An Coimisiún um Rialáil Fóntas

Commission for Regulation of Utilities

Gas Networks Ireland Transmission Tariffs and Allowed Revenue 2022/23

Decision Paper

Decision Paper

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CRU Draft Strategic Plan 2022-24

1.1 Our Mission

- Protecting the public interest in water, energy and energy safety.

1.2 Our Strategic Priorities

- Ensure Security of Supply
- Drive a Low Carbon Future
- Empower and Protect Customers
- Enable our People and Organisational Capacity

1.3 Our Vision

- Safe, secure and sustainable supplies of energy and water, for the benefit of customer now and in the future

Executive Summary

Each year, the network tariffs are reviewed to ensure that Gas Networks Ireland (GNI) only recovers the necessary costs for efficient operation of the network. This paper sets out the transmission network tariffs to apply from 01 October 2022 to 30 September 2023 (gas year 2022/23). The distribution network tariffs are published in a separate paper (CRU/202248); also published today.

In previous years, the calculation of gas network tariffs was based on the annual revenues included in the Price Control Four (PC4) Decision Paper, which covered the period from 1st October 2017 to 30th September 2022. The forthcoming gas year will be the first gas year under PC5 which will run from 1st October 2022 to 30th September 2023. A decision on PC5 revenues has not yet been made.

GNI submitted its initial proposals for PC5 in December of last year. However, given the significant price developments in the current 2021/22 tariff year, most notably impacted by the war in Ukraine, GNI will submit updated proposals to the CRU in October 2022. Based on a detailed and thorough review of that updated proposal, a decision will be made on PC5 revenues in early 2023. Those revenues will be used in setting the gas tariffs for 2023/24.

With a decision on PC5 not yet made, the CRU has considered how to set tariffs for the gas year 2022/23. The approach decided upon uses the revenue requirements for the current gas year (2021/22), updated with reasonable assumptions to account for key cost drivers, such as inflation, gas prices and current demand forecasts. In selecting that approach, the CRU has carefully considered the need to provide adequate revenues to GNI, while recognising the real cost pressures being faced by rising costs on consumers and businesses. The CRU has thoroughly reviewed all costs to ensure that they are absolutely necessary and has assessed a range of options to further reduce the impact of any cost impacts on customers including taking a 6-month weighted average of forward-looking Winter and Summer prices and the accelerated return of €36.3 million back to customers. This approach will mitigate against the costs increases that customers will face in 2022/23.

In reviewing costs to ensure that they are absolutely necessary, judgement has had to be used to ensure that any assumptions made were reasonable. This included in the setting of key assumptions for gas price and inflation, which are placing the largest upward pressure on revenue requirements (see table 1). Depending on the sources and / or methodology used, those forecasts may be considered conservative. However, the CRU considers that they reasonably account for the market volatility currently being experienced. For example, the gas price used seeks to reduce the impact of recent market volatility on forecasts. This is done by using 6-month weighted averages of forward-looking Winter and Summer prices, which results in a gas price of £1.19 per therm. An alternative approach, where such averaging was not conducted, would have seen a gas price of £2.30 per therm.

Table 1: The adjustments made to calculate the revenue for the gas year 2022/23 (running from 1st October 2022 to 30th September 2023).

Revenue	€m
Allowed revenue 2021/22 PC4 (15/16 monies)	194.6
Inflation	25.6
CO2	5.2
2020/21 K-factor	10.2
Shrinkage (Tx)	31.6
PC4 clawback	36.3
Total Revenues requirement for 2022/23	**231**
Change in revenue relative to 2021/22 revenues of €213m	8.5%

Based on the above revenues, and using the most up to date demand forecasts, the network transmission tariffs to apply from 1st October 2022 to 30th September 2023 are detailed in Table 3. They represent an increase in transmission tariffs. An example is provided below. It relates to the transportation cost of Great British (GB) gas.

Table 2 Recent cost of transportation for GB gas (nominal)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Capacity – €/peak MWh	788.605	761.263	715.864	669.00	722.44	767.59	858.50

The transportation cost of GB gas (Moffat Entry capacity tariff + Domestic Exit capacity tariff) is important because GB gas is the marginal supply for Ireland. Generally, Irish wholesale gas prices are set by the GB price of gas plus the cost of transporting gas from GB to Ireland via the interconnectors. Under the 2022/23 tariffs the transportation cost of GB gas to Ireland will increase by c.**8.67%** (in real terms (i.e. adjusted for inflation)).

