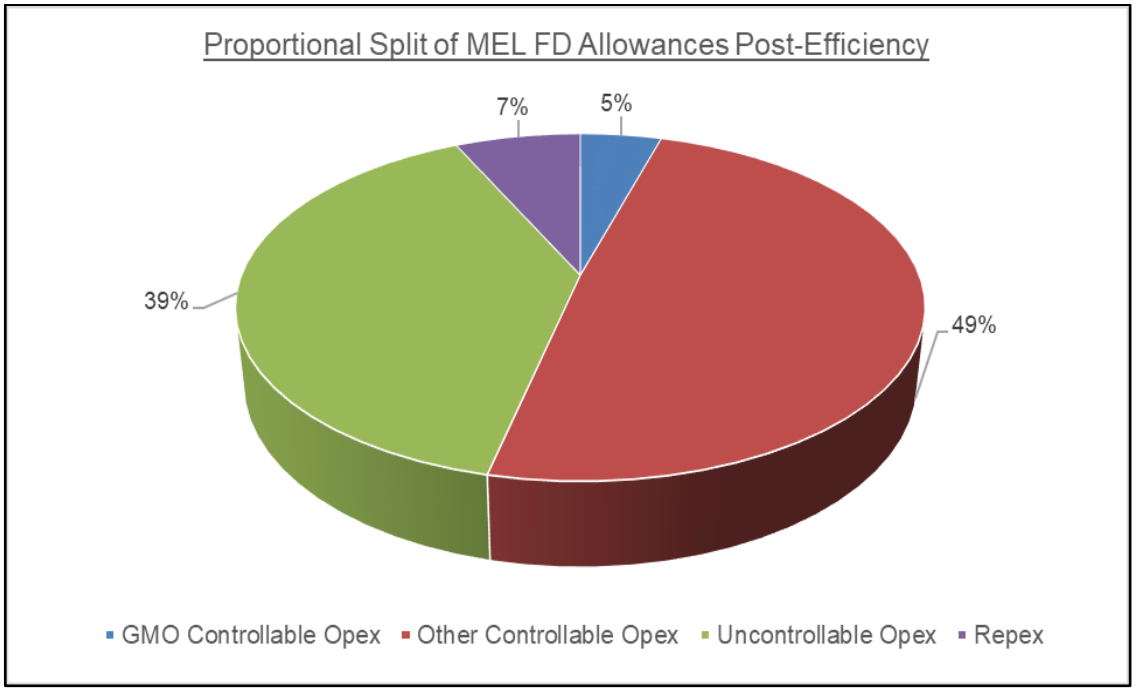

Figure 13 - MEL cost element split in GT22

10.12 The final determination sets out definitively the expected outputs from repex projects in the GT22 period for this allowance. UR expects the TSOs and GMO NI to report against these commitments on an ongoing basis, through

the RIGs. The table below provides an indication of MEL's forecast repex projects and outputs, which will be extended as outputs are aligned to annual forecast cost.

Activity	GT22 Period Outputs
SCADA Refresh	• One site providing normal live service to the main control room with a SCADA / Leakfinder service duplicated in "hot" standby mode. • 1 Standby SCADA / Leakfinder service must be hosted on servers at a site away from the LIVE servers and with power and communications • SCADA servers are required to maintain 99.95% availability.
Programmable Logic Controllers (PLC) panel replacement	• Five PLCs
Transformer Rectifier	• Eight transformer rectifiers
Meter Replacement	• Four ultrasonic meters
UPS and Battery Replacement Analysis	• Replacement of 12 UPS and battery systems as required.
Pipework Coating Analysis	• 4 block valves painted. • South Cairn AGI painted.
Boiler House Analysis	• Replacement of Larne boiler house and pre-heat systems.
Larne Inlet Analysis	• Replacement of Larne inlet valve.
Electrical Systems Analysis	• Replacement of lights and distribution boards at 6 AGIs. • Ballylumford generator.
Actuator Analysis	• Replacement of 37 actuators.
Throttle Flow Analysis	• 4 Throttle flow valves at Moss Road, Loughans Road, Tullybroom and Dungannon.
Chromatograph Analysis	• 1 Gas chromatograph system at Ballylumford.
Remote Operated Valve Analysis	• 5 ROVs at Ballylumford, South Cairn, Torytown, Portadown, Dungannon Tee.

