



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

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Commission for Regulation of Utilities

Gas Networks Ireland Transmission Tariffs and Allowed Revenue 2023/24 Decision Paper

Decision Paper

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CRU Strategic Plan 2022-24

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|--|---|
| <h2>1.1 Our Mission</h2> <ul style="list-style-type: none">• Protecting the public interest in water, energy and energy safety. | <h2>1.2 Our Strategic Priorities</h2> <ul style="list-style-type: none">• Ensure Security of Supply• Drive a Low Carbon Future• Empower and Protect Customers• Enable our People and Organisational Capacity |
| <h2>1.3 Our Vision</h2> <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

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 2023 to 30 September 2024 (gas year 2023/24). The distribution network tariffs are published in a separate paper (CRU 202349); also published today.

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, 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 is nearing an end and a consultation will be published in July.

As the consultation on PC5 has not yet been published, the CRU has set current gas tariffs on the basis of PC4 revenues adjusted for key cost drivers, including shrinkage, CO₂ and inflation. This approach has been adopted for setting 23/24 tariffs also.

In reviewing costs to ensure that they are justified, regulatory judgement has had to be used to ensure that any assumptions made by GNI are 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). The forecast prices used in setting the revenues are considered as appropriate and are based on up to date market information. Other approaches to the forecasts were considered. They were discounted 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 approaches, using forward prices resulted in forecasts between £1.47 and £1.98 per therm.

Table 1: The adjustments made to calculate the revenue for the gas year 2023/24 (running from 1st October 2023 to 30th September 2024).

| Revenue | €m |
|---|--------|
| Allowed revenue 2021/22 PC4 (in 15/16 monies) | €195m |
| Inflation adjustment | 21.49% |
| Inflation Monetary Value | €42m |
| Allowed Revenue | €236m |
| Forecast Passthrough Costs (Shrinkage, CO2) | €42m |
| 2021/22 K-factor | €12m |
| Adjusted revenues | €290m |
| Change in revenue relative to 2022/23 revenues of €231m | 20% |

Based on the above revenues, and using the most up to date demand forecasts, the network transmission tariffs to apply from 1st October 2023 to 30th September 2024 are detailed in Table 2. They represent an increase in transmission tariffs.

Table 2: Transmission tariffs 2023/24

| | Bellanaboy entry | RNG entry | Moffat (IP) entry | Domestic exit | Gormanston (IP) exit |
|---|--------------------|-----------|-------------------|---------------|----------------------|
| Firm ¹ capacity - €/peak day MWh | 804.7 ² | 190.9 | 399.5 | 612.6 | 590.4 |
| Commodity - €/MWh | 0.15 | | | 0.31 | |

To illustrate the cost impacts of these tariffs, the cost of transportation from GB (Moffat Entry capacity tariff + Domestic Exit capacity tariff) is provided. This is given as the example as it is the marginal source of gas 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 2023/24 tariffs the transportation cost of GB gas to Ireland will increase by c.**16.71%** (in real terms, i.e. adjusted for inflation).

Table 3: Recent cost of transportation for GB gas (nominal)

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 (€ 217.05/MWh) plus a Corrib Linkline Element (€587.645/MWh), which will remunerate the revenues relating to the Corrib Linkline (Corrib Partners).

| | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Capacity – €/peak MWh | 788.605 | 761.263 | 715.864 | 669.00 | 722.44 | 767.59 | 858.50 | 1012.09 |

As in previous years, the CRU is also publishing, today, the distribution network tariffs. The distribution tariffs are set to increase by 3.96% (real terms)% when compared to 2022/23 tariffs. It is estimated that the combined change in transmission and distribution tariffs equates to a €28 (or c.1.5%) 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. A full set of tariffs for all customers is presented in Table 4 below.

Table 4: Full set of gas transmission tariffs for 2023/24

| Entry/Exit/Transportation | Capacity (€ per peak day MWh) | Commodity (€ per peak day MWh) |
|--|-------------------------------------|--------------------------------------|
| Exit | 612.59 | 0.31 |
| Gormanston Exit | 590.39 | 0.31 |
| Moffat Entry | 399.50 | 0.15 |
| Bellanaboy Entry | 804.70 | 0.15 |
| RNG Entry | 190.93 | 0.15 |
| Gormanston VRF Entry | 145.60 | 0.15 |
| Moffat VRF Exit | 377.47 | 0.31 |
| Transmission Transportation Cost of UK Gas | 1012.09 | 0.46 |
| Transmission Transportation Cost of Bellanaboy Gas | 1417.29 | 0.46 |
| Transmission Transportation Cost of RNG | 803.52 | 0.46 |

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.