Table 3: Transmission tariffs 2022/23

	Bellanaboy entry	RNG entry	Moffat (IP) entry	Domestic exit	Gormanston (IP) exit
Firm[1] capacity - €/peak day MWh	721.63[2]	148.25	356.82	501.68	479.37
Commodity - €/MWh	0.137			0.284	

As in previous years, the CRU is also publishing, today, the distribution network tariffs. The distribution tariffs are set to increase by 1.04% when compared to 2021/22 tariffs. It is estimated that the combined change in transmission and distribution tariffs equates to a €16 increase on an average residential gas customer's annual bill. Network tariffs are charged to gas shippers/suppliers. It is up to suppliers whether to pass on these costs to their customers.

1 "Firm" means gas transmission capacity contractually guaranteed as uninterruptible by the transmission system operator.

2 This is composed of two elements; one to remunerate the transmission services revenue of GNI (€ 174.368/MWh) plus a Corrib Linkline Element (€ 547.260/MWh), which will remunerate the revenues relating to the Corrib Linkline (Corrib Partners).

Customer Impact Statement

The CRU's mission is to protect the public interest in water, energy and energy safety. Within that brief it is legally responsible for regulating network charges in the natural gas market. The CRU may set the basis for charges for using the transmission system.

The tariffs set out in this paper are charged to suppliers for the use of Gas Network Ireland's transmission network – this network consists of the larger gas pipes, for example the gas pipes between larger cities and towns. The CRU conducts an annual review of transmission tariffs to ensure that only necessary costs are included in the calculation of these tariffs.

The review this year has had to consider the significant increase in gas price volatility, the war in Ukraine and the general upward inflationary pressures that the Irish customer is facing. The CRU has ensured that the review has been thorough, allowing only costs necessary to deliver a sustainable and secure energy network. The CRU has carefully considered any underlying assumptions put forward by GNI to ensure that they are reasonable. The review identified the revenue requirements were increasing which was driven mostly from general inflation and rises in gas costs. Options to reduce the impact of this increase were carefully considered and it has been decided to take a 6-month weighted average of forward-looking Winter and Summer prices and also to bring forward a return of €36.3 million to customers. With this approach, the potential increase in transmission network tariffs for 2022/23 was reduced and will reflect a c. 8.67% increase on current gas tariffs from October 2022.

As detailed in a separate publication alongside this paper, distribution tariffs are set to increase by c. 1.04%. It is estimated that the combined change in transmission and distribution tariffs equates to a €16 increase on an average residential gas customer's annual bill. Network tariffs are charged directly to gas suppliers, and it is a decision for suppliers whether to pass on these costs to their customers.

Table of Contents

Glossary of Terms and Abbreviations

Abbreviation or Term	Definition or meaning
Capex	Capital expenditure
CNG	Compressed Natural Gas
CRU	Commission for Regulation of Utilities
DM	Daily Metered
GNI	Gas Networks Ireland
GCS	Generation Capacity Statement
HICP	Harmonised Index of Consumer Prices
I/C	Industrial & Commercial
IP	Interconnection Point
LDM	Large Daily Metered
NESF	National Energy Security Framework
NDM	Non-Daily Metered
RNG	Renewable Natural Gas
RPM	Reference Price Methodology
TSO	Transmission System Operator
VRF	Virtual Reverse Flow

1 Introduction

1.1 The Commission for Regulation of Utilities

The Commission for Regulation of Utilities (CRU) is Ireland's independent energy and water regulator. The CRU was established in 1999 and now has a wide range of economic, customer protection and safety responsibilities in energy and water. The CRU's mission is to protect the public interest in Water, Energy and Energy Safety.

Further information on the CRU's role and relevant legislation can be found on the CRU's website at www.cru.ie.

1.2 Purpose of this Paper

Under the Gas (Interim) (Regulation) Act, 2002, the CRU is responsible for regulating charges in the natural gas market. Under Section 14 of the Act, the CRU may set the basis for charges for transporting gas through the transmission system.

This paper outlines the CRU's decision in relation to the Gas Network Ireland's (GNI) allowed revenues and transmission tariffs that will apply from 01 October 2022 to 30 September 2023.

Article 30 of the TAR NC requires certain tariff information to be published ahead of the upcoming tariff period (i.e. gas year 01 October 2022 – 30 September 2023). This includes detail on elements of the CRU's allowed revenue methodology, GNI's Matrix Model, and other additional information all of which is used either directly or indirectly to calculate GNI's allowed revenue and the transmission tariffs for the 2022/23 gas year. This information will be set out in a separate CRU paper which will be published 30 days ahead of the tariff period.

1.3 Related Documents

Over the years there has been a large volume of tariff documentation published. The below provides a convenient list of some of the key transmission tariff.

