



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

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Commission for Regulation of Utilities

Gas Transmission Tariff Methodology – Tariff Network Code Article 28 Decision Gas year 2021/22

Decision Paper

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CRU Mission Statement

The CRU's mission is to protect the public interest in Water, Energy and Energy Safety. The CRU is guided by four strategic priorities that sit alongside the core activities we undertake to deliver in the public interest. These are:

- Deliver sustainable low-carbon solutions with well-regulated markets and networks
- Ensure compliance and accountability through best regulatory practice
- Develop effective communications to support customers and the regulatory process
- Foster and maintain a high-performance culture and organisation to achieve our vision

Executive Summary

Gas Networks Ireland (GNI) owns and operates the gas transmission network. Regulated tariffs apply for the use of this system. The CRU sets the methodology for how these tariffs are calculated. These tariffs allow GNI, as the network operator, to recover the annual revenue set by the CRU to operate the network in a safe and efficient manner.

As part of the annual tariff setting process, the CRU is required under Article 28 of the European Tariff Network Code to consult on the following:

- Levels of multipliers and seasonal factors;
- Levels of discounts (e.g. discount for Virtual Reverse Flow).

The role of these items in the tariff setting process are as follows:

- **multipliers and seasonal factors are applied to calculate the tariffs for non-annual products:** Shippers can book capacity not only for a year but also for a given day, month or quarter. The costs of these shorter term products are calculated by applying multipliers¹ and seasonal factors² to the cost of the annual products. The multipliers & seasonal factors are set to incentivise efficient behaviour by Shippers.

¹ Multipliers determine the multiple of the annual capacity product tariff, which is applied to a non-annual capacity product to calculate its tariff. For example, the monthly multiplier is 1.5, which means that buying monthly capacity for each month in the year will cost 1.5 times more than buying the annual capacity product.

² Seasonal factors are used to create a profile for the non-annual capacity products across the year. This leads to different prices for a non-annual capacity product at different times of year. For example, the monthly product is more expensive in the winter but is cheaper in the summer.

- **Setting the cost of virtual reverse flow:** The Tariff Network Code allows for adjustments/ discounts. Currently, in Ireland, a discount is only applicable for Virtual Reverse Flow (VRF).³ VRF is available at the Interconnection Points, to enable Shippers to virtually flow gas from Ireland via Moffat and into Ireland via Gormanston.⁴

In February, the CRU published a consultation (CRU/21/14) on the above items for gas year 2021/22. The CRU's decision on these items are as follows.

No change to the multipliers and seasonal factors: The CRU consulted on a proposal to maintain multipliers at their current levels but to adjust the seasonal factors. The change would have essentially resulted in non-annual capacity products becoming less costly in Winter and more expensive in Summer. The changes were proposed based on observed changes to the use of the gas grid and physical changes to the gas system (i.e. cessation of gas storage). The change in use of the gas system has primarily been driven by the changing role of gas fired generators in the energy transition.

On balance, and considering feedback, the CRU considers that it is not the right time to adjust the seasonal factors. As such, the CRU has decided not to make a change to the multipliers and seasonal factors for gas year 2021/22. In making the above decision, the CRU would note that the proposed change and its impact were relatively minor and it was not addressing any measured harm but rather seeking potential benefits.

The changes to the use of the gas network, that the proposal was seeking to adapt the seasonal factors to, can be considered as important steps in the energy transition. However, more and greater changes are to come. In addition to the important supporting role that gas fired generation is already playing in the energy transition, the first steps in decarbonising the gas network have been taken. This saw the first commercial flows of biomethane on the distribution network in 2020. Steps to decarbonise the gas network will continue and more changes are expected in response to new EU directives and the national Climate Action Plan. The CRU considers, on balance, that the impacts of the energy transition should be further monitored before they drive any changes to multipliers or seasonal factors. This would reduce the risk of unintended consequences.

³ The tariff network code requires that discounts are provided for storage facilities and that they may be applied for LNG facilities, however these do not currently exist on the Irish network.

⁴ 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.

