



An Coimisiún
um Rialáil Fóntas
**Commission for
Regulation of Utilities**

An Coimisiún um Rialáil Fóntas
Commission for Regulation of Utilities

Gas Transmission Tariffs Article 30 Tariff Network Code Information 2023/24 Information Paper

Information Paper

Reference: CRU2023108

**Date
Published:** 08/09/2023

**Closing
Date:** n/a

CRU Draft Strategic Plan 2022-24

<h3>1.1 Our Mission</h3> <ul style="list-style-type: none">Protecting the public interest in water, energy and energy safety.	<h3>1.2 Our Strategic Priorities</h3> <ul style="list-style-type: none">Ensure Security of SupplyDrive a Low Carbon FutureEmpower and Protect CustomersEnable our People and Organisational Capacity
<h3>1.3 Our Vision</h3> <ul style="list-style-type: none">Safe, secure and sustainable supplies of energy and water, for the benefit of customer now and in the future	

Executive Summary

The CRU published its decision on the 2023/24 transmission tariffs in CRU202348¹. That document was published one month in advance of gas capacity auctions that were held in July 2023. Its publication was required under the Tariff Network Code² (TAR NC), specifically Article 29.

Article 30 of the TAR NC sets out further detailed information that must be published prior to the tariffs coming into force in October. This paper sets out the required information and also provides additional information with the aim of making it a useful guide for transmission tariffs. The document includes:

- an introduction to the methodology used to calculate the tariffs;
- an introduction to how the CRU sets Gas Network Ireland's (GNI) allowed revenue;

¹ [Gas Networks Ireland Transmission Tariffs and Allowed Revenue 2023/24 Decision Paper](#)

² Establishing a network code on harmonised transmission tariff structures for gas (Commission Regulation (EU) 2017/460).

- a description of the annual process that the CRU follows to update GNI's allowed revenues;
- information required under Article 30 of TAR NC, containing:
 - detail on elements of the CRU's Allowed Revenue methodology;
 - detail on the parameters within GNI's tariff model; and
 - other additional information used either directly or indirectly to calculate GNI's allowed revenue and the transmission tariffs.
- the variables that cause changes in the tariffs from one year to the next; and,
- the transmission tariffs for the gas year 2023/24.

A simplified transmission tariff model is also being published alongside this paper. The model is available at the following [link](#). Users can change the inputs into this model to try and estimate possible impacts of different scenarios on tariffs. As it is a simplified model, developed for ease of use and interpretation, it can only provide broad indications of tariff movements. It should not be relied upon for business decisions but rather should be used as a useful guide to further understand how tariffs may possibly react under different scenarios.

Public Impact Statement

Customers pay transmission tariff costs through their gas bill. It is important that the calculation of those costs is transparent, accessible and publicly available.

Gas transmission tariffs are set to increase on 1 October 2023. This increase was set out in an earlier publication in June of this year (CRU202348) and is estimated to increase a residential gas customer's annual bill by 1.5% or approximately €28.

This document provides further details on transmission tariffs and aims to create a single resource for all gas transmission tariff related information such as; (1) details of the tariff model that is used to calculate tariffs, (2) the process that the CRU follows in updating tariffs, and (3) how the CRU sets the allowed revenue for Gas Networks Ireland (GNI). This paper aims to assist customers in understanding how tariffs are calculated and what causes them to change from one year to the next.

Table of Contents

1.1 Our Mission	1
1.2 Our Strategic Priorities.....	1
1.3 Our Vision	1
Executive Summary	1
Public Impact Statement.....	2
Table of Contents.....	3
Glossary of Terms and Abbreviations.....	4
1 Introduction	5
1.1 The Commission for Regulation of Utilities	5
1.2 Purpose of the Paper	5
1.3 Related Documents	6
1.4 Structure of the Paper.....	6
2 Irish Transmission Network	7
2.1 Introduction	7
2.2 Irish Transmission Network.....	7
2.3 Transmission Tariff Methodology for Gas	8
2.4 Parameters used in the Matrix Methodology.....	9
3 Tariff Setting Process	12
3.1 Introduction	12
3.2 Price Control.....	12
3.3 Annual tariff setting process	13
3.3.1 Pass-through costs	14
3.3.2 Extra-Over Items	14
3.3.3 Correction Factor (or K-Factor)	14
3.3.4 Demand Projections.....	15
4 TAR NC Article 30 information	18
5 Transmission Tariffs 2023/24	23
5.1 Details of Multipliers	23
5.2 Virtual Reverse Tariff 2023/24.....	24
5.3 Renewable Natural Gas (RNG) Transmission Entry Point Tariff	25
6 Conclusion.....	26
Appendix A Transmission Tariffs 2023/24	27

