

Price Control for Northern Ireland's Gas Transmission Networks GT17

**Final Determination
1 August 2017**



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; Electricity; Gas; Retail and Social; and Water. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our Mission

Value and sustainability in energy and water.

Our Vision

We will make a difference for consumers by listening, innovating and leading.

Our Values

Be a best practice regulator: transparent, consistent, proportional, accountable, and targeted.

Be a united team.

Be collaborative and co-operative.

Be professional.

Listen and explain.

Make a difference.

Act with integrity.

Abstract

We are publishing the final determination for GT17 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 2017 to September 2022.

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

Audience

Industry, consumers & statutory bodies.

Consumer Impact

The price control sets out the allowed transmission revenue for the holders of high pressure gas conveyance licences. The final determination in this document sets out the basis on which we have determined the allowed revenue with consideration of the business plans submitted by the licence holders and the responses received to the consultation on our draft determination.

The impact of implementing the business plans submitted by the companies would be an approximate £5 real terms uplift in the annual bill for domestic consumers. This compares to an approximate £2 increase in the final determination. The final determination therefore results in an approximate £3 saving per annum for domestic customers compared to the company submissions. For industrial and commercial customers, the savings arising from the final determination compared to the business plans will be higher.

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ACRONYMS AND GLOSSARY

AFCE	Actual final capital expenditure
AGI	Above Ground Installation
ASHE	Annual Survey of Hours and Earnings
BGE (NI)	Bord Gais Eireann (Northern Ireland), now GNI (UK)
BGTL	Belfast Gas Transmission Limited
BGTP	Belfast Gas Transmission Pipeline
BP	Business Plan
c	Circa
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.
CBA	Cost Benefit Analysis
CC	Competition Commission
CCNI	Consumer Council Northern Ireland
CIPS	Close Interval Protection Survey
CJV	Contractual Joint Venture – Single market system operation for TSOs now known as the Gas Market Operator for Northern Ireland
CMA	Competition and Markets Authority. The Competition and Markets Authority (CMA) is a non-ministerial government department in the United Kingdom, responsible for strengthening business competition and preventing and reducing anti-competitive activities. The CMA began operating fully on 1 April 2014, when it assumed many of the functions of the previously existing Competition Commission and Office of Fair Trading, which were abolished.
Co.	County

CO2e	Carbon dioxide equivalent
CPI	Consumer Price Index
DCS	Distribution Control System
DD	Draft Determination
e.g.	for example
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
ENTSOG	European Network of Transmission System Operators
ESB	Electricity Supply Board
etc.	Et cetera (and so forth)
EU	European Union
European Gas Directive	Directive 2009/73/EC of the European Parliament of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC
FD	Final Determination
FE	firmus energy
FFO	Funds from Operation
FRR	Forecast Required Revenue
FTE	Full Time Equivalents
GB	Great Britain
GD17	This is the name given to the next price control for the NI GDNs. It covers the period 2017 – 2022 (calendar years).
GIE	Gas Infrastructure Europe
GMO NI	Gas Market Operator Northern Ireland
GNI	Gas Networks Ireland (parent company of GNI (UK))
GNI (UK)	Gas TSO operating in Northern Ireland
GT12	This is the name given to the price control period 2012/13 to 2016/17

GT12 actuals	The period 2012-13 to 2014-15 for which actual expenditure is available
GT17	This is the name given to the next price control for high pressure gas conveyance licence holders in Northern Ireland covering the years 2017-18 to 2021-22
GTMS	Gas Transportation Management System
GttW	Gas to the West. This is the name of the project aiming to extend the natural gas network to other areas of the province, namely Dungannon, Cookstown, Magherafelt, Enniskillen, Omagh and Strabane
HM	Her Majesty
HSQE	Health and Safety, Quality and the Environment
IC	Interconnector
IP	Interconnection Point
IT	Information Technology
IUK	Interconnector (UK)
Km	Kilometre
KPI	Key Performance Indicator
m	Million
MEL	Mutual Energy Limited
MERC	Maintenance and Emergency Response Contract
MEUC	Major Energy Users Council
Mm	Millimetre
MNI	Manufacturing Northern Ireland
N/A	Not applicable
NGG	National Grid Plc
NGN	Northern Gas Networks
NI	Northern Ireland

NIE	Northern Ireland Electricity – now known as NIEN
NPB	Net Present Benefit
NPC	Net Present Cost
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)
PC15	Price Control for NI Water for the years 2015-2021
PLC	Programmable Logic Controllers
PMICR	Post-Maintenance Interest Coverage Ratio
PNGL	Phoenix Natural Gas Limited
PRISMA	Joint capacity booking platform of major European Transmission System Operators
PTL	Premier Transmission Limited
RAB	Regulatory Asset Base
REMIT	Regulation on Energy Market Integrity and Transparency
Repex	Replacement Expenditure
RIGs	Regulatory Instructions and Guidance
RIIO	Ofgem’s framework for setting price controls for network companies. Revenue=Incentives+ Innovation+Outputs
RIIO-ED1	Price control that sets the outputs that the 14 electricity Distribution Network Operators in GB need to deliver for their consumers and the associated revenues they are allowed to collect for the eight-year period from 1 April 2015 to 31 March 2023.

RIIO-GD1	Price control that sets out the outputs that the eight Gas Distribution Networks in GB need to deliver for their consumers and the associated revenues they are allowed to collect for the eight-year period from 1 April 2013 until 31 March 2021.
ROI	Republic of Ireland
RPEs	Real Price Effects
RPI	Retail Price Index
RTU	Remote Telemetry Unit
SCADA	Supervisory Control and Data Acquisition
SEF	Social Enhancement Fund
SGN	SGN Natural Gas Limited
SNIP	Scotland to Northern Ireland Pipeline
SNP	South-North Pipeline
SSO	Single System Operation
TBD	To be defined
TO	Transmission Operator
TR	Transformer Rectifier
TRV	Total Regulatory Value: the Depreciated Asset Value plus any incentive adjustments including the profile adjustment.
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
WWU	Wales and West Utilities

1 Executive Summary

Introduction

- 1.1 This document represents the final determination for the GT17 price control process.
- 1.2 GT17 is the name given to the price control for the four high pressure gas networks in Northern Ireland (NI) relating to the period starting 1 October 2017 until 30 September 2022. The four gas conveyance licence holders for NI high pressure networks are:
- GNI (UK) Limited (GNI (UK));
 - Premier Transmission Limited (PTL);
 - Belfast Gas Transmission Limited (BGTL); and
 - West Transmission Limited (WTL).
- 1.3 In this final determination, we detail our decisions with respect to:
- Operating expenditure (opex) allowances;
 - Maintenance/replacement (repex) allowances; and
 - Weighted average cost of capital (WACC), where relevant.
- 1.4 A significant development in the regulatory regime will be the establishment of a single system operator for Northern Ireland on 1 October 2017. This will be a contractual joint venture (CJV) between the licence holders rather than a separate legal entity. We refer to this arrangement as the GMO NI (Gas Market Operator Northern Ireland) throughout this document.
- 1.5 Its operations will be funded through the existing licences. However, in determining the allowances for the GMO NI, we did so on the principle of the GMO NI being a single entity.
- 1.6 This final determination follows the publication of:
- GT17 approach and business plan templates on 30 June 2016;
 - Submission of the completed business plans by the licence holders in September/October 2016;
 - Publication of our draft determination on 16 December 2016; and
 - Consideration of the consultation responses received by 17 February 2017.

Our Statutory Duties and Regulatory Principles

- 1.7 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 NI. We do so consistently with our fulfilment of the objectives set out in the European Gas

Directive¹, and by having regard to a number of matters, as set out more fully in the Energy (Northern Ireland) Order 2003.

- 1.8 As GNI (UK), PTL, BGTL and WTL, in their respective geographical areas, 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.
- 1.9 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)², during a given period (the price control period).
- 1.10 In summary, 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;
 - Have regard to the need to 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.
- 1.11 It is our aim to do this by:
- Providing a strong foundation for the continued and long-term operation of the NI 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 the efficient operation.

Summary of Key Changes from Draft Determination

- 1.12 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 1.13 With respect to opex, changes to the MEL allowances include:
- Removed pipeline insurance costs for WTL in the year 2017-18 on the assumption that Gas to the West will not be fully operational until 1st October 2018;

¹ Directive 2009/73/EC of the European Parliament and the Council of 13 July concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC. The objective of this Directive is the creation of a fully operational market in natural gas. Respect for public service requirements is a fundamental requirement of the Directive, and definition of common minimum standards, which take into account the objectives of common protection, security of supply, environmental protection and equivalent levels of competition in all Member States is of importance. Measures implemented by the Member States should achieve the objectives of social and economic coherence, to include, in particular, the provision of adequate economic incentives.

² Price caps are not applicable to holders of high pressure conveyance licences in NI.

- Increased pipeline insurance;
- Increased allowance for board members and expenses contained within 'intra-company recharge';
- Decreased the allowance for 'mutualisation costs';
- Allowed 2 additional FTE (full time equivalent) and reflected updated staff mix in staff cost allowance;
- Increased the allowance for planned maintenance;
- Increased the allowance for grid control as the joint procurement of control room services requires further analysis that will be carried out during the GT17 period;
- Reduced the allowance for the decommissioning of the Aligne IT (information technology) system contained in 'Network Code Development';
- Allowed a SCADA (Supervisory Control and Data Acquisition) refresh in repex as opposed to opex;
- Corrected an error in the draft determination allowance for uncontrollable costs, leading to an increase.

1.14 Changes to the GNI (UK) allowances include:

- Reduced pipeline insurance;
- Increased intra-company recharge;
- Increased other overheads;
- Reflected updated staff mix in staff cost allowance;
- Increased pipeline inspection allowance;
- Increased asset management and compliance;
- Reduced allowance for fixed costs relating to Maintenance and Emergency Response Contract;
- Reduced routine maintenance;
- Increased drainage allowance.

1.15 Changes to the GMO NI allowances include:

- Increased the number of GMO NI staff;
- Revised the resource allowance allocation between GNI (UK) and MEL; and
- Increased contracts and licence allowance.

1.16 We have also decided to treat the GMO NI emergency management module with time to fail model as a 'relevant item'. This means that no allowance has been provided at this stage but the project will be considered during the price control period.

- 1.17 With respect to repex, we have undertaken significant engagement with TSOs³ since the publication of the draft determination. The companies have provided more detail, responded to queries and engaged with our consultants.
- 1.18 As a result, there has been a step change in the allowances provided for both MEL and GNI (UK). Key points to note include the following:
- a) Both MEL and GNI (UK) have seen an increase in their allowance based on better project justification and consideration of recommendations from our consultants;
 - b) The SCADA hardware refresh previously listed as an opex item has been included as a repex output for MEL;
 - c) The AGI (above ground installation) security project proposed by GNI (UK) will be treated as a 'relevant item'. This means that no allowance has been provided at this stage but the project will be considered in the price control period;
 - d) Plans of MEL to replace the Ballylumford water bath heating system will also be treated as a 'relevant item';
 - e) A list of defined outputs has been produced for TSOs. We intend to monitor this detail and publish performance. Any of the defined outputs deferred by the TSOs during this regulatory period will impact on further allowance provided in the next regulatory period.
- 1.19 We have also updated our frontier shift analysis to reflect latest OBR (Office for Budget Responsibility) forecasts from March 2017. The cumulative challenge has increased slightly from 4.5% to 4.7%. This is due to higher inflation forecasts and lower wage growth assumptions. Combining this impact results in a reduced real price effect.
- 1.20 With respect to financial aspects, we have in particular reassessed the Weighted Average Cost of Capital (WACC) value for GNI (UK). The result is an increase in the real WACC from 2.0% to 2.01%.⁴

Licence Holder-Specific Decisions

Detailed Approach

- 1.21 When assessing the appropriateness of the opex requests, we take the view 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.
- 1.22 However, a significant change in the price control period arises in the form of the West Transmission network moving from the construction stage to becoming fully operational during the price control period. This will raise certain costs such as maintenance and

³ 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.

⁴ We note that as part of our final determination we do not set the value of WACC for GNI (UK) per se but rather the values of the components which when combined in accordance with the formula set out in the GNI (UK) licence (Condition 2.2 Annex A Part 5 Rate of Return (a)) equate to the rate of return.

emergency response, but will simply spread other costs, such as intercompany recharges over a wider base.

- 1.23 With regard to those activities which in future will be delivered by the GMO NI, allowances have been reduced. We will not provide allowances to duplicate activity within the TSOs that in future will be the responsibility of the GMO NI.
- 1.24 As part of their business plans, TSOs submitted a list of repex projects for which they sought an allowance. In considering each project we followed a two stage approach. In the first stage we determined whether or not the project should be carried out during the price control period. For those projects that passed this first stage we then, in the second stage, considered what the appropriate allowance would be.
- 1.25 In making assessments of the efficient level of spend required, we took into consideration advice from our consultants as to the reasonableness of costs. In order to reach the final determination, we have considered their views alongside:
- a) TSO representations;
 - b) Internal engineering advice;
 - c) Experience from other utilities; and
 - a) Benchmarking (where possible).
- 1.26 In line with regulatory practice and historic precedent, we have applied an efficiency challenge to both controllable opex and repex to account for frontier shift.

BGTL, PTL and WTL

- 1.27 PTL, BGTL and WTL are all part of the Mutual Energy Group (MEL). These companies are all subject to a 'mutualised' model.⁵ In this model NI gas consumers absorb deviations between forecast and actual operating costs in return for an absence of equity.

⁵ WTL are not mutualised in the sense of PTL and BGTL as yet. They do however operate a cost pass through mechanism for operating costs.

Table 1: Total allowance for MEL (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination*					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex – non-GMO NI	33.9	29.7	6.7	5.8	6.4	5.3	6.5	30.7
Controllable Opex – GMO NI	4.6	2.8	0.7	0.8	0.8	0.7	0.7	3.6
Asset Replacement – Repex	4.9	1.9	0.5	0.8	1.3	0.6	0.1	3.4
Uncontrollable Costs	45.7	45.0	11.1	8.6	8.7	8.7	8.7	45.7
Capital Repayments	81.7	81.7	13.0	16.8	17.1	17.3	17.6	81.7
Total	170.9	161.1	32.1	32.8	34.2	32.6	33.5	165.2

Figures may not sum due to rounding

**£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.*

- 1.28 Table 1 sets out the post efficiency allowances for the MEL businesses across the GT17 price control period.
- 1.29 For PTL and BGTL, rate of return on capital is excluded from the price control review process. Both these licence holders are entirely funded by debt finance in the form of a long-term bond.
- 1.30 The repayments on this bond, including principle and interest, will be made in accordance with a predetermined schedule that has been previously agreed by the UR. There is therefore no provision in either of these licences to review the rate of return.
- 1.31 The WACC (Weighted Average Cost of Capital) for WTL (1.98%) was established by the competitive process to award the Gas to the West (GtW) high pressure licence. This figure was based on prevailing market conditions in April 2014.
- 1.32 At the time we made it clear that we would revise this figure if there was a significant shift in market conditions. Following consideration of the evidence presented, we will not propose licence modifications to change the WTL WACC as part of this price control review.

GNI (UK)

- 1.33 GNI (UK) is a subsidiary of Gas Networks Ireland, which is a subsidiary of Ervia, a utility infrastructure company owned by the government of the Republic of Ireland. GNI (UK) is subject to a traditional 'revenue cap' incentive framework which provides a strong incentive to manage costs. In order to reduce cash flow risk the licence contains two adjustment mechanisms in relation to operating expenditure:

- Licence condition 2.2.4(i) allows GNI (UK) to request a special operating expenditure review if actual controllable operating expenditure in any gas year differs from the most recently agreed forecast by more than 15%. The UR may substitute an amended figure following such a review.
- Licence condition 2.2.4(j) allows GNI (UK) to seek the UR approval to recover unforeseen operating expenditure.

1.34 We consider that these mechanisms are sufficient to provide GNI (UK) with adequate protection against risks. In particular, this includes unforeseen IT (information technology) development costs related to the GMO NI, and/or repex projects for which no allowance is made at the time of the price control determination but which we subsequently allow during the price control period due to new information provided by GNI (UK).

Table 2: Total allowance for GNI (UK) (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex – non-GMO NI	22.1	18.4	3.7	4.0	3.7	3.8	3.8	18.9
Controllable Opex – GMO NI	2.7	2.5	0.4	0.4	0.4	0.4	0.4	2.0
Asset Replacement – Repex	5.9	0.4	0.3	0.5	0.6	0.6	0.2	2.3
Uncontrollable Costs	9.1	9.1	1.8	1.8	1.8	1.9	1.9	9.1
Capital Repayments	56.2	54.3	10.6	10.6	10.6	10.6	10.6	52.9
Total	95.9	84.6	16.8	17.3	17.1	17.2	16.8	85.1

Figures may not sum due to rounding

1.35 Table 2 sets out the post efficiency allowances for GNI (UK) across the GT17 price control period.

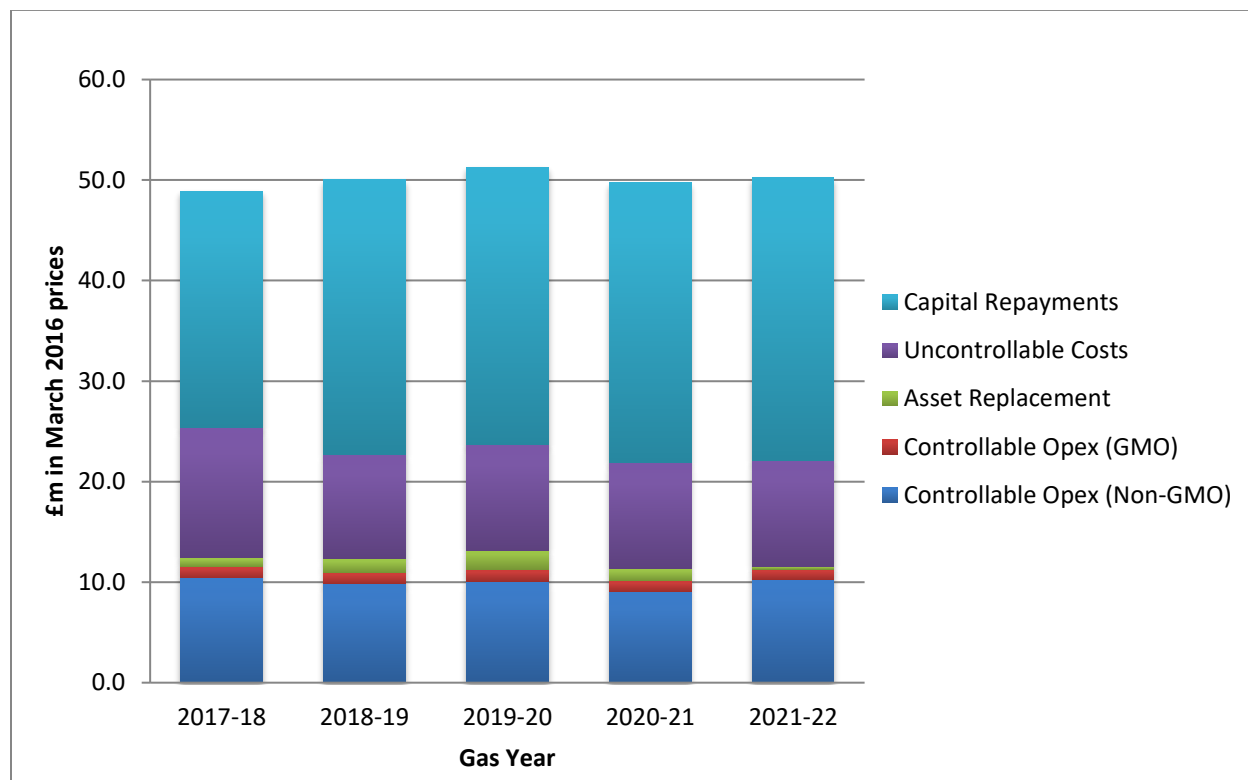
1.36 Based on a review of the latest market data on the prevailing cost of debt and an updated view on the appropriate asset beta for GNI (UK), we have marginally increased our (WACC) value for GNI (UK) from 2.00% in the draft determination to 2.01%. After consideration of the CPI-RPI adjustment, this equates to a WACC of 3.17% for the GNI (UK) financial model.

Industry

1.37 On an industry basis the overall allowance is approximately £50.1m p.a. in real terms against a request of £53.4m. As shown in Figure 1, the figures forecast that the

postalised tariff revenues should remain fairly constant in real terms throughout the period.

Figure 1: Revenue allowance for gas industry by cost category – March 2016 prices



1.38 For domestic gas tariffs in Northern Ireland, the consumer bill is made up of the distinct cost elements shown in Table 3:

Table 3: Supply price split by cost element – April 2016

Cost Category	Greater Belfast	Ten Towns
Transmission network costs	11.7%	8.5%
Distribution network costs	37.0%	41.3%
Wholesale gas costs	41.2%	37.5%
Supply retail costs	10.1%	12.7%
Total	100%	100%

Figures may not sum due to rounding

- 1.39 Assuming domestic usage of 12,500 kWh⁶, the average gas bill is currently around £535 per annum. From the table above it can be seen that approximately 10% (+£50) of this is related to the transmission network.
- 1.40 The impact of implementing the business plans submitted by the companies would be an approximate £5 real terms uplift in the annual bill for domestic consumers. This compares to an approximate £2 increase in the final determination. The final determination therefore results in an approximate £3 saving per annum for domestic customers compared to the company submissions. For industrial and commercial customers, the savings arising from the final determination compared to the business plans will be higher.

Further Issues

- 1.41 In our approach document we stated that as part of the price control we would make a decision as to whether or not there needed to be a review of the governance of MEL, with the review to take place in the next price control period.
- 1.42 The last review of the relevant governance arrangements was carried out in 2008. As a matter of best regulatory practice we intend to carry out a review of existing arrangements during the price control period.
- 1.43 As noted in our approach we consider that the value of the Social Enhancement Fund in providing appropriate incentives to managers is not clear. Having taken note of the response received from MEL, we consider the future of this mechanism and the funds already retained by it should form part of our proposed governance review.
- 1.44 In the meantime no further monies will be allocated to the fund and all future operating cost savings will be returned directly to consumers at the end of the gas year. This will be achieved by setting the 'z' factor to zero each year. This will have immediate effect, commencing with the 2016-17 gas year reconciliation process.
- The current licence does not make provision for the calculation of allowed revenue post the revenue recovery period. The issue of setting allowances after the Revenue Recovery Period is a significant matter requiring due consideration. We therefore intend to address the issue more fully at the next price control review.
- 1.45 It is also our intention to develop the annual cost reporting process further to provide information on company performance during the price control period, including publication of key cost and output metrics.
- 1.46 We furthermore expect the TSOs to collaboratively conduct a feasibility study and produce an implementation plan, by no later than 1 October 2019, for the establishment of a single control room for Northern Ireland.
- 1.47 We furthermore expect the licence holders to consider during the price control period cost-efficiencies and effectiveness of different options of engagement with regard to post Brexit arrangements.
- 1.48 We furthermore expect the TSOs to further improve their asset management information during the price control period and to integrate this into the next price control review.

⁶ Whilst 12,500 kWh is the standard used for comparisons, consumption in NI tends to be lower than this. As such, the average bill may be overestimated for NI consumers.

2 Introduction

Purpose of this Document

- 2.1 This document represents the final determination for the GT17 price control process. GT17 is the name given to the price control for the four high pressure gas networks in Northern Ireland (NI) relating to the period starting 1 October 2017 until 30 September 2022. The four gas conveyance licence holders for NI high pressure networks are:
- GNI (UK) Limited (GNI (UK));
 - Premier Transmission Limited (PTL);
 - Belfast Gas Transmission Limited (BGTL); and
 - West Transmission Limited (WTL).
- 2.2 GNI (UK) is a subsidiary of Gas Networks Ireland, which is a subsidiary of Ervia, a utility infrastructure company owned by the government of the Republic of Ireland. GNI (UK) is subject to a traditional 'revenue cap' incentive framework.
- 2.3 PTL, BGTL and WTL are all part of the Mutual Energy Group (MEL). These companies are all subject to a 'mutualised' model.⁷ In this model NI gas consumers absorb deviations between forecast and actual operating costs in return for an absence of equity funding/returns from the business.
- 2.4 For WTL, this price control only makes allowances for 2018-19 to 2020-21. Prior to the first operational commencement date, WTL is funded through the mechanism set out in condition 4.5.9 of the NIHE licence.⁸
- 2.5 In this final determination, we detail decisions with respect to:
- Operating expenditure (opex) allowances;
 - Maintenance/replacement (repex) allowances; and
 - Weighted average cost of capital (WACC), where relevant.
- 2.6 In setting out allowances for an efficient level of opex for the review period, we differentiate between:
- Uncontrollable expenditure the level of which is fully outside the control of the licence holder; and
 - Controllable operating expenditure, i.e. any operating expenditure not classified as uncontrollable.

⁷ WTL are not mutualised in the sense of PTL and BGTL as yet. They do however operate a cost pass through mechanism for operating costs.

⁸ Pipeline insurance costs were removed from the 2017-18 allowance for this reason. The remaining cost for WTL in 2017-18 was £0.5m. Like pipeline insurance, this is not being allowed in this price control. Unlike pipeline insurance, however, the £0.5m is not a standalone cost that can be removed, but it is a function of the total MEL cost and spread throughout the cost lines. Therefore, while the £0.5m has been included in some of the tables, it is not being allowed as part of the price control. A footnote has been added to the tables where this is applicable.

- 2.7 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.
- 2.8 In the case of GNI (UK), the allowance for controllable opex represents a fixed amount the licence holder will recover from consumers. Any variation between this allowance and actual controllable 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.
- 2.9 In the case of MEL, the allowance for controllable opex represents merely a forecast of future outcomes. Actual allowances that the licence holder will recover from consumers will vary with actual controllable opex 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 NI gas consumer.
- 2.10 However, we continue to determine an efficient level of operating costs as if a 'revenue cap' was in place during what has previously been described as a 'shadow' price control. The licence holders then have a reputational incentive to manage costs effectively in line with the determined 'shadow' allowance.
- 2.11 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.
- 2.12 A significant development in the regulatory regime will be the establishment of a single system operator for Northern Ireland on 1 October 2017. This will be a contractual joint venture (CJV) between the licence holders rather than a separate legal entity. We refer to this arrangement as the GMO NI (Gas Market Operator Northern Ireland) throughout this document.
- 2.13 Its operations will be funded through the existing licences. However, in determining allowances for the GMO NI, we did so on the principle of the GMO NI being a single entity.
- 2.14 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 formation.
- 2.15 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 is building the GttW (Gas to the West⁹) network, capital allowances are set in accordance with a completely separate methodology outside the price control process.
- 2.16 However, maintenance/replacement expenditure (repex) to replace or upgrade existing equipment has been considered. It is treated in the same way as controllable opex.
- 2.17 As with opex and repex, the cost of capital has a different treatment depending on the particular licence holder. In the case of both GNI (UK) and WTL, we are required to

⁹ This is the name of the project aiming to extend the natural gas network to other areas of the province, namely Dungannon, Cookstown, Magherafelt, Enniskillen, Omagh and Strabane.

review the rate of return at each review.¹⁰ For PTL and BGTL, the rate of return on capital is excluded from the price control process. Both these licence holders are entirely funded by debt finance in the form of a long-term bond. The repayments on this bond, including principle and interest, will be made in accordance with a predetermined schedule that has been previously agreed by the UR. There is therefore no provision in either of these licences to review the rate of return.

2.18 Table 4 provides an overview of the key outputs of the GT17 price control process for each licence holder.

Table 4: Price control output by licence holder

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 ¹¹	Allowance forecast at price control review but actual allowance matches actual costs			
Maintenance/repex expenditure	Allowance fixed at review	Allowance forecast at review but actual allowance matches actual costs		
Weighted average cost of capital	Allowance fixed at review	Not applicable	Not applicable	Allowance fixed at review

2.19 This final determination details the decisions of the UR with respect to the GT17 price control period on:

- Price control allowances;
- Incentive mechanisms; and
- Outputs.

2.20 It also considers the expected impact of these decisions on consumers.

Our Statutory Duties and Regulatory Principles

2.21 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 NI. We do

¹⁰ We note that as part of our final determination we do not to set the value of WACC for GNI (UK) per se but rather the values of the components which when combined in accordance with the formula set out in the GNI (UK) licence (Condition 2.2 Annex A Part 5 Rate of Return (a)) equate to the rate of return.