Table 21 - MEL indication of forecast repex outputs

10.13 The following table shows the forecast maintenance outputs.

Activity	2022-23	2023-24	2024-25	2025-26	2026-27
Online Inspections (OLI)	-	1	-	-	1
Close Interval Protection Surveys	1	9	1	6	3
Metering Asset Inspections	12	11	11	11	11
Aerial Pipeline Inspections	78	78	78	78	78
Sub-Sea Survey	-	2	-	2	-
Emergency Exercise	1	2	1	1	2
Environmental Management System Progress					

Table 22 - MEL Planned Opex Activity

GNI (UK) – Price Control Output Summary

10.14 GNI (UK) operates to a revenue cap mechanism, such that it manages its cost uncertainty risk, except for the costs which fall within the cost mitigation measures outlines in paragraph 8.2.

10.15 During the GT17 period, GNI (UK) agreed to allow GNI to transport gas through the SNP to a new exit point at Haynestown, outside Dundalk, linking into the GNI network in RoI. This agreement avoided the need for GNI to invest in reinforcements on their network by accessing some spare capacity on the nearby NI network.

10.16 While the reserved capacity has been secured and the income will be treated as *supplemental income*[21] to be subtracted from their annual forecast required revenue (FRR), the charging mechanism has not yet been agreed.

10.17 GNI (UK) therefore did not forecast any revenue in its business plan. Separately, GNI (UK) included an estimated amount of £893k in the postalised tariff for the current gas year (21/22).

10.18 In the absence of a better forecast, we have included a forecast revenue of £0.9m for each year of GT22. There is a mechanism in the licence[22] to correct the forecast revenue for the actual revenue, so we are content to use this estimate. We have ignored this Haynestown income when assessing against the GT22 submission for more a more transparent comparison.

[21] GNI (UK) conveyance licence condition 2.2.16.
[22] GNI (UK) conveyance licence condition 2.2.16e.

10.19 This table illustrates the movement of total cost from GT17 allowances, to actual / forecast and through to GT22 submission and final determination.

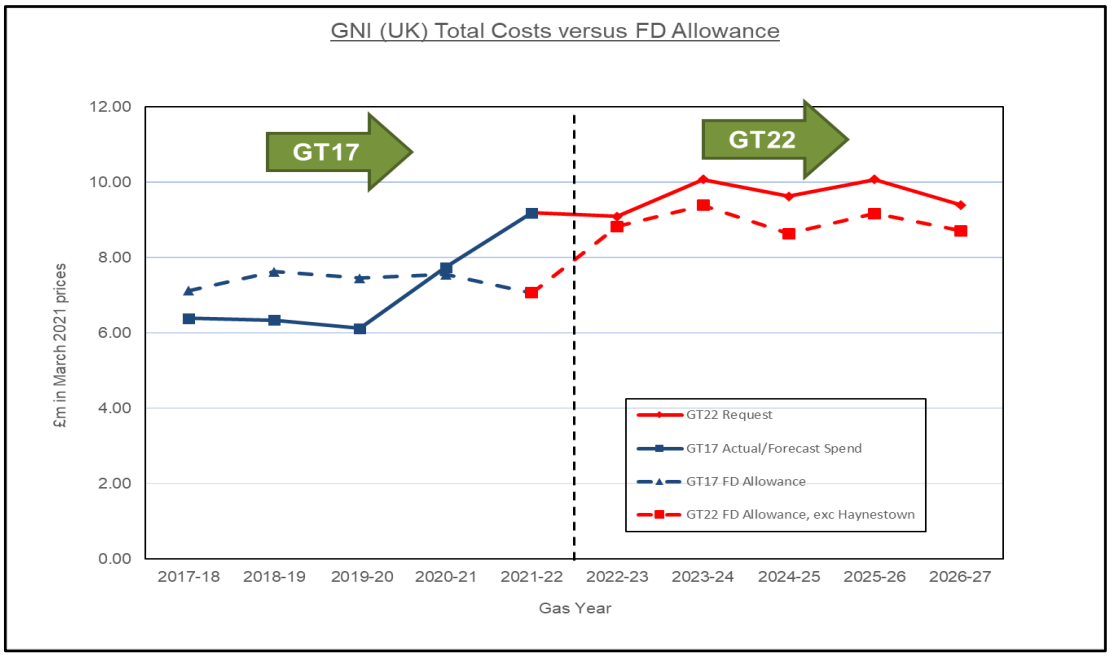

Figure 14 - GNI (UK) total costs and FD allowance post efficiency

UR approvals represent 93% of the amount asked for (83% when forecast Haynestown revenue is included). There are notable reductions in areas of controllable opex and in particular repex, as shown in the following graphs.