- CRU Transmission Revenue Model 2022/23 (CRU/202247a).
- CRU Corrib Linkline Model (CRU/202247b).
- Gas Transmission Tariff Methodology – Tariff Network Code Article 28 Decision 2022/23 (CRU/202246).

- Decision on October 2017 to September 2022 Transmission Revenue for Gas Networks Ireland (CER/17/260)
- Harmonised Transmission Tariff Methodology for Gas Decision Paper (CRU/19/060)
- Establishing a Network Code on Harmonised Transmission Tariff Structures for Gas (Commission Regulation (EU) 2017/460)

1.4 Structure of the Paper

This information paper is structured as follows:

- Section 1 provides an introduction and background
- Section 2 outlines the way by which tariffs are updated and how the CRU update allowed revenues for 2022/23 gas year;
- Section 3 sets out the transmission tariffs for 2022/23; and,
- Section 4 provides a conclusion.

2 Tariff Setting Process for 2022/23

2.1 Introduction

In this section the CRU sets out the allowed revenues for gas year 2022/23 and provides a brief overview of GNI's demand forecasts for the coming gas year. The allowed revenue is combined with the demand forecasts to calculate the network tariffs. The allowed revenues are set to ensure that GNI can operate, maintain and invest in the network effectively. Only necessary costs are allowed in the calculation of revenues. To ensure this a detailed review of GNI's proposed costs is carried out.

2.2 Allowed Revenue

2.2.1 GNI's 2022/23 Revenues

In previous years, the calculation of gas network tariffs was based on the annual revenues included in the Price Control Four (PC4) Decision Paper, which covered the period from 1st October 2017 to 30th September 2022. The forthcoming gas year will be the first gas year under PC5. However, a decision on the revenues for PC5 will not be available within the required the annual yearly capacity auctions timeline which will be held on 01 July 2022.

A decision on PC5 revenue requirements was planned for October of this year. This was to be based on a detailed review of proposals submitted by GNI in December of last year. That decision will now be made in early 2023. This is to allow GNI time to update its PC5 proposals in light of the significant national and international developments impacting on energy markets, society and the wider economy (most notably the war in Ukraine) that have since occurred. Without this additional time to update the proposals, there was a real and substantive risk that revenue allowances under PC5 would not reflect the likely realities that GNI and the Irish gas customer would face during PC5. The publication of a decision based on an updated submission, will further ensure:

- sustainable and secure energy networks and supplies; and
- the provision effective regulation that supports competitive and efficient energy markets deliver a low carbon future whilst supporting competitiveness and security of supply.

As a decision on a revenue allowance for 2022/23 under PC5 will not be available until early next year, the CRU has decided to base revenues on GNI's 2021/22 gas year revenues (€194.60m, in

2015/16 monies) adjusted for key cost drivers. All costs and underlying assumptions have been carefully reviewed and are set out below.

2.2.2 Inflation adjustments

Adjusting GNI's base 2022/23 revenues of €194.60m (in 2015/16 monies) for cumulative inflation of 13.14% increases by GNI's revenues by €25.6m to €220m. The inflation rates applied to do this are shown in Table 2.1 below.

Table 2.1: Inflation rates used to inflate revenues from 2015/16 monies to 2022/23 monies

Actual and forecast when setting tariffs from 15/16 monies to 22/23		
HICP Forecast/Outturn	Year	Rate
HICP Outturn	16/17	0.600%
HICP Outturn	17/18	0.500%
HICP Outturn	18/19	1.100%
HICP Outturn	19/20	0.500%
HICP Outturn	20/21	0.100%
HICP Outturn	21/22	6.900%
HICP Forecast	22/23	2.925%
Total Cumulative	-	13.139%

The outturn inflation figures from the table above are CSO annual percentage change from March to March for each period, while the 2022/23 forecast inflation rate of 2.93% is based on the weighted average inflation rates for 2022 & 2023 taken from the Central Bank of Ireland Bulletin Q1 2022[3]

2.2.3 CO_2 Costs

CO_2 costs are incurred by GNI in operation of the compressor stations, which requires GNI to purchase a quantity of CO_2 certificates under the UK Emissions Trading Scheme. GNI has assumed that the CO_2 emissions remain at the levels used in setting the tariffs for the current gas year. As will be discussed later, GNI's most up to date demand forecasts have been used to calculate tariffs. Initially GNI had been using forecasts from 2021 but it has become clear, over time, that those forecasts are out of date and unlikely to be accurate. In order to use the most up to date forecasts, and given the time available GNI proposed to use the CO_2 volumes used in calculating the 2021/22 tariffs as a placeholder. This reflects a reduction in CO_2 emissions from the earlier forecasts but likely not to extent that would be realised if their most up to date forecasts materialised.