¹¹ All uncontrollable operating expenditure is non GMO expenditure; there is no uncontrollable GMO expenditure.

so consistently with our fulfilment of the objectives set out in the European Gas Directive¹², and by having regard to a number of matters, as set out more fully in the Energy (Northern Ireland) Order 2003.

- 2.22 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.
- 2.23 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.
- 2.24 By subjecting monopoly service providers to external challenge, independent economic regulation helps ensure that they continue to act in the consumer interest.
- 2.25 Economic regulators also impose budgetary constraints on the regulated company or companies (while at the same time having regard to the need to ensure that licence holders are able to finance activities which are the subject of obligations imposed on them under Part II of the Gas (Northern Ireland) Order 1996 or the Energy (Northern Ireland) Order 2003). 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.
- 2.26 As GNI (UK), PTL, BGTL and WTL in their respective geographical areas, are the only monopoly providers of high pressure gas networks, a regulatory framework has been put in place to protect the final consumers. In our role as economic regulator, we take action if we consider that either of the companies underperforms or operates less efficiently than its peers. We also set targets for improvement.
- 2.27 An important part of this regulatory framework are 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)¹³, during a given period (the price control period).
- 2.28 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.

¹² Directive 2009/73/EC of the European Parliament and the Council of 13 July concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC. The objective of this Directive is the creation of a fully operational market in natural gas. Respect for public service requirements is a fundamental requirement of the Directive, and definition of common minimum standards, which take into account the objectives of common protection, security of supply, environmental protection and equivalent levels of competition in all Member States is of importance. Measures implemented by the Member States should achieve the objectives of social and economic coherence, to include, in particular, the provision of adequate economic incentives.

¹³ Price caps are not applicable to holders of high pressure conveyance licences in NI.

- 2.29 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 costs and consumer tariffs, on the environment and greenhouse gas emissions and on customer service.
- 2.30 In summary, 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;
 - Have regard to the need to 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.
- 2.31 It is our aim to do this by:
- Providing a strong foundation for the continued and long-term operation of the NI 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 the efficient operation.
- 2.32 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.
- 2.33 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.
- 2.34 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.
- 2.35 We are a non-ministerial government department, accountable to the NI Assembly.

Market Overview

- 2.36 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 135 km 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.

- 2.37 The Belfast Gas Transmission Pipeline (BGTP) comprises a further 26 km 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.
- 2.38 The North-West Pipeline (NWP) extends a further 112 km of 450 mm pipeline from Carrickfergus to supply the power station at Coolkeeragh. The NWP is owned and operated by GNI (UK) Ltd.
- 2.39 A 450 mm pipeline connecting the Interconnector System to the NWP was built in 2006. This pipeline, called the South-North Pipeline (SNP), is 156 km long and extends from the IC2 (interconnector 2)¹⁴ landfall at Gormanston, Co. Meath in Ireland to Ballyalbanagh on the NWP, approximately 12 km west off the Carrickfergus AGI¹⁵ (above-ground installation). This pipeline facilitates supplies to towns and industries in the corridor from Newry to Belfast.
- 2.40 The towns and industries along the NWP are currently supplied by flow from SNIP, the BGTP and the NWP via Ballyalbanagh. However, if needed, the SNP will be able to support the SNIP pipeline with flows from Gormanston in meeting increased demand levels in Northern Ireland.

Structure of this Document

- 2.41 This document is structured in a number of different chapters, each addressing a different aspect of the price control.
- Chapter 1 – Executive Summary provides an overview of the key findings and key decisions of this price control process;
 - Chapter 2 – Introduction provides an overview of the purpose of this GT17 final determination, our statutory duties and regulatory principles as well as the NI high pressure gas market;
 - Chapter 3 – Approach provides an overview of the price control process and key aspects of same;
 - Chapter 4 – Operating Expenditure (Opex) details the opex allowances requested by each licence holder, our assessment of same, as well as our final determination on pre-efficiency allowances for GT17;
 - Chapter 5 – Replacement Expenditure (Repex) details the allowances requested by each licence holder, our assessment of same, as well as our final determination on pre-efficiency allowances for GT17;
 - Chapter 6 – Efficiency Analysis shows our decisions on real price effects, frontier shift efficiency challenge and final determination on post efficiency allowances;
 - Chapter 7– Incentives and Innovation details our view with respect to incentive and adjustment mechanisms as well as to the funding of innovation initiatives;
 - Chapter 8 – Financial Aspects discusses different issues relating to the finance implications of the price control, including rate of return, financeability and repayments;

¹⁴ IC2 is a 195 km sub-sea pipeline that runs from Beattock in southwest Scotland to Gormanston, Co. Meath, Ireland.

¹⁵ Before gas is delivered to end users, the pressure is reduced at AGI stations.

- Chapter 9 – Outputs and Allowances summarises key aspects of the price control final determination relating to GT17 outputs, impact on consumer bills and environmental impacts; and
 - Chapter 10 – Further Issues provides an overview of the further issues we propose to address pursuant to the determination.
- 2.42 These chapters are complemented by a set of appendices and annexes. For further details see sections Appendices and Annexes respectively.
- 2.43 Where relevant and appropriate, the chapters of this GT17 final determination are structured in a consistent way as follows:
- Summary of key changes from draft determination to final determination;
 - Detailed Approach – UR Decisions;
 - MEL – UR Decisions; and
 - GNI (UK) – UR Decisions.
- 2.44 The detailed approach section provides, as the name suggests, the approach we used in arriving at our price control decisions for that area. This may include background information, considerations and proceedings applicable to some or all of the licence holders.
- 2.45 The licence holder-specific sections detail the implications arising for each licence holder from applying our detailed approach. This may include details on values, parameters, targets and/or outputs.
- 2.46 We consider that this structure will help increase the readability of this final determination through reducing duplication and enabling each licence holder to quickly identify the sections of the document relevant to it.

3 Approach

Summary of Key Changes from Draft Determination

- 3.1 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 3.2 In addition the section has been updated to reflect the further stakeholder engagement that has taken place since the publication of the draft determination in December 2016.

Price Control Process

Timelines and Stages

- 3.3 The key milestones of this GT17 price control process are summarised in Table 5.

Table 5: Key milestones up to publication of the GT17 final determination

Key Milestones	Date
Approach document ¹⁶ and business plan template ¹⁷ published	30 June 2016
Consultation on approach closed	19 August 2016
Licence holders information submission	September/October 2016
Publication of draft determination	16 December 2016
Consultation on draft determination closed	17 February 2017
Notice of proposals to modify gas conveyance licences published	12 April 2017
Consultation on licence modifications closed	10 May 2017
Notice of decision to modify gas conveyance licences published	2 June 2017
Licence modifications effective date	1 August 2017
GT17 final determination published	1 August 2017
Start of the GT17 price control period	1 October 2017

Price Control Principles

3.4 In addressing the key areas of this price control, we were 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:

- Areas of high expenditure receive substantially more scrutiny and analysis than low value items, along with new additional capital replacement expenditure where we expected more detailed evidence to justify allowances;
- Comparisons are used where appropriate to ensure that allowances are efficient and that targets are reasonable but challenging;
- Capital replacement allowances are closely aligned to clearly defined outputs and relevant drivers;

¹⁶ [Utility Regulator: Price Control for Northern Ireland's Gas Transmission Networks GT17, Proposed Approach, 30 June 2016.](#)

¹⁷ [Business Plan Reporting Template.](#)

- The price control is based on a standard RPI¹⁸-X framework, which provides licence holders with an incentive to control their costs through the setting of efficiency targets and adjustment of allowances at subsequent price controls;
 - Allowances are not given for profit margins to any affiliated business to which contracts have been awarded; and
 - Allowances are not given for contingency elements within budgets.
- 3.5 We have adopted a light touch approach if:
- There was evidence to show that the licence holder is comparatively efficient; and
 - Past costs are a strong indicator of future costs.
- 3.6 We have adopted a more detailed approach if:
- The licence holder was comparatively inefficient;
 - Past costs are a weak indicator of future costs; or
 - Cost lines are increasing and are of a material nature.
- 3.7 We required licence holders to provide the data necessary to support a robust assessment of expenditure and outputs. Where there was insufficient data, we adopted an approach to funding which was prudent but conservative.
- 3.8 We considered as part of our price control, where relevant and appropriate, best practice relating to other price controls. This included findings from our project to make network price controls more consistent, by adopting cross-utility approaches, principles and standards of regulation.
- 3.9 One of our objectives was to ensure that the information we required from the licence holders was proportionate but sufficient to:
- Allow licence holders to communicate their business plans to us in a clear and effective manner; and
 - Ensure that we could submit the plans to effective and focused scrutiny.
- 3.10 For the purposes of clarity all financial figures in this document are given in March 2016 prices unless otherwise stated.

Stakeholder Engagement

- 3.11 In June 2016 we published an approach document setting out how we intended to conduct the price control review. We received three responses from MEL, GNI (UK) and the Consumer Council for Northern Ireland (CCNI).
- 3.12 While all three broadly supported the approach we set out, each raised specific issues which we took into account when reaching the draft determination published on 19 December 2016.
- 3.13 During the consultation period that followed the publication of the draft determination we met with a number of stakeholders, including consumer representative groups such as the Major Energy Users Council (MEUC) and Manufacturers Northern Ireland (MNI).

¹⁸ Retail Price Index.

- 3.14 The consultation closed on 17 February 2017 and generated seven written responses from, GNI (UK), MEL, WTL, CCNI, MEUC, MNI and ESB (Electricity Supply Board). The individual issues raised in each of these replies and our response are set out in Annex 7.
- 3.15 In addition to the formal consultation process we have also engaged in an ongoing dialogue with licence holders with regard to their business plan submissions and consultation responses.
- 3.16 This has been a pro-active and focussed evidence gathering process involving not only ourselves and the licence holders but also our expert advisors. The goal of this process was to provide licence holders with the maximum opportunity to provide us with the evidence we considered necessary to make objective final determination on the level of allowances to be granted over the price control period.

4 Operating Expenditure (Opex)

Summary of Key Changes from Draft Determination

General

- 4.1 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.

MEL

- 4.2 Changes to the MEL allowances included:

- Removed pipeline insurance costs for WTL in the year 2017-18 on the assumption that Gas to the West will not be fully operational until 1st October 2018;
- Increased pipeline insurance;
- Increased allowance for board members and expenses contained within 'intra-company recharge';
- Decreased the allowance for 'mutualisation costs';
- Allowed 2 additional FTE (full time equivalent) and reflected updated staff mix in staff cost allowance;
- Increased the allowance for planned maintenance;
- Increased the allowance for grid control as the joint procurement of control room services requires further analysis that will be carried out during the GT17 period;
- Reduced the allowance for the decommissioning of the Aligned IT (information technology) system contained in 'Network Code Development';
- Allowed a SCADA (Supervisory Control and Data Acquisition) refresh in repex as opposed to opex;
- Corrected an error in the draft determination allowance for uncontrollable costs, leading to an increase.

GNI (UK)

- 4.3 Changes to the GNI (UK) allowances included:

- Reduced pipeline insurance;
- Increased intra-company recharge;
- Increased other overheads;
- Reflected updated staff mix in staff cost allowance;
- Increased pipeline inspection allowance;
- Increased asset management and compliance;

- Reduced allowance for fixed costs relating to Maintenance and Emergency Response Contract;
- Reduced routine maintenance;
- Increased drainage allowance.

GMO NI

- 4.4 Changes to the GMO NI allowances included:
- Increased the number of GMO NI staff;
 - Revised the resource allowance allocation between GNI (UK) and MEL; and
 - Increased contracts and licence allowance.
- 4.5 We have also decided to treat the GMO NI emergency management module with time to fail model as a 'relevant item'. This means that no allowance has been provided at this stage but the project will be considered during the price control period.

Detailed Approach – UR Decisions

Overview

- 4.6 As outlined in the draft determination, when assessing the appropriateness of the opex requests, we take the view that costs should be in line with past allowances/actual costs¹⁹ 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.
- 4.7 However, a significant change in the price control period arises in the form of the West Transmission network moving from the construction stage to becoming fully operational during the price control period. This will raise certain costs such as maintenance and emergency response, but will simply spread other costs, such as intercompany recharges over a wider base.
- 4.8 Opex is grouped into three main areas:
- Controllable opex (non-GMO NI);
 - Controllable opex (GMO NI); and
 - Uncontrollable opex.
- Repex is covered separately in chapter 5.
- 4.9 For more information on what is included within each cost line displayed in the tables in this opex section, please see the [TSO Business Plan Reporting Requirements](#).
- 4.10 Uncontrollable expenditure is that which is fully outside the control of the licence holder. In line with the draft determination, we treat the following costs as uncontrollable:
- Business rates;

¹⁹ When considering actuals for the last price control period we have, unless explicitly stated otherwise, focussed on the GT17 business plan figures. It should however be noted that for 2015-16 and 2016-17, the data provided are estimated forecasts and not actual expenditure.

- Licence fees;
 - Compressor fuel;
 - Scottish costs²⁰; and
 - Stranraer/Dundalk income²¹.
- 4.11 In other price controls for gas distribution, electricity and water, business rates are typically no longer considered to be uncontrollable.²² We have not changed the classification of business rates as uncontrollable on this occasion as we had not previously given notice of any such intention and to maintain consistency with previous price control decisions for high pressure licence holders. We will consider in preparation of the next price control process if rates should continue to be reported on and treated as uncontrollable opex, as is currently the case, or as controllable opex as is the case in other price controls.
- 4.12 Controllable opex (GMO NI) represents the total operating expenditure of the GMO NI. The GMO NI is not a legal entity and cannot be granted a licence. The funding of the GMO NI will therefore be via the existing licences. Allocation of GMO NI to the individual licence holders is based on responsibility for the various activities funded.
- 4.13 Controllable opex (non-GMO NI) represents the cumulative system operation costs remaining for a licence holder after consideration of controllable opex (GMO NI) and uncontrollable opex.
- 4.14 With regard to those activities which in future will be delivered by the GMO NI, allowances have been reduced. We will not provide allowances to duplicate activity within the TSOs²³ that in future will be the responsibility of the GMO NI.
- 4.15 In the draft determination it was assumed GMO NI costs would be shared evenly. It has since transpired that the majority of GMO NI staff will come from MEL and so the majority of the staff allowance should be allocated to MEL. We have amended the business plan figures to account for this request.
- 4.16 All costs shown in this section are pre-efficiency and are in £ millions.

Bottom-up Assessment

Overview

- 4.17 For GT17 we adopted a common cost reporting template for the TSOs. The purpose of this was to provide comparability, certainty and an understanding of cost movements over time.
- 4.18 When developing the cost reporting template, we consulted with the licensees and provided guidance on what should be included in the cost lines of the new reporting

²⁰ These are charges associated with the arrangements in Scotland e.g. transportation agreement capacity costs, Beattock compressor station costs (excluding fuel) and Beattock major capital works costs as well as maintenance or modification costs for the South West Scottish Onshore System.

²¹ Income received from the services provided to Stranraer or Dundalk.

²² See e.g. [Utility Regulator: Price Control for Northern Ireland's Gas Distribution Networks GD17, Final Determination, 15 September 2016](#),

²³ 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.

template. This allows us to have consistent and comparable views of the cost submitted by all the licensees.

- 4.19 In the bottom-up analysis we looked at each individual line separately and the justification for such costs. The overall allowance reflects the sum of the individual parts.
- 4.20 As part of our assessment of the opex allowances requested by the licence holders we have sought the view of external consultants on selected aspects. In particular, external consultants have provided specialist advice on maintenance/repex cost and assisted with the assessment of IT costs. Their reports are provided as Annex 3 (Rune Report – MEL), Annex 4 (Rune Report – GNI (UK)) and Annex 5 (Gemserv Report – GT17 IT Issues) to this document.
- 4.21 We have also considered the potential for comparative analysis with data for high pressure licence holders in other jurisdictions such as GB (Great Britain) and ROI (Republic of Ireland). However, we found that comparability of data and hence potential for such an analysis was limited at this stage. We note, however, that better facilitation of comparative analysis through enhancement of the annual cost reporting basis is something we may consider going forward.

MEL – UR Decisions

Overview

- 4.22 We considered the submissions from PTL, BGTL and WTL separately and made separate determinations for each. These are shown in Appendix 1: Pre-efficiency Opex Allowances. Here we present the final determination with respect of opex on an overall level for MEL.
- 4.23 The bottom-up approach has been the method used to arrive at the final determination for MEL. The tables below show:
- The total requested from the licence holder aggregated over the five years of the price control period;
 - The total draft determination allowance aggregated over the five years of the price control period; and
 - The total final determination allowance for each year of the price control period and aggregated across all these years.
- 4.24 For a year-on-year breakdown of final determination figures by cost line, see Appendix 1: Pre-efficiency Opex Allowances.

Bottom-up Assessment

Overview

Table 6: MEL – Final determination for pre-efficiency opex

Cost Category	BP ²⁴ Request £m	DD ²⁵ £m	Final Determination*					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex non-GMO NI								
Administration	7.6	6.9	1.3	1.4	1.6	1.5	1.4	7.1
Staff Costs (excluding GMO)	4.4	4.0	0.7	0.7	0.7	0.7	0.7	3.6
Planned Maintenance	14.2	13.8	3.4	2.5	2.9	2.0	3.3	14.2
Unplanned Maintenance	1.7	1.7	0.3	0.3	0.3	0.3	0.3	1.7
System Operation	6.1	4.3	1.1	1.0	1.1	1.0	1.0	5.2
GMO NI								
GMO NI Costs (for MEL)	4.6 ²⁶	2.9	0.7	0.8	0.8	0.7	0.7	3.8
Uncontrollable Opex								
Uncontrollable Costs	45.7	45.0	11.1	8.6	8.7	8.7	8.7	45.7
Total	84.3	78.5	18.7	15.4	16.1	14.9	16.2	81.2

Figures may not sum due to rounding

*£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.²⁷

- 4.25 Our decision is to allow £81.2m for the GT17 period for total opex (prior to efficiency). This represents c96% of the submission of £84.3m.
- 4.26 Final determination allowances are lower than the business plan requests in all of the areas shown in Table 6 above with the exception of planned maintenance, unplanned maintenance and uncontrollable costs. The reasons for the reductions in the non-GMO NI opex are discussed below.
- 4.27 The GMO NI line refers purely to the MEL element of the single system allowance. GMO NI costs are discussed in detail in section GMO NI – UR Decisions below.

²⁴ Business Plan.

²⁵ Draft Determination.

²⁶ Note that this figure has been updated from the draft determination to reflect the further information received since on the staff cost allocation between MEL and GNI (UK). The overall business plan request figure for the GMO across MEL and GNI (UK) remains unchanged.

²⁷ For further details see paragraph 2.4.

Controllable Non-GMO NI Expenditure

Table 7: MEL – Final determination for administration

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Pipeline Insurance	3.1	2.7	0.5	0.6	0.6	0.6	0.6	3.0
Intra-company Recharge	1.9	1.5	0.3	0.4	0.4	0.4	0.4	1.8
Other Overheads	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.4
Mutualisation Costs	2.3	2.3	0.4	0.3	0.4	0.4	0.4	1.9
Total	7.6	6.9	1.3	1.4	1.6	1.5	1.4	7.1

Figures may not sum due to rounding

- 4.28 In the draft determination, it was our view that the WTL element of the pipeline insurance was high given the small amount of additional pipeline. We reduced the WTL pipeline insurance to £214k which is in line with the insurance cost per km of the existing GNI (UK) pipeline network.
- 4.29 Following the publication of the draft determination, MEL provided evidence, in the form of quotations, that the pipeline insurance for WTL was likely to be along the lines of the amount requested by MEL. We have increased the allowance for pipeline insurance to the amount requested on this basis. We have not allowed pipeline insurance costs for WTL for 2017/18 as these costs do not form part of the price control.²⁸
- 4.30 In the draft determination, we reduced intra-company recharge on the basis that the salary paid to non-executive directors was high. In the consultation period it became clear this cost line includes executive directors, and not non-executive directors.
- 4.31 For this reason, we have increased from our DD (draft determination) position to the requested amount less a 10% reduction. The reduction reflects the reductions made to average cost per FTE throughout MEL that was made as a result of benchmarking²⁹.
- 4.32 The non-executive director fees, now included in mutualisation costs, still seem high. The MEL annual report for 2016 shows a salary of £77k for the chair and £34k for other non-executives.
- 4.33 We have reduced the allowance for this element by 50% as this would be equivalent to an annual cost allowance of £38,500 for the chairperson and £16,750 for a non-executive director. We compared MEL costs to those in other utilities including Ervia, NI Water, Eirgrid as well as to the UR and we found MEL costs to be high. An average of these four benchmarks is £34,096 for the chairperson and £13,024 for non-executive directors. Therefore, we consider reducing MEL's costs by 50% in this area not to be unreasonable. We consider furthermore that the allowance, which covers all costs associated with the recruitment and remuneration of non-executive Board members, is

²⁸ For further details see paragraph 2.4.

²⁹ For further details see paragraphs 4.38-4.40.

reflective of MEL's unique business structure. The result is a determination of £1.9m for mutualisation costs against a submission amount of £2.3m.

All other administration costs have been allowed as requested. Overall, our administration cost allowances represent c93% of the amount requested.

Table 8: MEL allowed FTE

Staff Category	GT12 – Average Number of FTE	GT17 – Average Requested FTE	GT17 – Average Allowed FTE
Non-GMO NI Staff – Support	2.5	3	2.5
Non-GMO NI Staff – Engineering	4.8	6.3	5.8
GMO NI Staff	4.2 ³⁰	7 ³¹	6
Total Staff	11.5	16.4	14.3

Figures may not sum due to rounding

- 4.34 In their business plan submission, MEL requested an allowance of 1.9 FTE above the average across all years of the GT12³² period. This is made up of an additional 0.5 FTE for support staff (2.5 increasing to 3), an additional 1.5 Engineers (4.8 increasing to 6.3) and a reduction of 0.2 staff doing GMO NI work (4.2 reducing to 4)³¹.
- 4.35 We have allowed more FTE in this final determination than in the draft determination. However, we have changed the mix of staff. We have considered the requests and allowed 1 additional FTE in engineering compared to GT12 to account for increased workload resulting from the aging network and for bringing the work of agency staff in house. From the information provided by MEL, we considered that the further 0.5 engineer as well as the additional 0.5 FTE for support staff were not sufficiently justified.
- 4.36 The allowance of 6 FTEs for GMO NI staff is based on 4 FTEs coming from the existing MEL staff base and 2 FTEs being additional to the industry and recruited by MEL. Further details on this are provided in section GMO NI – UR Decisions below.

³⁰ It is recognised that there was no single system operation during the GT12 price control period. However, MEL indicated that 4.2 FTE were performing GMO-type activities during that time.

³¹ For the draft determination, we assumed a request for 4 FTE for the GMO. This was based on a 50/50 split of the requested 8 FTE. It has since been confirmed that 1 FTE for the GMO will be coming from GNI (UK) and that the remainder will be coming from or recruited through MEL. We have updated the GMO staff figures accordingly in Table 8.

³² This is the name given to the price control period 2012/13 to 2016/17.

Table 9: MEL – Final determination for staff costs (excluding GMO NI)

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Support Staff	1.0	0.9	0.2	0.2	0.2	0.2	0.2	0.8
Engineering Staff	3.3	3.0	0.6	0.6	0.6	0.6	0.6	2.8
Total	4.4	4.0	0.7	0.7	0.7	0.7	0.7	3.6

Figures may not sum due to rounding

- 4.37 In MEL’s submission, a total of £4.4m (excluding GMO NI) was estimated for staff costs in the GT17 period.
- 4.38 We compared MEL’s direct salary costs per FTE of around £67k in 2014-15 to direct salary costs of other regulated companies in the utility sector³³. After adjusting for differences in regional rates, we found MEL’s cost per FTE to be high as the average of the benchmarked companies was £56k. Given that MEL have a relatively small group over which senior management costs are spread, we also made comparisons, where possible³⁴, excluding senior management costs. This also supported our view that MEL’s costs were high.
- 4.39 Since the draft determination, we have not received any evidence that would change our view that MEL’s cost per FTE is high. A comparison of MEL staff costs and Northern Ireland ASHE³⁵ data supports this view.
- 4.40 As a result of the change in GMO NI resource allocation³⁶, the average cost per MEL staff, including GMO NI staff, has decreased compared to the draft determination. The overall staff cost allowance for non-GMO NI staff has reduced as a result of more staff moving from MEL to GMO NI.
- 4.41 Overall, our staff cost allowances represent c81% of the amount requested.

³³ GNI (UK), PNLG (Phoenix Natural Gas), FE (firmus energy), IUK (Interconnector UK), SGN (SGN Natural Gas Limited), NGN (Northern Gas Networks), WWU (Wales and West Utilities) and NGG (National Grid).

³⁴ This was possible for GNI (UK), FE and PNLG. It was not possible for the other companies because of a lack of cost breakdown.

³⁵ Annual Survey of Hours and Earnings. This is a UK wide survey carried out by the Office for National Statistics and the Northern Ireland Statistics and Research Agency.

³⁶ For details on GMO NI resource allocation see paragraph 4.118.

Table 10: MEL – Final determination for planned maintenance

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Asset Management	1.0	0.6	0.2	0.2	0.2	0.3	0.1	1.0
Emergency Response	1.7	1.7	0.3	0.4	0.4	0.3	0.4	1.7
Pipeline Inspection	5.8	5.8	2.1	0.8	1.2	0.2	1.6	5.8
Routine Maintenance	5.7	5.6	0.9	1.2	1.2	1.2	1.2	5.7
Total	14.2	13.8	3.4	2.5	2.9	2.0	3.3	14.2

Figures may not sum due to rounding

4.42 Our consultants considered the evidence provided by MEL in their business plan submission on planned maintenance. They also raised queries which MEL responded to through a formal query process and direct engagement between MEL and the consultants. The consultants have advised that the forecasts are reasonable. We have also reviewed the evidence provided by MEL on planned maintenance and had discussions with MEL and the consultants. Based on these discussion and the additional information presented following the publication of the draft determination, we have come to the view that the requested allowances appear reasonable and there is no evidence to suggest otherwise.

4.43 Overall, our planned maintenance allowances represent full allowance.

Table 11: MEL – Final determination for unplanned maintenance

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Drainage	0.7	0.7	0.2	0.1	0.1	0.1	0.1	0.7
Other Unplanned Costs	0.9	0.9	0.2	0.2	0.2	0.2	0.2	0.9
Total	1.7	1.7	0.3	0.3	0.3	0.3	0.3	1.7

Figures may not sum due to rounding

4.44 As in the draft determination, we have decided not to make any reductions to the submission amount for unplanned maintenance in the final determination. Both the UR and the consultants reviewed the information provided in the business plan submission, considered MEL's answers as part of the formal query process and had discussions with MEL. Having considered the engagement with MEL and our consultants as well as the

information presented, we found no evidence to suggest that the amount requested was not reasonable.

Table 12: MEL – Final determination for system operation

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Contracts & Licences	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.7
Grid Control	3.3	2.4	0.7	0.7	0.7	0.7	0.7	3.3
Network Code Development	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1
SCADA & Communications	2.0	1.2	0.2	0.2	0.3	0.2	0.3	1.2
Total	6.1	4.3	1.1	1.0	1.1	1.0	1.0	5.2

Figures may not sum due to rounding

- 4.45 With regard to the grid control costs there would appear to be a significant difference in the level of costs between MEL and GNI (UK). MEL grid control costs are £670k a year whereas GNI (UK) expect a cost of around £353k a year.
- 4.46 After discussions with the TSOs, we accept that MEL have higher control room costs because they tender for these services in Northern Ireland, whereas GNI (UK), as part of the wider Gas Networks Ireland, pay a marginal amount for the addition of Northern Ireland to their current control room services in the Republic of Ireland.
- 4.47 In the draft determination, we gave an allowance for grid control that was based on a joint tender for control room services between MEL and GNI (UK). As a result of subsequent engagement with the licence holders it became clear that this cannot easily be done in this price control, both because of the financial impact of terminating existing arrangements and because further scoping is required.
- 4.48 We have therefore increased the allowance for MEL grid control to the amount requested, as this reflects the tendered cost. This is not an indication that we feel the tendered costs presented by MEL are efficient, but we recognise that re-tendering for this price control would incur additional costs which could be significant. For this reason, we expect the TSOs to conduct a feasibility study and produce an implementation plan, by no later than 1 October 2019, for the establishment of a single control room for Northern Ireland.
- 4.49 The SCADA (Supervisory Control and Data Acquisition) and communications cost request included costs of £800k for a system refresh in 2019-20. Our external consultants have advised that a related allowance should be granted. We have considered the request and the advice received and will be making an allowance for this. However, since this is not a common activity but one with clearly defined outputs, we consider that this allowance should be made in repex. Therefore, whilst an allowance has been made, it has not been reflected in this opex section. We note that any

investment decision regarding the SCADA refresh shall be made with consideration of a potential future implementation of a joint control room between the high pressure licence holders.