The CRU will keep the multipliers and seasonal factors under review as these changes occur and will also consider work undertaken by neighbouring NRAs in this area (e.g., Utility Regulator). The CRU will keep parties updated on this work through its annual Art 28. consultation. The CRU notes that carrying out a consultation next year at a similar level of detail as to this year's review is unlikely to provide much additional value / added insights. This reflects the fact that the use of the gas network or the strength of the incentives are unlikely to change significantly between now and then.

No change to virtual reverse flow discount: In developing the consultation paper, the CRU analysed data covering the full gas year since the new VRF tariff was introduced. The goal of that analysis was to assess whether the VRF discount was appropriate (i.e., gain insight into its economic value). However, the data did not point to any definitive factor or trigger point, which would determine the use of VRF. This made it challenging to set a discount (referred to as the A factor), the purpose of which is to reflect the economic value of the VRF product. As a result, the CRU could not put forward a reasoned alternative VRF discount in its consultation.

The CRU requested the views of industry on its analysis, any additional evidence and welcomed proposals (supported by data and analysis) for an alternative VRF discount (within the Art. 28 consultation scope) that could be considered as part of next year's consultation. The respondents did not put forward any proposals for an alternative VRF discount (within the context of the Art. 28 consultation scope). Given the available evidence the CRU has decided to maintain the level of the discount (referred to as the A-factor) for gas year 2021/22. The numerous push and pull factors in play at any one time, continues to make it difficult to have full sight of what is driving the use of VRF. For reasons that are unclear to the CRU, it appears that participants currently prefer the option of commercial swaps of gas (see section 3.2.4 for more information). Importantly, the CRU has not identified any obvious negative outcomes for the gas market resulting from this.

As a result of the above decisions, the VRF discount and the multipliers and seasonal factors are being maintained at the same levels for gas year 2021/22. GNI will proceed with the calculation of tariffs for the gas transmission and distribution networks for gas year 2021/22 on this basis. The CRU will publish a decision on the tariffs by 05 June 2021. These new gas tariffs will then come into effect on 01 October 2021.

Public/ Customer Impact Statement

Gas Networks Ireland (GNI) owns and operates the gas network that supplies natural gas to customers in Ireland. The CRU is legally responsible for regulating the transmission and distribution network tariffs that GNI charges to users of the network. The CRU does so in the public interest. These tariffs allow GNI, as the network operator, to recover the annual revenue set by the CRU to operate the network in a safe and efficient manner.

The CRU has with this paper decided on the value of multipliers, seasonal factors and levels of discounts ahead of next gas year, which runs from 01 October 2021 to 30 September 2022.

These items impact the price paid by companies using the gas network and the way in which these network users are incentivised to use the network. These costs may be passed on to the final customer. As such, it is important to keep the value of multipliers, seasonal factors and levels of discounts under review to ensure that they are set appropriately.

The CRU has decided not to change these factors for gas year 2021/22. As a result, there is no associated change for the public or gas customers.

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Glossary of Terms and Abbreviations

Abbreviation	Definition or Meaning
ACER	Agency for the Cooperation of Energy Regulators
Art.	Article
EU	European Union
GB	Great Britain
GNI	Gas Networks Ireland
I&C	Industrial/Commercial
IBP	Irish Balancing Point
IP	Interconnection Point
SEM	Single Electricity Market
LNG	Liquefied Natural Gas
NBP	National Balancing Point
PC4	Price Control 4
RPM	Reference Price Methodology
SAP	System average price
TAR NC	Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas
TSO	Transmission System Operator

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 originally established as the Commission for Energy Regulation (CER) in 1999. The CRU has a wide range of economic, customer protection and safety responsibilities in energy and water.

Under the Gas (Interim) (Regulation) Act, 2002, the CRU is responsible for regulating charges in the natural gas market. Under Section 14 of that Act, the CRU may set the basis for charges for transporting gas through the transmission system. The CRU does so in the best interests of gas customers. Our goal is to ensure that gas is safely and securely supplied and that the charges are fair and reasonable.