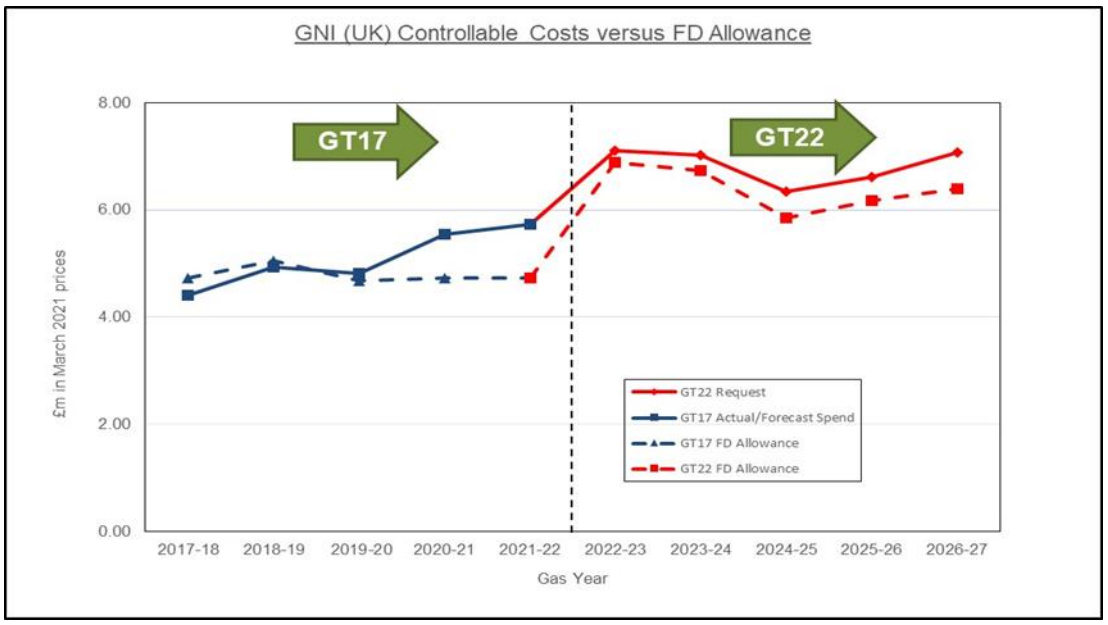

Figure 15 - GNI (UK) controllable costs and FD allowance post efficiency

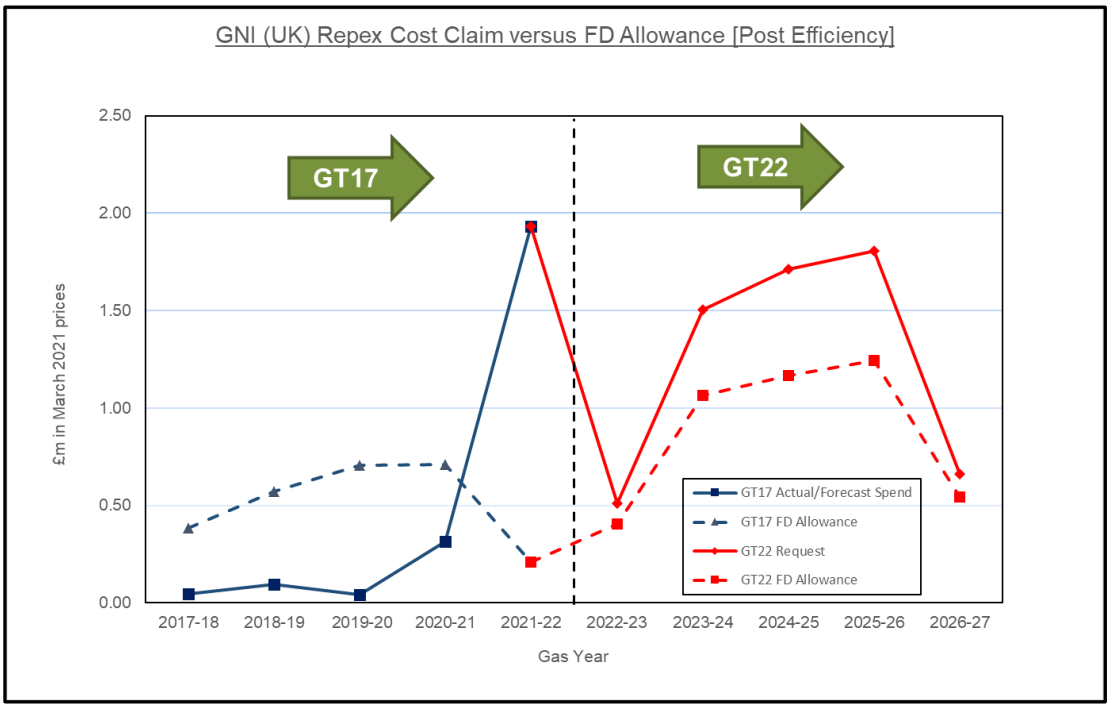

Figure 16 - GNI (UK) repex costs and FD allowance post efficiency

10.20 This pie chart illustrates the cost element breakdown.

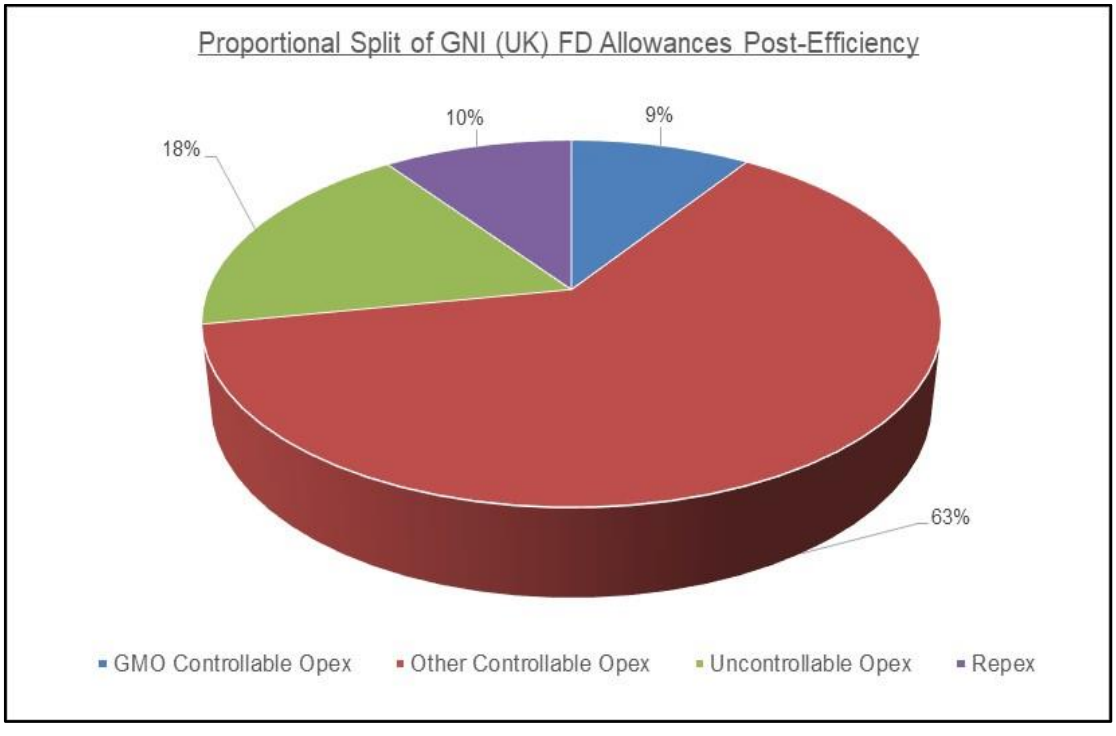

Figure 17 - Breakdown of GNI (UK) proposed allowances post efficiency (excl. Haynestown)

10.21 The tables below forecast the expected opex and repex outputs for GNI (UK) over the duration of GT22. UR expects to report against these commitments on an ongoing basis. Table 23 outlines the forecasted outputs for all projects

noted as part of the repex allowance.