- 4.50 Network Code Development included £106k in 2017-18 for the decommissioning and demobilisation costs of the Align IT system. Like our consultants, we have reviewed this cost and found it excessive. Our consultants advised that we make an allowance in the range of £50k to £75k. We have found no reason to disagree with this advice and have decided to grant an allowance of £50k. We consider that this is an appropriate amount and within the range proposed by the consultant.
- 4.51 All other non-GMO NI system operation costs have been allowed as requested.
- 4.52 Overall, our non-GMO NI system operation allowances represent c86% of the amount requested though the percentage is artificially low as full SCADA costs are allowed in repex. If the full SCADA costs were allowed here, the allowance would be 99% of the request.

Uncontrollable Expenditure

Table 13: MEL – Final determination for uncontrollable costs

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Business Rates	10.4	10.4	1.9	2.1	2.1	2.1	2.1	10.4
Licence Fees	6.3	6.3	1.3	1.3	1.3	1.3	1.3	6.3
Compressor Fuel	4.9	4.2	1.0	1.0	1.0	1.0	1.0	4.9
Scottish Costs	27.5	27.5	7.7	5.0	5.0	5.0	5.0	27.5
Stranraer Income	-3.3	-3.3	-0.6	-0.7	-0.7	-0.7	-0.7	-3.3
Total	45.7	45.0	11.1	8.6	8.7	8.7	8.7	45.7

Figures may not sum due to rounding

- 4.53 In the draft determination we reduced the allowance for compressor fuel on the basis that the spreadsheet contained an error. After discussions with MEL we are now aware that this was not an error.
- 4.54 Our decision is to allow the full amount for uncontrollable costs.

GNI (UK) – UR Decisions

Overview

- 4.55 The bottom-up approach has been the method used to arrive at the final determination for GNI (UK). The tables below show:

- The total requested from the licence holder aggregated over the full five years of the price control period;
- The total draft determination allowance aggregated over the five years of the price control period; and
- The total final determination allowance for each year of the price control period and aggregated across all these years.

4.56 For a year-on-year breakdown of final determination figures by cost line, see Appendix 1: Pre-efficiency Opex Allowances.

Bottom-up Assessment

Overview

Table 14: GNI (UK) – Final determination for pre-efficiency opex

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex non-GMO NI								
Administration	2.9	1.9	0.5	0.5	0.5	0.5	0.5	2.5
Staff Costs (excluding GMO NI)	4.7	3.7	0.7	0.7	0.7	0.7	0.7	3.7
Planned Maintenance	9.9	9.3	1.7	2.0	1.7	1.8	1.8	8.9
Unplanned Maintenance	2.5	2.0	0.5	0.5	0.5	0.5	0.5	2.4
System Operation	2.0	2.0	0.4	0.4	0.4	0.4	0.4	2.0
GMO NI								
GMO NI Costs (for GNI (UK))	2.7 ³⁷	2.6	0.4	0.4	0.4	0.4	0.4	2.1
Uncontrollable Opex								
Uncontrollable Costs	9.1	9.1	1.8	1.8	1.8	1.9	1.9	9.1
Total	33.8	30.6	6.0	6.3	6.1	6.2	6.2	30.7

Figures may not sum due to rounding

4.57 Our final determination allows £30.7m for the GT17 period for total opex (prior to efficiency challenge). This represents c91% of the submission of £33.8m.

4.58 Final determination allowances are lower than business plan requests in all of the areas shown in Table 14 above with the exception of uncontrollable costs (system operation

³⁷ Note that this figure has been updated from the draft determination to reflect the further information received since on the staff cost allocation between MEL and GNI (UK). The overall business plan request figure for the GMO NI across MEL and GNI (UK) remains unchanged.

costs have also reduced, even though this is not directly visible from Table 14 due to rounding). The reasons for the reductions in the non-GMO NI opex are discussed below.

- 4.59 The GMO NI line refers purely to the GNI (UK) element of the single system allowance. GMO NI costs are discussed in detail in section GMO NI – UR Decisions below.

Controllable Non-GMO NI Expenditure

Table 15: GNI (UK) Final determination for administration

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Pipeline Insurance	1.2	0.9	0.2	0.2	0.2	0.2	0.2	0.9
Intra-company Recharge	1.1	0.5	0.2	0.2	0.2	0.2	0.2	1.1
Other Overheads	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.5
Total	2.9	1.9	0.5	0.5	0.5	0.5	0.5	2.5

Figures may not sum due to rounding

- 4.60 The pipeline insurance costs submitted by GNI (UK) were high compared to actual spend of £0.6m in the first four years of the GT12 price control period.
- 4.61 We recognise that GNI (UK) provided information from insurance brokers that insurance cost is forecast to increase. Given that both PTL and BGTL pipeline insurance costs are not predicted to increase in real terms in the GT17 period, we reduced GNI (UK)'s allowance to be in line with the GT12 actuals. We have, however, allowed an additional 4% to take account of the 4% increase in insurance premium tax.
- 4.62 We also note that during the GT12 price control, GNI (UK) predicted a rise in insurance premiums which was not allowed. The actual costs submitted for the GT12 period show that the actual pipeline insurance costs were less than the amount allowed.
- 4.63 In the draft determination, we allowed £0.3m per year in total for three cost lines; intra-company recharges (administration), other overheads (administration) and asset management and compliance (planned maintenance).
- 4.64 This was based on the assumption that these lines made up what was referred to as 'shared services' in the GT12 price control. However, since publication of the draft determination, we had further discussions with GNI (UK) around how the cost lines in the reporting template compare with the cost lines in previous price controls with respect to build-up and categories of costs included.
- 4.65 In light of this, we have reconsidered the request for intra-company recharges which is slightly lower in the GT17 price control period than the forecast actuals for the GT12 period. We have decided to grant an allowance of £1.1m across the GT17 period, in line with the business plan request.
- 4.66 Similarly, we have also reconsidered the request for other overheads which is approximately 33% lower than the average actuals of £159k p.a. (per annum) for the first

four years of the GT17 price control period. We have decided to grant an allowance of £0.5m across the GT17 period, in line with the business plan request.

4.67 Overall, our administration allowances represent c87% of the amount requested.

Table 16: GNI (UK) allowed FTE

Staff Category	GT12 – Average Number of FTE	GT17 – Average Requested FTE	GT17 – Average Allowed FTE
Non-GMO NI Staff – Support	8.2 ³⁸	9.0	7.1
Non-GMO NI Staff – Engineering	4.5	5.4	5.4
GMO NI Staff	0.9 ³⁸	0.9 ³⁹	1.0
Total Staff	13.5	15.3	13.5

Figures may not sum due to rounding

4.68 In their business plan submission for GT17, GNI (UK) average requested FTE are 9 FTE for support and 5.4 FTE for engineering. This included an additional 0.9 FTE above the engineering average.

4.69 GNI (UK) indicated that this was required to address additional activity by asset management and asset operation staff on the GNI (UK) network. We have considered the evidence provided and are of the view that this request is appropriate. We therefore granted the additional 0.9 FTE requested.

4.70 The average request of 9 FTE for support compares to an average of 9.1 FTE across all years of the GT12 price control period. However, the 9.1 FTE support staff in GT12 included 0.9 FTE doing GMO NI-type work. GNI (UK) has confirmed to us that these staff are no longer included in the GT17 request.

4.71 GNI (UK) also explained to us that the GT17 request did account for an equivalent requirement for additional support staff to cover an increase in HSQE (health & safety, quality and the environment) work and feed the new activity-based costing system. We have considered this request, but have not been convinced that a new activity-based costing system would result in a need for more staff or that the increase in HSQE work is material. We found no justification this request and decided not to grant the 0.9 FTE for this additional work.

4.72 Furthermore, the 0.9 FTE for GMO NI-type work seemed quite low, both when compared to MEL (who indicated that they had 4.2 FTE doing GMO NI-type work) and when compared to GT12.

³⁸ It is recognised that there was no single system operation during the GT12 price control period. However, GNI (UK) has confirmed as part of the query process that an equivalent of 0.9 FTE was performing GMO NI-type activities during that time. We have therefore split the 9 FTE support staff into 8.1 FTE for non-GMO NI work and 0.9 for GMO NI-type work.

³⁹ In their draft determination we assumed 4 FTE for the GMO NI. This was based on a 50/50 split between MEL and GNI (UK) of the 8 FTE requested. It has since been confirmed that 1 FTE will be coming from GNI (UK) and that the remainder will be coming from or will be recruited through MEL. We have updated the GMO NI staff figures accordingly in Table 16.

- 4.73 GT12 contained an allowance of £175k p.a. in 2016 prices for transportation services which covered activities such as *Shipper Services, Trading and Settlements, Commercial Analysis, and Regulatory Affairs Management*.
- 4.74 GNI (UK) indicated to us that there should be no reduction in its TSO staff as a result of the GMO NI due to the level of resource they currently allocate to these activities. We do not agree with this view. We consider in particular that:
- The transportation services activities will in future be largely covered by the GMO NI; and that
 - The GT12 transportation services allowance suggests that more than 0.9 FTE are doing GMO NI-type work.
- 4.75 We have therefore decided to reduce the non-GMO NI staff by 1 FTE.
- 4.76 In summary, we have allowed for an average of 12.5 FTE non-GMO NI staff for each year of the GT17 price control period. GMO NI staffing levels are covered in detail in section GMO NI – UR Decisions below.

Table 17: GNI (UK) – Final determination for staff costs (excluding GMO NI)

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Support Staff	2.9	2.1	0.4	0.4	0.4	0.4	0.4	2.1
Engineering Staff	1.8	1.6	0.3	0.3	0.3	0.3	0.3	1.6
Total	4.7	3.7	0.7	0.7	0.7	0.7	0.7	3.7

Figures may not sum due to rounding

- 4.77 GNI (UK) submitted staff costs which show an increase in the cost per FTE, largely due to exchange rate fluctuations. We accept that the pound is currently weak and therefore more sterling is required to cover staff costs paid in euros.
- 4.78 However, our historic analysis has revealed that the cost/benefit of exchange rate fluctuations is largely negligible over the longer term. Sometimes exchange rates are to the company advantage and sometimes they are not. By not making adjustments this evens out over time. It would be inconsistent to only make one way adjustments.
- 4.79 Furthermore, as a UK company collecting revenues in pounds, we consider that exchange rate fluctuations are an operational risk for GNI (UK) which is covered by the rate of return.
- 4.80 In this determination, we have therefore decided not to make an allowance for exchange rates. Staff cost requests from the business plan have been reduced accordingly on this basis.
- 4.81 GNI (UK) also indicated that their salaries are now due to increase after a period of pay freeze. The allowance shown in this section is in line with GT12 actual costs per FTE across GNI (UK), GMO NI and non-GMO NI staff. We have undertaken analysis using ASHE data which supports our view that it would not be appropriate to allow increases in

the GNI (UK) staff costs. However, above inflation increases are provided for as part of the real price effect calculations.

- 4.82 We note that as a result of the change in GMO NI resource allocation⁴⁰, the average cost per FTE of non-GMO NI staff has decreased while the average cost per FTE of GNI (UK) GMO NI staff has increased slightly compared to the draft determination. The overall cost per FTE for all GNI (UK) staff, including GMO NI staff has remained at £60k as in the draft determination.
- 4.83 In summary, our staff allowances represent c79% of the amount requested.

Table 18: GNI (UK) – Final determination for planned maintenance

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017- 18 £m	2018- 19 £m	2019- 20 £m	2020- 21 £m	2021- 22 £m	
Asset Management	0.6	0.5	0.1	0.1	0.1	0.1	0.1	0.6
Emergency Response	1.4	1.4	0.3	0.3	0.3	0.3	0.3	1.3
Pipeline Inspection	1.2	1.2	0.2	0.5	0.2	0.2	0.2	1.2
Routine Maintenance	6.8	6.2	1.1	1.2	1.2	1.2	1.2	5.9
Total	9.9	9.3	1.7	2.0	1.7	1.8	1.8	8.9

Figures may not sum due to rounding

- 4.84 We had based our draft determination allowance for asset management on the assumption that this line, together with intra-company recharge (administration) and other overheads (administration), made up what was referred to as 'shared services' in the GT12 price control.
- 4.85 However, following the publication of the draft determination, we had further discussions with GNI (UK) around how the cost lines in the reporting template compare with the cost lines in previous price controls with respect to build-up and categories of costs included. In light of these discussions we have reconsidered allowances.
- 4.86 Asset management has an average request of £110k, significantly above the average actuals of £5k p.a. for the first four years of the GT17 price control period. GNI (UK) indicated that costs in this area reflect the provision of compliance advice and work management support from its parent company and that this was not previously allocated.
- 4.87 The cost increase relates in particular to work planning. Our consultants are of the view that it is reasonable to assume that there would be some element of work planning costs associated with GNI (UK) actively managing and controlling the workflow, and capturing data on work completion. They recommended granting the requested £0.6m across the GT17 period and we have decided to follow their advice since we agree that there would be work planning costs associated with GNI (UK) managing and controlling the workflow.

⁴⁰ For details on GMO NI resource allocation see paragraph 4.118.

- 4.88 With respect to Emergency Response, [REDACTED]
[REDACTED] After reviewing the evidence and discussions with our consultants, we have decided to follow their advice and allow £1.3m for emergency response across the GT17 period.
- 4.89 For pipeline inspections, the forecast costs for aerial inspection are consistent with historical trends, as is the routine element of on land inspections. There is one on line inspection activity planned for the GT17 period (on the South North pipeline in 2018-19). The forecast cost for this is £295k, which compares with a forecast of £357k for inspection of the North West pipeline and the Kernan Spur carried out by GNI (UK) in 2015/16 and 2016/17.
- 4.90 The length of the South North pipeline is greater than the North West pipeline and the Kernan spur and our consultants have advised that in their view the pipeline inspection cost forecast is reasonable. We see no reason to disagree with this advice and have decided to grant the requested allowance of £1.2m across the price control period.
- 4.91 Having considered the costs requested under routine maintenance, we have concluded that they appear reasonable, with the exception of the forecast costs for AGI maintenance.
- 4.92 This cost has increased by over 40% compared with historical actual. [REDACTED]
[REDACTED] an allowance for AGI maintenance of £4.7m compared to the requested amount of £5.6m and an overall routine maintenance allowance of £5.9m across the GT17 period.
- 4.93 In summary, our planned maintenance allowances represent c90% of the amount requested.

⁴¹ MERC (Maintenance and Emergency Response Contract) fixed costs are costs incurred to ensure 24/7/365 availability of the necessary emergency response resources appropriate to the scale of the transmission system and assets.

Table 19: GNI (UK) – Final determination for unplanned maintenance

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Drainage	1.4	1.0	0.3	0.3	0.3	0.3	0.3	1.4
Other Unplanned Costs	1.2	1.0	0.2	0.2	0.2	0.2	0.2	1.0
Total	2.5	2.0	0.5	0.5	0.5	0.5	0.5	2.4

Figures may not sum due to rounding

- 4.94 In the draft determination, we were of the view the submitted costs for drainage were based on actual spending for particularly wet years. Following the publication of the draft determination, GNI (UK) provided us with evidence that drainage costs were likely to be in line with those requested in the submission. We have increased the allowance to the amount requested accordingly.
- 4.95 The business plan request for other unplanned costs comprises of:
- Fault repairs (£1.1m);
 - Other unplanned maintenance (£35k).
- 4.96 Our consultants have advised that with the targeted replacement of assets based on condition and the proposed move to condition based maintenance over time, they would expect a reduction in fault repairs.
- 4.97 The consultants proposed that the fault repair values for the GT17 period are held at the average of the 2016-17 and 2017-18 forecast level of £200k annually. We have decided to follow their recommendation and not allow the requested increase in the price control period. Based on historical data, we acknowledge that in some years the cost may be slightly higher but an overall reduction is expected over time. Allowing an average £200k per annum is a fair compromise.
- 4.98 We have found no reason to consider the £35k request for other unplanned maintenance to be unreasonable and have decided to allow the full amount.
- 4.99 In summary, our unplanned maintenance allowances represent c94% of the amount requested.

Table 20: GNI (UK) – Final determination for system operation

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Grid Control	1.8	1.8	0.3	0.3	0.4	0.4	0.4	1.8
SCADA & Communications	0.3	0.3	0.0	0.0	0.1	0.1	0.1	0.3
European Compliance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	2.0	2.0	0.4	0.4	0.4	0.4	0.4	2.0

Figures may not sum due to rounding

4.100 With regard to the grid control costs there would appear to be a significant difference in the level of costs between MEL and GNI (UK). MEL grid control costs are around £670k a year whereas GNI (UK) expect a cost of around £353k a year.

4.101 After discussions with the TSOs, we accept that MEL have higher control room costs because they tender for these services in Northern Ireland, whereas GNI (UK), as part of the wider Gas Networks Ireland, pay a marginal amount for the addition of Northern Ireland to their current control room services in the Republic of Ireland.

In the draft determination, we gave an allowance for grid control that was based on a joint tender for control room services between MEL and GNI (UK). As a result of subsequent engagement with the licence holders it became clear that this cannot easily be done in this price control, both because of the financial impact of terminating existing arrangements and because further scoping is required. We therefore consider it appropriate to grant the requested allowance for the price control period but note that we expect the TSOs to conduct a feasibility study and produce an implementation plan, by no later than 1 October 2019, for the establishment of a single control room for Northern Ireland.

4.102 GNI (UK) requested an amount of £0.3m for SCADA and communications. We have considered this amount and found it to be reasonable.

4.103 £25k was submitted as a cost of European compliance in 2017-18. As in the draft determination, this has not been allowed since funding for this was given in the previous price control period. GNI (UK) did not content this view in their response to the DD. This is shown as 0.0 in the table due to rounding.

4.104 In summary, our system operation allowances represent c99% of the amount requested.

Uncontrollable Expenditure

Table 21: GNI (UK) – Final determination for uncontrollable expenditure

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Business Rates	3.2	3.2	0.6	0.6	0.6	0.7	0.7	3.2
Licence Fees	5.9	5.9	1.2	1.2	1.2	1.2	1.2	5.9
Total	9.1	9.1	1.8	1.8	1.8	1.9	1.9	9.1

Figures may not sum due to rounding

4.105 The uncontrollable costs appear to be reasonable. For the final determination, we have therefore decided to make no adjustments to the submitted uncontrollable costs.

GMO NI – UR Decisions

Overview

- 4.106 The UR intention is to have a single system operator for Northern Ireland in place for 1 October 2017. The GMO NI is not a legal entity and cannot be granted a licence. The funding of the GMO NI will therefore be via the existing licences.
- 4.107 Licence holders were required to submit an agreed business plan together with their allowance requests for GMO NI activity. When setting an overall allowance, we have determined the efficient level of costs on the basis of dealing with a single entity. The global allowance has then been allocated to the individual licence holders based on responsibility for the various activities funded.
- 4.108 It is accepted that there will be initial start up costs in addition to business as usual expense. However, a key objective is that the GMO NI will result in a downward movement in the overall costs of system operation. The mobilisation and system development cost required to establish single system operation will occur during the 2016-17 gas year. A separate mobilisation budget has been agreed between the GMO NI and the UR to cover these costs. It does not form part of this price control determination.
- 4.109 The table below represents the cost allocation to the GMO NI as a whole. It shows:
- The total GMO NI allowance requested aggregated over the full five years of the price control period;
 - The total draft determination allowance aggregated over the five years of the price control period; and
 - The total GMO NI final determination allowance for each year of the price control period and aggregated across all these years.
- 4.110 For a year-on-year breakdown of final determination figures by cost line as well as for the allocation of GMO NI costs to each licence holder, see Appendix 1: Pre-efficiency Opex Allowances.

- 4.111 For the purposes of this final determination, we have allocated the GMO NI costs between to the licence holders in line with the requests submitted. Since the draft determination, further information on the cost split has been provided by the licence holders. We have updated the business plan request figures accordingly in this document, and considered the information when setting our final allowances.
- 4.112 All GMO NI allowances allocated to MEL have been allocated against PTL. Whilst we recognise that BGLT and WTL will also be part of the GMO NI, this allocation has been done in the interest of transparency, and with consideration of the fact that PTL, being a balancing TSO which operates the principal interconnection point, is currently performing the majority of the GMO NI-type work within the MEL business, whereas WTL and BTGL are not responsible for balancing. This is in line with our approach detailed in paragraph 2.31 in our approach document published on 30 June 2016⁴². In their response, this suggestion was not contented.

Bottom-up Assessment

Overview

Table 22: Final determination for GMO NI for pre-efficiency opex

Cost Category	BP Request £m	DD £m	Final Determination					Totals £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
GMO NI Staff Costs	2.5	1.8	0.4	0.4	0.4	0.4	0.4	2.1
Administration	0.6	0.6	0.1	0.1	0.2	0.1	0.1	0.6
Contracts & Licences	2.9	2.2	0.5	0.5	0.4	0.4	0.4	2.2
Network Code Development	1.0	0.7	0.1	0.2	0.1	0.1	0.1	0.7
European Compliance	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total GMO NI Costs (Industry)	7.3	5.4	1.2	1.2	1.2	1.1	1.1	5.8

Figures may not sum due to rounding

- 4.113 Our final determination allows £5.8m for the GT17 period for GMO NI cost (prior to efficiency challenge). This represents c79% of the submission of £7.3m.

GMO NI Staff Cost

- 4.114 MEL and GNI (UK) requested an allowance of 8 staff in total for the GMO NI. The submitted cost of these 8 FTE was £502k per annum.
- 4.115 Overall, we have decided to allow 7 FTE for the GMO NI. In taking this decision, we have considered the information received from the licence holders on the amount of staff

⁴² [Utility Regulator: Price Control for Northern Ireland's Gas Transmission Networks GT17, Proposed Approach, 30 June 2016.](#)

currently doing GMO NI-type activities, efficiencies we expect the GMO NI to achieve (e.g. through managing one rather than four network codes) and detailed information provided which shows activities for which the licence holders consider additional work will need to be done by the GMO NI over and above that currently performed by the licence holders.

- 4.116 Whilst we do not agree that all these activities will result in an increased workload for the GMO NI, we recognise that this may be the case for some of them. Overall, in balance, we consider that 7 FTE represents a reasonable balance between current GMO NI-type work, efficiencies expected from the GMO NI and additional work required for it.
- 4.117 Our determination is based on 4 of the 7 FTE coming from MEL, 1 FTE coming from GNI (UK) and 2 FTE being additional to the industry and being recruited through MEL.
- 4.118 As per the draft determination, the GMO NI costs are based on an average FTE of £60k per annum. Allowances for staff have been made with consideration of the roles required and how they are divided between MEL and GNI (UK) and are reflective of the requested resource allocation split of 16.2% for GNI (UK) and 83.8% for MEL.
- 4.119 In summary, our GMO NI staff allowances represent c84% of the amount requested.

Administration

- 4.120 A request for £0.6m for administration has been included in the business plan submissions. We have considered this request and found no evidence to suggest that it is unreasonable. We have decided to grant the allowance.
- 4.121 Our GMO NI administration allowances represent 100% of the amount requested.

Contracts & Licences

- 4.122 Under this cost line the licence holders have requested an amount of £2.9m for:
- PRISMA⁴³ (£0.7m);
 - GTMS (Gas Transportation Management System) (£2.0m); and
 - Subscriptions (£0.2m).
 - Server Hosting and IT support (£0.008m)
- 4.123 The PRISMA cost request covers the ongoing connection fees and annual licence fees incurred by GNI (UK) and PTL for the Gormanston and Moffat IPs (Interconnection Points) respectively. We have considered the request and found it to be reasonable. We have therefore decided to grant the full amount requested.
- 4.124 However, we do not agree with the view expressed by the licence holders that this cost should be treated as uncontrollable as we consider that the licence holders, through their industry engagement, can impact to some extent on PRISMA charges.
- 4.125 The requested GTMS allowances relate to a number of items:
- Technical Support (£25k p.a.);
 - Technical Infrastructure (£55k p.a.);

⁴³ Joint capacity booking platform of major European Transmission System Operators.

- Vendor Tech Support (£112.5k p.a.); and
 - Application Enhancements (£200k p.a.).
- 4.126 The majority of the costs for technical support and technical infrastructure support were included in line with the original GNI (UK) IT Assessment submission in the summer of 2016. The line for application enhancements at £200k per year is additional.
- 4.127 In the query process GNI (UK) also suggested that vendor tech support should increase to £157k per year. GNI (UK) stated that this is primarily to reflect the increased scope of the new GMO NI system and additional functional requirements not identified as part of the original assessment.
- 4.128 Whilst our consultants noted that the request relating to the technical infrastructure appears reasonable, they also highlighted some concerns regarding the overall level of GTMS costs requested:
- There appears to be a high likelihood of overlap between the technical support, technical infrastructure and vendor tech support lines;
 - There appears to be a fair amount of ambiguity over specifically what the proposed costs relate to and a lack of clarity as to where the scope of the various support functions begins and ends;
 - Many of the proposed support costs are still estimates with contracts or service levels yet to be agreed;
 - Support costs should reduce over the GT17 period as users become more familiar with the system;
 - The cost increase relating to vendor support from £112.5k p.a. to £157k p.a. remains unsubstantiated.
- 4.129 With respect to application enhancements, our consultants indicated that the requested allowance appears too high and noted the following concerns:
- The need for application enhancements would be expected to tail off once stakeholders become familiar with system operation;
 - Little evidence has been provided as to how the estimated 400 days per annum of work from the vendor on which the request is based has been derived;
 - The estimated cost for PRISMA upgrades appears to be excessive and insufficient justification has been provided in its support;
 - Whilst it is accepted that an allowance will be required to fund the periodic upgrade of the application architecture components in order to ensure the underlying technology remains supportable and secure, such costs would be expected to fall into the vendor or technical infrastructure support categories.
- 4.130 Based on the above, our consultants have recommended the approval of the proposed allowances for the various GMO NI support functions as submitted in the business plans given that they are broadly in line with the original submission made as part of the SSO (single system operation) IT Assessment exercise.
- 4.131 They have furthermore recommended considering a reduced allowance for application enhancements. This is to reflect the likelihood of overlap between the different GTMS cost items and includes a sliding scale over time with a higher allowance in the first two

years of GMO NI operation to reflect the increased likelihood of system changes being required during this period.

- 4.132 We have considered the information provided by the TSOs and the advice provided by the consultants and see no reason to disagree with that advice.
- 4.133 We have therefore decided to grant an allowance of £125k for technical support, £275k for technical infrastructure and £562.5k for vendor tech support across the GT17 period, in line with the business plan submission.
- 4.134 With respect to application enhancements we expect that most costs would be incurred in the first and second years of single system operation and then stabilise thereafter. Our consultants advised that an allowance of around £75k to £100k p.a. during the first two years of operation and £50k to £75k p.a. thereafter would be reasonable. We have decided to allow £85k in the first year, £75k in the second and £50k for each of the three years thereafter. We acknowledge that these amounts are largely at the lower end of the scale recommended by our consultants. We consider the allowance granted to be reasonable based on the information provided and reflective of the likelihood of overlap between the different GTMS cost items seeing that the costs for technical support, technical infrastructure and vendor tech support requested in the business plan have been allowed in full. In balance, the overall GTMS allowance therefore is a fair reflection of the needs highlighted by the TSOs.
- 4.135 We note that in their submission made in May 2017 for the re-opener with respect to the mobilisation costs for single system operation, the TSOs highlighted the need to review post go-live of single system operation those items in the changes log not considered for implementation by 1 October 2017. The TSOs indicated furthermore that this will involve analysis, scoping and costing of those changes deemed necessary within the enduring solution. We recognise that changes to the IT system and associated costs may arise from this. We consider that such costs are in principle covered by the GT17 system enhancements allowance which is reflective of an increased likelihood of system change during the initial years of operation. However, we are also mindful of the uncertainty regarding the scope and extent of the changes required for the enduring solution. We consider the existing licence provisions provide adequate protection with this regard. This includes in particular the provisions relating to a special operating expenditure forecast review or unforeseen operating expenditure in Conditions 2.2.4(i) and (j) respectively of the GNI (UK) licence.
- 4.136 In their submission made in May 2017 for the re-opener with respect to the mobilisation costs for single system operation the TSOs requested furthermore an allowance of £7,536 for post go live functional support during the first six months of operation. Based on our review of the evidence provided and engagement with the TSOs on this request we are allowing the full amount requested.
- 4.137 The subscription cost line represents the membership costs for ENTSOG (European Network of Transmission System Operators) and Gas Infrastructure Europe (GIE). We recognise the importance of ongoing engagement with other EU parties with regard to post Brexit arrangements and have therefore decided to grant the allowance of £0.2m across the GT17 period as requested.
- 4.138 We note, however, that as an alternative to membership of a trade association such as Gas Infrastructure Europe (GIE), it may also be possible, and potentially more cost-efficient, to achieve the engagement through some form of arrangement with National Grid.