Glossary of Terms and Abbreviations

Abbreviation or Term	Definition or Meaning
AGI	Above Ground Installation
Capex	Capital expenditure
CAPM	Capital Asset Pricing Model
CNG	Compressed Natural Gas
CRU	Commission for Regulation of Utilities
DM	Daily Metered
EWIC	East West Interconnector
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
LRMC	Long Run Marginal Costs
NDM	Non-Daily Metered
Opex	Operating expenditure
RAB	Regulated Asset Base
RNG	Renewable Natural Gas
RPM	Reference Price Methodology
TSO	Transmission System Operator
VRF	Virtual Reverse Flow
WACC	Weighted Average Cost of Capital

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. The CRU's mission is to regulate water, energy and energy safety in the public interest.

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

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.

In line with these powers the CRU published a decision on GNI's allowed revenues and transmission tariffs that will apply from 01 October 2023 to 30 September 2024³, the CRU is now publishing additional information related to the calculation of allowed revenues and transmission tariffs, in accordance with Article 30 of the Network Code on rules regarding harmonised transmission tariff structures for gas (TAR NC)².

1.2 Purpose of the Paper

The purpose of this paper is to create a single resource for all tariff related information such as; (1) how the CRU sets tariffs on an annual basis, (2) the tariff methodology used, (3) the variables that cause changes in the tariffs from one year to the next and (4) the transmission tariffs for the gas year 2023/24 (CRU202348). The CRU has carried out this exercise in order to provide customers with tariff related information in the most transparent and easily accessible manner.

³ Gas Networks Ireland Transmission Tariffs and Allowed Revenue 2023/24 Decision Paper (CRU202348)

1.3 Related Documents

Over the years there has been a large volume of tariff documentation published. The below is a list of some of the key transmission tariff documents published over the last few years.

- [GNI's Simplified Transmission Tariff Matrix Model](#)
- CRU Transmission Revenue Model 23-24 ([CRU202348a](#)).
- CRU Corrib Linkline model ([CRU202348b](#)).
- Decision on October 2017 to September 2022 transmission revenue for Gas Networks Ireland ([CER/17/260](#)).
- Gas Networks Ireland Transmission Tariffs and Allowed Revenue 2023/24 – Decision Paper ([CRU202348](#)).
- Gas Networks Ireland Distribution Tariffs and Allowed Revenue 2023/24 – Decision Paper ([CRU202349](#)).
- Decision on Harmonised Transmission Tariff Methodology for Gas [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 background as to the Irish transmission system and how transmission tariffs are calculated;
- Section 2 outlines the way by which tariffs are updated and how the CRU updates allowed revenues on an annual basis;
- Section 3 provides specific information required by Article 30 of the TAR NC, and;
- Section 4 sets out the transmission tariffs for 2023/24.

2 Irish Transmission Network

2.1 Introduction

The gas transmission and distribution networks are a key element of the energy sector in Ireland, delivering fuel to power stations as well as serving industrial, commercial and household consumers. This section provides a summary of the key economic and technical characteristics of the Irish gas transmission system, an outline of the reference price methodology⁴ (RPM) (Matrix methodology) and the parameters used within the Matrix methodology.

2.2 Irish Transmission Network

The natural gas transmission network is 2,477km in length, consisting of high-pressure steel transmission pipelines. There are both onshore and offshore pipelines. See Figure 1 for a map of the Republic of Ireland (ROI) transmission system. The offshore portion of the network consists of the two gas interconnectors (IC1 and IC2) that connect Ireland to Brighthouse Bay, Scotland. There is a sub-sea offtake point from IC2 that supplies the Isle of Man depicted in Figure 1.