Activity	GT22 Period Outputs
Cathodic Protection	• 2 transformer rectifiers & 40 CP test posts. • 9 remote monitoring units.
Site Instrumentation	• 3 Remote Terminal Units (RTU) • 16 communication upgrades.
Site Electrical	• 3 Battery chargers. • 7 Distribution boards. • 7 Isolating transformers. • 3 Generators. • ATEX and general lighting at 8 sites. • Activity should be focused at most critical sites.
Security Refurbishment Analysis	• 31 CCTV cameras spread across 16 different AGI locations. • 16 IDS systems at the same 16 locations (TSO response to Q25).
Aerial Marker Analysis	• 1,074 aerial marker posts.
Actuator Analysis	• Replacement of 20 actuators at 8 different AGI sites.
Valve Controller Analysis	• Replacement of 20 valves at 10 different AGI sites.
Heating System Analysis	• Replacement of 2 boiler package units.
Pilot Control Valve Analysis	• Replacement of 20 pilot valves.
Cyber Security Analysis	• 1 Tier 1 site with station control system. • 1 Tier 1 RTU site. • 6 Tier 2/3 RTU sites.
Meter Replacement Analysis	• 4 Meters. • 1 Gas chromatograph. • 3 Flow computers. • 3 Metering enclosures. • 10 Pressure transmitter valve blocks • Remaining activity to be determined.

Table 23 - GNI (UK) indication of forecast repex outputs

10.22 The following table shows the forecast outputs from the opex forecasts.

Activity	2022-23	2023-24	2024-25	2025-26	2026-27
Online Inspections (OLI)	-	1	-	-	1
Aerial Pipeline Inspections	26	26	26	26	26
Emergency Exercise	2	2	2	2	2
Cyber Security Upgrades	Upgrade to AGIs				
AGI Asset Information Programme	19 AGI assets				

Table 24 - GNI (UK) Planned Opex Activity

Cost and Output Reporting

10.23 A key output of the price control is cost reporting. Licence modifications following GT17 established obligations on the TSOs to report annually on their costs and outputs[23], known as *Regulatory Instructions and Guidance* (RIGs). These are intended to allow UR to monitor performance and, over time, will provide a database of performance that will inform subsequent price controls. Further information is provided in chapter 3.

10.24 Annual reporting provides a number of benefits such as:

a) Monitoring against price control targets;

b) Developing historic trends;

c) Benchmarking network operators; and

d) Providing transparency to network users.

10.25 This process is now well established with the TSOs participating fully and this will continue throughout GT22. The information provided has deepened our understanding of the cost drivers and unit costs of repex projects particularly. Having access to this historic information has improved the robustness of the price control.

10.26 We will add some additional areas for review as a result of GT22, specifically:

a) Asset Management Systems: We would like to see quantification of the benefits of this investment. We wish to see how TSOs will track activity through to efficiencies from reduced unplanned maintenance.

[23] Licence condition 1.21 in the gas conveyance licences.

b) Stakeholder Engagement: We wish to track the TSOs stakeholder engagement plans and outcomes, see paragraph 10.34.

c) Joint Working: We will ask the TSOs to report on joint working initiatives including tracking benefits, financial and non-financial, see paragraph 10.43.

d) Business Carbon Footprint: We wish to track what the TSOs are doing to reduce their own carbon footprint.

Stakeholder Engagement

10.27 We said in the approach document that we expected the TSOs to align their business role, services and activities with the interests of customers, consumers, other stakeholders and the wider energy system. We expected to see a structured approach to engagement which outlined the organisations it wishes to engage with, the type and frequency of such engagement and forecast outcomes.

10.28 Stakeholder engagement applies across a number of channels, including formal discussions with industry bodies, influencing and preparing for future legislative and compliance matters, ensuring stakeholder representation across its board members and technical links between engineers. The TSOs should be able to demonstrate that they have a planned approach with targeted outcomes across each engagement channel.

10.29 While the three business plans highlighted a great deal of stakeholder engagement activities, we were not convinced that the engagement was well planned, nor were we convinced that it was strategically focused.

10.30 The Energy Strategy will bring new organisations into the energy sector, which will be challenging and disrupting. A clear strategy for stakeholder engagement will provide a framework for how these challenging views can be considered and integrated into a changing energy sector.

10.31 The gas network prepares to facilitate the injection of biomethane, while the electricity network continues to evolve with more decentralised generation, battery storage and the challenges of responding to variable wind patterns. These changes, amongst others, will need increased interaction between the electricity, heat, gas and transport sectors.

10.32 We wish to see evidence of whole system thinking through enhanced liaison with the electricity sector. It should be evident that parties consider the consequences of their actions on the rest of the energy sector. Strategic engagement activities will result in better decision making, improved strategic thinking and identification of cost efficiencies as we seek to

implement the future Energy Strategy.