- 4.139 We therefore expect the licence holders to consider during the price control period cost-efficiencies and effectiveness of different options of engagement with regard to post Brexit arrangements.
- 4.140 In summary, our GMO NI contracts and licences allowances represent c76% of the amount requested.

Network Code Development

- 4.141 The requested network code development allowances across the GT17 period relate to a number of cost lines:
- System Planning (£0.4m);
 - Shipper Services & Account Management (£0.04m);
 - Network Code IT System Costs (£0.1m); and
 - External Support (£0.4m).
- 4.142 We have decided to grant the allowances for shipper services and account management, network code IT system costs and external support as requested. We have reduced the allowance for system planning to £0.1m across the GT17 period. The reductions relates to the time to fail model.
- 4.143 Our consultants noted a number of concerns re: the request for the time to fail model:
- The request seems to be based on a quote from a single provider in 2013 with a notional uplift based on estimated charges to incorporate subsequent changes to the NI system and inclusion of the GNI (UK) network;
 - It is unclear whether alternative options have been considered to efficiently manage the system so that integrity is not compromised;
 - It is unclear whether the “Emergency Management Module” that will be developed as part of the GMO NI IT system would include the time to fail model.

On these grounds, we have decided not to grant an allowance for the time to fail model and the associated licence cost at this stage. We do, however, recognise the importance of such a model and will treat the request as a ‘relevant item’⁴⁴, i.e. we will consider the project in the price control period. Any supplementary evidence must be provided ahead of related costs being occurred.

- 4.144 In summary, our network code development allowances represent c72% of the amount requested.

European Compliance

- 4.145 The amount of £0.6m requested for European compliance across the GT17 period relates to:
- Travel costs
 - REMIT (Regulation on Energy Market Integrity and Transparency) reporting; and
 - External advice

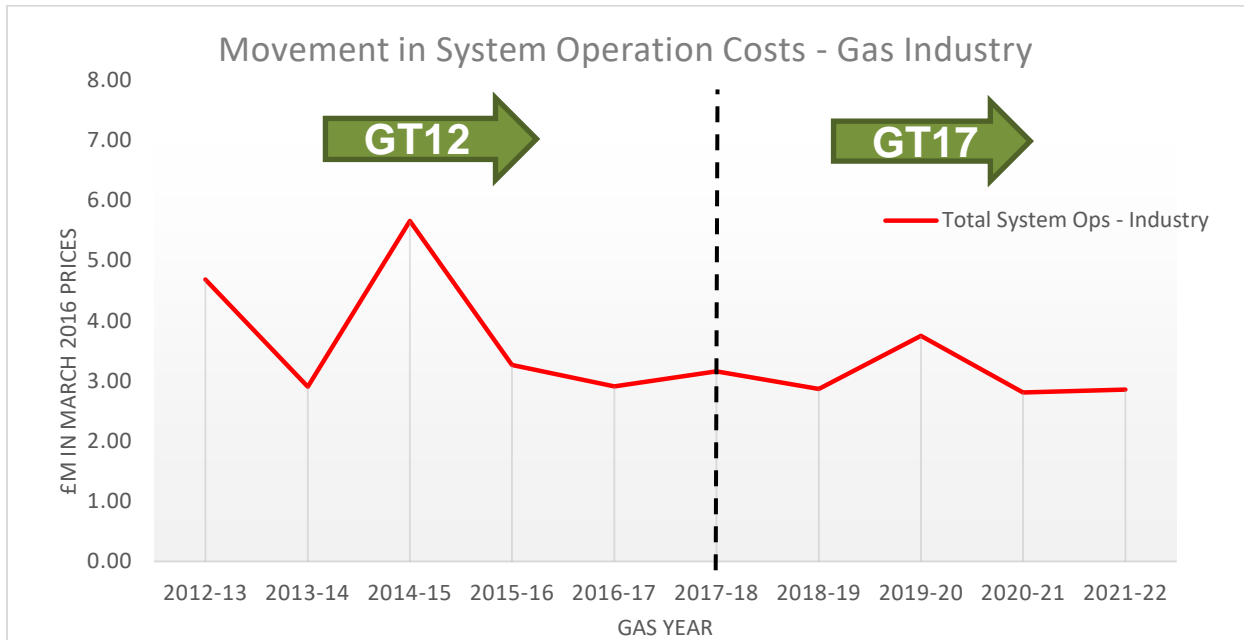
⁴⁴ For further details on the treatment of relevant items see chapter 7.

- 4.146 The licence holders indicated that the travel cost is to attend 55 of 600 meetings in Europe. We consider that this is not necessary. Whilst we recognise the need for representation in European forums, we consider that this can be achieved through a mix of participation via phone or videoconferencing and physical attendance. Furthermore, co-operation with other TSOs outside NI to spread the workload could be considered. On these grounds, we have decided to grant an allowance of £6k.
- 4.147 We have decided to grant £10k for REMIT reporting and £10k for external advice, as was requested, based on the information presented.
- 4.148 In summary, our allowances for European compliance represent c50% of the amount requested.
- 4.149 Overall, the TSOs requested £7.3m for GMO NI against the UR allowance of £5.8m (c79%).

GMO NI – Cost Benefit Analysis

- 4.150 The aim of the GMO NI is to promote the ongoing development of the gas industry. It is intended to deliver a range of benefits to both TSOs and network users alike.
- 4.151 A key objective of the GMO NI is to deliver efficiency. This can be estimated using cost benefit analysis (CBA). We have undertaken such a study looking at forecast cost against historic spends. Start-up allowances have also been included in the analysis.
- 4.152 The CBA has been updated since the draft determination, using revised figures for start-up costs and our decision on ongoing costs.
- 4.153 For the purposes of the CBA, we have had to look at *total system operations (including grid control and GMO NI operations) in its entirety*. This is due to the fact that GMO NI market operations were not separately accounted for in the GT12 period.
- 4.154 The CBA also reflects expenditure at the industry level. This is necessary as functions are now being shared or are no longer required i.e. one IT system will become obsolete. On an overall industry basis the cost change proposed by TSOs is shown as follows:

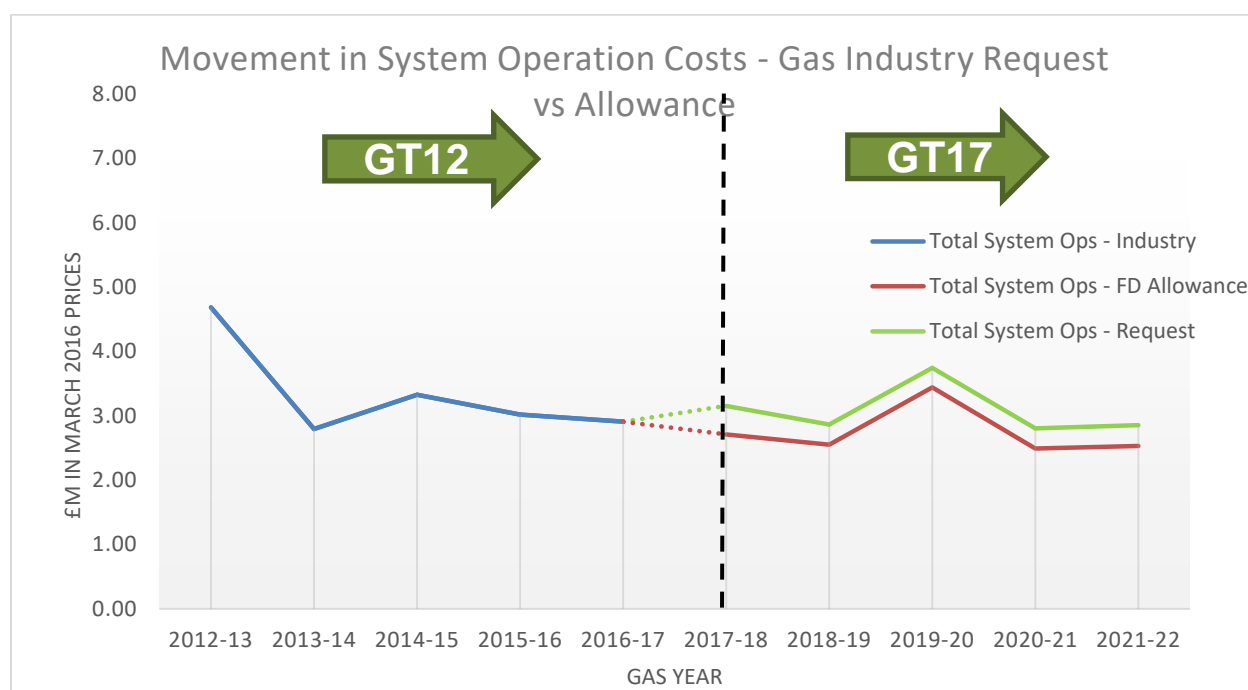
Figure 2: Gas industry total (GMO NI and non-GMO NI) system operation cost movement



- 4.155 From the graph in Figure 2 it can be seen that system operation costs are falling. On an annual basis (GT12 versus GT17 average) the saving is around £0.8m. Allowing for start-up costs of £1.8m,⁴⁵ the net present benefit (NPB) is £1.8m by the end of GT17.
- 4.156 However, the GT12 period includes some years with significant 'atypical' expenditure. These largely relate to the MEL IT system development for entry/exit. Assuming the majority (80%) of these costs would not normally be required, the industry spend now looks as follows:

⁴⁵ The start-up costs were agreed through a separate process from GT17.

Figure 3: Gas industry total system operation request and UR allowance



4.157 In the 'normalised' scenario the TSO proposed annual saving is much lower at £0.3m p.a as represented by the solid line in Figure 3. This results in a net present cost (NPC) of £0.6m by period end as shown in Table 23. Such a result would not be in line with the efficiency objective of the GMO NI.

Table 23: Cost benefit analysis results – Normalised scenario based on BP request

Cost Category	Start Up Cost - £m	Business Plan Request					Total £m
		2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Discount Factor (3.5%)⁴⁶	1.000	0.966	0.934	0.902	0.871	0.842	
Mobilisation Cost	-1.8	0.0	0.0	0.0	0.0	0.0	-1.8
Annual Benefit	0.0	0.3	0.3	0.3	0.3	0.3	1.3
Net (Cost)/Benefit	-1.8	0.3	0.3	0.3	0.3	0.3	-0.4
Discounted (Cost)/Benefit	-1.8	0.3	0.2	0.2	0.2	0.2	-0.6

Figures may not sum due to rounding

⁴⁶ Discounting is used to compare costs/benefits that occur in different time periods. Values are discounted to reflect individuals' preference to receive goods and services now rather than later. The 3.5% rate reflects the discount factor advised by HM Treasury in *The Green Book*.

4.158 Assuming all non-GMO NI system costs are allowed in full,⁴⁷ but applying the UR determination for GMO NI, annual saving is now £0.6m as represented by the dotted line in Figure 3. Across the GT17 period this results in a total NPB of £1.0m as shown in Table 24. This figure may further increase depending on the extension of the IT asset life beyond GT17.

Table 24: Cost benefit analysis results – Normalised scenario based on UR determination

Cost Category	Start Up Cost - £m	Final Determination					Total £m
		2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Discount Factor (3.5%)⁴⁸	1.000	0.966	0.934	0.902	0.871	0.842	
Mobilisation Cost	-1.8	0.0	0.0	0.0	0.0	0.0	-1.8
Annual Benefit	0.0	0.6	0.6	0.6	0.6	0.6	3.0
Net (Cost)/Benefit	-1.8	0.6	0.6	0.6	0.6	0.6	1.3
Discounted (Cost)/Benefit	-1.8	0.6	0.6	0.6	0.6	0.6	1.0

Figures may not sum due to rounding

GMO NI – Cost Transfer Mechanism

4.159 Whilst the GMO NI will operate as a separate team, revenue will be recovered by individual TSOs. The companies have estimated the cost split, upon which GMO NI allowances have been made.

4.160 However, there may be occasions during the price control where resource for activity ‘shifts’ between TSOs. In such a circumstance a mechanism is required to ensure that the cost can be recovered by the appropriate licence holder. For further detail on this mechanism see chapter 7.

⁴⁷ This is done in order to separate out the impact of the GMO NI. Applying changes to the TSO system operation allowance would obscure this impact.

⁴⁸ Discounting is used to compare costs/benefits that occur in different time periods. Values are discounted to reflect individuals’ preference to receive goods and services now rather than later. The 3.5% rate reflects the discount factor advised by HM Treasury in *The Green Book*.

5 Replacement Expenditure (Repex)

Summary of Key Changes from Draft Determination

- 5.1 We have undertaken significant engagement with TSOs since the publication of the draft determination. The companies have provided more detail, responded to queries and engaged with our consultants.
- 5.2 As a result, there has been a step change in the allowances provided for both MEL and GNI (UK). Key points to note include the following:
- a) Both MEL and GNI (UK) have seen an increase in their allowance based on better project justification and consideration of recommendations from our consultants;
 - b) The SCADA hardware refresh previously listed as an opex item has been included as a repex output for MEL;
 - c) The AGI security project proposed by GNI (UK) will be treated as a 'relevant item'. This means that no allowance has been provided at this stage but the project will be considered in the price control period;
 - d) Plans of MEL to replace the Ballylumford water bath heating system will also be treated as a 'relevant item';
 - e) A list of defined outputs has been produced for TSOs. We intend to monitor this detail and publish performance.
- 5.3 Full detail on project rationale, justification, consultant's views and the final determination can be found in Annex 2. This chapter summaries the decisions on allowances and outputs.
- 5.4 We have revised the wording of this section to reflect the move from draft determination to final determination and from price control proposals to price control decisions.

Detailed Approach – UR Decisions

- 5.5 The concept of capital expenditure (capex) is only provided for in the WTL and GNI (UK) licences. These allowances are set outside the scope of the price control process.
- 5.6 Much of what might be described as capex in terms of accounting rules, we consider as being maintenance/repex. It does not add to the capacity of the existing pipeline network but rather replaces or upgrades existing equipment. We treat such spending in the same way as *controllable operating expenditure (opex)*.
- 5.7 The purpose of the repex analysis is to capture the larger (>£50k) ad hoc replacement projects. These projects have definable outputs which can be captured and measured as part of the GT17 reporting process. TSOs were however given the opportunity to submit lower value projects if they so wished.
- 5.8 As part of their business plans, TSOs submitted a list of repex projects for which they sought an allowance. In the case of GNI (UK), this submission focused on larger projects whilst MEL submitted a number of smaller projects as well as larger schemes.

- 5.9 All projects were assessed individually. In considering each project we followed a two stage approach.
- 5.10 In the first stage we considered whether or not the project should be carried out during the price control period. For projects that passed this first stage we then, in the second stage, considered what the appropriate allowance should be.
- 5.11 In making assessments of the efficient level of spend required, we took into consideration advice from our consultants as to the reasonableness of costs. In order to reach the final determination, we have considered their views alongside:
- a) TSO representations;
 - b) Internal engineering advice;
 - c) Experience from other utilities; and
 - d) Benchmarking (where possible).
- 5.12 TSOs have engaged with us since the draft determination was published. Annex 2 provides details on the major repex projects, TSO views, our consideration of recommendations made by our consultants, final decisions and the resultant outputs.
- 5.13 We intend to incorporate the repex programme (costs and outputs) into the reporting requirements. TSOs will be obliged to report against cost/delivery and provide appropriate commentary. We will monitor and publish this information.
- 5.14 TSOs will have some flexibility in these allowances. If outputs are not required or other priorities arise, there is scope to reallocate funds. However, the TSOs will need to justify changes upfront and the UR will have to take a view on the reasonableness of the reallocation.

MEL – UR Decisions

- 5.15 We considered the submissions from PTL, BGTL and WTL separately and made separate determinations for each. These are shown in Appendix 2: Pre-efficiency Repex Allowances. Here we present the final determination with respect of repex on an overall level for MEL.
- 5.16 The table below sets out, for each of the major projects, the request included in the business plan, the allowance proposed in the draft determination and our final determination for MEL. Smaller projects have been accounted for in the 'Other Items' and 'Potential Maintenance Activities' lines.
- 5.17 For a year-on-year breakdown of final determination figures by cost line, see Appendix 2: Pre-efficiency Repex Allowances.

Table 25: MEL – Final determination for repex allowance (pre-efficiency)

Project	BP Request (£m)	Draft Determination (£m)	Final Determination (£m)
SCADA Refresh	0.8	-	0.8
Boiler house Replacement	0.9	0.9	0.9
Ballylumford Water Bath Heaters	0.9	0.0	0.1
C&I (Control and Instrumentation) Panel PLC (Programmable Logic Controllers) Replacement	0.6	0.5	0.5
Fire Detection System - Kiosks	0.2	0.0	0.2
Transformer Replacement	0.2	0.0	0.1
Lagging Replacement	0.1	0.0	0.1
Replacement/Overhaul of Valves	0.3	0.0	0.1
UPS (Universal Power Supply) & UPS Battery Replacement	0.1	0.1	0.1
Other Items	0.9	0.4	0.6
Potential Maintenance Activities	0.6		0.0
Total (Pre-efficiency)	5.7	1.9	3.5

Figures may not sum due to rounding

- 5.18 In some cases the evidence provided by MEL is less robust than might be expected. This has resulted in the disallowance of costs in certain instances. We would anticipate that the Asset Replacement Model and Asset Risk Register will be much further developed and integrated into the next price control process.
- 5.19 The Ballylumford water bath allowance will be treated as a ‘relevant item’⁴⁹. We will consider appropriate funding and outputs in the price control period. This will be dependent upon company submissions and if further detail becomes available on the operation of the ‘B’ station. In the meantime, our final determination provides for an allowance for the control system upgrade (£81k) which has already begun.
- 5.20 Outputs have been defined for the other line items with the exception of potential maintenance activities. It is our view that these projects appear to relate to ongoing activity rather than ad hoc atypical spend, which repex is designed to capture.
- 5.21 Adequate provision has been made for the potential maintenance activities within the relevant ‘Pipeline Inspection’, ‘Emergency Response’, ‘Routine’ and ‘Other Unplanned Cost’ maintenance lines (see Table 10 and Table 11 as well as paragraphs 4.42 to 4.44). As such, no further provision is made in the final determination.
- 5.22 Table 26 shows the outputs expected against the repex allowance:

⁴⁹ For further details on the treatment of relevant items see chapter 7.

Table 26: MEL repex outputs

Project	MEL – GT17 Output
SCADA Refresh	<ul style="list-style-type: none"> • SCADA hardware refresh
Boiler house Replacement	<ul style="list-style-type: none"> • Knocknagoney boiler house replacement • Larne boiler house replacement
Ballylumford Water Bath Heaters	<ul style="list-style-type: none"> • Control system replacement • Water baths TBD (to be defined)
C&I Panel PLC Replacement	<ul style="list-style-type: none"> • PLC panel replacement at Ballylumford, South Cairn, Knocknagoney, Middle Division and Torytown
Fire Detection System - Kiosks	<ul style="list-style-type: none"> • Fire detection systems at eight sites
Transformer Replacement	<ul style="list-style-type: none"> • Eight transformer rectifier (TR) replacements
Lagging Replacement	<ul style="list-style-type: none"> • Lagging at Ballylumford, Torytown, Knocknagoney and Larne
Replacement/Overhaul of Valves	<ul style="list-style-type: none"> • Valve actuator replacement and painting at three block valves in Scotland
UPS & UPS Battery Replacement	<ul style="list-style-type: none"> • Five UPS system replacements • Eight battery charger units
Other Items	<ul style="list-style-type: none"> • Three electrical distribution board change outs at South Cairn, Knocknagoney and Torytown • Two standby generator replacements • Gas chromatograph at Ballylumford • AGI pipework coating at three sites • Emergency paths and gates at five sites • Civil works at three below ground pits • Meter replacement at Larne AGI • Marker buoys in Belfast Lough

GNI (UK) – UR Decisions

- 5.23 The table below sets out the request included in the business plan, the allowance proposed in the draft determination and our final determination for GNI (UK).
- 5.24 For a year-on-year breakdown of final determination figures by cost line, see Appendix 2: Pre-efficiency Repex Allowances.

Table 28: GNI (UK) – Final determination for repex allowance (pre-efficiency)

Project	BP Request (£m)	Draft Determination (£m)	Final Determination (£m)
Cathodic Protection	0.2	0.2	0.2
Boiler Refurbishment	2.0	0.0	0.7
Control System Upgrade	0.1	0.0	0.1
Instrumentation Refurbishment	0.3	0.0	0.3
Metering Recalibration	0.5	0.0	0.5
Gormanston P2 Metering	0.9	0.0	0.0
AGI Security	1.1	0.0	0.0
Cyber Security Upgrade	0.2	0.2	0.2
Emergency Escapes	0.6	0.0	0.4
Remote Line Valve Actuation	0.0	0.0	0.0
Total (Pre-efficiency)	5.9	0.4	2.3

Figures may not sum due to rounding

- 5.25 The company provided extensive responses to the draft determination (see Annex 7). In their opinion the draft determination did not provide sufficient funds for the licensee to discharge their functions.
- 5.26 We subsequently re-examined the projects on the basis of continuing engagement with the TSO and more detailed information provided.
- 5.27 The allowance represents a step change from the draft determination (£0.4m) and the previous price control. This reflects the additional detail provided by GNI (UK) and an enhanced understanding of the network replacement priorities by the UR.
- 5.28 Allowance for roughly £0.5m per annum has been made. The reasons for the difference between this amount and the business plan request are detailed in Annex 2. Key aspects include:
- Allowance for replacement of 10 rather than the requested 27 boilers during the price control period, accounting for uncertainties regarding the timing of the need for such replacement;
 - No allowance for Gormanston phase 2 metering as no beneficial case for the project has been made;
 - No allowance for the AGI security project at this stage but consideration as 'relevant item'⁵⁰; and
 - Reduced allowance for emergency escapes project, accounting for cost saving potentials.

⁵⁰ For further details on the treatment of relevant items see chapter 7.

5.29 For the investment of roughly £0.5m per annum we expect a number of defined outputs which will be monitored throughout the GT17 period. The outputs are as follows:

Table 27: GNI (UK) repex outputs

Project	GNI (UK) – GT17 Output
Cathodic Protection	<ul style="list-style-type: none"> • Three transformer rectifier replacements • 10 anode ground beds • 10 reference electrodes • 50 test posts
Boiler Refurbishment	<ul style="list-style-type: none"> • Replacement of 10 AGI boilers
Control System Upgrade	<ul style="list-style-type: none"> • New distribution control system (DCS) at Gormanston
Instrumentation Refurbishment	<ul style="list-style-type: none"> • Four remote telemetry units (RTUs) • Two UPS systems • Eight battery charger units
Metering Recalibration	<ul style="list-style-type: none"> • Recalibration of 10 turbine meters • Recalibration of four ultrasonic meters • Replace 12 flow computers • Replace two gas chromatographs
Gormanston P2 Metering	<ul style="list-style-type: none"> • N/A (not applicable)
AGI Security	<ul style="list-style-type: none"> • [REDACTED]
Cyber Security Upgrade	<ul style="list-style-type: none"> • [REDACTED] • [REDACTED]
Emergency Escapes	<ul style="list-style-type: none"> • [REDACTED]
Remote Line Valve Actuation	<ul style="list-style-type: none"> • N/A

5.30 We recognise that the number of assets replaced, refurbished, recalibrated, etc. during a price control period may differ from the number assumed when the outputs were defined as part of the price control review. For example, with respect to boiler refurbishment, more or less boilers may become obsolete than initially assumed. We consider that the regulatory framework is sufficiently flexible to account for such situations. In particular:

- If an output is not delivered during a price control period but deferred into a subsequent one, a related allowance will not be granted a second time at such later date, but GNI (UK) will have the monetary benefit of having received the allowance early.
- If a higher number of outputs is required, this can be addressed through the licence mechanism set out in chapter 7, GNI (UK) – UR Decisions.

6 Efficiency Analysis

Summary of Key Changes from Draft Determination

- 6.1 Neither MEL nor GNI (UK) raised objections to the frontier shift analysis. The process used therefore replicates that of the draft determination. This is set out fully in Annex 1.
- 6.2 MEL did however question the imposition of efficiency challenge on top of efficiencies built into their business plan. We recognise the point raised by MEL. However the approach adopted has not changed in the final determination.
- 6.3 In the first instance, regulators typically identify two types of efficiency. This includes catch-up efficiency and frontier shift. Combining these elements forms the efficiency challenge.
- 6.4 We consider that both elements form a legitimate challenge on TSOs. The existence of catch-up efficiency in the business plan does not preclude the imposition of frontier shift challenge.
- 6.5 Secondly, it is not clear to us that the efficiency targets suggested in the business plans are sufficiently challenging. This is due to the fact IT system savings are split between TSOs and are somewhat offset by proposed staff increases in the GMO NI.
- 6.6 MEL has furthermore detailed the fact that procurement efficiency is largely offset by proposed increases in staff salaries to deliver such savings. There is also no efficiency proposed by either TSO on any number of cost lines.
- 6.7 Given these factors, the frontier shift methodology and application remains unchanged in the final determination.
- 6.8 We have revised the wording of this section to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 6.9 The change in the efficiency figures is small and reflects latest OBR (Office for Budget Responsibility) forecasts from March 2017. The cumulative challenge has increased slightly from 4.5% to 4.7%. This is due to higher inflation forecasts and lower wage growth assumptions. Combining this impact results in a reduced real price effect.

Catch-Up Efficiencies

- 6.10 As explained in the draft determination, a catch-up efficiency challenge to the TSO allowance has not been applied by us.
- 6.11 Absence of this challenge does not mean that the scope for efficiency does not exist. Indeed it is normal for most companies to experience some 'lag' from the frontier performer. Rather, the lack of regulatory challenge simply demonstrates that the size of this lag has not been determined.
- 6.12 Whilst no catch-up percentage challenge is applied, we have made use of comparisons. By contrasting between different TSOs and over time, the UR has disallowed forecast cost increases which it does not consider reasonable or justified.

Frontier Shift

- 6.13 Frontier shift is calculated by applying the average annual productivity figure to the real price effects (RPEs) result. The real price effect is computed from discounting RPI from the weighted impact of nominal input prices.
- 6.14 In a simplified calculation, frontier shift can be determined as follows:
 Frontier shift in real terms = input price increase *minus*
 forecast RPI (measured inflation) *minus*
 productivity improvement
- 6.15 Real Price Effects – We have split controllable opex (including repex) spend into a number of categories. Input prices for these categories have then been forecast using various indices and OBR analysis. Discounting RPI from the input price gives a figure for the real price effect on gas TSOs. Generally speaking industry costs are forecast to rise faster than inflation.
- 6.16 Productivity – In addition to real price effects, it is necessary to apply a productivity assumption. This takes account of continuing efficiencies which industry can achieve over the price control period (for example with new technologies, new working practices or other means).
- 6.17 An assessment of productivity has been undertaken. This is based on both recent regulatory precedent and the achievement of similar industries. From this analysis we have applied a 1% per annum productivity challenge to all controllable opex and repex.
- 6.18 The respective net impact of frontier shift is shown in Table 28 below. Full details concerning the calculations around frontier shift can be found in Annex 1.

Table 28: Frontier shift efficiency targets

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Input Price Inflation	3.2%	3.6%	3.4%	3.4%	3.4%	3.5%
RPI	2.6%	4.0%	3.3%	3.1%	3.1%	3.2%
Real Price Effect	0.6%	-0.4%	0.1%	0.3%	0.3%	0.3%
Productivity	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Frontier Shift (p.a.)	-0.4%	-1.4%	-0.9%	-0.7%	-0.7%	-0.7%
Cumulative Challenge	-0.4%	-1.8%	-2.7%	-3.4%	-4.0%	-4.7%

A negative value for frontier shift represents a challenge to the company in terms of reduced cost allowance by the cumulative percentage stated

- 6.19 For the GT17 final determination we are assuming a cumulative frontier shift of 4.7% for controllable opex by the end of the period assessed. This challenge is also applied to repex. No challenge is applied to uncontrollable costs.