[3] Central Bank of Ireland Bulletin Q1 2022

GNI is also forecasting an increase in the price per tonne for CO_2. GNI has calculated a CO_2 price per tonne of €79.46. GNI's forecasted carbon price of €79.46 per tonne is 52% higher than the €52.22 per tonne used when setting the 2021/22 gas tariffs, which is reflective of current market conditions.

The CRU considers the above assumptions to be reasonable forecast inputs. The projected increased CO_2 emissions together with higher CO_2 prices results in a 37% (€1.4m) cost increase in 2022/23 relative to the €3.8m allowed in 2021/22.

2.2.4 Correction Factor (or k-factor)

As transmission tariffs are calculated in advance, the CRU must use forecast data i.e. forecast inflation, revenues and pass-through costs. However, once actuals are available, we carry out an adjustment to take those into account. This is called a Correction Factor or k-factor adjustment. The k-factor is for 2 years previous as that is when the actual data is available i.e. when setting the tariffs for 2022/23 the CRU closes out the year 2020/21. Having reviewed the actual data for 2020/21, it has been determined that GNI has under recovered for that gas year. The under recovery is €15.29 million. This money will be returned to the GNI through the k-factor mechanism described below. The formula for the k-factor is set out in the CRU's decision on Distribution Use of System Revenue Requirement and Tariff Structure (CER/03/170). There are two key rules to the k-factor. These rules are in place to ensure that tariffs are stable and to ensure that volatility is avoided. The rules are as follows:

Rule 1. Any over-recovery up to 105% of allowed revenues is returned in the following gas year (e.g. any 2020/21 k-factor >105% is returned in gas year 2022/23 not gas year 2021/22). This is to ensure that the tariffs are stable, and that volatility is avoided.

Rule 2. Any over- or under-recovery of revenue attracts an interest rate of Euribor (interbank lending rate) +2% and any over-recovery in excess of 103% of revenue attracts an interest rate of Euribor +4% (e.g. any 2020/21 k-factor >100% & <103% is returned at Euribor +2% and any 2020/21 k-factor >103% & <105% is returned at Euribor +4%)[4]. This is to incentivise GNI to make accurate forecasts of demand and new customer connections.

As per rule 1 above, any over or under-recoveries in excess of 105% of allowed revenues is to be returned in the following gas year. In this context, there was an under recovery of €15.29m in 2020/21 which is in excess of the 105% rule. Using the 105% rule a k-factor of €10.23m must be returned to GNI, which includes Euribor interest penalties, when setting the 2022/23 tariffs. Given

[4] As per rule 1 any 2019/20 k-factor >105% is credited the following year, with Euribor +4% applied for both years.

the 105% limit was reached a residual k-factor of €5.06m relating to 2020/21 will be returned to GNI in future years. Further to this 2020/21 k-factor, a €4.64m k-factor relating to 2017/18 and 2018/19 (not including interest) is still to be credited to gas customers. This is the standard process for such k-factor adjustments.

2.2.5 Shrinkage Gas

Shrinkage gas includes own use gas (OUG) and unaccounted for gas (UAG). OUG is gas that is consumed by GNI in operating its network (e.g. gas required to run compressors). UAG is gas whose use is not accounted for. Examples are theft and leakages. GNI must purchase gas to cover the level of shrinkage on its networks.

Due to a number of factors including post-Covid recovery in demand, lower supply and influences from fluctuations in weather, the price of gas has been increasing since the middle of 2021. Further compounding this, the war in Ukraine pushed gas prices to historic highs with markets experiencing significant volatility and it is difficult to predict how they will develop. For example, in April 2021 the wholesale price of gas was £0.50 per therm which compares to £2.50 per therm in April 2022[5]. In recent months, the price for within day gas in the UK recently reduced to 20 pence per therm from highs of over £5 per therm earlier in the year. This was associated with low system demand and a marked increase in LNG being delivered in the UK and Europe.

With this level of volatility there is a question as to what a reasonable gas price would be to apply to shrinkage purchases. GNI has calculated gas prices on the basis of averages of winter and summer prices over 6 months. This approach is designed to dampen the effect of volatile prices on the forecast and results in a gas price of £1.19 per therm. This cost was calculated based on the weighted average (volume based) of forward-looking Winter 22 and Summer 23 prices over the 6 months. Given the current level of uncertainty and volatility in gas prices, on balance, the CRU considers GNI's approach which uses forward looking weighted averages, a reasonable approach to take.