10.33 We therefore encourage the TSOs to enhance the gas-electricity engagement channels to ensure that whole system thinking is embedded across the energy sector. A starting point would be for TSOs to engage with SONI to include greater integration between the long term gas and electricity development plans[24].

10.34 By GT27, we expect the TSOs to be able to:

a) Provide evidence that they have whole-system stakeholder engagement, which could be through new stakeholder groups, or wider representation within their own board.

b) Demonstrate how the long term development plans of both electricity and gas take a whole-system approach.

c) Map out how stakeholder engagement has shaped their business plans.

d) Provide compelling evidence that engagement is delivering customer benefits.

10.35 We intend to add a section to the RIGs to track the TSOs' stakeholder engagement plans and outcomes.

Joint Working

10.36 We indicated in the approach document that we consider that engagement between the TSOs could deliver additional cost savings, for example, in joint procurement exercises. We indicated that we would look for evidence in the business plan submissions that opportunities had been exploited to the benefit of consumers. This followed our recommendation in GT17 that the TSOs should work together to implement a single control room.

10.37 The TSOs have undertaken the GT17 requirement to consider the feasibility of a single control room. However, the conclusion is that it is not practical at this time given legal and procurement concerns. This is disappointing, especially given the success of the GMO NI. This is an area we will revisit in the future.

10.38 There are a number of examples of excellent joint working between the TSOs. GMO NI has delivered efficiencies through reduced system operation costs and demonstrated the benefits of pooling staff resources and sharing

[24] http://gmo-ni.com/publications#gas-statement and https://www.soni.ltd.uk/media/documents/SONI-Transmission-Development-Plan-Northern-Ireland-2020-2029.pdf

IT systems.

10.39 The Northern Ireland Gas Capacity Statement[25] is another example of effective joint working between the TSOs, with tasks alternating between MEL and GNI (UK) from year to year.

10.40 Both GNI (UK) and MEL have upgraded their asset management procedures to attain ISO 55001 standard. It may be possible to explore cost efficiencies through joint activities such as data analysis, or preparing for audits.

10.41 The joint procurement of MERC was discussed at GT17 but ruled out due to the need to retain legal responsibility. For GT22, when we asked the TSOs had they considered alternative joint activities for the MERC, there was no evidence that it had been considered.

10.42 We accept that there are legal and procurement concerns, but we do not accept that there is no potential for cost savings through efficient procurement activities. For example, savings may be available through seeking shared activities like common procurement documents or sharing resources for a parallel procurement process.

10.43 We will add a section to the RIGs for the TSOs to report on the joint working initiatives, including tracking financial and non-financial benefits.

Forecasting Accuracy

10.44 We have been disappointed with the GT17 forecasting accuracy shown by both GNI (UK) and MEL. Due to its cost pass-through mechanism, poor forecasting by MEL impacts on the postalised year-end reconciliation amount, meaning that shippers may pay too much during the year, or may need to make up a shortfall after year-end. It is vital that the TSOs use all available information to make the best possible expenditure forecast.

10.45 GNI (UK) has very significant delays on its repex projects, with over 90% of forecast cost due to be spent in the last two years of GT17. The delays have been longer than might have been expected due to the Covid-19 pandemic. We therefore have limited confidence that GNI (UK) can subsequently deliver its GT22 forecasts.

10.46 As a result, there are a number of GT22 line items which have been listed as relevant items. These relevant items will not be added to GNI (UK)'s allowances until it has demonstrated the projects are justified and ready to commence.

10.47 With regards to MEL, we observed some poor forecasting behaviour linked

[25] http://gmo-ni.com/publications#gas-statement

to adjustments to *budgeted controllable opex* (BCO)[26] during GT17. Some items of expenditure which were submitted to us in BCO adjustment submissions ought to have been known at the time of GT17 submissions.

10.48 We indicated in the approach document for GT22 that we are minded to introduce a licence modification to provide some alignment between MEL and GNI (UK) in terms of price control re-openers. This may take the form of a materiality threshold below which budgeted or determined controllable opex would not be subject to review.

10.49 Alternatively, we may wish to compare BCO adjustments against actual spend to that point in the year. The latter may be similar to the *"special operating expenditure forecast review"* at condition 2.2.4(i) of the GNI (UK) licence which can only be triggered if actual costs differ from forecast by more than 15%.