1.2 Background

Each year tariffs are set for GNI to recover revenue that it needs to operate and invest in the gas network. As part of the annual tariff setting process,⁵ the CRU analyses any additional revenue requests from GNI, over/under recoveries of revenue in the previous years and updated demand projections in order to calculate tariffs for the forthcoming gas year. As part of that process, the CRU is required to consult annually on certain elements feeding into the tariff setting process. This annual consultation is a requirement that stems from European requirements set out in the Tariff Network Code. The aspects that are consulted upon relate to transmission tariffs only and are:

- Levels of multipliers,
- Levels of seasonal factors,
- Levels of discounts for storage and LNG, and,
- Levels of discounts for interruptible capacity products (i.e. Virtual Reverse Flow).

This paper sets out the CRU's decision on those factors excluding LNG and storage facilities, the rationale being, there are currently no LNG or storage operators using the system and therefore

⁵ More detail as to the overall tariff setting process is available in (CRU/20/097).

no discount is applicable. An LNG operator can apply to the CRU for such a discount and the CRU will consult on its application.

Gas capacity charges are known as references prices and are calculated on the basis of shippers booking a fixed capacity across the entire year (i.e., annual capacity). However, it is possible to book capacity over shorter periods (e.g. for a month or a day). To set the prices of these non-annual products, so called multipliers and seasonal factors are applied.

- Multipliers determine the multiple of the annual capacity product tariff, which is applied to a non-annual capacity product to calculate its tariff. For example, the monthly multiplier is 1.5, which means that buying monthly capacity for each month in the year will cost 1.5 times more than buying the annual capacity product. It is more expensive to book these non-annual products, as these products provide more flexibility and can potentially increase system costs (see section 2 for further information).
- Seasonal factors are used to create a profile for the non-annual capacity products across the year. This leads to different prices for a non-annual capacity product at different times of the year. For example, the monthly product is more expensive in the Winter but is cheaper in the Summer. The cost is more expensive in Winter as there is more demand on the system and this high demand can lead to increased system costs (e.g. building additional capacity), while the cost is less in the Summer to incentivise increased utilisation of the network, which increases system efficiency.

The tariffs for the non-annual capacity products are calculated by multiplying the reference prices/ annual capacity tariffs by the above multipliers and seasonal factors. They lead to capacity prices that vary depending on the length of the product chosen and the time of the year in which it is booked. In contrast to capacity charges, commodity charges are the same regardless of the time of year or duration of gas flow.

There is a requirement (Art. 28 of TAR NC) to consult on discounts, multipliers and seasonal factors annually. Earlier this year the CRU published its consultation (CRU/21/14) on these factors. For more background on the work done in this area to date, please see section 1.2.1 of the CRU's consultation (CRU/21/14).

1.3 Purpose of this paper

Following the consultation, the CRU has considered the responses of stakeholders and with this paper the CRU has published its decision on the following factors ahead of gas year 2021/22.

- Levels of multipliers,

- Levels of seasonal factors, and;
- Levels of discounts for interruptible capacity products (i.e. Virtual Reverse Flow).

1.4 Related documents

Alongside this paper the following document is published:

- Combined responses to consultation ([CRU/21/049a](#))

The consultation documents preceding this decision paper are as follows:

- Gas Transmission Tariff Methodology – Tariff Network Code Article 28 Consultation ([CRU/21/14](#))
- GNI Alternative 2 calculation spreadsheet ([CRU/21/14a](#))
- GNI multiplies & seasonal factor options – impact assessment spreadsheet ([CRU/21/14b](#))

Some documents related to this publication are provided below:

- CRU Call for Evidence Paper on Tariff Network Code Article 28 ([CRU/20/057](#))
- CRU Decision Paper on Harmonised Transmission Tariff Methodology for Gas ([CRU/19/060](#))
- CRU Consultation Paper on Harmonised Transmission Tariff Methodology for Gas ([CRU/18/247](#))
- ACER's analysis of the CRU consultation is available at this clickable [link](#)
- ACER's implementation monitoring report is available at this clickable [link](#)
- [Regulation \(EC\) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation \(EC\) No 1775/2005](#)
- [Commission Regulation \(EU\) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas](#)
- The current reference prices and GNI's Matrix model and simplified model are available at the following clickable [link](#)

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

1.5 Structure of Paper

This decision paper is structured in the following manner:

- Section 1 provides an introduction and background, the purpose of this paper, related documents.
- Section 2 sets out the CRU's decision on the levels of multipliers and seasonal factors.
- Section 3 sets out the CRU's decision on the levels of discounts.
- Section 4 provides a summary and next steps.