Summary

6.20 Figures presented earlier in this paper all refer to allowances pre-efficiency. Applying the cumulative frontier shift challenge to MEL results in the following determination:⁵¹

Table 29: Total allowance for MEL (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination*					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex non-GMO NI	33.9	29.7	6.7	5.8	6.4	5.3	6.5	30.7
Controllable Opex – GMO NI ⁵²	4.6	2.8	0.7	0.8	0.8	0.7	0.7	3.6
Asset Replacement – Repex ⁵²	4.9	1.9	0.5	0.8	1.3	0.6	0.1	3.4
Uncontrollable Costs	45.7	45.0	11.1	8.6	8.7	8.7	8.7	45.7
Total	89.2	79.4	19.1	16.0	17.1	15.3	15.9	83.4

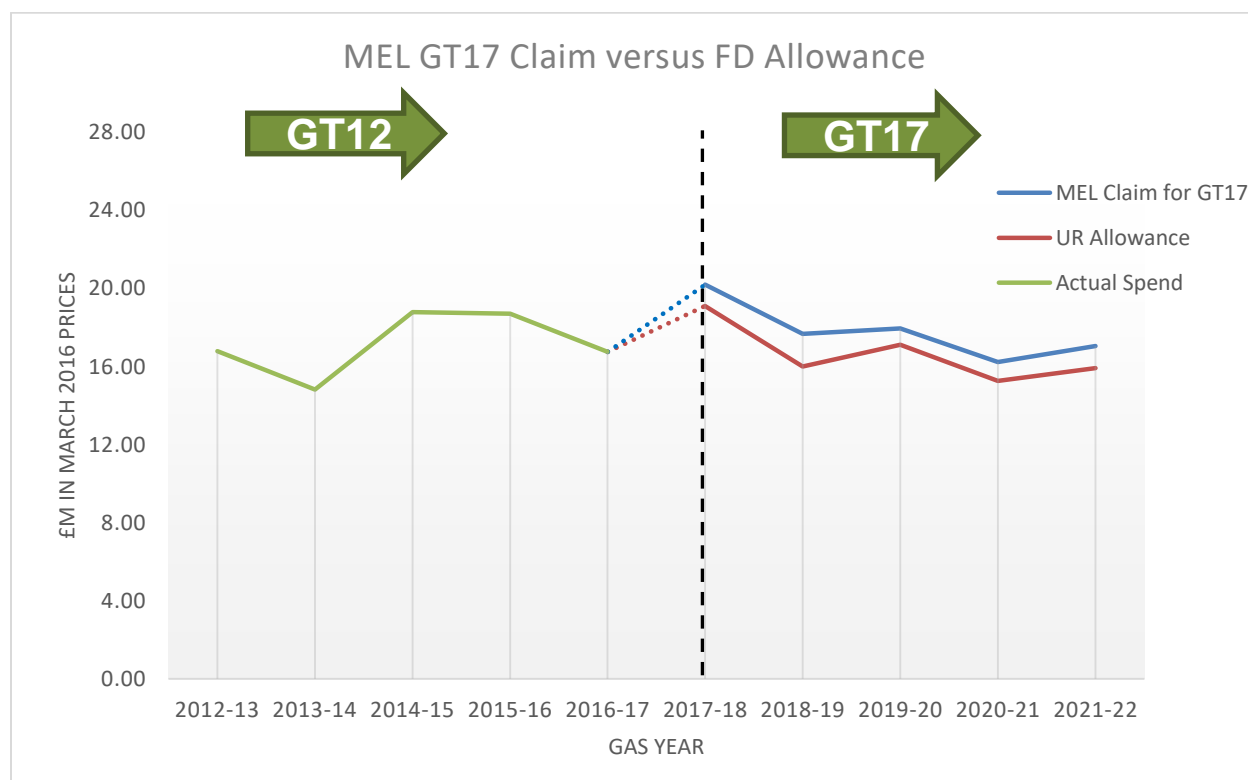
Figures may not sum due to rounding

**£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.*

⁵¹ See Appendix 3: Post-efficiency Allowances for breakdown by TSO.

⁵² In the business plan request and draft determination, the SCADA allowance was included under 'Controllable Opex GMO', for the FD it has been reclassified as repex.

Figure 4: Total allowance for MEL (post efficiency) – March 2016 prices



Note that the claim has been updated from the draft determination to reflect the further information received since on the staff cost allocation between MEL and GNI (UK). The overall business plan request figure for the GMO NI across MEL and GNI (UK) remains unchanged.

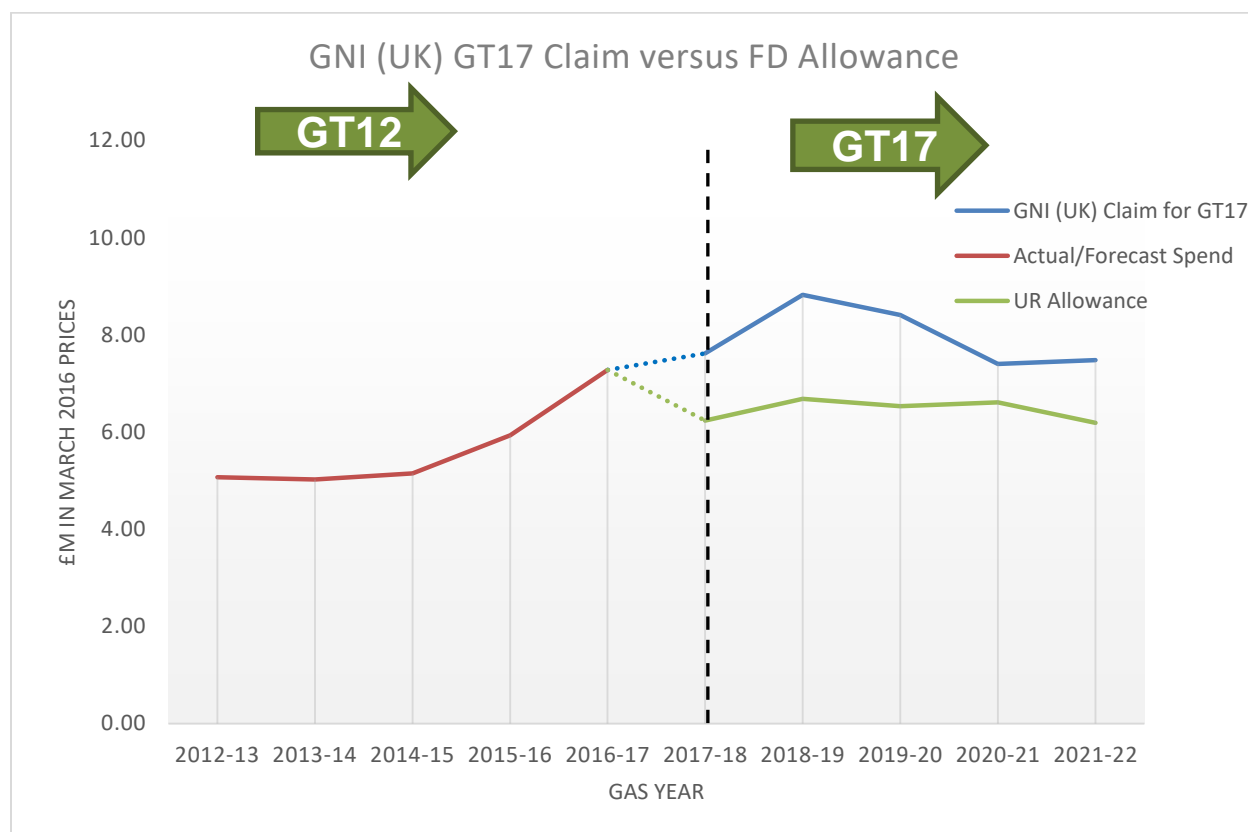
6.21 For GNI (UK) the results are shown in Table 30 and Figure 5:

Table 30: Total allowance for GNI (UK) (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex non-GMO NI	22.1	18.4	3.7	4.0	3.7	3.7	3.8	18.9
Controllable Opex – GMO NI	2.7	2.5	0.4	0.4	0.4	0.4	0.4	2.0
Asset Replacement – Repex	5.9	0.4	0.3	0.5	0.6	0.6	0.2	2.3
Uncontrollable Costs	9.1	9.1	1.8	1.8	1.8	1.9	1.9	9.1
Total	39.7	30.3	6.2	6.7	6.5	6.6	6.2	32.2

Figures may not sum due to rounding

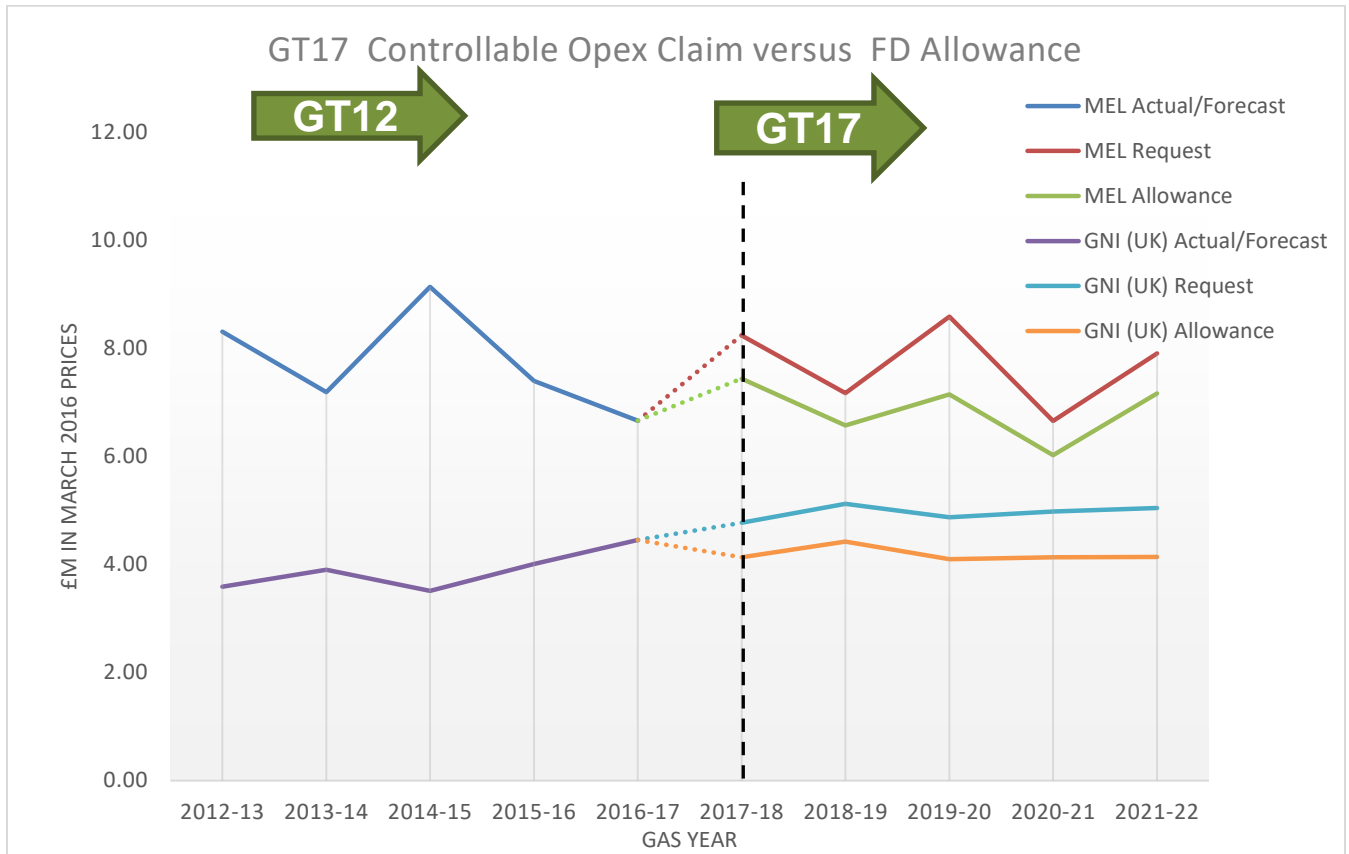
Figure 5: Total allowance for GNI (UK) (post efficiency) – March 2016 prices



Note that this figure has been updated from the draft determination to reflect the further information received since on the staff cost allocation between MEL and GNI (UK). The overall business plan request figure for the GMO NI across MEL and GNI (UK) remains unchanged.

- 6.22 Post-efficiency allowance for all controllable opex and repex represents c87% and c76% of the business plan request for MEL and GNI (UK) respectively. These figures have shifted somewhat since the draft determination. This is reflective of the following:
 - a) Business plan request figures have changed based on revised split of GMO NI resource allocation (from 50%:50% to 16.2% for GNI (UK) and 83.8% for MEL as requested by the GMO NI).
 - b) Allowances for both companies have been revised upward, particularly in the case of GNI (UK) repex.
- 6.23 If both repex and uncontrollable costs are excluded, the post-efficiency controllable opex allowance represents c89% for MEL and c84% for GNI (UK). This is demonstrated in Figure 6 below:
- 6.24 Percentages are slightly misrepresentative for MEL. This is due to the controllable opex request including the SCADA refresh (£0.8m), whereas the allowance has been allocated to the repex line.

Figure 6: Total allowance for TSOs controllable opex (post efficiency)



Note that this figure has been updated from the draft determination to reflect the further information received since on the staff cost allocation between MEL and GNI (UK). The overall business plan request figure for the GMO NI across MEL and GNI (UK) remains unchanged.

7 Incentives and Innovation

Summary of Key Changes from Draft Determination

- 7.1 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 7.2 In addition the section has been updated to provide additional clarity on the incentive and review mechanisms for GNI (UK).

Detailed Approach – UR Decisions

Overview

- 7.3 In our approach paper we set the various incentive mechanisms that each TSO is exposed to. We have reviewed each of these mechanisms under two broad criteria:
- The ability to deliver efficient outcomes for consumers; and
 - The clarity with which the incentive operates.
- 7.4 In addition we have given some consideration to our approach to innovation on the part of licence holders.

Innovation Projects

- 7.5 Our approach to innovation is in line with that set out in our final determination on GD17 published in September 2016.
- 7.6 It is our view that successful innovation is best driven by the licence holders operating under an appropriate price control framework. Such a framework should allow them to make decisions on what innovation investments to make, taking into account the impact these investments will have on reducing costs and improving outputs.
- 7.7 The licence holders will then be rewarded through the price control framework for resulting outperformance to the end of the price control period. Consumers will benefit in the long run from improved services and lower prices⁵³.
- 7.8 We consider that this approach should remain the principal mechanism for delivering innovation. It provides maximum flexibility to the licence holders to make innovative decisions. It further aligns the benefits for consumers and licence holders and avoids the risk of the UR being asked to pick winners from a list of potential innovation projects.
- 7.9 Generally, the purpose of innovation is to reduce cost. Therefore, we would normally expect that any innovation costs will be funded from the overall price control package, and not from specific innovation allowances and increased prices.

⁵³ It is recognised that this is true for licence holders with a revenue cap but may not be the case for those with a cost pass through mechanism.

- 7.10 That said, we are conscious that in some cases funding of innovations through increased prices could be appropriate. For instance, this may be the case for major innovation projects that require significant upfront investment and where the payback period for the project is relatively long, perhaps spanning future price control periods.
- 7.11 We regard the bar as being set high in terms of evidence required in support of a request for funding of innovation projects through specific innovation allowances and increased prices. In particular, 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 innovation 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;
 - Justification of why funding through the overall price control package is considered not sufficient and why funding through specific innovation allowances and increased prices is requested;
 - Explanation of how the licence holder has arrived at its bid for innovation and how this interacts with other investments planned under the normal price control;
 - Explanation of how the innovation bid was identified/prioritised and justified in consultation with consumers and other stakeholders;
 - Explanation of why there exists a barrier towards innovation which requires some form of regulatory action to progress, and the consequences of the innovation not happening;
 - Details on what deliverables/benefits may be expected for local consumers from the research/development/trials;
 - Detailed risk assessment as well as details on and justification of proposed treatment of risk and reward;
 - Description of how the innovation, if successful, could be efficiently rolled out across the industry; and
 - Justification of how the proposed innovation is different to anything that has occurred previously, within the wider industry.
- 7.12 We may consider additional, project-specific assessment criteria, where relevant and appropriate.
- 7.13 Where licence holders consider it appropriate to request funding of innovation projects through specific allowances and increased prices, details on the related allowances requested, as well as any supporting documentation, should, in principle, be included in the business plan submissions made by the licence holder at the onset of a price control. However, we recognise that in certain circumstances this may present difficulties or not be possible.

Relevant Items and Other Unforeseen Expenditure

- 7.14 In this final determination, we have identified three 'relevant items':

- Ballylumford Water Bath Heaters;
 - AGI Security; and
 - GMO NI emergency management module with time to fail model.
- 7.15 For these initiatives, material expenditure may be required during the price control period. However, insufficient information was available at the time of this review to establish if this will indeed be the case and if so to what extent.
- 7.16 For 'relevant items' as well as for other unforeseen expenditure, we expect TSOs to submit forecast cost estimates for each project once the project requirements have been agreed. We will then make an assessment of what is considered to be an efficient level of expenditure for project delivery. An appropriate allowance can then be included in the annual Forecast and Actual Revenue Requirement process. This will be accommodated through licence condition 2.2.4(j) in the case of GNI (UK). In the case of the MEL the licence is constructed so that Allowed Revenue is aligned with Actual Costs in the November following the end of the relevant Gas Year.
- 7.17 Other than in exceptional circumstances where this cannot reasonably be expected, cost estimates for such projects must be provided and reviewed prior to the expenditure being incurred.
- 7.18 This process is in line with our 2012 determination and will follow the following steps:
- **Step 1:** Project deliverables to be agreed with the UR;
 - **Step 2:** Estimated cost requirement to deliver agreed project submitted to the UR for consideration;
 - **Step 3:** UR determines the allowance to be recovered through the postalised transmission tariff; and
 - **Step 4:** Cost reporting, as necessary, to the UR during project delivery phase.

MEL – UR Decisions

- 7.19 The last review of the relevant governance arrangements was carried out in 2008. As a matter of good regulatory practice it would be appropriate to review the existing arrangements. We therefore intend to carry out this review during the price control period.
- 7.20 As noted in our draft determination we consider that the value of the Social Enhancement Fund (SEF) in providing appropriate incentives to managers is not clear. The future of this mechanism and the funds already retained by it will form part of our governance review.
- 7.21 In the meantime we have decided that no further monies should be allocated to the fund and that all future operating cost savings are returned directly to consumers at the end of the gas year. This will be achieved by setting the 'z' factor to zero each year. This will have immediate effect, commencing with the 2016-17 gas year reconciliation process.

GNI (UK) – UR Decisions

- 7.22 This licence holder operates under a ‘revenue cap’ regime that provides a strong incentive to manage costs. As we noted in our BGE (NI) 2012 Determination⁵⁴ we consider the licence holder receives sufficient return on capital to accept the level of risk associated with being required to fund a very limited level of operating expenditure risk. We consider that this also remains the case for GT17. In addition, the current licence provides real protection in relation to operating expenditure.
- Condition 2.2.4(i) allows GNI (UK) to request a special operating expenditure review if actual controllable operating expenditure in any gas year differs from the most recently agreed forecast by more than 15%. The UR may substitute an amended figure following such a review.
 - Condition 2.2.4(j) allows GNI (UK) to seek the UR approval to recover unforeseen operating expenditure. We may approve this in our absolute discretion although any expenditure must be genuinely unforeseen.
- 7.23 We consider that these mechanisms are sufficient to provide GNI (UK) with adequate protection against risks. This includes in particular unforeseen IT development costs related to the GMO NI, and/or repex projects for which no allowance is made at the time of the price control determination but which we may subsequently allow during the price control period due to new information provided by GNI (UK).
- 7.24 The current arrangements have proven sufficiently flexible over the previous price control periods. GNI (UK) has been provided with additional allowances over and above the previous determination to deliver significant European compliance projects.
- 7.25 Furthermore, we have recently modified Condition 2.2.4(i) of the GNI (UK) licence so that the 15% threshold relates to controllable operating costs only. By explicitly excluding uncontrollable costs from the calculation, a smaller variation in costs will be required to trigger the mechanism.

GMO NI – UR Decisions

- 7.26 In allocating allowances to the parties to the GMO NI we have done so in a way that reflects the contractual responsibility each licence holder has for the individual resources that must be deployed to deliver the outputs for which the GMO NI is responsible.
- 7.27 We recognise that during the price control period changing circumstances may require that the pattern of resources deployed by the licence holders is realigned. We do not propose to revisit our determination as a consequence of any realignment. Instead we will treat transferred opex as uncontrollable and adjust the uncontrollable operating expenditure figure for each licence holder in line with their respective licence conditions:
- GNI (UK) 2.2.4(k); and
 - PTL 3.1.2 (e).
- 7.28 To facilitate such a transfer we would require certain information before approval to the transfer of allowances would be given. We foresee this as being a joint proposal from the GMO NI detailing the following:
- Item for which responsibility is changing;

⁵⁴ [BGE \(NI\) Price Control Determination 2012-17](#) paragraph 3.4 – 3.6.

- Rationale for the change;
- Initial allowance for the activity;
- Amount spent to date and amount to be transferred etc.

7.29 The UR would then decide if this request is material and reasonable. The amount of detail in the proposal should be commensurate with the value of the budget being transferred. This particular cost element would remain as an uncontrollable item until the next price review where it would be reclassified.

8 Financial Aspects

Summary of Key Changes from Draft Determination

- 8.1 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 8.2 In particular, since our draft determination we have updated our view on the appropriate asset beta for GNI (UK) in light of certain technical issues that GNI (UK) raised with regard to the asset beta figures reported by other regulators as well as of the overall level of GT17 final determination allowances.
- 8.3 We have also reviewed latest market data on the prevailing cost of debt. As a result, we have changed the cost of debt figure of 0.60% in the draft determination to 0.20% for the final determination. As a result of these changes we have marginally increased our Weighted Average Cost of Capital (WACC) value for GNI (UK) from 2.00% to 2.01%.
- 8.4 In the case of WTL we have now determined not to modify the cost of debt figure included in Condition 4.5.3 of the licence.
- 8.5 As a result of these and other changes the estimate of future capital repayments and financeability have been recalculated.

Detailed Approach – UR Decisions

- 8.6 We set out our approach for WACC in our approach document and again in our draft determination. This section is structured as follows:
- UR decisions with respect to WACC for GNI (UK) and WTL as well as consideration of related issues;
 - Capital Repayments; and
 - Financeability.

GNI (UK) – UR Decisions

Overview

- 8.7 In June 2016 we approved a modification to the GNI (UK) licence which brought the setting of WACC in line with what had been set out in the original licence granted in February 2002. That licence envisaged the possibility that the UR might set the rate of return for the licence holder based on a funding model with 100% debt.
- 8.8 Experience in NI has demonstrated that the financial markets are willing to fund gas transmission assets on this basis. Most recently the competitive process to award the high pressure gas conveyance licence that formed part of the GttW project was secured by WTL based on a 100% debt model.
- 8.9 The original licence was modified in July 2008 at the request of the licence holder such that the gearing ratio was fixed at 72.5%. In combination with a fixed return on equity of

15% (nominal), this has meant that the licence holder received a premium on the rate of return when compared to an investor in a regulated utility with an equivalent risk profile. Based on this understanding it was determined by us that the licence should be modified in advance of this price control process.

- 8.10 In their response to the draft determination, GNI (UK) stated that the WACC should be set in a way that took account of the level of risk they faced when they first invested in the Northern Ireland gas industry and not just the level of risk during the GT17 price control period. GNI (UK) made similar comments during the statutory consultation that resulted in the modification of the rate of return licence condition in June 2016⁵⁵.
- 8.11 Although GNI (UK) make reference to the risk investors faced in previous periods they have failed to quantify this additional risk. Nor more particularly have they provided any evidence to indicate that any additional risk that may have existed was not fully remunerated at the time.
- 8.12 We also note that to mitigate the cost risk associated with the construction of the pipeline network, GNI (UK) benefited from a specific mechanism which substantially reduced their risk exposure. Under this mechanism capital allowances were set after materials purchase and the letting of the construction contract. In addition, a pain gain mechanism was put in place so that residual cost risk was shared between GNI (UK) and Northern Ireland gas consumers.
- 8.13 For these reasons which were fully considered during the consultation on the licence modification we do not accept that setting the WACC to reflect the prevailing level of risks faced by investors is inappropriate.
- 8.14 As we noted in our consultation on the recent licence modification, one useful comparator when considering an appropriate rate of return for GNI (UK) is the output from the competitive process to award the GttW high pressure conveyance licence.
- 8.15 Both the GNI (UK) as well as the GttW network are on land high pressure networks that once operational are not expected to require further investment in new capacity. The financial model set out in both licences to recover this investment is almost identical.⁵⁶
- 8.16 This clearly demonstrates that the financial markets are prepared to accept 100% debt funding of such assets at very low interest rates. The successful applicant indicated that based on market conditions as at April 2014 they would require a WACC of 1.98% to fund the purchase of the pipeline assets.
- 8.17 Since then there has been a significant change in market conditions. Applying the 2014 analysis to prevailing market conditions in the autumn of 2016 WTL estimated an equivalent WACC of 0.3%.
- 8.18 This figure includes the costs of bond issuance and providing a liquidity reserve, which together amount to 0.4%. This suggests negative real bond yields. In our draft determination we estimated that based on these figures and adjusting for the forward debt curve and 'revenue cap' form of control, it might be possible for GNI (UK) to finance their regulated business with a WACC of as low as 1.00%.
- 8.19 In their response GNI (UK) stated that we had put undue weight on the rate of return achieved by the mutualised GttW business model. This, however, is not the case. In

⁵⁵ [Utility Regulator: Decision published pursuant to Article 14\(8\) of the Gas \(Northern Ireland\) Order 1996, Modifications to GNI \(UK\)'s Gas Conveyance Licence, 29 June 2016.](#)

⁵⁶ The Monthly Capital Revenue Requirement is inflated by RPI in the WTL licence and CPI (Consumer Price Index) in the GNI (UK) licence respectively.

setting the GNI (UK) rate of return in both the draft determination and in this final determination, we have used the analysis of the implications of the GttW WACC for GNI (UK) as a sense check only, but the calculation of the GNI (UK) WACC has been based solely on a piece-by-piece build-up of the various component parts that make it up, that is cost of debt, cost of equity and the gearing ratio.

8.20 The discussion that follows explains in detail how we reached our decision on each of these complement parts.

Cost of Debt

- 8.21 It is not possible to directly observe GNI (UK) debt cost from market traded bonds, as it is funded by internal loans from the parent. As in previous price control periods, for the draft determination we relied on market data for 10+ year maturity bonds with A and BBB ratings as a reasonable proxy for the cost of borrowing that GNI (UK) would experience in the debt market.
- 8.22 In their response GNI (UK) stated that it was unrealistic to assume that GNI (UK) could issue A rated debt and that only BBB rated bonds should have been considered as was the case in GD17.
- 8.23 We would, however, point out that Ofgem's practice in its RIIO reviews and our own approach to the cost of debt in GT12 involved averaging the cost of A and BBB rated debt. Our approach is therefore consistent with our own previous practice and that of other economic regulators. We recognise that when setting a cost of debt in RP6⁵⁷ we considered only BBB rated bonds. However this was in recognition of the greater level of financial risk inherent in the licenced activity of NIE.
- 8.24 In the GD17 review we observed the yield of BBB rated bonds⁵⁸ to give specific recognition to the way in which the Profiling Adjustment would restrict PNGL's and FE's cash flows in the short term and put pressure on ratings. There is no comparable factor in the case of GNI (UK).
- 8.25 For these reasons we do not accept the GNI (UK) view that the inclusion of A rated debt in our assessment of prevailing market conditions that would be faced by GNI (UK) is incorrect.
- 8.26 In their response GNI (UK) stated that our methodology for assessing the prevailing cost of debt differed from the approach we had taken in other relevant price controls and would therefore expose them to a level of volatility not experienced by other licence holders. They also noted that the methodology we proposed to adopt in this price control was at odds from the methodology adopted in GT12.
- 8.27 The methodology we have adopted for estimating the prevailing cost of debt is in line with the GNI (UK) licence. We have not just taken a snapshot of the cost of debt at any particular point in time as representing the likely cost of debt for GNI (UK). Rather we have adjusted the point in time estimate by applying the forward yield curve for 10 year maturity nominal gilts to establish the market view of the likely cost of debt over the price control period.