As will be discussed later, GNI's most up to date demand forecasts have been used to calculate tariffs. In order to use the most up to date forecasts, and given the time available GNI proposed to use the shrinkage volumes used in calculating the 2021/22 tariffs as a placeholder. This reflects a reduction in CO_2 emissions from the earlier forecasts but likely not to extent that would be realised if their most up to date forecasts materialised.

[5] gov.ie - National Energy Security Framework (www.gov.ie)

The CRU considers the above assumptions to be reasonable forecast inputs. The projected increased shrinkage volumes together with higher gas commodity prices results in a shrinkage allowance of €31m for 2022/23 which is an almost an 80% increase on €17.3m allowed in 2021/22.

2.2.6 PC4 Capital underspend clawback

Over the course of PC4, GNI has underspent for transmission capex which results in an estimated PC4 clawback of €36.3m. In PC3 a similar build-up of capex underspend occurred. This was then handed back to the customer across PC4 (the over recovery being spread across the five years). GNI proposed that it would be appropriate, given the inflationary pressures that are currently being experienced, to hand this over recovery back to customers now (rather than spreading it across PC5). This would limit the increase in tariffs they would face for the forthcoming gas year. This could be done in a cost neutral way. On balance, the CRU considers that it is appropriate to provide the entire clawback now. However, it is important to note that the PC5 project is currently underway, and the CRU is yet to review the level of underspends and overspends during PC4. Therefore, the final value of the over recovery during PC4 may differ to the figures proposed by GNI.

2.2.7 Allowed revenue

The CRU has updated the 2021/22 allowed revenue set out in its PC4 decision to reflect the additional expenditure set out in sections 2.2.2 to section 2.2.6. This results in an allowed revenue of €231m for gas year 2022/23, which is a nominal increase of 8.5% (€18m) on the 2021/22 allowance of €213m.

The difference between the revenue assumption used to calculate tariffs in this paper and the outcome of the CRU's PC5 Final Determination, regarding the 2022/23 allowed revenues, will be corrected in future years through the k-factor mechanism.

2.3 Demand Forecasts

Demand forecasts are used to calculate tariffs from the revenue requirements just discussed. Initially GNI had calculated tariffs based on demand forecasts from last year. However, with ongoing monitoring of the market, it became clear that those forecasts are no longer likely to be accurate. In particular, they appeared to overstate likely future demand. Given this, the CRU requested more up to date demands from GNI. The updated demand forecasts that GNI provided are based on six months of actual 2021/22 data and six months of 2021/22 forecast data. This updated forecasted has been used to determine the tariffs for the gas year 2022/23. The calculation of that forecast is now discussed.

2.3.1 Assumptions

The forecast demands for 2022/23 are based on the assumptions outlined in Table 2.2. These assumptions influence the demands forecasted at the Entry Points to the transmission system and at the Exit from the transmission system.

Table 2.2: Demand assumptions for 2022/23

Assumption	Description
Weighted Annualised Capacity Bookings	It is anticipated that shippers will continue to optimise their capacity bookings via a mixture of annual and short-term capacity products. This applies to the Large Daily Metered (LDM) and Daily Metered (DM) sectors[6]. Short-term capacity forecasts are weighted depending on the month when the booking is expected to arise. Lower annualised bookings are assumed, which is based on the latest bookings on the system, mainly as a result of lower annualised power bookings.
Power generation	GNI's demand assumptions are based current Outturn. In 21/22, especially Q1, 2022, gas generation in the power sector has been lower, with coal and oil running ahead of gas. This is due to the exceptionally high price of gas, resulting in non-gas power plant running ahead of gas. In Q1 2022, coal generated c. 10% of electricity and oil generated c. 4%. For comparison, the same period in 2021, coal provided 6% of electricity and oil generated c. 1%. Exceptionally high wind in February '22 was also taken into account. Wind generated c. 56% of electricity in February, gas generated c. 29%. This had an impact on the weighted annualised capacity which is weighted based on price of short-term product with February being the most expensive month for short-term product. The nett impact is a lower annualised capacity for the tariff calculation.
Daily Metered (DM) Industrial & Commercial (I/C)	The latest LDM forecasts are expected to remain broadly flat compared with previous years.
Non-Daily Metered (NDM)	Lower demand in the NDM sector as a result of warmer than average Q4 2021 and Q1, 2022. This demand forecast assumes that this warmer weather would continue into 22/23, which impacts the temperature sensitive sectors.
Entry Points	The lower demand at EXIT also results in lower demand at Entry so this impacts both Entry and Exit tariffs. There were also lower than forecast annual bookings at Moffat.