2 Multipliers & Seasonal Factors

2.1 Introduction

Multipliers determine the multiple of the annual capacity product tariff, which is applied to a non-annual⁶ capacity product (also known as shorter-term products) to calculate its tariff. It is more expensive to book these non-annual products, as they provide more flexibility to network users. This flexibility can potentially increase system costs as longer-term capacity bookings make it easier for GNI to identify periods of peak demand and plan for additional system investment where required. Also, shorter-term bookings can lead to increased revenue recovery volatility. As highlighted earlier, seasonal factors are used to create a profile for the non-annual capacity products across the year.

In the interests of simplicity, the CRU has to date presented the multipliers and seasonal factors on a combined basis. See Table 2.1, which sets out the current combined multiplier & seasonal factor profile. This table presents the profile as a percentage of the reference price.

To understand how this works, consider the following example: The reference price for Moffat entry is €315/MWh. If you wanted to book monthly capacity for December, you could calculate the cost by referring to Table 1 and applying the relevant combined multiplier & seasonal factor; in this case 17.08%. That would result in the following – €315/MWh * 17.08% = €54/MWh.

Table 2.1: Combined multiplier & seasonal factor profile as a % of annual product

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%

⁶ In Ireland, the non-annual products are quarterly, monthly, daily and within-day. As the within-day capacity product is set at the price of the daily capacity product it is not necessary to detail its cost in this section.

The existing multiplier & seasonal factor methodology has been developed over a number of years by GNI and the CRU. They are based on, amongst other things, the principle of cost-reflectivity – i.e., that requirements for capacity during periods of high utilisation (peak demand days) are more likely to lead to additional network costs by potentially leading to requirements for additional infrastructure investment through reinforcing the network and building additional capacity.

The methodology adopted considers the allocation of historic peak demand days across the months of the year and uses these as a proxy for the probability of incremental demand in that month triggering investment. This implies a monthly tariff profile across the year as a percentage of the annual product tariff. In order to encourage long term bookings, a scaling factor is then applied to increase the relative attractiveness of the annual product in comparison to the short-term products. In addition, while the probability of peak demand days over the Summer months was considered to effectively be zero, a minimum tariff was set for those periods. There were a small number of adjustments over time in consideration of things such as supporting seasonal gas storage and incentivising uptake of short term products. However, in general, the multipliers and seasonal factors have been stable for the last decade.

In accordance with Art. 28 of TAR NC the CRU carried out its annual consultation on multipliers and seasonal factors, with the publication of CRU/21/14.