The onshore network covers the country in a ring-shaped fashion linking Dublin, Galway, and Limerick. It also consists of several spur lines to Cork, Waterford and lower pressure local area (regional) networks in large urban centres. In addition, the Mayo-Galway pipeline connects the ring-main to the Bellanaboy terminal, Co. Mayo, where gas from the Corrib gas field enters the Irish transmission system. At the end of 2015 the Corrib entry point (known as Bellanaboy) came into operation. The Bellanaboy entry point and the Moffat interconnection point (IP) in Scotland are the only entry points in operation since flows ceased in mid-2020 from the Inch entry point for gas from the Kinsale gas fields. In addition, to the Moffat IP there is also an IP with the Northern Irish gas transmission system at Gormanston. However, no commercial gas currently flows to NI from the Irish system and this pipe is currently used for

⁴ Reference Price Methodology (RPM) is the methodology applied to the part of the transmission services revenue to be recovered from capacity-based transmission tariffs with the aim of deriving reference prices.

emergency support only. In the event that commercial flows to Northern Ireland (NI) did occur the Gormanston IP could also become an entry point for virtual reverse flow (VRF) from the NI system to the Irish system.



Figure 1 Gas Network Ireland's transmission system

2.3 Transmission Tariff Methodology for Gas

In 2018, in line the European network code on harmonised transmission tariff structures for gas (TAR NC)⁵, the CRU commenced a review of the methodology for

⁵ Establishing a network code on harmonised transmission tariff structures for gas (Commission Regulation (EU) 2017/460).

calculating transmission tariffs for gas. The aim of the TAR NC is to overcome issues relating to Member States using different approaches to tariff setting for gas transmission services which could add to the complexity of using the various transmission systems. As part of the tariff methodology review process, the CRU held a number of industry stakeholder workshops and published a consultation paper which set out key proposals and invited comments from interested parties. In June 2019, the CRU set out its decision in [CRU/19/060](#). A key component of that paper was the CRU's decision to continue to calculate transmission tariffs using a forward-looking Matrix RPM, also referred to as the Matrix model. This Matrix model was used to set the tariffs for the 2023/24 gas year. In accordance with Article 30 a simplified version of this Transmission Tariff Model is available alongside this information paper, at the following [link](#). Some of the key inputs to this methodology are highlighted in Table 4.1.

2.4 Parameters used in the Matrix Methodology

In accordance with Art. 30 (1)(a)(i) of the TAR NC, this section includes information on parameters used in the Matrix RPM that relate to the technical characteristics of the transmission system.

The Matrix RPM is a forward-looking methodology based on long run marginal costs (LRMC). The model contains a representative network, which is based on actual pipeline distances between entry points and exit points. The model uses these distances and the expansion constants to approximate the cost of expansion between each entry and each exit point in a matrix. To determine the reference price at each of the points, a mathematical formula uses least squares to minimise the total difference between the cost of the paths and the sum of the entry and exit reference price. Following this step, the 'primary' tariffs are rescaled to recover any transmission services revenue shortfall. The same approach is applied at exit.

As noted above, the cost of expansion is calculated using expansion constants. An expansion constant provides a numerical value for the cost of expanding capacity so that one unit of gas travels over a specified distance. This is measured in €/GigaWatt hour/day/kilometre (€/G/h/d/km). To determine the values of an expansion constant, actual pipeline and compressor capital and operating costs are used to forecast

forward-looking costs. As the GNI system is comprised of both dry (onshore) and wet (subsea) pipelines, the CRU has calculated separate expansion constants to reflect the different costs associated with each. Both dry and wet expansion constants are comprised of pipeline costs and compression costs.

The expansion constant can be used to calculate the cost of building a pipeline (including compression) but it does not give any indication of the annual revenues that would be required to finance such an asset. In order to calculate the annual revenues an annuitisation factor is used. The annuitisation factor uses the capital costs of the assets, the cost of capital, the annual depreciation and the annual operating costs to calculate the average annual payment that would be made on this asset over the lifetime of the asset.

The wet expansion constant is €8,783 per GigaWatt/day/kilometre, and the dry is €7,810 per Gigawatt/day/kilometre. See CRU/18/247 sections 4.7 & 4.8 for further information on expansion constants and annuitisation factors. Table 2.1 below outlines further details required under Article 30 of the TAR NC relating to the parameters used with the Matrix model.