⁵⁷ [RP6 Final Determination.](#)

⁵⁸ [See Utility Regulator: Price Control for Northern Ireland's Gas Distribution Networks GD17, Final Determination, 15 September 2016,](#) paragraph 10.49.

- 8.28 In GT12 we estimated the GNI (UK) cost of debt using a trailing average of historic data to reflect the cost of embedded debt. In effect this methodology assumed that the prevailing cost of debt for the licence holder was made up of many individual chunks of debt each issued at various points over previous years at different interest rates. This is the methodology adopted by Ogem for its RIIO price controls.
- 8.29 Either methodology would be in line with the licence drafting applicable today or at the time of GT12. The former however was adopted as it better reflects the nature of the stock of debt GNI (UK) uses to finance the regulated activity.
- 8.30 As we noted in our draft determination, GNI (UK) is entirely funded by a loan from the parent. We estimated that of the parent's total debt stock, as at December 2015, 75% will have interest costs related to future rather than past market conditions. We also noted that in December 2016 the parent had issued €625m worth of new debt.
- 8.31 The concept of embedded debt, where relevant, continues to play a role when estimating WACC values for instance in the case of NIE RP6. In this case the overall cost of debt is also based on a forward looking estimate of debt costs, to take account of that proportion of the total stock of debt that will be issued/re-issued during the price control period.
- 8.32 For these reasons, while we recognise that our methodology deployed in our draft determination differs from that adopted in GT12 and for other price controls, we do not agree with the GNI (UK) view that it is an inappropriate methodology when estimating the GNI (UK) cost of debt.
- 8.33 In their response, GNI (UK) noted that to address potential future volatility in the debt markets the Utility Regulator had introduced a specific adjustment mechanism into the GD17 price control framework.
- 8.34 The GD17 final determination was published in September 2016, less than three months after the EU (European Union) referendum. At the time we assessed that it was too early to judge where financial markets would settle. This GT17 decision is being published a year after the referendum and indeed after the outcome of the General Election held on 8 June 2017. Our review of the prevailing debt markets strongly indicates that the markets have not been moved as a result of the General Election and remain at a broadly similar level as at the time of GD17.
- 8.35 In the extra time that has elapsed, it has become clear that the referendum is going to have a long-lasting impact on certain economic fundamentals, including interest rates. We consider that there is now sufficient evidence to justify setting a cost of debt with reference to current market interest rates. A similar approach is being adopted in the NIE RP6 review.
- 8.36 For the reasons outlined above, we do not consider that an adjustment mechanism similar to that in GD17 would be justified.
- 8.37 As noted above, GNI (UK) entirely finances its licensed activities in Northern Ireland through an intercompany loan from their parent. For this reason, in our draft determination we considered that a relevant piece of evidence was the cost of debt of the parent.
- 8.38 As at 31 December 2015⁵⁹ the parent had a total of €374m of floating rate debt and €788m of fixed rate debt of which €500m was in the form of a five year bond with a maturity date of December 2017. The average interest rate of the fixed portfolio was 3.3% (nominal) while the rate on the bond was 3.6% (nominal). We also noted that in

⁵⁹ Data provided by Ervia.

December 2016 Gas Networks Ireland reported that it had raised €625m of capital through the issue of two bonds. The funding was in the form of:

- A €500m 10-year bond at a rate of 1.375%; and
- A €125m 20-year bond at a rate of 2.25%.

- 8.39 We have since confirmed with the licence holder that the €500m has been used to redeem the existing bond and that the interest rates quoted were nominal. This clearly illustrates that at present the parent is able to secure debt finance at negative real interest rates.
- 8.40 In their response GNI (UK) stated that we had placed undue weight on the debt cost of the parent. This, however, is not the case as we used general market data to benchmark the cost of debt for GNI (UK). We do, however, consider the debt cost of the parent to be a relevant piece of contextual evidence.
- 8.41 In their response GNI (UK) stated that although it is financed by an inter-company loan, when setting the cost of debt we should have included transaction costs and an illiquidity premium. This would be in line with regulatory practice whereby WACC is estimated assuming a notional/stand alone firm irrespective of actual corporate structures.
- 8.42 Transaction costs and an illiquidity premium would potentially be relevant if GNI (UK) were borrowing directly from private lenders and/or issuing bonds. In such circumstances, if there was evidence that GNI (UK) was incurring certain expenses and/or that lenders were demanding premium rates of interest to compensate for illiquidity in the secondary markets, then we would consider whether we should factor such frictional costs into its allowed cost of debt. Because there is no evidence of GNI (UK) encountering such cost, it is not necessary to ask customers to pay higher prices in this price review.
- 8.43 For these reasons we do not accept the GNI (UK) view that either transaction costs or an illiquidity premium should be included in our estimate of the GNI (UK) cost of debt.
- 8.44 The table below sets out the various estimates of forward looking debt costs that we have made since the EU referendum in June 2016. Debt costs in real terms have moved around within a relatively narrow band. For the purpose of our final determination we have taken a conservative approach and decided to change from the figure of 0.60% used in the draft determination to 0.20% for the final determination, based on our review of the latest market data on the prevailing cost of debt.

Table 31: Utility Regulator cost of debt estimates since EU referendum

Publication	Cost of Debt
GD17 FD (Sept 16)*	0.19%
GT17 DD (Nov 16)	0.60%
RP6 DD (Jan 17)*	0.53%
RP6 FD (Jun 17)*	0.00%
GT17 FD (June 17)	0.20%

All figures in real terms and exclusive of transaction costs and illiquidity premium

RP6 market data adjusted to reflect cost of debt of the next 12 months hence based on forward curve

GT17 market data adjusted to reflect average cost of debt over entire price control period based on forward curve

*BBB rated bonds only

Asset Beta

- 8.45 A firm's equity beta is a measure of the riskiness of a firm – or more specifically, a measure of the systematic risk that a firm presents – relative to the market portfolio. Firms that exhibit a beta of more than 1 can be considered more risky than the average firm in the portfolio and need to pay their investors a higher-than-average return. Firms with a beta of less than 1 are less risky and warrant lower returns. Firms with a beta of exactly 1 are seen by investors as being of equal risk to the market portfolio and are expected to generate a return in line with market returns.
- 8.46 Empirical estimates of beta are usually obtained by measuring the covariance between movements in a company's share price and movements in the value of the stock market as a whole. However, in this instance we are interested in obtaining beta estimates for an unlisted business and cannot use market data directly.
- 8.47 The next best alternative that we have is to collect beta estimates for companies that look to be in some sense similar and to make a judgment about the value of GNI (UK)'s beta on the basis of this comparator evidence. This is an approach that has been deployed in an increasing number of periodic reviews, including several CC/CMA inquiries.
- 8.48 As the number of regulated companies with a stock market listing has declined, it is regarded as a robust and reliable way of assessing beta in the absence of direct stock market data.
- 8.49 When comparing the betas of different firms, one has to be careful to take account of the different gearing levels that firms choose since, all other things being equal, a firm with higher gearing will exhibit a higher equity beta. Unless one controls for this effect, there is a danger of confusing the risk that comes from high leverage with the underlying business risk that a firm faces by virtue of the nature of the activities it is carrying out.
- 8.50 This is where the concept of an asset beta proves useful. An asset beta is a hypothetical measure of the beta that a firm would have if it had no debt and were financed entirely by equity. By comparing different firms' asset betas it becomes

possible to isolate the underlying systematic risk that a company has and carry out an assessment of the relative riskiness of different businesses.

- 8.51 In our draft determination we stated that evidence from market observations and precedent from other economic regulators indicates that the value of this variable should lie between 0.30 and 0.40.
- 8.52 In their response GNI (UK) stated that our view of the market data was incorrect as it did not take proper account of increases in asset beta values, in the two-year period up to July 2016, derived from market observations, and that we had been incorrect in excluding SSE from this market analysis.
- 8.53 We acknowledge that empirical estimates of equity betas have been increasing recently. In line with the position taken by the CC/CMA in recent reports, we consider that it should not be overly swayed by short-term movements in share price data, but should instead seek to look at empirical estimates of beta over a longer time horizon. Equity betas of listed network companies, averaged over five years, lie within the 0.30 - 0.40 asset beta range that we have ascribed to 'standard' network utility companies in the draft determination.
- 8.54 We recognise that the removal of SSE from the comparator set lowers the upper boundary of the asset beta range and also reduces the average from 0.36 to 0.34. As a company that makes approximately half of its profits from riskier generation and retail activities we do not consider the inclusion of SSE in the comparator set as being appropriate.
- 8.55 For these reasons we do not accept the GNI (UK) suggestion that a two year average of market data is appropriate or that data for SSE should be included in the comparator set.
- 8.56 Table 32 below sets out the market derived estimates of asset beta for a comparator set of utilities.

Table 32: Market derived asset beta estimates

Utility	Five Year Average
National Grid	0.35
Pennon Group	0.36
Severn Trent	0.34
United Utilities	0.32

Source: Bloomberg and First Economics' calculations using data up to July 2016.

- 8.57 In their response GNI (UK) stated that when considering asset beta data from other regulatory decisions we had failed to control for differences in regulators' debt beta⁶⁰ assumptions. We accept that there is no single right way of reading across from the values of beta that are identified in other regulators' published price control documents.

⁶⁰ A debt beta is similar to the equity beta, but rather than measuring the systematic risk taken by the company's shareholders, it represents such risk presented to the company's lenders

- 8.58 The approach that was taken in the draft determination, which built on the approach that First Economics took in its report, involved taking quoted asset betas at face value – i.e. as the regulators’ estimates of the beta that a firm would have if it were financed entirely by equity. In this way of looking at things, it falls to us to assess, independently as a separate and stand-alone task, how firms’ betas then change in response to higher gearing.
- 8.59 We can nevertheless acknowledge that there is an alternative way of utilising other regulators’ analysis, in which quoted asset betas have to be looked at in the context of the detailed computation methodology that each regulator used to derive the asset beta estimate. Under this approach, an asset value of x is only x because the regulator used a debt beta of y; using a different value for debt beta would mean that the asset beta value takes on a value of z. It follows that in order to compare asset betas effectively adjustments would be required to take account of variations in the debt beta used by the individual regulators.
- 8.60 In practice, however, we do not consider that this matter had any effect on our determination. The estimates of asset beta that we placed most weight on were:
- Ofgem, RIIO-GD1 = 0.38
 - UR, GD17 = 0.40
 - CC, NIE = 0.40
- 8.61 There is no issue with the first two points of reference in this list because both we and Ofgem used a debt beta of 0.1 in the decisions made. In both cases, we consider that GNI (UK), as a mature business that is managing very small amounts of expenditure relative to the size of its investor capital, is clearly less risky than the comparator companies.
- 8.62 The read-across from the Competition Commission’s estimate of NIE’s asset beta is less straight-forward, but we note that the Competition Commission’s final NIE inquiry report contains a calculation of the equity beta that NIE would have if its gearing were 65%, in which the Competition Commission gears up a 0.4 asset beta using a debt beta of 0.1.⁶¹ We also note that we have identified NIE as a more risky business.
- 8.63 We are content, therefore, that we used the beta estimates from the three above-mentioned reviews appropriately and that the draft determination positions GNI (UK)’s beta logically relative to other, comparable regulatory determinations, having regard to the intrinsic riskiness of the businesses.
- 8.64 For these reasons we do not accept the GNI (UK) suggestion that our use of asset beta data from other regulators was inappropriate.
- 8.65 Table 33 below sets out the asset beta values from other regulators as reported in our draft determination updated to take account of the our RP6 determination of June 2017.

⁶¹ See table 13.13 of the [CC’s final NIE inquiry report](#).

Table 33: Beta estimates used in recent periodic reviews

Regulator/Decision	Year	Estimates of Asset Beta
Ofgem, gas distribution networks	2012	0.38
Owat, water and sewerage networks	2014	0.30
Ofgem, electricity distribution networks	2014	0.38
Competition Commission, NIE	2014	0.40
Competition Commission, GB regulated networks	2014	0.31 to 0.40
Utility Regulator, gas distribution networks	2016	0.40
Utility Regulator, NIE (determination)	2017	0.38

8.66 Since our draft determination, in which we proposed an asset beta of 0.30, we have reviewed our positioning of GNI (UK) within the range of potential asset beta estimates. This review has led us to conclude that there has been a material change in the level of systematic risk to which an investor in GNI (UK) is exposed.

8.67 In particular, the level of capital investment, in the form of replacement expenditure, which GNI (UK) is required to fund has increased substantially from £0.4m in our draft determination to £2.3m in this final determination with the potential for this to increase to £3.3m when relevant items are included. Unlike other regulated companies which might be permitted to add this value to their asset base and earn a return on the investment, GNI (UK) has these costs treated as operating costs. Return on capital is therefore not available to GNI (UK) to moderate the impact of deviations between allowed and actual expenditure.

8.68 For these reasons we have decided that for the final determination we will set the asset beta to a value of 0.34.

Cost of Equity

8.69 In calculating the cost of equity we have set the *market returns to equity* figure at 6.5% and the *risk free rate* at 1.25%. This is in line with recent decisions by the Competition and Markets Authority, other economic regulators and the figures proposed by GNI (UK)⁶².

8.70 This outcome has been reviewed since the draft determination; this review did not result in any change.

Gearing Ratio

8.71 In line with other regulators, we have set the gearing ratio consistent with the licence holder maintaining a credit rating in the range A to BBB/Baa. Depending on the

⁶² CMA Bristol Water 2015, Ofgem RIIO-ED1.

particular circumstances of the regulated utility, gearing ratio figures of between 45% and 65% have been used.

- 8.72 We consider that given the low level of cash flow risk to which GNI (UK) is exposed, controllable operating expenditure is less than 5% of the Regulated Asset Base (RAB), a gearing ratio of 65% is appropriate.
- 8.73 The increase in replacement expenditure since the draft determination has increased the level of cash flow risk. However, our analysis of financeability confirms that this gearing ratio remains reasonable to maintain the desired credit rating.

Weighted Average Cost of Capital

- 8.74 In their response to our draft determination GNI (UK) stated that our proposed WACC of 2.0% (real) was far outside the range of returns allowed by both ourselves and other regulators in recent years.
- 8.75 GNI (UK) is correct to identify that the return it will earn in the GT17 period sits below the returns that other regulated companies have been allowed by their regulators.
- 8.76 This is primarily attributable to the calculation of the cost of debt. As discussed in the cost of debt section above we have calculated the GNI (UK) cost of debt in the absence of any embedded debt.
- 8.77 Other regulated companies typically have a stock of existing embedded debt, which was taken out in years when interest rates were higher than they are now. This difference in circumstances means that GNI (UK)'s rate of return naturally sits lower than other regulated companies.
- 8.78 Table 34 sets out the embedded cost of debt that has been included in the calculation of reported WACCs for other regulated companies.

Table 34: Embedded debt & other reported WACC data

Regulator/Decision	Embedded Debt Cost	Embedded Debt %	WACC
RP6 FD (Jun 17)	3.95%	44%	3.29%
PC15 (Dec 14)	1.46%	+90%	3.53%
RIIO NGG TO ⁶³ (2013-14)	2.90%	100%	4.40 [^]
RIIO NGG TO (2017-18)	2.22%	100%	3.94%

- 8.79 In addition, our analysis also indicates a comparatively low cost of equity. This is a function of GNI (UK)'s risk profile, especially the low amount of expenditure that GNI (UK) is managing relative to the size of its investor capital base.
- 8.80 We note that neither GNI (UK) nor its consultant sought to refute the suggestion that GNI (UK) is intrinsically less risky than other regulated companies and, hence, we consider it

⁶³ Transmission Operator.

is incorrect to compare rates of return across different decisions without allowing for the differences in riskiness.

- 8.81 For these reasons we do not consider that either our draft or our final determination of the WACC value could be regarded as being out of line with recent precedent. Table 35 sets out our GNI (UK) WACC final determination.

Table 35: WACC – GNI (UK)

WACC Component	GNI (UK) Request	Draft Determination	Final Determination
Gearing	55%	65%	65%
Cost of Debt	2.50%	0.58%	0.20%
Cost of Equity	6.06%	4.78%	5.38%
Market Rate of Equity	6.50%	6.50%	6.50%
Risk Free Rate	1.25%	1.25%	1.25%
Asset Beta	0.44	0.30	0.34
Equity Beta	0.92	0.67	0.79
Debt Beta	0.05	0.10	0.10
WACC (real)		2.00%	2.01%
CPI-RPI Adjustment		1.08%	1.14%
Financial Model WACC	4.10%	3.10%	3.17%

- 8.82 In our draft determination we recognised that in reaching our estimate of an appropriate rate of return for GNI (UK), we had converted from nominal to real market data by applying the Retail Prices Index measure of inflation. This is in line with the practice of other economic regulators and facilitates comparison with other relevant regulatory decisions.
- 8.83 The financial model set out in the GNI (UK) licence, however, uses the Consumer Prices Index measure. It is recognised that due to methodological approach and scope there is a wedge between the annual estimates of inflation these two indices generate.
- 8.84 An adjustment should therefore be applied to the various components of WACC before being input into the GNI (UK) financial model. In the absence of such an adjustment GNI (UK) would be disadvantaged in comparison to other regulated utilities whose costs are inflated using the Retail Prices Index.
- 8.85 In our draft determination the value of this adjustment was 1.08%. We have updated this in light of the latest inflation forecasts from the Office of Budget Responsibility and the figure is now calculated as being 1.14%.

- 8.86 In their business plan GNI (UK) made no reference to such an adjustment being required prior to data input into the financial model. Neither did they make any reference to our proposed adjustment in their response to our draft determination.
- 8.87 For these reasons we consider that the most appropriate comparison is between the GNI (UK) WACC as requested of 4.10% and our WACC figure post the application of the adjustment (3.17%). This will allow a true comparison of the impact on capital repayments of our final determination when compared to the GNI (UK) business plan submission.
- 8.88 The GNI (UK) licence requires us not to set the value of WACC per se but rather the values of the components which when combined in accordance with the formula set out in the licence equate to the rate of return. Table 60 in Annex 4 of this document explains how the value of these components is derived from the data in Table 35 above.
- Gearing - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) $g_t = 0.65$
 - Real Cost of Debt - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) $d_t = 0.0134$
 - Nominal Post Tax Cost of Equity - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) $re_t = 0.087$

WTL – UR Decisions

- 8.89 The WACC for WTL (1.98%) is written into Condition 4.5.3 of the licence. This value was established by the competitive process to award the GttW high pressure licence. This figure was based on prevailing market conditions in April 2014. At the time, we made it clear that we would revise this figure if there was a significant shift in market conditions.
- 8.90 In their business plan WTL noted a significant reduction in the cost of debt had occurred in the intervening period. As a consequence in our draft determination we proposed to modify the licence to reflect the altered market conditions.
- 8.91 In their consultation response WTL stated that our proposal was inappropriate given their licence condition or their funding arrangements. However, they did make clear that their issue related only to the period between the First Operational Commencement Date, expected in Q4 2018 and the point at which they are able to refinance the network by means of bond issuance. They were content that at that point the licence be modified to reflect the interest rate payable on the bond.
- 8.92 We do not accept that our proposal did not accurately reflect the licence drafting, which permits us to review the WACC at each Review Date. In any event the Authority may modify the licence at any time in order to better facilitate the achievement of its statutory duties.
- 8.93 In further discussions with WTL it has become clear that they have entered into a financing agreement with a third party, as part of which they have agreed to pay interest charges of 1.98% in the period between First Operational Commencement Date and refinancing. Altering these interest charges would trigger an appeal mechanism within the financing agreement.
- 8.94 We are content that such arrangements are equivalents to embedded debt which where appropriate we would include in the cost of debt component of WACC. We also note that neither party has a commercial incentive in extending the period of this arrangement and

that indeed there may be strong incentives for bond issuance before the First Operational Commencement Date.

- 8.95 For these reasons we will not propose licence modifications to change the WTL WACC as part of this price control review.

Capital Repayments

- 8.96 In our draft determination we noted that the capital allowances for the GNI (UK) assets were determined by means of a specific methodology set out in the conveyance licence. We also noted that the ex post part of this process was still ongoing even though the network had been entirely operational since October 2011.
- 8.97 We furthermore made clear our intention to close out this process by the time of the final determination. Despite working closely with GNI (UK) on this, we have been unable to make the progress we would have desired.
- 8.98 However we expect that this matter will have been brought to a conclusion prior to the setting of the 2018-19 postalised tariff.
- 8.99 Derivation of the inputs to go into the GNI (UK) financial model are set out in Appendix 4: Calculation of GNI (UK) Capital Repayment Model Input Data.
- 8.100 For the purpose of the draft determination we estimated the RAB for WTL to which the WACC figure will be applied to be £137m, we have not updated this estimate. Added to this will be the value of assets in East Down to be funded from the postalised transmission tariff, which we estimate as being £28.7m, September 2014 prices.⁶⁴
- 8.101 The value of a maximum £32.5m subvention from the NI Executive is then netted off. Uplifting these costs to March 2016 prices gives a final estimate of £134.5m. It is assumed that bond issuance costs are rolled into the cost of debt. For ease of calculation we assume that the cost of debt will be equal to that used in the draft determination, 0.30% and that it will apply from the First Operational Commencement Date.
- 8.102 Table 36 sets out the capital repayments that will need to be funded over the price control period based on the determined WACC figures. All figures are in £m March 2016 prices.

Table 36: Capital Repayments – March 2016 prices⁶⁵

Gas Year	GNI (UK) - (£m)	PTL - (£m)	BGTL - (£m)	WTL - (£m)	Industry Total - (£m)
2017-18	10.6	8.4	4.6		23.6
2018-19	10.6	8.6	4.6	3.6	27.4
2019-20	10.6	8.8	4.7	3.6	27.7
2020-21	10.6	8.9	4.8	3.6	27.9
2021-22	10.6	9.1	4.9	3.6	28.2

Figures may not sum due to rounding

⁶⁴ [See Utility Regulator: Price Control for Northern Ireland's Gas Distribution Networks GD17, Final Determination, 15 September 2016](#), paragraph 11.119.

⁶⁵ Capital repayments for BGTL and PTL do not form part of this price control but were agreed by the Utility Regulator at the time of bond issuance and set out in the Direction. See also footnote 66.

Financeability

- 8.103 Article 14 of the Energy (Northern Ireland) Order 2003 requires us to carry out our functions in the manner we consider best calculated to further our principal objective, having regard to, amongst other things, the need to secure that licence holders are able to finance their obligations.
- 8.104 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.
- 8.105 In assessing whether our proposals will allow licence holders to finance their activities during the GT17 period, we need to consider their ability to utilise both equity and debt finance.
- 8.106 Both PTL and BGTL are entirely financed by means of two bonds that were issued to fund the purchase of existing transmission assets. It is not envisaged that either licence holder will be required to invest further capital in these networks. At the time of issue the UR agreed, by means of the Direction⁶⁶, to fully fund the repayments on these bonds through the postalised transmission tariff.
- 8.107 Both licences include an operating cost pass through mechanism. This means that allowed revenues will always match actual costs. In effect, neither PTL nor BGTL face any cash flow risk and so financeability is not a relevant issue for either of these licence holders.
- 8.108 WTL intends to fund the relevant assets on the same basis and operate under the same regulatory framework. The WTL licence already includes the same operating cost pass through mechanism. Financeability is therefore not a relevant issue.
- 8.109 GNI (UK) is financed entirely by a loan from the parent. However, we set WACC as if it was an independent company having to raise its own finance through a combination of debt and equity finance.
- 8.110 The key determinant of the ability to access equity finance is the allowed return on equity. We have built returns by 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. Accordingly, we are satisfied that GNI (UK) ought to be capable of securing equity finance on an ongoing basis.
- 8.111 As far as borrowing is concerned the key objective is to retain credit worthiness in the eyes of lenders. This will be impacted by two factors, the level of cash flows that GNI (UK) can generate under our price control and the amount of borrowing. While we influence the former, the latter is at the discretion of GNI (UK).
- 8.112 In order to analyse the impact of our final determination on the ability of GNI (UK) to borrow we have employed the post maintenance interest cover ratio metric⁶⁷, the key metric used for a similar analysis in GD17. It is normally taken that a ratio above 1.4 indicates a firm that is in a position to service a given level of borrowing⁶⁸.

⁶⁶ As defined in Condition 3.1.7.1 of the PTL and BGTL licences.

⁶⁷ PMICR = EBITDA adjusted cash taxes less regulatory depreciation all divided by cash interest.

⁶⁸ Competition Commission RP5 review Ofgem RIIO-ED1.

8.113 Table 37 sets out the calculation of this metric for the price control period. All figures are in £m at March 2016 prices.

Table 37: PMICR – GNI (UK)

Cost Category	2017-18	2018-19	2019-20	2020-21	2021-22
Controllable Opex – Non-GMO NI – (£m)	3.7	4.0	3.7	3.8	3.8
Controllable Opex – GMO NI – (£m)	0.4	0.4	0.4	0.4	0.4
Repex – (£m)	0.3	0.5	0.6	0.6	0.2
Uncontrollable Opex – (£m)	1.8	1.8	1.8	1.9	1.9
Capital Repayments – (£m)	10.6	10.6	10.6	10.6	10.6
Allowed Revenue⁶⁹ – (£m)	16.8	17.3	17.1	17.2	16.8
Depreciation ⁷⁰ – (£m)	3.6	3.6	3.6	3.6	3.6
Tax ⁷¹ – (£m)	0.0	0.0	0.0	0.1	0.5
Post Maintenance FFO – (£m)	7.0	7.0	7.0	6.9	6.5
Interest Payment⁷¹ – (£m)	2.6	2.4	2.3	2.1	1.9
PMICR (FFO/Interest)	2.7	2.9	3.0	3.3	3.4

Figures may not sum due to rounding

8.114 We have also carried out some basic sensitivity analysis in which we assumed that Controllable Operating Expenditure and interest payments were 20% above the level of allowances. Under this analysis the PMICR was above 2.0 in all years except the first when it was 1.9. We note that Moodys would regard this as being consistent with a company with a Grade A credit rating.

8.115 Based on this analysis of both equity and debt we are content that our final decisions are such that GNI (UK) is capable of financing the licensed activity. In a situation where GNI (UK) raised its own debt, rather than being financed by means of an inter-company loan, then we would have consulted with credit rating agencies in order to inform our view of how our determination would impact on the credit rating of the licence holder's debt. This is the approach that we have followed in the case of RP6 and GD17, but it is not open to us in this instance.

8.116 In their response GNI (UK) did not make any direct comment as to our assessment of their financability as set out in the equivalent section of the draft determination.

⁶⁹ Allowed Revenue data from Table 30 and Table 36.

⁷⁰ Straight line depreciation over 40 years.

⁷¹ Taken from GNI (UK) Capital Repayment Model.

9 Outputs and Allowances

Summary of Key Changes from Draft Determination

- 9.1 The final determination has made a number of amendments to the overall allowance. This has an impact for both TSOs and consumers.
- 9.2 We have made a number of key changes with respect to opex, repex and cost of capital. The impact of this in terms of consumer bills is set out in this chapter.
- 9.3 For TSOs, the key changes from the draft include:
- Defined outputs associated with repex and maintenance;
 - Relevant items for emergency management arrangements;
 - Relevant items for certain repex projects (Ballylumford and AGI security);
 - Requirement on TSOs to produce a report into joint grid control.
- 9.4 Associated reporting will be required throughout the price control period to monitor performance against targets.

Detailed Approach – UR Decisions

Overview

- 9.5 The principle legal duty of the UR in relation to gas is:
- “to promote the development and maintenance of an efficient, economic and co-ordinated gas industry in Northern Ireland.”⁷²*
- 9.6 This must be done having regard to the interests of gas consumers and ensuring that licence holders are able to finance their activities.
- 9.7 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 and the UR.
- 9.8 The chapter is structured as follows:
- GT17 outputs and allowance for the GMO NI;
 - Cost reporting and outputs for TSOs;
 - Grid control analysis;
 - Price control output summary for MEL;
 - Price control output summary for GNI (UK); and
 - Consumer impact.

⁷² The Energy (NI) Order 2003, Article 14 (1) <http://www.legislation.gov.uk/nisi/2003/419/contents/made>.