2.2 Consultation

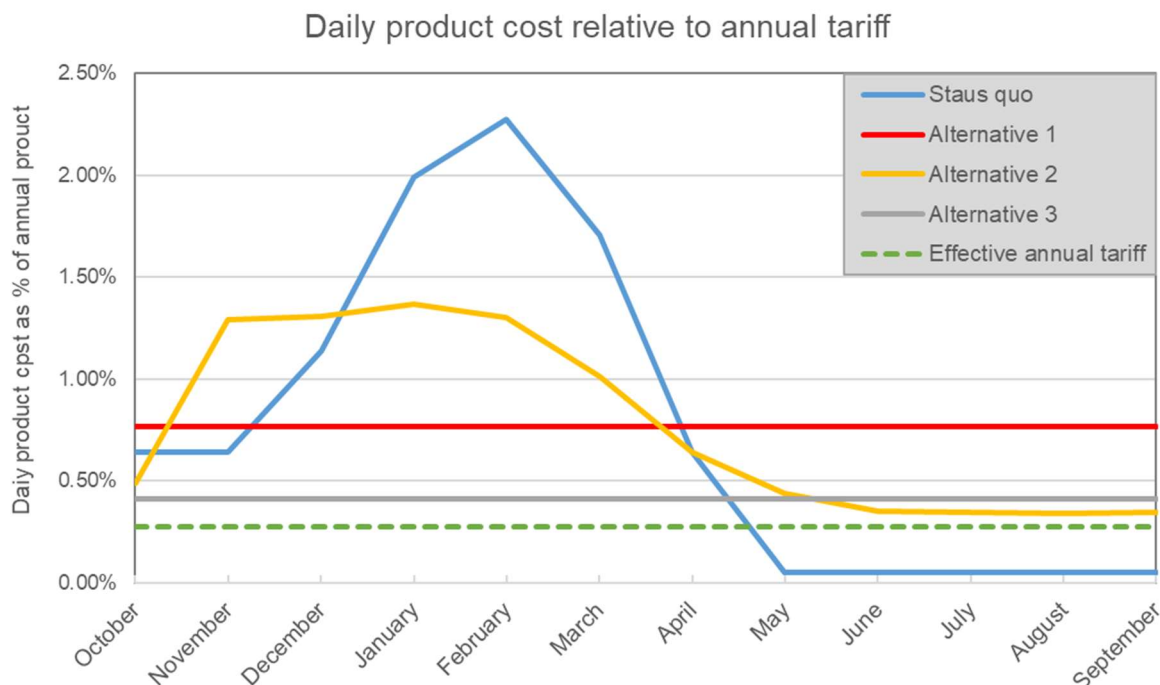
In developing its consultation, the CRU has engaged with GNI to further review the multipliers & seasonal factors. The CRU examined four options submitted by GNI and the additional information provided on their potential impacts. The four options reviewed by CRU were as follows, see the consultation paper for further detail:

- Status quo: Current multipliers and current seasonal factors
- Alternative 1: Current multipliers and no seasonal factors
- Alternative 2: Current multipliers and adjusted seasonal factors
- Alternative 3: Daily multipliers reduced to 1.5 limit and no seasonal factors

The difference in these approaches is best highlighted by illustrating the costs of the daily product, as per the figure below. This is because it is the most expensive short term product, thereby emphasising the maximum difference in costs and any seasonal trends. The daily

capacity costs for each profile relative to the annual tariff are presented in the figure below, see the footnote for further explanation.⁷

Figure 2.1: Daily capacity cost in each option



The CRU assessed these options against the criteria set out in the network code and in the context of the Irish gas market. The CRU noted that there was complexity and uncertainty surrounding this topic due to the potential impacts on a wide-range of elements of the gas market. In coming to that initial opinion, the CRU considered the relative importance of each criteria, as some of these are more relevant than others in the context of the Irish gas market. In addition, the CRU stated that it was keen to hear the views of stakeholders because it is the users of the network who would be directly affected by changes to the multipliers and seasonal factors.

Firstly, with regard to multipliers and their possible reduction, the CRU's assessment under each criteria is summarised⁸ in the table below. The CRU did not identify negative outcomes resulting

⁷ For example, the blue line, which represents the status quo illustrates that the daily capacity cost is effectively zero in Summer (0.05%) but much more expensive in the Winter, peaking in February (2.28%). This graph, specifically the dashed green line, also highlights the current effective cost of daily capacity if a user were to buy the annual product (i.e. $1/365 = 0.27\%$). Therefore, in February, it is currently over eight times $((2.28\%/0.27\%)=8.4)$ more expensive to purchase daily capacity than the annual product equivalent, while in the summer it is over five times $((0.27\%/0.05\%)=5.4)$ less expensive.