GNI has requested an increase in its revenue requirements from October 2023. The CRU has carefully considered that request including any underlying assumptions to ensure that they are reasonable. The review has considered the ongoing impacts of the war in Ukraine on markets and the general 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 review has concluded that the requested revenue increase is reasonable; reflecting underlying costs and only seeking to pass on necessary costs to customers. The review demonstrated that GNI has taken reasonable decisions on choosing which approach to use. For example, a forecasted gas price of £1.19 per therm is used Vs other forecasts as high as £1.98 per therm. It is important to note that although £1.19 is the lowest cost forecast, it is grounded in market data and is considered by GNI to capture the likely prices that it will face.

As detailed in a separate publication alongside this paper, distribution tariffs are set to increase by c. 3.96%. It is estimated that the combined change in transmission and distribution tariffs equates to a €28 (or 1.5%) 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.

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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 2023 to 30 September 2024.

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. This information will be set out in a separate CRU paper which will be published by

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 2023/24 (CRU 202348a).
- CRU Corrib Linkline Model (CRU 202348b).
- Gas Transmission Tariff Methodology – Tariff Network Code Article 28 Decision (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 decision 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 2023/24 gas year;
- Section 3 sets out the transmission tariffs for 2023/24; and,
- Section 4 provides a conclusion.

2 Tariff Setting Process for 2023/24

2.1 Introduction

In this section the CRU sets out the allowed revenues for gas year 2023/24 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 2023/24 Revenues

Gas network tariffs are typically calculated based on annual revenues outlined in the CRU's Price Control Decision Papers. The most recent decision, Price Control Four (PC4), covered the period from October 2017 to September 2022. A decision on PC5 was to be made last year. PC5 would have set revenues from October 2022 to September 2027. However, significant market disruption from events in the Ukraine and beyond, required additional work to be carried out to ensure that the implications of those events were duly factored in, and mitigated against. This required extra work, including an updated PC5 proposal from GNI and additional analysis of the regulatory framework. This has meant that a PC5 consultation will now be published in July of this year. Without adopting such an approach, 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.

As a decision on a revenue allowance for 2023/24 under PC5 has not yet been published, the CRU has decided to base revenues on the revenues in the last year of PC4³ (€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.

³ The gas year 2021/22

2.2.2 Inflation adjustments

The first step in the adjustments is to inflate the revenues from the last year of PC4 (2015/16) to 23/24 monies. The inflation rates applied by GNI to do this are shown in Table 5. Applying these rates see an allowance of €236m.

Table 5: Inflation rates used to inflate revenues from 2015/16 monies to 2023/24 monies

| Actual and forecast when setting tariffs from 15/16 monies to 23/24 | | |
|---|-------|--------|
| HICP Forecast/Outturn | Year | Rate |
| HICP Outturn | 16/17 | 0.60% |
| HICP Outturn | 17/18 | 0.50% |
| HICP Outturn | 18/19 | 1.10% |
| HICP Outturn | 19/20 | 0.50% |
| HICP Outturn | 20/21 | 0.10% |
| HICP Outturn | 21/22 | 6.90% |
| HICP Outturn | 22/23 | 7.00% |
| | 23/24 | 3.29% |
| Total Cumulative | - | 21.49% |

The outturn inflation figures are based on CSO figures (March data), while the 2023/24 forecast inflation rate of 3.29% is based on an OTC derivative, EUR Inflation Swap Zero Coupon 1Y (as per Bloomberg as of the 31st of Mar 2023).

2.2.3 CO₂ Costs

CO₂ costs are incurred by GNI in operation of the compressor stations, which requires GNI to purchase a quantity of CO₂ certificates under the UK Emissions Trading Scheme. The 2023/24 carbon volumes are based on the 2021/22 volumes as set out in PC4 and adjusted in line with forecasted increases in transmission gas volumes as well as an increased dependence on Moffat for gas. These trends will require the compressors at Moffat to be run for longer, consume more fuel and in turn produce more CO₂. GNI is forecasting a decrease of c.€9 in the price per tonne for CO₂, from €79/tonne in 2022/23 to €70/tonne in 2023/24. To calculate the CO₂ price per tonne for 2023/24, GNI used a spot price from UKEZ3 COMDTY on the 28th April 2023. Alternatives, using 3 month and 6 month averages, were considered but discounted by GNI.