2.3.2 Demand forecasts

Table 2.3 and Table 2.4 below present GNI's transmission network demand forecasts for gas year 2022/23. For context, these forecasts are presented alongside GNI's actual demands for 2020/21 and the 2021/22 forecast used previously for setting the current gas tariffs. Highlighting

[6] The customer category classifications for LDM, DM and NDM are set out in the GNI Code of Operations under Part F, Section 2 Classification.

the forecast demands for the upcoming gas year, against the demands forecast used in setting the current gas tariffs is particularly useful, to indicate are applying upward or downward pressure on tariffs (higher demands equal lower tariffs).

Table 2.3: Transmission commodity demand forecast summary – GWh (2022/23 forecast set equal to 2021/22 update)

	Commodity Demand Forecasts			% Variation	
	20/21 actual demand	21/22 tariff forecast	22/23 demand forecast	22/23 vs 20/21 actual	22/23 vs 21/22 tariff
Entry Commodity	58,420	61,335	55,772	-5%	-9%
Exit Commodity	56,217	59,904	54,514	-3%	-9%

Note: The Exit Commodity total is lower than the Entry Commodity total due to the Isle of Man offtake and shrinkage which is not included in the Exit total.

Table 2.4: Transmission capacity demand forecast summary – MWh (2022/23 forecast set equal to 2021/22 update)

	Capacity Demand Forecasts			% Variation	
	20/21 actual demand	21/22 tariff forecast	22/23 demand forecast	22/23 vs 20/21 actual	22/23 vs 21/22 tariff
Bellanaboy Entry	53,809	44,705	46,587	-13%	4%
Moffat Entry	166,679	183,316	169,342	2%	-8%
WA[7] Total Entry Capacity	220,514	228,059	215,948	-2%	-5%
WA Total Exit Capacity	279,075	282,171	277,424	-1%	-2%

Note: The Entry Capacity is lower than the Exit Capacity as NDM customers are required to book for 1 in 50 at Exit.

For the forthcoming year, transmission commodity forecasts are 5% lower (entry) and 3% lower (exit) than the actual (outturn) commodity demand for 2020/21 and 9% lower (entry and exit) lower than the 2021/22 commodity forecast for tariff setting. The lower demand has been driven by a number of factors including:

- Lower demand from gas generators – the merit order for gas generators has been impacted by high gas costs. This has seen gas being moved down in the merit order and coal and oil running more often. In addition, wind generation is up, providing, for example, circa 56% of electricity in February 2022.

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[7] WA stands for weighted annualised. Shorter-term bookings, which can occur at different times of year (different costs) are adjusted for representation as an equivalent annual amount so that the overall demand can be compared more easily across years.

- Lower Demand for Non-Daily Metered customers – these demands tend to be weather sensitive and a milder Winter in 2021/22 has caused the demand forecasts to be reduced.

In terms of capacity, forecasted weighted annualised (WA) Exit capacity demand for 2022/23 is 1% lower than the outturn for 2020/21 and 2% lower than the 2021/22 capacity forecast for tariff setting. Short-term capacity forecasts are weighted depending on the month when the booking is expected to arise. For 2022/23, lower annualised bookings are assumed, which is based on the latest bookings on the system, mainly as a result of lower annualised power bookings.

3 CRU Decision on Transmission Tariffs for 2022/23

3.1 Transmission tariffs for 2022/23

The previous sections outline the elements affecting the transmission tariffs such as the adjustments which occur to the allowed revenues. These adjustments are then taken together with the 2021/22 allowed revenue from the Price Control Four to calculate the allowed revenue for the forthcoming tariff year. This allowed revenue is then inputted into GNI's Transmission Matrix Model along with the updated demand forecasts and correction factor to calculate the tariffs for the upcoming gas year. The transmission tariffs which will apply from 01 October 2022 to 30 September 2023, based on a revenue of €231m (2022/23 monies), are set out below.

Table 3.1: Transmission tariffs for 2022/23

	Bellanaboy entry	RNG entry	Moffat (IP) entry	Domestic exit	Gormanston (IP) exit
Firm[8] capacity - €/peak day MWh	721.63[9]	148.25	356.82	501.68	479.37
Commodity - €/MWh	0.137			0.284	

With these updated tariffs, the transportation cost of GB gas[10] to Ireland will increase by c.**8.67%** (in real terms (i.e. adjusted for inflation)). This increase in tariffs is mainly due to increases in shrinkage costs. With regard to the shrinkage, the higher costs are associated with rises in CO_2 and gas commodity costs. This increase is particularly acute for 2022/23 gas year given recent volatility in gas prices due to the Russia and Ukraine war.