10.50 We will continue to monitor MEL's BCO submissions. If we consider there are projects which should have been foreseen, we will move to propose a licence modification to introduce a materiality threshold equivalent to GNI (UK)'s.

Treatment of PRISMA costs

10.51 GMO NI has requested that the cost of the auction system, PRISMA, should be treated as uncontrollable. PRISMA has introduced a new price methodology which GMO NI considers cannot be influenced by either GNI (UK) or MEL in their respective roles.

10.52 While we acknowledge that the TSOs have limited influence in the PRISMA costs, they are relatively small at an average of £172k per annum through GT22. The cost uncertainty risk should be managed under the current arrangements. We decided not to move the PRISMA costs at this stage, however should the actual costs vary significantly, for example by 50% compared to GT22 forecast, we will reconsider for GT27.

Environmental Action Plans

10.53 The TSOs not only have a role to play in the implementation of the future Energy Strategy, but they also can influence the environmental impact of their day-to-day businesses.

10.54 MEL's business plan submission states that it has a business environmental

[26] BCO can be requested, according to licence condition 3.1.6(b)(v), following a submission *"to take into consideration any fact or matter that has arisen following the Authority's determination pursuant to Condition 3.1.6(b)(iv)"*.

policy which commits it to:

> *"identifying, quantifying, managing, and minimising the adverse impact we make on the environment, directly through our operations, and to prevent unnecessary pollution whilst conducting our operations. Using ISO 14001 as a framework, we have established an annual Environmental Plan to continually improve on our environmental performance."*

10.55 MEL has established an environmental management committee and has set targets for 2021-22 which it intends to develop further in the coming years.

10.56 GNI (UK) reported in its submission that Gas Network Ireland's sustainability department is responsible for maintaining the environmental management system and energy management system, as well as environmental action planning, policy setting and assessing compliance with environmental and energy related legal requirements. It states that this is designed to ensure that GNI (UK) and its contractors have a minimal impact on the environment. It did not provide detail on targets or forecast outcomes.

10.57 These are positive steps which could be improved through a published statement outlining the TSOs' commitments to reduce their environmental impact. For example, National Grid has an environmental action plan for electricity transmission[27] and NIE Networks has an environmental statement.[28] We support TSOs joint working to prepare an environmental action plan demonstrating what they are doing to contribute to the drive to net zero carbon and will seek reporting on this through the RIGs.

Carbon Reporting – TSO Submissions

10.58 For the first time, we asked the TSOs to estimate their carbon emissions. We asked the TSOs to forecast their non-shrinkage business carbon footprint (BCF), in tonnes of CO_2 equivalent, in order for us to assess the environmental impact of operations.

10.59 We asked for forecast data for GT22 period and did not request any information prior to the start of the GT22 period. Rather, we requested that the TSOs use the intervening period to put in place appropriate mechanisms to gather and report the required information on an ongoing basis.

10.60 The reporting methodology must be compliant with the principles of the

[27] https://www.nationalgrid.com/uk/electricity-transmission/document/136551/download
[28] https://www.nienetworks.co.uk/documents/environment/environmental-statement.aspx

Greenhouse Gas Protocol (GHG Protocol).[29]

10.61 We asked that the BCF reporting be relevant, complete, consistent, transparent and accurate and we recognised that there may be some element of estimation required.

10.62 GNI (UK) reported that it established its carbon footprint in 2019 to align with global best practice. Its greenhouse gas (GHG) inventory has been independently verified according to ISO 14064-3:2019 specifications with guidance for the validation and verification of greenhouse gas statements. This provides a good degree of confidence that GNI (UK) is recording its BCF going forward into GT22 and beyond.

10.63 As it does not have offices or a fleet in Northern Ireland, GNI (UK) said that the sections on building and transport emissions have been shown as zero. It stated that the relevant emissions related to its one staff member who works in GMO NI would be covered in the GMO NI response. However, the GMO NI provided a zero response as it said that its emissions were being reported by the TSO which has responsibility for that activity.

10.64 We recognise that this the first time that we have sought this information, but we would request that GNI (UK) puts processes in place to ensure that its emissions due to GMO NI activities are properly accounted for.