Table 2.1 Parameters used in the reference price methodology

TAR NC Article	Description	Detail
Art. 30(a)(i)	Technical capacity at entry and exit points	The technical capacity at the entry points to the transmission network is available on GNI's transparency dashboard, available at the following link . However, it should be noted that the technical capacity at entry and exit points of the transmission network is not a relevant variable for the purpose of the methodology of calculation of the transmission tariffs.
Art. 30(a)(ii)	Forecasted contracted capacity at entry and exit points	The forecasted contracted capacity at the entry points and at exit ^[1] is available in Table 2.2. The assumptions underlying the calculation of forecasted contracted capacity are detailed in Table 3.2.
Art. 30(a)(iii)	Quantity and direction of the gas flow for entry and exit points	Demand is assumed to be met first by domestic production (i.e. Bellanaboy and Inch), with Moffat providing the marginal source of gas. The direction of gas flow from entry to exit is not a variable in the Matrix RPM that effects the calculation of the transmission tariffs. However, a representation of how gas flows around the network is available on GNI's transparency dashboard, available at the following link .

TAR NC Article	Description	Detail
Art. 30(a)(iv)	Structural representation of the transmission network	The structural representation of the GNI's transmission system is provided in Figure 1.
Art. 30(a)(v)	Additional technical information related to the transmission system, such as length and diameter of pipelines	The information involved in the calculation of the expansion constants and annuitisation factor has been provided in CRU/18/247. The files which detail the calculation of these parameters are available for download at the following link .

3 Tariff Setting Process

3.1 Introduction

This section outlines how the CRU sets GNI's allowed transmission revenue every 5 years through a process known as a Price Control. It also details the process followed by the CRU in setting the transmission tariffs on an annual basis. By charging these tariffs GNI recovers its allowed revenue, as approved by the CRU.

3.2 Price Control

The CRU's role is to protect gas customers by ensuring that GNI spends customers' money appropriately and efficiently to deliver necessary services. The CRU does this through what is called a Price Control and which is carried out every 5-years.

In August 2017, the CRU published its decision paper (CER/17/260) on the Allowed Revenue that GNI's transmission business may recover over the Price Control period from 01 October 2017 to 30 September 2022, which is known as PC4.

Gas network tariffs are typically calculated based on annual revenues outlined in the CRU's Price Control Decision Papers. October 2022 was to be the start of the fifth price control period (PC5), which is to run until September 2027. The initial proposals for PC5 were submitted prior to the outbreak of war in the Ukraine and the significant market developments, which followed. They included not only high and extremely variable market prices but a drive to reduce energy demand and reduce dependence on Russian gas. These were underpinned by national and European policy, such as the REPowerEU. It was important that those significant developments were captured within PC5 to ensure GNI was working towards the desired outcomes and continued to ensure sustainable and secure energy networks and supplies. This led to a pause in PC5 to allow GNI to update its proposals and for further analysis to be conducted to ensure the regulatory framework adapts, where necessary, to the new challenges and opportunities that have emerged. This detailed work has been completed and a

consultation paper was published in July 2023⁶. However, as the consultation on PC5 had not yet been published prior to 2023/24 tariff setting, the CRU set the 2023/24 gas network tariffs on the basis of PC4 revenues adjusted for key cost drivers, including shrinkage, CO₂ and inflation.

The transmission business's allowed revenue is made up of three parts:

- i. Revenue to cover the transmission business's operational costs;
- ii. A return on capital on the transmission business's assets; and,
- iii. Revenue to cover depreciation of the transmission business's assets.

GNI as the transmission network operator, then recovers this allowed revenue on an annual basis through network tariffs which are set by the CRU. Network tariffs are charged to gas suppliers who may choose to pass them on to their customers.

3.3 Annual tariff setting process

As part of the annual tariff setting process, the CRU analyses any additional revenue requests from GNI (pass-through costs and extra-over items), over/under recoveries in the previous years and updated demand projections. These items are discussed in the following sections.