Price Control Output Summary – GMO NI

9.9 At an industry level, the key project for TSOs in the future development of gas industry in Northern Ireland is the single system. The GMO NI is expected to deliver a number of benefits including:

- a) Cost efficiency – as detailed in chapter 4;
- b) A single IT system interface for shippers;
- c) One set of transportation rules (single code);
- d) Co-ordinated connection policies; and
- e) Distinct set of invoices and credit arrangements.

9.10 These benefits will be visible during ongoing operations and can be viewed as specific outcomes of the project. In order to deliver these outcomes, the following allowance has been provided for the GMO NI.

Table 38: Allowance for single system operator (post efficiency)

Cost Category	2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	Totals £m
GMO NI Staff Cost	0.4	0.4	0.4	0.4	0.4	2.1
Administration	0.1	0.1	0.2	0.1	0.1	0.6
Contracts & Licences	0.5	0.5	0.4	0.4	0.4	2.2
Network Code	0.1	0.2	0.1	0.1	0.1	0.7
European Compliance	0.0	0.0	0.0	0.0	0.0	0.1
Total (pre-efficiency)	1.2	1.2	1.2	1.1	1.1	5.8
Frontier Shift	1.8%	2.7%	3.4%	4.0%	4.7%	
Total (post efficiency)	1.2	1.2	1.1	1.1	1.1	5.6

Figures may not sum due to rounding

9.11 At a cost of c£1.1m per annum, the GMO NI will be responsible for market operations of transmission system users. Unlike a number of other utilities, gas TSOs typically have not had many regulatory KPI (key performance indicator) targets to meet. This is expected to change in the GT17 period.

9.12 A key outcome of the price control is the development of performance indicators for the single system. TSOs have already highlighted in their business plans a number of potential areas which these may focus on. Proposed KPIs include:

- a) Amount of IT system downtime;
- b) Accuracy and timeliness of invoices;
- c) Debtors adherence to payment terms;
- d) Metrics on response to shipper queries;
- e) Shipper satisfaction levels; and

- f) Budgeting and cost control targets.
- 9.13 We have shared some early thoughts on this, though engagement is still at a very early stage. TSOs are currently working on setting up systems and processes. As such, KPIs are more likely to be a 'day two' issue. We would expect that further work will continue on this in the next few months.
- 9.14 Within the first year of the price control we would expect to agree KPIs for the remainder of the period. We further intend to provide appropriate information tables to capture this detail. This will be included as part of ongoing annual regulatory reporting.

Price Control Output Summary – Cost Reporting and Outputs

- 9.15 Another key output of the price control is cost reporting. As part of the business plan process, the UR and TSOs developed a common reporting template. TSOs have submitted plans on the basis of this template and associated guidance.
- 9.16 Going forward, we see value in continuing this reporting on a regular basis. Annual reporting provides a number of benefits such as:
 - a) Monitoring performance against price control targets;
 - b) Developing historic trends;
 - c) Benchmarking network operators; and
 - d) Providing transparency to network users and consumers.
- 9.17 It is our intention to develop and publish a report on TSO and GMO NI performance at annual intervals. The basis of this report will be the data provided by companies as part of their common reporting requirements. Reporting should be proportional and targeted.
- 9.18 We anticipate that there will be three elements to common reporting in GT17:
 - a) **TSO cost reporting** – Financial data should be provided in line with that requested for Tables 1-7 of the business plan. Commentary should be included focusing on areas of spend where costs have risen/fallen or are substantially different from the GT17 allowance.

We intend to provide TSOs with formal guidance on what is required through the RIGs (Regulatory Instructions and Guidance) process. It is likely however that this will closely follow the business plan guidance.
 - b) **TSO output monitoring** – On the basis of the final determination, a number of replex and maintenance activities are required to be delivered for the requisite allowances. We intend to produce delivery tables to capture progress.

These tables will be included in the RIGs. Focus will be on delivery of major replex and maintenance projects (such as sub-sea surveys). They 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 will be established. Details of this report are yet to be determined.
- 9.19 Besides the three strands, we may also consider the issue of network serviceability measures and asset management reporting. Further engagement is required on this post determination.

- 9.20 We do not see this as a regulatory burden as reasonable and prudent network operators should be collecting similar data for their own purposes. This process merely formalises and aligns reporting between the TSOs. Consequently, we do not propose to grant any specific allowances for such activity.
- 9.21 It does, however, represent a new output of the price control process. We are of the opinion that this will add value and transparency for network users and TSOs alike.

Grid Control Analysis

- 9.22 It was our intention to include joint grid control as part of the single system project. Whilst this was not possible, the draft determination did set allowances based on a single control room being established in the middle of GT17.
- 9.23 TSOs argued strongly against this on the basis of:
- System changes required;
 - Cost of implementation;
 - Cost of potential contract termination payments;
 - Difficulty with joint procurement etc.
- 9.24 We accepted this position and amended budgets accordingly. However, we believe that there is merit in investigating the potential for savings as a result of such a collaborative effort. This would appear especially to be the case given the materiality of these contracts and the savings that have been realised on the IT project.
- 9.25 For this reason, we expect the TSOs to collaboratively conduct a feasibility study and produce an implementation plan, by no later than 1 October 2019, for the establishment of a single control room for Northern Ireland. This should consider a range of options, including immediate implementation and delayed procurement (to avoid termination costs).
- 9.26 At an early stage of the project to establish the GMO NI we set out our minimum understanding of what a single control room would look like although we accepted that this was not feasible for the commencement of single system operation on 1 October 2017. For clarity we reproduce this minimum understanding below.
- 'Going forward we envisage that the licensees grid control needs will be met by the same provider to be selected by a competitive tender. We would expect that the contract for NI grid control would be tendered every five years or so, i.e. it would not be on an evergreen basis. The provider need not be based in NI. In practice this would likely mean that the control room services for both MEL and GNI (UK) are tendered together at the same time for the same 5 year period. This could occur at the next point when MEL control services require being re-tendered.'*

MEL – UR Decisions

Price Control Output Summary

- 9.27 For MEL the price control allowance is advisory. The company has an opex pass through mechanism, whilst the capital repayments are largely fixed at a low rate of interest.

- 9.28 However, we expect MEL to operate in a responsible and efficient manner. The final determination represents the UR decision on what forecast spend is anticipated for just such a network operator in GT17.
- 9.29 Total allowance post efficiency, including capital repayments for PTL, BGTL and WTL, are set out in Table 39.

Table 39: Total allowance for MEL (post efficiency) – March 2016 prices

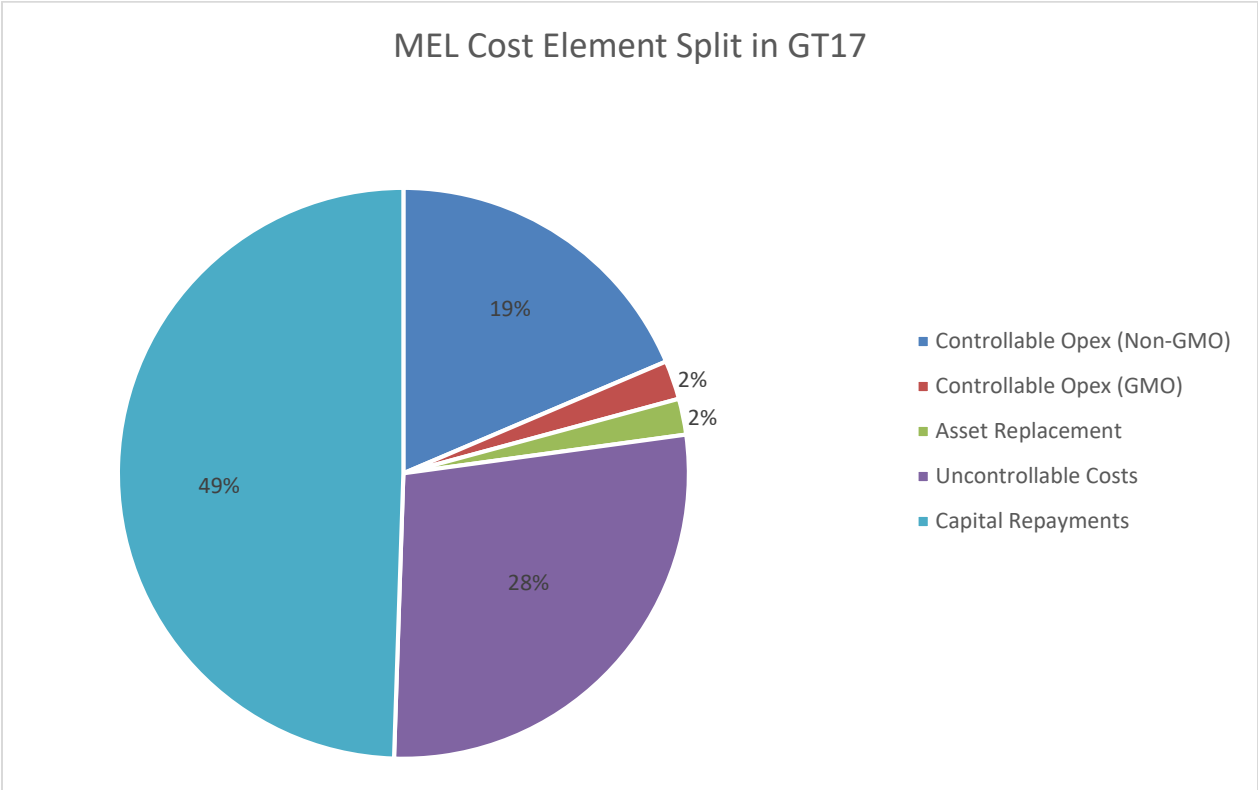
Cost Category	BP Request £m	DD £m	Final Determination*					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex – non-GMO NI	33.9	29.7	6.7	5.8	6.4	5.3	6.5	30.7
Controllable Opex – GMO NI	4.6	2.8	0.7	0.8	0.8	0.7	0.7	3.6
Asset Replacement – Repex	4.9	1.9	0.5	0.8	1.3	0.6	0.1	3.4
Uncontrollable Costs	45.7	45.0	11.1	8.6	8.7	8.7	8.7	45.7
Capital Repayments	81.7	81.7	13.0	16.8	17.1	17.3	17.6	81.7
Total	170.9	161.1	32.1	32.8	34.2	32.6	33.5	165.2

Figures may not sum due to rounding

**£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.*

- 9.30 The price control represents an allowance of c96.7% of what the company requested. Proportionally this can be viewed as follows:

Figure 7: Proportional split of MEL GT17 allowance



9.31 Outputs associated with this funding include those set out in Table 40.

Table 40: MEL repex and maintenance outputs

Project	MEL - GT17 Output
SCADA Refresh	<ul style="list-style-type: none"> • SCADA hardware refresh
Boiler house Replacement	<ul style="list-style-type: none"> • Knocknagoney boiler house replacement • Larne boiler house replacement
Ballylumford Water Bath Heaters	<ul style="list-style-type: none"> • Control system replacement • Water baths TBD (to be defined)
C&I Panel PLC Replacement	<ul style="list-style-type: none"> • PLC panel replacement at Ballylumford, South Cairn, Knocknagoney, Middle Division and Torytown
Fire Detection System - Kiosks	<ul style="list-style-type: none"> • Fire detection systems at eight sites
Transformer Replacement	<ul style="list-style-type: none"> • Eight transformer rectifier (TR) replacements
Lagging Replacement	<ul style="list-style-type: none"> • Lagging at Ballylumford, Torytown, Knocknagoney and Larne
Replacement/Overhaul of Valves	<ul style="list-style-type: none"> • Valve actuator replacement and painting at three block valves in Scotland
UPS & UPS Battery Replacement	<ul style="list-style-type: none"> • Five UPS system replacements • Eight battery charger units
Other Items	<ul style="list-style-type: none"> • Three electrical distribution board change outs at South Cairn, Knocknagoney and Torytown • Two standby generator replacements • Gas chromatograph at Ballylumford • AGI pipework coating at three sites • Emergency paths and gates at five sites • Civil works at three below ground pits • Meter replacement at Larne AGI • Marker buoys in Belfast Lough
Maintenance Activities	<ul style="list-style-type: none"> • Six Online pipeline inspections • 16 close interval protection surveys (CIPS) • Three sub-sea surveys • 10 emergency exercises • 46 metering asset inspections • 52 aerial pipeline inspections per annum

9.32 Deferral of any of the defined outputs during this regulatory period by GNI (UK) will impact on further allowances provided in the next regulatory period. In particular, an output is not delivered during a price control period but deferred into a subsequent one,

a related allowance will not be granted a second time at such later date, but the TSO will have the monetary benefit of having received the allowance early⁷³.

Environmental Impact and Carbon Budget

- 9.33 MEL estimates that their carbon impact is expected to be 1,800 tonnes of CO₂e⁷⁴ per annum. This excludes the compressor station in Scotland for which MEL contribute costs to but do not operate.
- 9.34 A forecast for the GT17 period has not been provided. We continue to monitor this figure though no targets have been set.

GNI (UK) – UR Decisions

Price Control Output Summary

- 9.35 The final determination total allowance for GNI (UK) is detailed below.

Table 41: Total allowance for GNI (UK) (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex – non-GMO NI	22.1	18.4	3.7	4.0	3.7	3.8	3.8	18.9
Controllable Opex – GMO NI	2.7	2.5	0.4	0.4	0.4	0.4	0.4	2.0
Asset Replacement – Repex	5.9	0.4	0.3	0.5	0.6	0.6	0.2	2.3
Uncontrollable Costs	9.1	9.1	1.8	1.8	1.8	1.9	1.9	9.1
Capital Repayments	56.2	54.3	10.6	10.6	10.6	10.6	10.6	52.9
Total	95.9	84.6	16.8	17.3	17.1	17.2	16.8	85.1

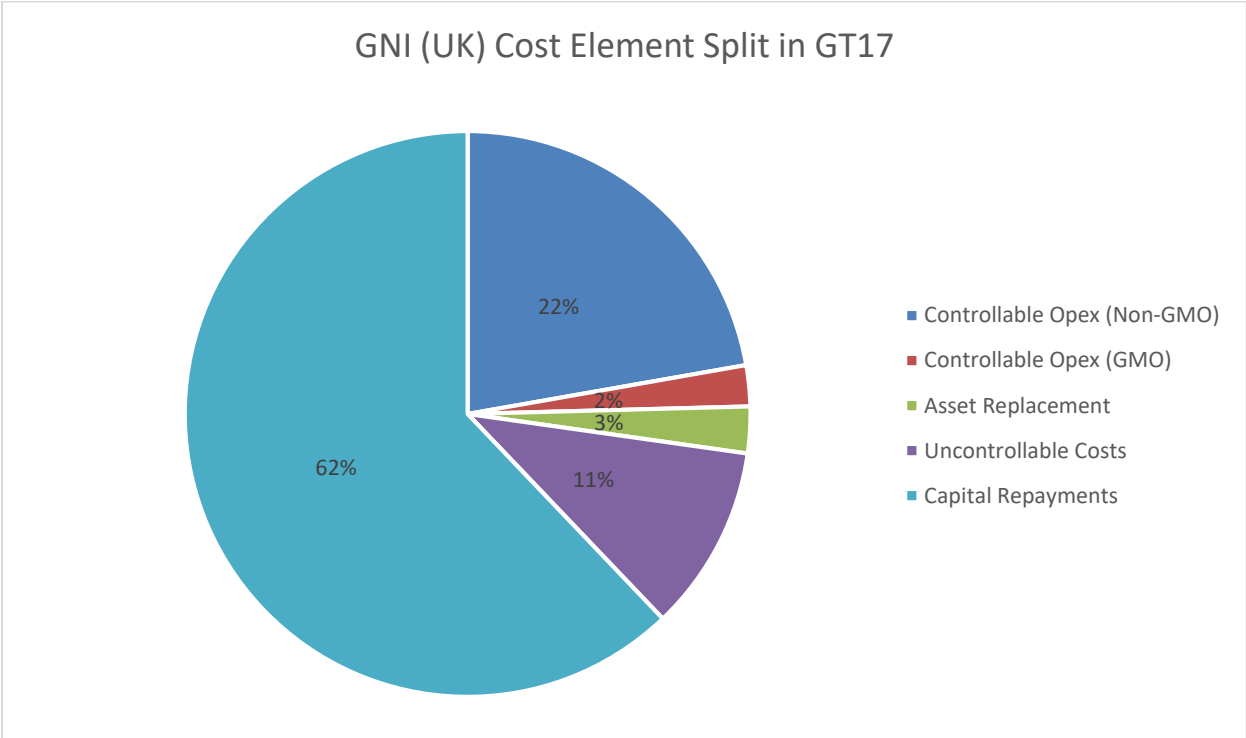
Figures may not sum due to rounding

- 9.36 UR views represent c88.8% of the amount asked for. There are notable increases in areas of controllable opex and in particular repex compared to the draft determination. On a proportional basis, the allowance is split as follows:

⁷³ In the case of MEL licences Allowed Revenue is equal to Actual Expenditure and consequently this provision is not relevant.

⁷⁴ CO₂e = Carbon dioxide equivalent.

Figure 8: Proportional split of GNI (UK) GT17 allowance



9.37 Outputs associated with this funding include:

Table 42: GNI (UK) repex and maintenance outputs

Project	GNI (UK) - GT17 Output
Cathodic Protection	<ul style="list-style-type: none"> • Three transformer rectifier replacements • 10 anode ground beds • 10 reference electrodes • 50 test posts
Boiler Refurbishment	<ul style="list-style-type: none"> • Replacement of 10 AGI boilers
Control System Upgrade	<ul style="list-style-type: none"> • New distribution control system (DCS) at Gormanston
Instrumentation Refurbishment	<ul style="list-style-type: none"> • Four remote telemetry units (RTUs) • Two UPS systems • Eight battery charger units
Metering Recalibration	<ul style="list-style-type: none"> • Recalibration of 10 turbine meters • Recalibration of four ultrasonic meters • Replace 12 flow computers • Replace two gas chromatographs
Gormanston P2 Metering	<ul style="list-style-type: none"> • N/A
AGI Security	<ul style="list-style-type: none"> • [REDACTED]
Cyber Security Upgrade	<ul style="list-style-type: none"> • [REDACTED] • [REDACTED]
Emergency Escapes	<ul style="list-style-type: none"> • [REDACTED]
Remote Line Valve Actuation	<ul style="list-style-type: none"> • N/A
Maintenance Activities	<ul style="list-style-type: none"> • One online pipeline inspection • Three close interval protection surveys (CIPS) • 10 emergency exercises • 26 aerial pipeline inspections per annum

9.38 Deferral of any of the defined outputs during this regulatory period by the TSO will impact on further allowances provided in the next regulatory period. In particular, if an output is not delivered during a price control period but deferred into a subsequent one, a related allowance will not be granted a second time at such later date, but GNI (UK) will have the monetary benefit of having received the allowance early.

Environmental Impact and Carbon Budget

9.39 The company has advised that their average carbon footprint over the last three years is 950 tonnes CO₂e per annum.

9.40 A forecast for the GT17 period has not been provided. We continue to monitor this figure though no targets have been set.

Consumer Impact

Impact on Consumer Bills

9.41 On an industry basis the overall allowance is approximately £50.1m p.a. in real terms against a request of £53.4m. The figures forecast that the postalised tariff revenues should remain fairly constant in real terms throughout the period.

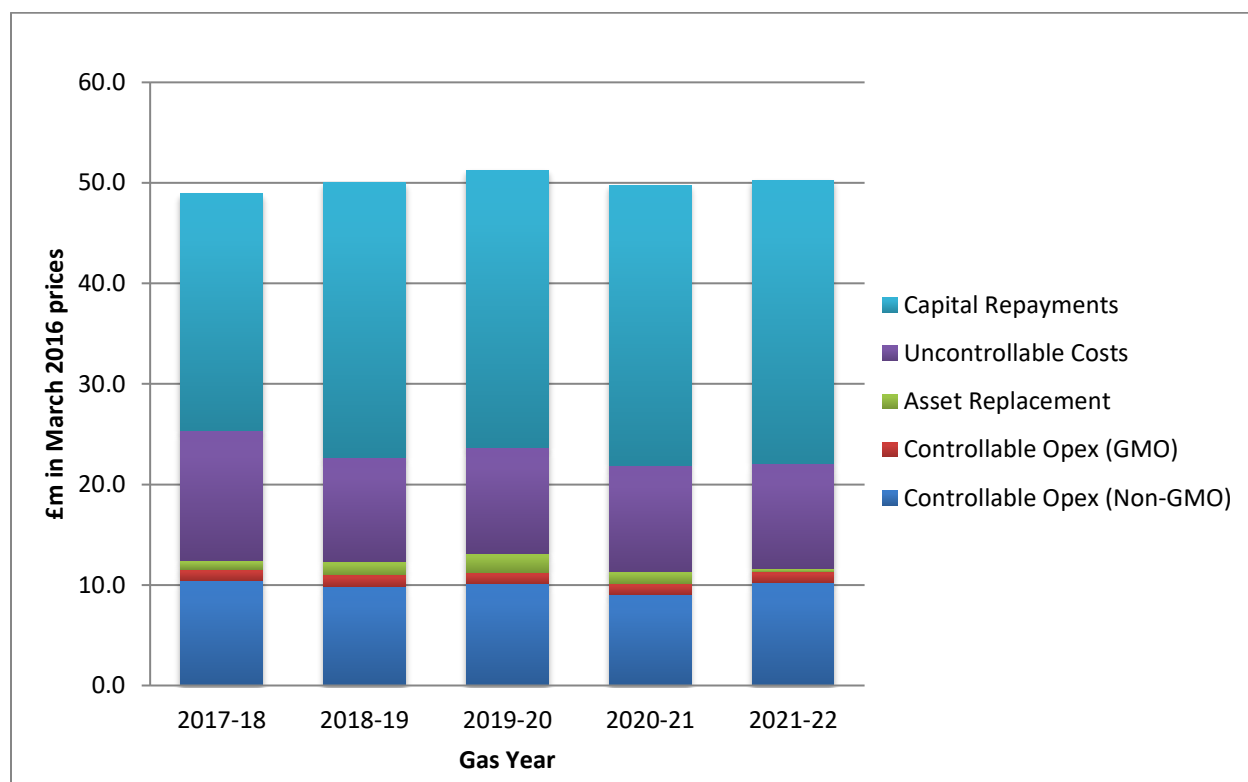
Table 43: Total allowance for gas industry (post efficiency) – March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Controllable Opex – non-GMO NI	56.0	48.1	10.4	9.8	10.1	9.1	10.2	49.6
Controllable Opex – GMO NI	7.3	5.3	1.2	1.2	1.1	1.1	1.1	5.6
Asset Replacement – Repex	10.8	2.3	0.9	1.3	1.9	1.2	0.3	5.6
Uncontrollable Costs	54.8	54.1	12.9	10.4	10.5	10.5	10.5	54.8
Capital Repayments	137.9	136.0	23.6	27.4	27.6	27.9	28.2	134.6
Total	266.8	245.8	48.9	50.1	51.3	49.8	50.3	250.3

Figures may not sum due to rounding

9.42 Split by year and category, the same revenue pot detail looks as follows:

Figure 9: Revenue allowance for gas industry by cost category – March 2016 prices



9.43 The figure indicates increasing capital repayments. This is due in large part to the WTL pipeline. Uncontrollable costs also show some fluctuation due to capital cost movements in Scotland. Controllable cost does shift, but this is largely a reflection of large maintenance project timings e.g. sub-sea surveys.

9.44 For domestic gas tariffs in Northern Ireland, the consumer bill is made up of the following distinct cost elements:

Table 44: Supply price split by cost element – April 2016

Cost Category	Greater Belfast	Ten Towns
Transmission network costs	11.7%	8.5%
Distribution network costs	37.0%	41.3%
Wholesale gas costs	41.2%	37.5%
Supply retail costs	10.1%	12.7%
Total	100%	100%

Figures may not sum due to rounding

- 9.45 Assuming domestic usage of 12,500 kWh⁷⁵, the average gas bill is currently around £535 per annum. From the table above it can be seen that approximately 10% (+£50) of this is related to the transmission network.
- 9.46 Using 2016-17 volumes, the UR has calculated the entry/exit transmission tariff employing both the business plan and final determination figures.⁷⁶
- 9.47 The analysis indicates that the current tariff⁷⁷ is forecast to increase by over 9% in real terms based on TSO forecasts. The final determination allowance results in a 3.6% real term increase.
- 9.48 Assuming these increases apply equally to domestic bills, the impact of implementing the business plans submitted by the companies would be an approximate £5 real terms uplift in the annual bill for domestic consumers. This compares to an approximate £2 increase in the final determination. The final determination therefore results in an approximate £3 saving per annum for domestic customers compared to the company submissions.
- 9.49 For industrial and commercial customers, the savings arising from the final determination compared to the business plans will be higher due to the higher consumption and higher percentage of transmission costs as part of the overall cost of gas.

⁷⁵ Whilst 12,500 kWh is the standard used for comparisons, consumption in NI tends to be lower than this. As such, the average bill may be overestimated for NI consumers.

⁷⁶ A 5-year average of the total GT17 forecast has been used to calculate business plan tariffs. A 5-year average of the total GT17 final determination allowance has also been used to calculate UR tariffs.

⁷⁷ <http://www.mutual-energy.com/wp-content/uploads/downloads/2016/08/NI-Forecast-Postalised-System-Transmission-Tariffs.pdf>

10 Further Issues

Summary of Key Changes from Draft Determination

- 10.1 The wording of this section has been revised to reflect the move from draft to final determination and from price control proposals to price control decisions.
- 10.2 In particular, the sections on the draft determination consultation process as well as on next steps and consequential changes have been removed as they are no longer applicable.

Further Issues

MEL Governance Review

- 10.3 In our approach document we stated that as part of the price control we would make a decision as to whether or not there needed to be a review of the governance of MEL, with the review to take place in the next price control period.
- 10.4 The last review of the relevant governance arrangements was carried out in 2008. As a matter of best regulatory practice we intend to carry out a review of existing arrangements during the price control period.
- 10.5 As noted in our approach we consider that the value of the Social Enhancement Fund in providing appropriate incentives to managers is not clear. Having taken note of the response received from MEL, we consider the future of this mechanism and the funds already retained by it should form part of our proposed governance review.
- 10.6 In the meantime no further monies will be allocated to the fund and all future operating cost savings will be returned directly to consumers at the end of the gas year. This will be achieved by setting the 'z' factor to zero each year. This will have immediate effect, commencing with the 2016-17 gas year reconciliation process.

GNI (UK) Capital Allowances

- 10.7 The review of the AFCE (actual final capital expenditure) for the GNI (UK) pipelines and spurs is ongoing. It will inform through the revenue setting process the capital allowances for the GNI (UK) assets.

GNI (UK) Allowed Revenue Post Revenue Recovery Period

- 10.8 The current licence does not make provision for the calculation of allowed revenue post the revenue recovery period. Each pipeline in the GNI (UK) network has a revenue recovery period of 25 years from the First Operational Commencement Date. The first of these relating to the North West Pipeline ends on 30 September 2029, with the last ending 30 September 2036.

The issue of setting allowances after the Revenue Recovery Period is a significant matter requiring due consideration. We therefore intend to address the issue more fully at the next price control review.

Cost Reporting

- 10.9 It is our intention to develop the annual cost reporting process further to provide information on company performance during the price control period, including publication of key cost and output metrics.
- 10.10 We may also consider in this context enhancements that can be made to the annual cost reporting process to better facilitate comparative analysis going forward.
- 10.11 Furthermore, we will consider in preparation of the next price control process if rates should continue to be reported on and treated as uncontrollable opex, as is currently the case, or as controllable opex as is the case in other price controls⁷⁸.
- 10.12 We anticipate that there will be 3 elements to common reporting in GT17; TSO cost reporting, TSO output monitoring and GMO NI Monitoring. More detail on this can be found in Chapter 9 – Price Control Output Summary.

Review of Operations

- 10.13 We expect the TSOs to collaboratively conduct a feasibility study and produce an implementation plan, by no later than 1 October 2019, for the establishment of a single control room for Northern Ireland. This should consider a range of options, including immediate implementation and delayed procurement (to avoid termination costs).
- 10.14 We furthermore expect the licence holders to consider during the price control period cost-efficiencies and effectiveness of different options of engagement with regard to post Brexit arrangements.
- 10.15 We furthermore expect the TSOs to further improve their asset management information during the price control period and to integrate this into the next price control review.