For comparison, Table 3.2 below provides the 2022/23 transportation cost of GB gas relative to those in recent years (in nominal terms (i.e. without adjusting for inflation)). Tariff costs have

[8] "Firm" means gas transmission capacity contractually guaranteed as uninterruptible by the transmission system operator.
[9] This is composed of two elements; one to remunerate the transmission services revenue of GNI (€ 174.368/MWh) plus a Corrib Linkline Element (€ 547.260/MWh), which will remunerate the revenues relating to the Corrib Linkline (Corrib Partners).
[10] The transportation cost of GB gas (Moffat entry capacity tariff + domestic exit capacity tariff) is important because, generally, Irish wholesale gas prices are generally set by the GB price of gas plus the cost of transporting gas from GB to Ireland via the interconnectors, as GB gas is the marginal source of gas supply to Ireland.

increased in the last three years, mainly due to the cost of shrinkage moving into the allowed revenue[11].

Table 3.2: Recent cost of transportation for GB gas (nominal)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Capacity – €/peak MWh	788.605	761.263	715.864	669.00	722.44	767.59	858.50

3.2 Impact on a residential customer's bill

As in previous years, the CRU is also publishing, today, the distribution network tariffs. The distribution tariffs are set to decrease by 1.04% real terms. It is estimated that the combined change in transmission and distribution tariffs equates to an €16 (or 1.41%) increase on an average residential gas customer's annual bill which is estimated to be €1,142 (excluding VAT) per annum (calculation conducted in May). Network tariffs are charged to gas shippers/suppliers. It is up to suppliers whether to pass on these costs to their customers.

To calculate the gas network charge element of the indicative bill, both Transmission (Capacity & Commodity) and Distribution (Capacity & Commodity) tariffs are used. The relevant capacity tariffs for both transmission and distribution are applied against a 'peak day capacity (MWh's)'. The peak day capacity element has been calculated based on an annual consumption estimate of 11 MWh's divided by a 'load factor' of 3 (ref table 11.2 of document 'CER15/057'). The relevant commodity tariffs for both transmission and distribution are applied to the annual consumption estimate of 11MWh's. The capacity and commodity charges calculated are then combined to give the 'Gas Network Charge' element of the overall customer bill. It is assumed that the Gas Network Charges are fully passed onto the end customer – but this is ultimately a decision for the supplier themselves to pass these charges on fully.

3.3 Details of Multipliers

Multipliers and seasonal factors are applied to the reference prices to set the tariffs for non-yearly capacity products. Short-term multipliers are applied in order to, amongst other things, incentivise efficient booking and hence use of the network. Table 3.3 below outlines the multiplier and

[11] As part of the CRU's tariff network code decision (CRU/19/060), it was decided that from 2020/21 onwards, shrinkage should be included in the allowed revenue as it is a transmission service. As this is a movement of costs, not an increase in overall costs, it should not lead to an increase in costs for end customers.

seasonal factor profile for gas year 2022/23. The CRU decided to not to change the profile for gas year 2022/23 as set out in its annual tariff network code Article 28 paper (CRU/202246).

Table 3.3: Multiplier and seasonal factor profiles[12]

Month	Quarterly %	Monthly %	Daily %
October	38.43%	12.81%	0.64%
November		12.81%	0.64%
December		17.08%	1.14%
January	80.69%	29.89%	1.99%
February		34.16%	2.28%
March		25.62%	1.71%
April	13.27%	12.81%	0.64%
May		0.97%	0.05%
June		0.97%	0.05%
July	2.61%	0.97%	0.05%
August		0.97%	0.05%
September		0.97%	0.05%
Total	135.0%	150.0%	279.44%

3.4 Virtual Reverse Tariff 2022/23

Virtual Reverse Flow (VRF) is a 'reverse flow' service offered on a virtual interruptible basis, at the Interconnection Points, to enable Shippers to virtually flow gas from Ireland via Moffat and into Ireland via Gormanston.[13] In accordance with the CRU's TAR NC decision paper, for gas year 2019/20 a new tariff was introduced for VRF, which replaced the previous registration fee approach. The calculation of the VRF tariffs at Moffat and Gormanston are now based on the TAR NC principles and requirements for standard interruptible capacity products. Art. 16 of TAR NC specifies the calculation of reserve prices for standard interruptible capacity products by

12 To understand how this works, consider the following example: The reference price for Moffat entry is €301/MWh. If you wanted to book monthly capacity for December, you could calculate the cost by referring to the table and applying the relevant combined multiplier & seasonal factor; in this case 17.08%. That would result in the following – €301/MWh * 17.08% = €51.4/MWh.

13 For example, if there is a total nomination of 100 units of gas for delivery from GB to ROI and a gas shipper in Ireland wishes to virtually transport 10 units of gas from ROI to GB, these 10 units are netted off the 100 units, resulting in the delivery of 90 units into the ROI gas network.

applying an adjustment to the reserve prices for the corresponding standard firm capacity products.