In reviewing the 2023/24 gas network revenues, to ensure that they are justified, regulatory judgement had to be used to ensure that any assumptions made by GNI were reasonable. This included the setting of key assumptions for gas price and inflation, which are placing the largest upward pressure on revenue requirements. The forecast prices used in setting the revenues were considered as appropriate and were based on up to date market information available at that time. Other approaches to the forecasts were considered. They were not ultimately pursued but would have led to higher revenue requirements. For example, the gas price used is £1.19 per therm and is based on a 3-month average of day ahead prices. Alternative

⁶ <https://www.cru.ie/publications/26988/>

approaches, using forward prices resulted in forecasts between £1.47 and £1.98 per therm.

3.3.1 Pass-through costs

Each year GNI send a tariff submission to the CRU. This submission includes requests for additional revenues which are considered either pass-through costs or extra-over items. Pass-through costs are costs which GNI has no control over (e.g. CO₂) or has limited control over (e.g. local authority rates). For the gas year 2023/24 the CRU decided to allow GNI a total allowance of c.€5.58m for CO₂ and c.€36.46m for shrinkage as transmission pass-through costs.

3.3.2 Extra-Over Items

Extra-over items are items that were not foreseen at the time of the Price Control – in this instance as part of Price Control 4 ([CER/17/260](#)) which was published in 2017. The CRU carries out a through review of these costs. GNI did not seek any transmission extra-over items for 2023/24.

3.3.3 Correction Factor (or K-Factor)

As transmission tariffs are calculated in advance, we 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 2023/24 the CRU closes out the year 2021/22. The formula for the K-Factor is set out in CER/03/170.

By way of explanation there are two rules to the formula:

1. Any over-recovery in excess of 105% of allowed revenues is returned in the following gas year e.g. any 2021/22 k-factor >105% is returned in gas year 2024/25 not gas year 2022/23. This is to ensure that the tariffs are stable and that volatility is avoided.
2. Any over- or under-recovery of revenue attracts an interest rate of Euribor (interbank lending rate) +2%. Any over-recovery in excess of 103% of revenue

attracts an interest rate of Euribor +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 €70m in 2021/22 which is in excess of the 105% rule. Using the 105% rule a k-factor of €12m will be returned to GNI, which includes Euribor interest penalties, when setting the 2023/24 tariffs.

3.3.4 Demand Projections

Demand forecasts are used to calculate tariffs from the revenue requirements just discussed. GNI's 2023/24 demand forecast are anchored to the Network Development Plan 2022, which was published as the Gas Forecast Statement in March 2023, with updates applied to reflect recent developments, 2021/22 actual demand and 6-month outturn data for 2022/23. The updated demand forecasts for 2022/23 that GNI provided are based on six months of actual 2022/23 data and six months of 2022/23 forecast data.

3.3.4.1 Assumptions

The forecast demands for 2023/24 are based on the assumptions outlined in Table 3.1. These assumptions influence the demands forecasted at the Entry Points to the transmission system and at the Exit from the transmission system.

Table 3.1: Demand assumptions

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 ⁷ . Short-term capacity forecasts are weighted depending on the month when the booking is expected to arise. Higher annualised bookings are assumed to cater for the increased demand, particularly in the power sector.
Power generation	Power demands are anchored to the Gas Forecast Statement (NDP) 2022 with updates applied to reflect recent observations. These updates include lower electricity demand to reflect recent outturn. The fuel price

⁷ The customer category classifications for LDM, DM and NDM are set out in the GNI Code of Operations under Part F, Section 2 Classification.

	assumptions have also been updated along with the power station outages which will impact the overall gas demand. The 23/24 tariff forecasts are forecasting growth in the power sector. This reflects EirGrid’s Generation Capacity statement median scenario which forecasts overall annual growth in the electricity demand sector.
Daily Metered (DM) Industrial & Commercial (I/C)	For the purpose of the 23/24 tariff demands the first year of forecasting reference is 22/23 with the LDM/DM forecast models having been updated with 21/22 actuals. A GDP growth forecast is used 5.2% to consider growth in activity.
Non-Daily Metered (NDM)	NDM Industrial & Commercial are currently out-turning at a lower level than 22/23 tariff demand forecasts. This is assumed to be as a result of warmer than average weather in Q4 2022 and Q1 2023. Price sensitivities are also likely to be a factor in the lower outturn. The tariff demand models are updated with weather corrected for 21/22 as a starting point. The latest forecast connections were applied and GDP of 5.2% applied to estimate increased business activity. This results in an overall forecast of growth in this sector. Average weather conditions were also applied as per the normal process.
Entry Points	The higher demand at EXIT also results in higher demand at Entry so this impacts both Entry and Exit tariffs. There were also higher than forecast annual bookings at Moffat.