Table 6: CO₂ price/revenue options

| CO ₂ price/revenue options | | | |
|---------------------------------------|--------------------------|--------------------|--------------------|
| | Spot Price (28/04/23) | 3 Month Average | 6 Month Average |
| Carbon £/tonne | 61 | 77 | 75 |
| FX Rate EUR-GBP | 0.88 | 0.88 | 0.88 |
| Carbon €/tonne | 70 | 87 | 84 |

The CRU considers the spot price approach to be reasonable and minimises cost increases on consumers. The projected increased CO₂ emissions together with higher CO₂ prices results in a 15% (€1m) cost decrease in 2022/23 relative to the €6.5m allowed in 2022/23.

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 2023/24 the CRU closes out the year 2021/22. Having reviewed the actual data for 2021/22, it has been determined that GNI has under recovered transmission revenues for that gas year. The under recovery is €70m.

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 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.

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

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

⁴ As per rule 1 any 2021/22 k-factor >105% is credited the following year, with Euribor +4% applied for both years.

whose use is not accounted for. Examples are theft and leakages. GNI must purchase gas to cover the level of shrinkage on its networks. As will be discussed later, GNI's most up to date demand forecasts have been used to calculate tariffs. These demands have impacted the level of shrinkage

The price of gas has been volatile and generally very high over the past year and a half. Only recently did we see a sustained down trend in wholesale gas prices. However they remain significantly higher than in 2020 and early 2021 and it is difficult to predict how they will develop. With this level of uncertainty there is a question as to what a reasonable gas price would be to apply to shrinkage purchases. In this regard, GNI looked at the approaches shown in the below Table.

Table 7: Approaches considered in forecasting Wholesale gas prices to feed into the 2023/24 tariffs

| Approach | Calculation Method | Price/per therm (excluding transportation costs) |
|------------|---|--|
| Approach 1 | Applying a six-month historical average forward price for Winter 2023 and Summer 2024 | £2.29 |
| Approach 2 | Applying a three-month historical average forward price for Winter 2023 and Summer 2024 | £1.59 |
| Approach 3 | Applying a three-month historical average to historical day ahead prices (spot prices) | £1.14 |

The three approaches considered for calculating wholesale gas prices show similarities and differences. Approach 1 and Approach 2 both utilise historical average forward prices for Winter 2023 and Summer 2024, but they differ in the time period considered. Approach 1 incorporates a longer six-month historical average, resulting in a higher calculated price of £2.29 per therm. In contrast, Approach 2 employs a shorter three-month historical average, yielding a slightly lower price of £1.59 per therm. These approaches capture past pricing trends but differ in their sensitivity to recent market volatility. Where approach 1 and 2 looked at forward prices, approach 3 considers day ahead prices. It calculates a forecasted price of £1.14 per therm based on a three-month historical average (from 2nd May 23). The day ahead price is currently lower than forward prices. Whether this will be sustained or not is difficult to predict from past trends. Applying an average historical price reduces the dependence of the forecast on market volatility and would seem to be appropriate. GNI proactively proposed approach 3 and has highlighted its benefits in terms of customer affordability by minimising the impact of tariff increases. On balance, the Gas Networks Team considers Approach 3 as appropriate. It leads to the least cost forecast but is grounded in market data and is considered by GNI to capture the likely prices that

it will face. Having said that, it is hard to forecast future gas prices, particularly in the current market. It should be noted that there is an additional margin of 4.5p/therm applied which reflects the cost charged by suppliers in getting the gas from the UK NBP to the IBP (transportation costs), resulting in £1.19p per therm. This is the same price used when setting the 2022/23 gas network tariffs.

On balance, the CRU considers GNI's approach to forecasting shrinkage costs is reasonable. It results a shrinkage allowance of €36.4m for 2022/23 (a 17.4% increase relative to the €31m allowed in 2022/23).

2.2.6 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 2.2.5. This results in an allowed revenue of €290m for gas year 2023/24, which is a nominal increase of 20% (€59m) on the 2022/23 allowance of €231m.

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 2023/24 allowed revenues, will be corrected in future years.

2.3 Demand Forecasts

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 2023⁵, 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.

2.3.1 Assumptions

The forecast demands for 2023/24 are based on the assumptions outlined in Table 8. These assumptions influence the demands forecasted at the Entry Points to the transmission system and at the Exit from the transmission system.