10.65 GNI (UK)'s forecast for its own emissions therefore relate to the two areas of fugitive emissions and fuel combustion, explained as follows:

a) Fugitive emissions. These result from unintentional emissions of natural gas from equipment or components such as pipelines, regulators, valves, flanges, connectors, etc. on the gas network. GNI (UK) uses the MARCOGAZ model to build up its quantification. It states that MARCOGAZ is an international association which represents the gas industry on technical aspects.

b) Fuel combustion. This related to the onsite electricity consumption at AGIs. GNI (UK) explained its assumptions and the emission equivalency conversion factors it used.

10.66 With regard to GNI (UK)'s contractor carbon reporting, it reports that it considered environmental management during the selection of contractors and that its main contractor is required to provide monthly data on its environmental performance.

[29] World Business Council for Sustainable Development/World Resource Institute: The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

10.67 MEL states that it continues to develop its capability in the area of carbon data collection and reporting and has needed to rely on some assumptions at this stage.

10.68 For MEL's own business usage and business transport, actual data has been used to generate forecasts. For fuel combustion on their network, for example use of diesel generators and electricity, actual data has also been used. However, no estimate has been provided for fugitive emissions.

10.69 MEL has used meter readings and fuel usage data from their main contractor to forecast the contractor emissions.

Carbon Reporting – UR Determination

10.70 The emissions forecast from GNI (UK) and MEL are summarised in this table:

Description	Units	MEL GT22 Forecast	GNI (UK) GT22 Forecast
Direct Usage by TSO			
Buildings Emissions	tCO2e	58	-
Operational Transport Emissions	tCO2e	-	-
Business Transport Emissions	tCO2e	367	-
Fugitive Emissions	tCO2e	-	4,818
Fuel Combustion Emissions	tCO2e	4,336	409
Usage by Contractor			
Buildings Emissions	tCO2e	234	61
Operational Transport Emissions	tCO2e	855	102
Business Transport Emissions	tCO2e	89	33
Fugitive Emissions	tCO2e	-	-
Fuel Combustion Emissions	tCO2e	-	-

Table 25 - Carbon Reporting Forecast

10.71 The figures differ significantly, indicating a difference in the approach taken by the TSOs. Although MEL has not estimated any fugitive emissions, its forecast for its own fuel combustion emissions are ten times higher than that of GNI (UK).

10.72 We did not seek to challenge or explain the differences, neither have we sought to establish if the forecasts encompass all of the TSO activities, included contracted-out services such as the MERC.

10.73 Rather, we consider that this is an area that the TSOs could work together to share knowledge and develop a joint approach while noting that GNI (UK) appears to have more advanced processes for collecting emissions data.

10.74 We intend to begin collecting data on BCF through the RIGs from the start of the GT22 period.

Consumer Impact

10.75 We are confident that the outcome of GT22 will not make any noticeable change in the postalised tariff. However, we should point out that the postalised tariff will increase in October 2022 as a result of both an increase in gas costs of £5.5m which are required to fuel the gas compressors on the Scottish section of pipeline and an inflationary effect on financing costs.

10.76 Transmission tariffs, also known as postalised tariffs, are calculated using forecast required revenues from the TSOs and forecast capacity and commodity bookings. These tariffs are published at the end of May to apply from the beginning of October. Rising wholesale gas prices means that the postalised tariff makes up a smaller proportion of the final price for a domestic consumer, reducing from around 10% to closer to 5%.

10.77 Gas transmission pipelines are used to transport gas to the gas distribution networks and to electricity generation plants. Therefore, the outcome of this price control affects both electricity and gas consumers and we have been conscious of ensuring that this price control does not unnecessarily add to cost pressures.

10.78 The shippers' use of the network is forecast to continue growing. Forecast annual exit capacity bookings increased from 90.8GWh in 2020-21 to 93.3GWh in 2021-22[30] with shipper forecasts indicating further growth through GT22[31]. Increasing capacity bookings have a downward pressure on the transmission charges.

10.79 Combining the forecast revenue figures with the growing capacity bookings, we conclude that transmission charges should at least remain stable as a result of GT22.

[30] http://gmo-ni.com/assets/documents/NI-Forecast-Tariff-Publication-GY2122.pdf
[31] http://gmo-ni.com/assets/documents/2021-05-25-Annex-1-Forecast-Tariff-Spreadsheet.xlsx

11. Annexes

Annex 1 – Replacement Expenditure

Annex 2 – Operational Expenditure

Annex 3 – Cost of Capital Report

Annex 4 – Summary of Responses and Matters Raised

Annex 5 – Post Efficiency Allowances