3.3.4.2 Demand forecasts

Table 3.2 below present GNI’s transmission network demand forecasts for gas year 2023/24. For context, these forecasts are presented alongside GNI’s updated demands for 2022/23 and the 2022/23 forecast used previously for setting the current gas tariffs. Highlighting the forecast demands for the upcoming gas year, against the demands forecast used in setting the current gas tariffs is particularly useful, to indicate whether they are placing upward or downward pressure on tariffs (higher demands out downward pressure on tariffs and vice versa).

Table 3.2: Forecast capacity bookings for 2023/24 (MWh)

Capacity Demand Forecasts (MWh)				% Variation	
	22/23 tariff forecast	22/23 (6 months forecast + 6 months actual)	23/24 demand forecast	23/24 vs 22/23 Forecast	23/24 vs updated 22/23
Corrib	46,587	42,014	31,245	-32.9%	-25.6%
Moffat	169,342	176,322	198,487	17.2%	12.6%
Biogas	19	79	471	2378.9%	496.2%

WA⁸ Total Entry Capacity	215,948	218,415	230,203	6.6%	5.4%
WA Total Exit Capacity	277,424	272,659	285,586	2.9%	4.7%

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

Table 3.3: Forecast commodity bookings for 2023/24 (GWh)

Commodity Demand Forecasts (GWh)			% Variation		
	22/23 tariff forecast	22/23 (6 months forecast + 6 months actual)	23/24 demand forecast	23/24 vs 22/23 Forecast	23/24 vs updated 22/23
Entry Commodity	55,772	56,325	64,621	15.9%	14.7%
Exit Commodity	54,514	54,922	63,015	14.7%	14.7%

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

⁸ 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.

4 TAR NC Article 30 information

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 2023 – 30 September 2024).

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 2023/24 gas year. Table 4.1 sets out this information. For further details, please refer to Article 30 of the TAR NC.

TAR NC Article	Description	Period	Detail		
(1)(b)(iii)(3)(a)					
Art. 30 (1)(b)(iii)(3)(b)	Asset revaluation methodology	n/a	Acquisition cost, indexed with inflation (HICP), as a proxy for current replacement cost		
Art. 30 (1)(b)(iii)(3)(c)	Evolution of the value of the assets	n/a	Assets are added to the Regulated Asset Base (RAB) at their acquisition cost (historic cost). The assets are indexed with inflation (HICP) in order to calculate the value of an asset at the required point in time. The assets are then depreciated, using straight line depreciation, the rate of depreciation is set by the asset life. Assets are removed from the RAB when they are fully depreciated or disposed of.		
Art. 30 (1)(b)(iii)(3)(d)	Depreciation periods and amount per asset type	At start of the PC4 regulatory period – 01.10.2017	<i>Asset Type</i>	<i>Depreciation Period (Asset life)</i>	<i>Annual Depreciation Amount (15/16 monies)</i>
			Pipelines/AGIs/GTTW	50 years	€40.6m
			Land	40 years	€0.1m
			Equipment	5 years	€5.7m
			Compressors	25 years	€5.1m
Buildings	40 years	€0.8m			
Art. 30 (1)(b)(iii)(4)	Operational expenditures	2023/24	€74.61m + €41.70m outlined in Section 3.3		
Art. 30 (1)(b)(iii)(5)	Incentive mechanisms and efficiency targets	2017/18-2021/22	Capex and opex incentives ⁹ , with an ongoing controllable opex efficiency challenge of 1%.		
Art. 30 (1)(b)(iii)(6)	Inflation indices	2017/18-2023/24	Harmonised Index of Consumer Prices ¹⁰		
Art. 30 (1)(b)(iv)	Transmission services revenue	2023/24	€290.13m (23/24 monies)		
Art. 30 (1)(b)(v)(1)	Capacity-commodity split	2023/24	90:10		

⁹ See Section 7 of [CER/17/260](#) for further detail regarding the incentives applied to the TSO.