⁵Gas Forecast Statement in March 2023 - <https://www.gasnetworks.ie/docs/corporate/gas-regulation/GNI-2022-Gas-Forecast-Statement.pdf>

Table 8: Demand assumptions for 2023/24

| 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. 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 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. |

2.3.2 Demand forecasts

Table 9 and Table 10 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*).

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.

Table 9: Transmission commodity demand forecast summary – 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 due to the Isle of Man offtake, OAG and shrinkage which is not included in the Exit total.

Table 10: Transmission capacity demand forecast summary – 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% |
| WA ⁷ 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 Capacity as NDM customers are required to book for 1 in 50 at Exit.

For the forthcoming year, transmission commodity forecasts are 15.9 % higher (entry) and 14.7% higher (exit) than the 2022/23 updated demand forecast and 14.7% (entry and exit) higher than the 2022/23 commodity forecast used for tariff setting. The higher demand has been driven by a number of factors including:

- High electricity growth – high electricity growth as shown in EirGrid’s Generation Capacity Statement 2022.
- Strong growth in I&C sector – strong GDP growth of 5.2% driving I&C up along with a number of data centres which are contracted for and are due to connect.
- Assumed return to average winter conditions – Recent winters have been warmer than average and a return to average weather conditions is assumed as per the normal

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.

forecasting process, i.e., warmer weather in Q4 2022 and Q1 2023 resulted in lower demand in the temperature sensitive sectors such a residential in 2022/23.

In terms of capacity, forecasted weighted annualised (WA) Exit capacity demand for 2023/24 is 4.7% higher than the 2022/23 forecast and 2.9% higher than the updated 2022/23 capacity forecast. Short-term capacity forecasts are weighted depending on the month when the booking is expected to arise. For 2023/24, Higher annualised bookings are assumed to cater for the increased demand, particularly in the power sector.

3 CRU Decision on Transmission Tariffs for 2023/24

3.1 Transmission tariffs for 2023/24

The previous sections outlined the revenue requirements and demand forecast for 2023/24. These have been inputted into the Transmission Matrix Model to calculate transmission tariffs for 2023/24. The transmission tariffs which will apply from 01 October 2023 to 30 September 2024, based on a revenue of €290m (2023/24 monies), are set out below.

Table 11: Transmission tariffs for 2023/24

| | Bellanaboy entry | RNG entry | Moffat (IP) entry | Domestic exit | Gormanston (IP) exit |
|---|--------------------|-----------|-------------------|---------------|----------------------|
| Firm ⁸ capacity - €/peak day MWh | 804.7 ⁹ | 190.9 | 399.5 | 612.6 | 590.4 |
| Commodity - €/MWh | 0.15 | | | 0.31 | |

With these updated tariffs, the transportation cost of GB gas¹⁰ to Ireland will increase by c.**16.71%** (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 CO₂ and wholesale gas prices. For comparison, Table 12 provides the 2023/24 transportation cost of GB gas relative to those in recent years (in nominal terms (i.e. without adjusting for inflation)). Tariff costs have increased in the last three years, mainly due to the cost of shrinkage moving into the allowed revenue¹¹. Last year, when setting 2022/23 tariffs, the impact of gas prices was dampened by providing an accelerated give back of monies (c. €36m) to customers. With those monies now given back in full, such an option was not available this year.

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 (€ 217.05/MWh) plus a Corrib Linkline Element (€587.645/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.

¹¹As 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.

Table 12: Recent cost of transportation for GB gas (nominal)

| | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Capacity – €/peak MWh | 788.605 | 761.263 | 715.864 | 669.00 | 722.44 | 767.59 | 858.50 | 1012.09 |

3.2 Impact on a residential customer's bill

With these updated tariffs, the transportation cost of GB gas to Ireland will increase by c.**16.71%** (in real terms (i.e. adjusted for inflation)). As in previous years, the CRU is also publishing, today, the distribution network tariffs. The distribution tariffs are set to decrease by 3.96% real terms. It is estimated that the combined change in transmission and distribution tariffs equates to an €28 (or c. 1.5%) increase on an average residential gas customer's annual bill which is estimated to be €1,760 (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 13 outlines the multiplier and seasonal factor profile for gas year 2023/24.

Table 13: Multiplier and seasonal factor profiles¹²

| 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 2023/24

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

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.

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.