⁷⁸ See e.g. [See Utility Regulator: Price Control for Northern Ireland's Gas Distribution Networks GD17, Final Determination, 15 September 2016.](#)

Appendices

Appendix 1: Pre-efficiency Opex Allowances

Table 45: MEL Pre-efficiency final determination –£m in March 2016 prices

MEL								
	Final Determination							
	BP Submission	Draft Determination	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Administration								
Pipeline Insurance	3.051	2.695	0.496	0.626	0.626	0.626	0.626	3.001
Intra-company Recharge	1.870	1.500	0.335	0.362	0.377	0.364	0.357	1.796
Other Overheads	0.382	0.382	0.058	0.058	0.149	0.058	0.058	0.382
Support Staff Costs (excluding CJV)	1.048	0.945	0.164	0.164	0.164	0.164	0.164	0.818
Mutualisation Costs	2.320	2.320	0.393	0.340	0.406	0.402	0.402	1.943
Total Administration	8.671	7.841	1.446	1.550	1.722	1.615	1.608	7.941
Asset Replacement (Repeal)								
Asset Replacement	4.870	1.947	0.537	0.852	1.351	0.615	0.122	3.478
Planned Maintenance								
Asset Management & Compliance	0.988	0.608	0.170	0.219	0.172	0.278	0.149	0.988
Emergency Response	1.708	1.681	0.312	0.360	0.350	0.330	0.356	1.708
Pipeline Inspection	5.831	5.831	2.059	0.771	1.207	0.232	1.561	5.831
Routine Maintenance	5.663	5.638	0.886	1.194	1.190	1.193	1.200	5.663
Engineering Staff Costs (excluding CJV)	3.345	3.011	0.551	0.551	0.551	0.551	0.551	2.753
Total Planned Maintenance	17.535	16.769	3.977	3.095	3.470	2.584	3.817	16.943
Unplanned Maintenance								
Drainage	0.737	0.737	0.174	0.130	0.145	0.145	0.145	0.737
Other Unplanned Costs	0.947	0.947	0.160	0.213	0.188	0.204	0.183	0.947
Total unplanned maintenance	1.685	1.685	0.334	0.342	0.332	0.349	0.327	1.685
System Operation								
Contracts and Licences	0.652	0.652	0.140	0.132	0.149	0.132	0.101	0.652
Grid Control	3.338	2.386	0.656	0.670	0.670	0.670	0.670	3.338
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.106	0.106	0.050	0.000	0.000	0.000	0.000	0.050
SCADA & Comms	1.957	1.157	0.237	0.186	0.271	0.186	0.271	1.152
European Compliance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total System Operation	6.053	4.301	1.083	0.988	1.091	0.988	1.042	5.192
CJV Costs								
CJV Staff Costs	2.198	0.900	0.352	0.352	0.352	0.352	0.352	1.759
CJV Administration	0.649	0.649	0.112	0.131	0.156	0.131	0.120	0.649
Contracts and Licences	0.511	0.511	0.104	0.103	0.102	0.101	0.101	0.511
Grid Control	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.988	0.708	0.141	0.163	0.145	0.129	0.129	0.708
SCADA & Comms	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
European Compliance	0.260	0.130	0.026	0.026	0.026	0.026	0.026	0.130
Total CJV	4.605	2.898	0.735	0.774	0.780	0.739	0.728	3.756
Uncontrollable Costs								
Business Rates	10.393	10.393	1.901	2.123	2.123	2.123	2.123	10.393
Licence Fees	6.317	6.317	1.263	1.263	1.263	1.263	1.263	6.317
Compressor Fuel	4.855	4.161	0.959	0.966	0.977	0.982	0.972	4.855
Scottish Costs	27.498	27.498	7.660	4.960	4.960	4.960	4.960	27.498
Stranraer/Dundalk Income	-3.329	-3.329	-0.635	-0.705	-0.659	-0.665	-0.665	-3.329
Total	45.732	45.039	11.148	8.607	8.664	8.662	8.652	45.732
Grand total	89.152	80.479	19.260	16.208	17.410	15.551	16.296	84.726

Figures may not sum due to rounding

£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.

Table 46: PTL Pre-efficiency final determination – £m in March 2016 prices

	PTL							
	BP Submission	Draft Determination	Final Determination					Total
			2017-18	2018-19	2019-20	2020-21	2021-22	
Administration								
Pipeline Insurance	1,830	1,830	0,366	0,366	0,366	0,366	0,366	1,830
Intra-company Recharge	0,826	0,662	0,228	0,142	0,154	0,139	0,131	0,793
Other Overheads	0,211	0,211	0,026	0,024	0,115	0,024	0,024	0,211
Support Staff Costs (Excluding CJV)	0,415	0,380	0,115	0,054	0,053	0,052	0,051	0,324
Mutualisation Costs	1,202	1,202	0,243	0,188	0,193	0,191	0,191	1,006
Total Administration	4,484	4,285	0,977	0,773	0,880	0,772	0,762	4,164
Asset Replacement (RepeX)								
Asset Replacement	2,435	0,481	0,308	0,342	1,031	0,123	0,024	1,828
Planned Maintenance								
Asset Management & Compliance	0,480	0,305	0,093	0,087	0,102	0,115	0,084	0,480
Emergency Response	0,929	0,914	0,176	0,201	0,176	0,176	0,201	0,929
Pipeline Inspection	2,999	2,999	1,236	0,087	0,663	0,072	0,941	2,999
Routine Maintenance	2,149	2,137	0,428	0,439	0,430	0,420	0,433	2,149
Engineering Staff Costs (excluding CJV)	1,597	1,438	0,359	0,243	0,241	0,239	0,236	1,317
Total Planned Maintenance	8,154	7,793	2,291	1,057	1,611	1,021	1,895	7,874
Unplanned Maintenance								
Drainage	0,572	0,572	0,174	0,100	0,100	0,100	0,100	0,572
Other Unplanned Costs	0,233	0,233	0,047	0,047	0,047	0,047	0,047	0,233
Total unplanned maintenance	0,805	0,805	0,221	0,146	0,146	0,146	0,146	0,805
System Operation								
Contracts and Licences	0,540	0,540	0,109	0,111	0,128	0,111	0,080	0,540
Grid Control	2,475	1,792	0,552	0,481	0,481	0,481	0,481	2,475
Major IT System Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Network Code Development	0,106	0,106	0,050	0,000	0,000	0,000	0,000	0,050
SCADA & Comms	1,804	1,032	0,233	0,149	0,262	0,149	0,234	1,027
European Compliance	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total System Operation	4,925	3,470	0,944	0,741	0,871	0,741	0,795	4,091
CJV Costs								
CJV Staff Costs	2,198	0,900	0,352	0,352	0,352	0,352	0,352	1,759
CJV Administration	0,649	0,649	0,112	0,131	0,156	0,131	0,120	0,649
Contracts and Licences	0,511	0,511	0,104	0,103	0,102	0,101	0,101	0,511
Grid Control	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Major IT System Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Network Code Development	0,988	0,708	0,141	0,163	0,145	0,129	0,129	0,708
SCADA & Comms	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
European Compliance	0,260	0,130	0,026	0,026	0,026	0,026	0,026	0,130
Total CJV	4,605	2,898	0,735	0,774	0,780	0,739	0,728	3,756
Uncontrollable Costs								
Business Rates	7,831	7,831	1,566	1,566	1,566	1,566	1,566	7,831
Licence Fees	3,547	3,547	0,709	0,709	0,709	0,709	0,709	3,547
Compressor Fuel	4,855	4,161	0,959	0,966	0,977	0,982	0,972	4,855
Scottish Costs	27,498	27,498	7,660	4,960	4,960	4,960	4,960	27,498
Stranraer/Dundalk Income	-3,329	-3,329	-0,635	-0,705	-0,659	-0,665	-0,665	-3,329
Total Uncontrollable	40,401	39,707	10,259	7,496	7,553	7,551	7,542	40,401
Grand total	65,808	59,438	15,735	11,328	12,872	11,093	11,891	62,919

Figures may not sum due to rounding

Table 47: BGTL Pre-efficiency final determination – £m in March 2016 prices

	BGTL							
	BP	Draft	Final Determination					Total
			Submission	Determination	2017-18	2018-19	2019-20	
Administration								
Pipeline Insurance	0.651	0.651	0.130	0.130	0.130	0.130	0.130	0.651
Intra-company Recharge	0.285	0.228	0.084	0.048	0.048	0.047	0.046	0.273
Other Overheads	0.081	0.081	0.017	0.016	0.016	0.016	0.016	0.081
Support Staff Costs (Excluding CJV)	0.171	0.156	0.043	0.023	0.023	0.022	0.022	0.133
Mutualisation Costs	0.518	0.518	0.103	0.081	0.084	0.083	0.083	0.433
Total Administration	1.705	1.633	0.377	0.299	0.300	0.299	0.297	1.571
Asset Replacement (Repeal)								
Asset Replacement	2.435	1.466	0.229	0.510	0.320	0.492	0.098	1.649
Planned Maintenance								
Asset Management & Compliance	0.375	0.216	0.054	0.105	0.044	0.136	0.035	0.375
Emergency Response	0.372	0.365	0.074	0.074	0.074	0.074	0.074	0.372
Pipeline Inspection	1.828	1.828	0.823	0.040	0.424	0.040	0.500	1.828
Routine Maintenance	1.564	1.555	0.326	0.301	0.306	0.319	0.313	1.564
Engineering Staff Costs (excluding CJV)	0.592	0.533	0.135	0.090	0.089	0.088	0.087	0.488
Total Planned Maintenance	4.730	4.497	1.412	0.610	0.937	0.658	1.009	4.626
Unplanned Maintenance								
Drainage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other Unplanned Costs	0.458	0.458	0.100	0.084	0.084	0.106	0.084	0.458
Total unplanned maintenance	0.458	0.458	0.100	0.084	0.084	0.106	0.084	0.458
System Operation								
Contracts and Licences	0.103	0.103	0.021	0.021	0.021	0.021	0.021	0.103
Grid Control	0.291	0.219	0.088	0.051	0.051	0.051	0.051	0.291
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SCADA & Comms	0.016	0.013	0.003	0.003	0.001	0.003	0.003	0.013
European Compliance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total System Operation	0.409	0.335	0.111	0.074	0.072	0.074	0.074	0.407
CJV Costs								
CJV Staff Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CJV Administration	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Contracts and Licences	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Grid Control	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SCADA & Comms	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
European Compliance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total CJV	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Uncontrollable Costs								
Business Rates	1.497	1.497	0.299	0.299	0.299	0.299	0.299	1.497
Licence Fees	2.488	2.488	0.498	0.498	0.498	0.498	0.498	2.488
Compressor Fuel	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scottish Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Stranraer/Dundalk Income	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Uncontrollable	3.985	3.985	0.797	0.797	0.797	0.797	0.797	3.985
Grand total	13.722	12.374	3.027	2.374	2.511	2.425	2.360	12.697

Figures may not sum due to rounding

Table 48: WTL Pre-efficiency final determination – £m in March 2016 prices

	WTL							Total
	BP Submission	Draft Determination	Final Determination					
			2017-18	2018-19	2019-20	2020-21	2021-22	
Administration								
Pipeline Insurance	0.571	0.214	0.000	0.130	0.130	0.130	0.130	0.521
Intra-company Recharge	0.759	0.609	0.023	0.172	0.176	0.178	0.180	0.729
Other Overheads	0.090	0.090	0.015	0.019	0.019	0.019	0.019	0.090
Support Staff Costs (Excluding CJV)	0.462	0.409	0.006	0.087	0.088	0.089	0.091	0.361
Mutualisation Costs	0.600	0.600	0.047	0.071	0.129	0.128	0.129	0.504
Total Administration	2.483	1.924	0.092	0.479	0.542	0.544	0.549	2.206
Asset Replacement (Repea)								
Asset Replacement	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Planned Maintenance								
Asset Management & Compliance	0.133	0.086	0.023	0.027	0.026	0.026	0.030	0.133
Emergency Response	0.407	0.402	0.062	0.084	0.100	0.080	0.080	0.407
Pipeline Inspection	1.004	1.004	0.001	0.644	0.120	0.120	0.120	1.004
Routine Maintenance	1.950	1.947	0.132	0.455	0.455	0.455	0.455	1.950
Engineering Staff Costs (excluding CJV)	1.157	1.040	0.057	0.218	0.221	0.224	0.227	0.948
Total Planned Maintenance	4.652	4.479	0.274	1.428	0.922	0.905	0.912	4.442
Unplanned Maintenance								
Drainage	0.165	0.165	0.000	0.030	0.045	0.045	0.045	0.165
Other Unplanned Costs	0.257	0.257	0.013	0.082	0.057	0.052	0.052	0.257
Total unplanned maintenance	0.422	0.422	0.013	0.112	0.102	0.097	0.097	0.422
System Operation								
Contracts and Licences	0.010	0.010	0.010	0.000	0.000	0.000	0.000	0.010
Grid Control	0.572	0.375	0.017	0.139	0.139	0.139	0.139	0.572
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SCADA & Comms	0.137	0.112	0.000	0.034	0.009	0.034	0.034	0.111
European Compliance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total System Operation	0.719	0.497	0.027	0.173	0.147	0.173	0.173	0.693
CJV Costs								
CJV Staff Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CJV Administration	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Contracts and Licences	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Grid Control	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Major IT System Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Network Code Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SCADA & Comms	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
European Compliance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total CJV	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Uncontrollable Costs								
Business Rates	1.065	1.065	0.035	0.257	0.257	0.257	0.257	1.065
Licence Fees	0.281	0.281	0.056	0.056	0.056	0.056	0.056	0.281
Compressor Fuel	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scottish Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Stranraer/Dundalk Income	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Uncontrollable	1.346	1.346	0.092	0.314	0.314	0.314	0.314	1.346
	0.000		0.000	0.000	0.000	0.000	0.000	0.000
Grand total	9.622	8.668	0.499	2.506	2.027	2.033	2.045	9.110

Figures may not sum due to rounding

£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.

Table 49: GNI (UK) Pre-efficiency final determination – £m in March 2016 prices

GNI(UK)								
	Total Submission	Draft Determination	Final Determination					Total Allowance
			2017-18	2018-19	2019-20	2020-21	2021-22	
Administration								
Pipeline Insurance	1,237	0,879	0,174	0,174	0,174	0,174	0,174	0,872
Intra-company Recharge	1,100	0,500	0,210	0,211	0,219	0,228	0,232	1,100
Other Overheads	0,532	0,500	0,093	0,097	0,121	0,112	0,109	0,532
Support Staff Costs (Excluding CJV)	2,872	2,108	0,418	0,418	0,418	0,418	0,418	2,088
Mutualisation Costs	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total Administration	5,741	3,987	0,895	0,900	0,932	0,932	0,933	4,592
Asset Replacement (Repeal)								
Asset Replacement	5,896	0,402	0,344	0,516	0,642	0,652	0,192	2,345
Planned Maintenance								
Asset Management & Compliance	0,551	0,500	0,109	0,109	0,109	0,112	0,112	0,551
Emergency Response	1,440	1,440	0,267	0,267	0,267	0,267	0,267	1,335
Pipeline Inspection	1,185	1,173	0,170	0,466	0,177	0,177	0,195	1,185
Routine Maintenance	6,752	6,198	1,127	1,158	1,153	1,212	1,224	5,874
Engineering Staff Costs (excluding CJV)	1,806	1,635	0,324	0,324	0,324	0,324	0,324	1,620
Total Planned Maintenance	11,736	10,946	1,997	2,324	2,031	2,092	2,121	10,565
Unplanned Maintenance								
Drainage	1,365	0,976	0,273	0,273	0,273	0,273	0,273	1,365
Other Unplanned Costs	1,175	1,035	0,210	0,225	0,200	0,200	0,200	1,035
Total unplanned maintenance	2,540	2,011	0,483	0,498	0,473	0,473	0,473	2,400
System Operation								
Contracts and Licences	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Grid Control	1,763	1,763	0,346	0,349	0,353	0,356	0,359	1,763
Major IT System Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Network Code Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
SCADA & Comms	0,260	0,260	0,046	0,049	0,052	0,055	0,058	0,260
European Compliance	0,025	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total System Operation	2,048	2,023	0,392	0,398	0,405	0,411	0,417	2,023
CJV Costs								
CJV Staff Costs	0,314	0,900	0,068	0,068	0,068	0,068	0,068	0,342
CJV Administration	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Contracts and Licences	2,408	1,651	0,373	0,355	0,330	0,330	0,330	1,718
Grid Control	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Major IT System Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Network Code Development	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
SCADA & Comms	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
European Compliance	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total CJV	2,722	2,551	0,441	0,423	0,398	0,398	0,398	2,060
Uncontrollable Costs								
Business Rates	3,204	3,204	0,594	0,585	0,642	0,685	0,698	3,204
Licence Fees	5,856	5,856	1,171	1,171	1,171	1,171	1,171	5,856
Compressor Fuel	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Scottish Costs	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Stranraer/Dundalk Income	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Total Uncontrollable	9,060	9,060	1,765	1,756	1,813	1,856	1,869	9,060
Grand total	39,743	30,979	6,317	6,816	6,694	6,814	6,404	33,044

Figures may not sum due to rounding

Appendix 2: Pre-efficiency Repex Allowances

Table 50: MEL Total Pre-efficiency repex final determination – in March 2016 prices

Project	BP Request £m	DD £m	Final Determination					Totals £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
SCADA Refresh	0.805	0.000	0.000	0.000	0.805	0.000	0.000	0.805
Boiler house Replacement	0.942	0.872	0.050	0.447	0.076	0.298	0.000	0.871
Ballylumford Water Bath Heaters	0.887	0.000	0.081	0.000	0.000	0.000	0.000	0.081
C&I Panel PLC Replacement	0.575	0.526	0.106	0.106	0.136	0.136	0.048	0.532
Fire Detection System - Kiosks	0.215	0.000	0.050	0.050	0.099	0.000	0.000	0.199
Transformer Replacement	0.151	0.000	0.013	0.026	0.026	0.026	0.013	0.104
Lagging Replacement	0.143	0.000	0.018	0.018	0.011	0.003	0.022	0.071
Replacement/Overhaul of Valves	0.306	0.000	0.046	0.046	0.046	0.000	0.000	0.138
UPS & UPS Battery	0.128	0.149	0.024	0.042	0.000	0.014	0.040	0.120
Other Items	0.915	0.400	0.149	0.116	0.153	0.138	0.000	0.557
Potential Maintenance	0.590		0.000	0.000	0.000	0.000	0.000	0.000
Total	5.656	1.947	0.537	0.852	1.351	0.615	0.122	3.478

Figures may not sum due to rounding

Table 51: PTL Pre-efficiency repex final determination – in March 2016 prices

Project	BP Request £m	DD £m	Final Determination					Totals £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
SCADA Refresh	0.805	0.000	0.000	0.000	0.805	0.000	0.000	0.805
Boiler house Replacement	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ballylumford Water Bath Heaters	0.887	0.000	0.081	0.000	0.000	0.000	0.000	0.081
C&I Panel PLC Replacement	0.230	0.210	0.106	0.106	0.000	0.000	0.000	0.213
Fire Detection System - Kiosks	0.108	0.000	0.025	0.025	0.050	0.000	0.000	0.099
Transformer Replacement	0.094	0.000	0.013	0.013	0.013	0.013	0.013	0.065
Lagging Replacement	0.043	0.000	0.000	0.011	0.000	0.000	0.011	0.022
Replacement/Overhaul of Valves	0.253	0.000	0.046	0.046	0.046	0.000	0.000	0.138
UPS & UPS Battery Replacement	0.049	0.049	0.000	0.042	0.000	0.004	0.000	0.046
Other Items	0.561	0.221	0.037	0.099	0.118	0.106	0.000	0.360
Potential Maintenance Activities	0.211		0.000	0.000	0.000	0.000	0.000	0.000
Total	3.240	0.481	0.308	0.342	1.031	0.123	0.024	1.828

Figures may not sum due to rounding

Table 52: BGTL Pre-efficiency repex final determination – in March 2016 prices

Project	BP Request £m	DD £m	Final Determination					Totals £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
SCADA Refresh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Boiler house Replacement	0.942	0.872	0.050	0.447	0.076	0.298	0.000	0.871
Ballylumford Water Bath Heaters	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C&I Panel PLC Replacement	0.345	0.316	0.000	0.000	0.136	0.136	0.048	0.319
Fire Detection System - Kiosks	0.108	0.000	0.025	0.025	0.050	0.000	0.000	0.099
Transformer Replacement	0.056	0.000	0.000	0.013	0.013	0.013	0.000	0.039
Lagging Replacement	0.100	0.000	0.018	0.008	0.011	0.003	0.011	0.050
Replacement/Overhaul of Valves	0.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000
UPS & UPS Battery Replacement	0.078	0.100	0.024	0.000	0.000	0.010	0.040	0.074
Other Items	0.355	0.179	0.112	0.017	0.035	0.032	0.000	0.197
Potential Maintenance	0.379		0.000	0.000	0.000	0.000	0.000	0.000
Total	2.417	1.466	0.229	0.510	0.320	0.492	0.098	1.649

Figures may not sum due to rounding

Table 53: GNI (UK) pre-efficiency repex final determination – in March 2016 prices

Project	BP Request £m	DD £m	Final Determination					Totals £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Cathodic	0.247	0.247	0.060	0.030	0.030	0.040	0.040	0.200
Boiler	1.982	0.000	0.000	0.000	0.350	0.350	0.000	0.700
Control System	0.114	0.000	0.029	0.085	0.000	0.000	0.000	0.114
Instrumentation	0.303	0.000	0.102	0.050	0.050	0.050	0.050	0.303
Metering	0.518	0.000	0.088	0.101	0.101	0.101	0.101	0.492
Gormanston P2	0.852	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AGI Security	1.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyber Security	0.155	0.155	0.015	0.139	0.000	0.000	0.000	0.155
Emergency	0.641	0.000	0.050	0.110	0.110	0.110	0.000	0.380
Remote Line	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	5.896	0.402	0.344	0.516	0.642	0.652	0.192	2.345

Figures may not sum due to rounding

Appendix 3: Post-efficiency Allowances

Table 54: MEL post-efficiency final determination – in March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination*					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Administration	8.671	7.602	1.420	1.509	1.664	1.549	1.532	7.674
Asset Replacement	4.870	1.891	0.528	0.829	1.306	0.590	0.116	3.369
Planned Maintenance	17.535	16.266	3.906	3.013	3.354	2.479	3.636	16.387
Unplanned Maintenance	1.685	1.633	0.328	0.333	0.321	0.335	0.312	1.629
System Operation	6.053	4.179	1.063	0.962	1.054	0.948	0.993	5.020
GMO NI Costs	4.605	2.810	0.722	0.754	0.754	0.709	0.694	3.632
Uncontrollable Costs	45.732	45.039	11.148	8.607	8.664	8.662	8.652	45.732
Total	89.152	79.420	19.114	16.006	17.116	15.272	15.934	83.443

Figures may not sum due to rounding

Support staff are included in administration and engineering staff are included in planned maintenance

**£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.*

Table 55: PTL post-efficiency final determination– in March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Administration	4.484	4.158	0.960	0.752	0.850	0.740	0.726	4.029
Asset Replacement	2.435	0.469	0.302	0.333	0.997	0.118	0.023	1.773
Planned Maintenance	8.154	7.563	2.249	1.029	1.557	0.980	1.805	7.620
Unplanned Maintenance	0.805	0.782	0.217	0.142	0.141	0.140	0.139	0.779
System Operation	4.925	3.373	0.927	0.721	0.842	0.711	0.757	3.958
GMO NI Costs	4.605	2.810	0.722	0.754	0.754	0.709	0.694	3.632
Uncontrollable Costs	40.401	39.707	10.259	7.496	7.553	7.551	7.542	40.401
Total	65.808	58.862	15.636	11.226	12.693	10.950	11.685	62.191

Figures may not sum due to rounding

Support staff are included in administration and engineering staff are included in planned maintenance

Table 56: BGTL post-efficiency final determination – in March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Administration	1.705	1.585	0.370	0.291	0.290	0.287	0.283	1.520
Asset Replacement	2.435	1.422	0.225	0.496	0.309	0.472	0.094	1.596
Planned Maintenance	4.730	4.367	1.387	0.594	0.906	0.631	0.961	4.479
Unplanned Maintenance	0.458	0.444	0.098	0.082	0.081	0.101	0.080	0.443
System Operation	0.409	0.326	0.109	0.073	0.070	0.071	0.071	0.394
GMO NI Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Uncontrollable Costs	3.985	3.985	0.797	0.797	0.797	0.797	0.797	3.985
Total	13.722	12.128	2.986	2.332	2.453	2.359	2.286	12.417

Figures may not sum due to rounding

Support staff are included in administration and engineering staff are included in planned maintenance

Table 57: WTL post-efficiency final determination – in March 2016 prices

Cost Category	BP Request £m	DD £M	Final Determination *					Total £m
			2017-18 £m*	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Administration	2.483	1.859	0.090	0.466	0.523	0.522	0.523	2.125
Asset Replacement	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Planned Maintenance	4.652	4.336	0.269	1.390	0.891	0.869	0.869	4.289
Unplanned Maintenance	0.422	0.408	0.013	0.109	0.099	0.093	0.092	0.407
System Operation	0.719	0.481	0.027	0.168	0.142	0.166	0.165	0.668
GMO NI Costs	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Uncontrollable costs	1.346	1.346	0.092	0.314	0.314	0.314	0.314	1.346
Total	9.622	8.430	0.491	2.447	1.969	1.964	1.963	8.835

Figures may not sum due to rounding

Support staff are included in administration and engineering staff are included in planned maintenance

*£0.5m of the 2017/18 total relates to the WTL pipeline and as such, it is not part of the pass-through mechanism. These costs will be dealt with as set out in 4.5.9 of the NIHE Licence.

Table 58: GNI (UK) post-efficiency final determination – in March 2016 prices

Cost Category	BP Request £m	DD £m	Final Determination					Total £m
			2017-18 £m	2018-19 £m	2019-20 £m	2020-21 £m	2021-22 £m	
Administration	5.741	3.866	0.879	0.876	0.901	0.894	0.889	4.439
Asset Replacement	5.896	0.391	0.338	0.502	0.620	0.625	0.182	2.268
Planned Maintenance	11.736	10.614	1.961	2.262	1.962	2.007	2.021	10.214
Unplanned Maintenance	2.540	1.950	0.474	0.485	0.457	0.454	0.451	2.321
System Operation	2.048	1.961	0.385	0.387	0.391	0.394	0.397	1.955
GMO NI Costs	2.722	2.473	0.433	0.412	0.385	0.382	0.380	1.992
Uncontrollable Costs	9.060	9.060	1.765	1.756	1.813	1.856	1.869	9.060
Total	39.735	30.315	6.235	6.682	6.530	6.614	6.189	32.248

Figures may not sum due to rounding

Support staff are included in administration and engineering staff are included in planned maintenance

Appendix 4: Calculation of GNI (UK) Capital Repayment Model Input Data

Table 59: Estimation of CPI – RPI Adjustment

Office of Budget Responsibility (March)	RPI Jan 87 = 100	CPI 15 = 100
2017Q3	274.51	103.47
2022Q1	315.62	113.06
Inflation	14.97%	9.27%
Years	4.5	4.5
Inflation pa	3.15%	1.99%
CPI-RPI Adjustment	1.14%	

Table 60: Calculation of Capital Revenue Model Inputs

WACC Component	Final Determination	
	[%]	[Licence value]
Gearing - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) g_t	65%	0.65
Cost of Debt	0.20%	
Cost of Equity	5.38%	
WACC (real)	2.01%	
CPI-RPI Adjustment	1.14%	
Real Cost of Debt - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) d_t	1.34%	0.0134
Cost of Equity	6.57%	
Financial Model WACC	3.17%	
CPI Forecast	2.00%	
Nominal Post Tax Cost of Equity - Licence Condition 2.2 Annex A Part 5 Rate of Return (a) r_{e_t}	8.70%	0.087

Annexes

Overview

Table 61 provides an overview over the annexes to this GT17 final determination.

Table 61: Annexes

Annex Number	Annex Name
Annex 1	Real Price Effects and Frontier Shift
Annex 2 ⁷⁹	Replacement Expenditure (Repex)
Annex 3	Rune Report – MEL
Annex 4 ⁷⁹	Rune Report – GNI (UK)
Annex 5 ⁷⁹	Gemserv Report – GT17 IT Issues
Annex 6	First Economics Report – Cost of Capital for GNI (UK) ⁸⁰
Annex 7	UR Response to Draft Determination Consultation Responses

⁷⁹ Published version has been redacted to maintain the confidentiality requested by GNI (UK).

⁸⁰ The report is dated 27 March 2017. We note, however, that the market data set out in the report was subsequently reviewed and updated in June 2017 without the need to update the report.