¹⁰ See 'Inflation' and 'Indexation' tab of Transmission revenue model 2023/24 for further detail.

TAR NC Article	Description	Period	Detail				
Art. 30 (1)(b)(v)(2)	Entry-exit split	2023/24	33:67				
Art. 30 (1)(b)(v)(3)	Intra-system/cross-system split	2023/24	100% intra-system as there are currently no cross-system flows.				
Art. 30 (1)(b)(vi)(1)	Actual revenue recovered in kt-2 (i.e. 21/22)	2021/22	Actual revenue recovered was €208.30 in nominal monies.				
Art. 30 (1)(b)(vi)(2)	(i) Correction factor for the year Kt-2, (ii) its effect on revenues in year Kt (23/24) and (iii) incentives.	2021/22	(i) €69.84m, (ii) increased allowed revenue by €12.01m ¹¹ , (iii) Refer to Section 3.3				
Art. 30 (1)(b)(vii)	Intended use of auction premium	2023/24	N/A - no auction premium applied				
Art. 30 (1)(c)(i)	Commodity-based tariffs	2023/24	See Table 5.1				
Art. 30 (1)(c)(ii)	Non-transmission tariffs	2023/24	The Corrib Linkline Element of the Bellanaboy tariff is considered a non-transmission tariff ¹² under TAR NC				
Art. 30 (1)(c)(iii)	Reference prices for other points than interconnection points	2023/24	See Table 5.1				
Art. 30 (2)(a)(i)	Information about tariff changes and trends	2022/23 - 2023/24	See Appendix A for the difference in tariffs and Section 3 for an explanation of this difference.				
Art. 30 (2)(a)(ii)	Information about tariff changes and trends	2017/18 - 2021/22	A simplified model is available on GNI's website at the following link . This allows the calculation of the possible evolution of tariffs.				
Art. 30 (2)(b)	A simplified tariff model	2023/24	A simplified model is available on GNI's website link .				
Art. 30 (3)	Information on the amount of forecasted contracted capacity and the forecasted quantity of the gas flow on non-relevant points	2023/24	Market Segment	Unit	Forecasted Contracted Capacity	Unit	Forecasted Gas Flow
			Power gen	MWh/d	149,424	GWh/y	38,774
			DM	MWh/d	40,434	GWh/y	12,651
			NDM	MWh/d	95,503	GWh/y	11,558

¹¹ As the correction factor is in excess of the 105% rule and the remainder will be returned in 2024/25.

¹² Non-transmission services are “the regulated services other than transmission services and other than services regulated by Regulation (EU) No 312/2014 that are provided by transmission system operator”.

<u>TAR NC Article</u>	<u>Description</u>	<u>Period</u>	<u>Detail</u>				
			CNG	MWh/d	225	GWh/y	32

5 Transmission Tariffs 2023/24

The previous sections outline the elements affecting the transmission tariffs such as the adjustments which occur to the allowed revenues. These adjustments then are taken together with the allowed revenue from the Price Control 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 2023 to 30 September 2024 based on an allowed revenue of €290m (2023/24 monies) are set out below.

With these updated tariffs, the transportation cost of UK gas to RoI will increase in by **c.17.9%¹³ nominal** (or 14.1% real).

Table 5.1: Transmission Tariffs 2023/24 (€)

	Bellanaboy entry	RNG entry	Moffat (IP) entry	Domestic exit	Gormanston (IP) exit
Firm ¹⁴ capacity - €/peak day MWh	804.7 ¹⁵	190.9	399.5	612.6	590.4
Commodity - €/MWh	0.15			0.31	

5.1 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

¹³ The percentage change noted here of 14.1 % is different to the percentage given in [CRU202348. ie](#) 16.71%. The higher % change in [CRU202348](#) was a calculation error. That error did not and does not impact on the actual tariffs presented in [CRU202348](#) or this paper.

¹⁴ "Firm" means gas transmission capacity contractually guaranteed as uninterruptible by the transmission system operator.