Table 14: Virtual reverse flow (VRF) tariffs for 2023/24

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

4 Conclusion

The tariffs set out in this paper will take effect from 01 October 2023. 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 previously discussed, a decision on PC5 revenue requirements was to be made last year. PC5 would have set revenues from October 2022 to September 2027. However, significant market disruption from events in the Ukraine and beyond, required additional work to be carried out to ensure that the implications of those events were duly factored in, and mitigated against. This required extra work, including an updated PC5 proposal from GNI and additional analysis of the regulatory framework. This has meant that a PC5 consultation will now be published in July of this year. If this approach was not taken, 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.

Table 15: Full set of gas transmission tariffs for 2023/24

| Entry/Exit/Transportation | Capacity (€ per peak day MWh) | Commodity (€ per peak day MWh) |
|--|-------------------------------------|--------------------------------------|
| Exit | 612.59 | 0.31 |
| Gormanston Exit | 590.39 | 0.31 |
| Moffat Entry | 399.50 | 0.15 |
| Bellanaboy Entry | 804.70 | 0.15 |
| RNG Entry | 190.93 | 0.15 |
| Gormanston VRF Entry | 145.60 | 0.15 |
| Moffat VRF Exit | 377.47 | 0.31 |
| Transmission Transportation Cost of UK Gas | 1012.09 | 0.46 |
| Transmission Transportation Cost of Bellanaboy Gas | 1417.29 | 0.46 |
| Transmission Transportation Cost of RNG | 803.52 | 0.46 |

Appendix A Transmission Tariffs 2023/24

| | GNI Transmission Tariffs for 2023/24 | | Published Tariffs | | | % Change Nominal from 2022/23 |
|---|---|------------------|--------------------------|------------------------|------------------------|--------------------------------------|
| | 2023/24 Tariffs | | 2020/21 Tariffs | 2021/22 Tariffs | 2022/23 Tariffs | |
| | € | (2023/24 Monies) | € | € | € | |
| Exit | | | | | | |
| capacity | 612.589 | per peak day MWh | 407.634 | 454.697 | 501.680 | 24.4% |
| commodity | 0.308 | per MWh | 0.236 | 0.238 | 0.280 | 12.0% |
| Gormanston Exit | | | | | | |
| capacity | 590.387 | per peak day MWh | 385.366 | 432.400 | 479.370 | 25.7% |
| commodity | 0.308 | per MWh | 0.236 | 0.238 | 0.280 | 12.0% |
| Moffat Entry | | | | | | |
| capacity | 399.503 | per peak day MWh | 314.810 | 312.893 | 356.820 | 13.6% |
| commodity | 0.148 | per MWh | 0.114 | 0.114 | 0.140 | 7.1% |
| Bellanaboy Entry | | | | | | |
| capacity | 804.695 | per peak day MWh | 629.993 | 633.755 | 721.630 | 13.1% |
| commodity | 0.148 | per MWh | 0.114 | 0.114 | 0.140 | 7.1% |
| RNG Entry | | | | | | |
| capacity | 190.933 | per peak day MWh | 106.239 | 104.323 | 148.250 | 40.9% |
| commodity | 0.148 | per MWh | 0.114 | 0.114 | 0.140 | 7.1% |
| Gormanston VRF Entry | | | | | | |
| capacity | 145.600 | per peak day MWh | 76.151 | 74.580 | 110.600 | 46.9% |
| commodity | 0.148 | per MWh | 0.114 | 0.114 | 0.140 | 7.1% |
| Moffat VRF Exit | | | | | | |
| capacity | 377.468 | per peak day MWh | 270.857 | 295.315 | 319.740 | 19.5% |
| commodity | 0.308 | per MWh | 0.236 | 0.238 | 0.280 | 12.0% |
| Illustrative Transmission Transportation Costs | | | | | | |
| | | | € | € | € | |
| Transmission Transportation Cost of UK Gas | | | | | | |
| capacity | 1012.092 | per peak day MWh | 722.443 | 767.591 | 858.500 | 20.0% |
| commodity | 0.457 | per MWh | 0.350 | 0.352 | 0.420 | 10.4% |
| Transmission Transportation Cost of Bellanaboy Gas | | | | | | |
| capacity | 1417.284 | per peak day MWh | 1,037.627 | 1,088.453 | 1,223.310 | 17.8% |
| commodity | 0.457 | per MWh | 0.350 | 0.352 | 0.420 | 10.4% |
| Transmission Transportation Cost of RNG | | | | | | |
| capacity | 803.522 | per peak day MWh | 513.873 | 559.020 | 649.930 | 27.5% |
| commodity | 0.457 | per MWh | 0.350 | 0.352 | 0.420 | 10.4% |