Full details on how the CRU sets the VRF tariffs for Moffat and Gormanston and the reasoning for its approach, can be found in section 3.11 of the CRU's TAR NC decision paper (CRU/19/060), in summary:

- The VRF tariffs are based on the Moffat exit point and Gormanston entry point reference prices, as calculated by the Matrix RPM.
- A Pro Factor of 8% is applied to the Moffat and Gormanston VRF products, reflecting the probability of interruption.
- A risk premium of 10% is applied to both the Moffat and Gormanston VRF products.
- A market interaction factor of 30% applies to the Moffat VRF product only to bring the price below that of the equivalent forward flow tariff for reasons of cross-border trade.

These inputs result in an A-factor (i.e. overall adjustment) of 6 for Moffat VRF and an A-factor of 2.25 for the Gormanston VRF. The CRU decided to not to change the adjustment for gas year 2022/23 as set out in its annual tariff network code Article 28 paper (CRU/202246).

Table 3.4: Virtual reverse flow (VRF) tariffs for 2022/23

	Gormanston (IP) VRF entry	Moffat (IP) VRF exit
Capacity – €/peak day MWh	110.60	319.74
Commodity - €/MWh	0.137	0.284

4 Conclusion

The tariffs detailed in this paper will take effect from 01 October 2022.

Under Article 30 of the Tariff Network Code, a more detailed paper on the transmission network will be published 30 days ahead of the tariff period, however the tariffs will not change.

As detailed in this paper, a decision on PC5 revenues was not available in time for setting the 2022/23 tariffs. In terms of tariffs for 2023/24, the CRU would like to highlight that it intends to base those tariffs on revenues from its forthcoming PC5 decision. That decision was planned for October of this year. That decision will now be made in early 2023. This is to allow GNI to update its PC5 proposals, which they had submitted to the CRU in December 2021. The update provides the opportunity to capture the significant national and international developments impacting on energy markets, society and the wider economy (most notably the war in Ukraine) that have since occurred. Without this additional time to update the proposals, there was a real and substantive risk that revenue allowances under PC5 would not reflect the likely realities that GNI and the Irish gas customer would face during PC5. The publication of a decision based on an updated submission, will further ensure:

- sustainable and secure energy networks and supplies; and
- the provision effective regulation that supports competitive and efficient energy markets deliver a low carbon future whilst supporting competitiveness and security of supply.

Appendix A Transmission Tariffs 2022/23

GNI Transmission Tariffs for 2022/23			Published Tariffs		
	2022/23 Tariffs		2020/21 Tariffs	2021/22 Tariffs	% Change
	€	(2022/23 Monies)	€	€	Nominal
Exit					from 2021/22
capacity	**501.684**	per peak day MWh	407.634	454.697	10.3%
commodity	**0.284**	per MWh	0.236	0.238	19.2%
Gormanston Exit					
capacity	**479.372**	per peak day MWh	385.366	432.400	10.9%
commodity	**0.284**	per MWh	0.236	0.238	19.2%
Moffat Entry					
capacity	**356.821**	per peak day MWh	314.810	312.893	14.0%
commodity	**0.137**	per MWh	0.114	0.114	19.3%
Bellanaboy Entry					
capacity	**721.628**	per peak day MWh	629.993	633.755	13.9%
commodity	**0.137**	per MWh	0.114	0.114	19.3%
RNG Entry					
capacity	**148.251**	per peak day MWh	106.239	104.323	42.1%
commodity	**0.137**	per MWh	0.114	0.114	19.3%
Gormanston VRF Entry					
capacity	**110.601**	per peak day MWh	76.151	74.580	48.3%
commodity	**0.137**	per MWh	0.114	0.114	19.3%
Moffat VRF Exit					
capacity	**319.740**	per peak day MWh	270.857	295.315	8.3%
commodity	**0.284**	per MWh	0.236	0.238	19.2%
Illustrative Transmission Transportation Costs					
	€		€	€	
Transmission Transportation Cost of UK Gas					
capacity	**858.505**	per peak day MWh	722.443	767.591	11.8%
commodity	**0.420**	per MWh	0.350	0.352	19.2%
Transmission Transportation Cost of Bellanaboy Gas					
capacity	**1,223.312**	per peak day MWh	1,037.627	1,088.453	12.4%
commodity	**0.420**	per MWh	0.350	0.352	19.2%
Transmission Transportation Cost of RNG					
capacity	**649.934**	per peak day MWh	513.873	559.020	16.3%
commodity	**0.420**	per MWh	0.350	0.352	19.2%