¹⁵ This is composed of two elements; one to remunerate the transmission services revenue of GNI (€ 217.05/MWh) plus a Corrib Linkline Element (€587.645/MWh), which will remunerate the revenues relating to the Corrib Linkline (Corrib Partners).

other things, incentivise efficient booking and hence use of the network. The multipliers vary throughout the year with reference to the probability of severe weather.

Table 5.2 below outlines the short-term multipliers which were updated as part of the CRU’s Decision on the Harmonised Tariff Methodology for Gas.

Table 5.2: Short term gas multipliers

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%

5.2 Virtual Reverse Tariff 2023/24

Virtual Reverse Flow (VRF) is a ‘reverse flow’ service that is offered on an interruptible basis, at the Interconnection Points. By netting off forward flows, it allows Shippers to virtually flow gas in the opposite direction to the physical flows of gas at these points.

¹⁶ This means that Shippers can virtually flow gas from the Republic of Ireland (ROI) via Moffat and into ROI via Gormanston. To date, the CRU has applied an interim charge for use of the VRF service. As part of the CRU’s Decision on the Harmonised Transmission Tariff Methodology for Gas, tariffs have been set for the Moffat and

¹⁶ 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.

Gormanstown VRF products. These tariffs are based on the principles and requirements for standard interruptible capacity products set out in the European Tariff Network Code (EU 2017/460). The Gormanston VRF Entry tariff and the Moffat VRF Exit tariff that will prevail from 01 October 2023 to 30 September 2024 are set out in Table 5.3.

Table 5.3: Virtual Reverse Flow Tariffs 2023/24

	Gormanston (IP) VRF entry	Moffat (IP) VRF exit
Capacity – €/peak day MWh	145.6	377.5
Commodity - €/MWh	0.15	0.31

5.3 Renewable Natural Gas (RNG) Transmission Entry Point Tariff

As part of the CRU’s recent decision on the Harmonised Tariff Methodology for Gas (CRU/19/060), a single transmission entry tariff has been set for RNG, based on one ‘notional entry point’ that is derived from the average of three geographically dispersed locations in counties Cork, Galway and Meath. The RNG tariff that will prevail from 01 October 2023 to 30 September 2024 is set out in Table 5.4 below.

Table 5.4 Renewable Natural Gas Tariff 2023/24

		Renewable Natural Gas Entry
		€
Firm	Capacity per peak day MWh	190.933
	Commodity per MWh	0.148

6 Conclusion

This information paper aims to provide a single resource for all tariff related information, ranging from; how it sets tariffs on an annual basis, the variables that cause changes in the tariffs from one year to the next, and the 2023/24 transmission tariffs.

An important tool, also available to the public, is the simplified tariff model available on Gas Networks Ireland's website at the following [link](#). This simplified model enables customers to further identify how transmission network tariffs are affected by demand and revenue variations, and to estimate possible evolution of tariffs.

Appendix A Transmission Tariffs 2023/24

<u>GNI Transmission Tariffs for 2023/24</u>		
	2023/24 Tariffs	
	€	
<u>Exit</u>		
capacity	612.589	per peak day MWh
commodity	0.308	per MWh
<u>Gormanston Exit</u>		
capacity	590.387	per peak day MWh
commodity	0.308	per MWh
<u>Moffat Entry</u>		
capacity	399.503	per peak day MWh
commodity	0.148	per MWh
<u>Bellanaboy Entry</u>		
capacity	804.695	per peak day MWh
commodity	0.148	per MWh
<u>Biogas Entry</u>		
capacity	190.933	per peak day MWh
commodity	0.148	per MWh
<u>Gormanston VRF Entry</u>		
capacity	145.600	per peak day MWh
commodity	0.148	per MWh
<u>Moffat VRF Exit</u>		
capacity	377.468	per peak day MWh
commodity	0.308	per MWh
Illustrative Transmission Transportation Costs		
	€	
<u>Transmission Transportation Cost of UK Gas</u>		
capacity	1012.092	per peak day MWh
commodity	0.457	per MWh
<u>Transmission Transportation Cost of Bellanaboy Gas</u>		
capacity	1,417.284	per peak day MWh
commodity	0.457	per MWh
<u>Transmission Transportation Cost of Biogas</u>		
capacity	803.522	per peak day MWh
commodity	0.457	per MWh