⁸ The CRU elaborates further in section 2.3 and Appendix A of the consultation paper (CRU/21/14).

from the application of the current multipliers. For this reason, the CRU stated that it was of the view that a reduction in the daily multiplier limit to 1.5 (alternative 3) may not be warranted, particularly as it may lead to an increase in the potential for undue costs being placed on the Residential & SME customer sector. **As a result, the CRU consulted on a proposal to maintain the current daily multiplier at 2.79.**

Table 2.2: Multiplier review - summary table

	Balancing short-term trade & long-term signals for investment	Impact on revenue and its recovery	Avoid cross-subsidisation and enhance cost-reflectivity	Physical and contractual congestion	Cross-border flows
Current (Daily 2.79)	-	-	✓	-	n/a
Alternative 3 (Daily 1.5)	-	×	×	-	n/a

Secondly, with regard to seasonal factors, the CRU's assessment under each criteria is summarised in Table 2.3. The CRU's view was that the current seasonal factor profile may no longer provide an effective incentive for current or future network users to utilise the gas infrastructure more efficiently.⁹ In addition, it may be leading to a reduction in cost-reflectivity as a result of changing market dynamics since the factors were last adjusted in 2012. For example, there was an adjustment to support, amongst other things, seasonal gas storage, however gas storage ceased in 2017. Given the current uncertainty surrounding the effectiveness of the incentives that seasonal factors are meant to provide networks users and considering the potential for these signals to have unintended effects, the CRU took the view that their removal may be warranted. However, the CRU stated that although the removal of seasonal factors may be justifiable, the CRU is cognisant of, amongst other things, the importance of tariff stability and certainty for the market (i.e., not just the Art. 28 criteria), particularly as there could be effects for individual network users. Therefore, any change from the current seasonal factors should be incremental in nature. Therefore, the CRU stated that the complete removal of seasonal factors under Alternative 1 would not be in the best interests of gas consumers at this time and instead **the CRU consulted on a proposal to implement Alternative 2 as it provides for an incremental change.**

⁹ This is due to the effect of wind generation on gas demand and the decreased likelihood of significant additional gas demand due to decarbonisation policy.

Table 2.3: Seasonal factor review - summary table

	Efficient utilisation of gas infrastructure	Improving cost-reflectivity
Status quo	-	×
Alternative 1 (no seasonality)	-	-
Alternative 2 (reduced seasonality)	-	-

As the proposed change would alter the cost of booking non-annual capacity over the course of the year, there may be an effect on how non-annual capacity users (e.g., Power sector) book capacity to match their demand requirements, and subsequently, how GNI recovers its allowed revenue. GNI's analysis indicated that the change in bookings may lead to upward pressure in the cost of annual capacity. In terms of quantifying the impact, there is considerable uncertainty, however GNI estimated that Alternative 2 could result in a 4% increase in the cost of transporting gas from the Moffat entry point¹⁰, which could equate to an increase of up to €2.8 or 0.3% on a residential customer's annual bill. This is because residential customers are required to book annual capacity for security of supply reasons. However, it is important to note that not all network users would see an increase in cost and, on balance, the CRU stated that it was of the view that this change should positively impact the gas market, by making charges more cost-reflective and reducing the potential for cost volatility. Finally, the CRU stated that it was keen to hear the views of stakeholders on this proposal and will consider these as part of any decision on whether to change the levels of seasonal factors for the gas year 2021/22. The CRU requested comment on the following:

CRU Questions

1. Do you agree with the CRU's proposal to apply alternative 2? Please provide a rationale for your answer.
2. Should this change be implemented for gas year 2021/22? Please provide a rationale for your answer.

¹⁰ Annual Moffat entry capacity tariff + annual domestic exit capacity tariff. The transportation cost of gas from Moffat (a.k.a. GB gas) is important because 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.

2.3 Responses

The CRU received eleven responses to its consultation and thanks these respondents for their feedback. Nine of the eleven respondents did not support the CRU's proposal to apply alternative 2, thereby changing the seasonal factors. All of the respondents preferred that the current arrangements would be maintained for gas year 2021/22.

The CRU has published the responses alongside this publication (CRU/21/049a). Some of the reasoning put forward by respondents as to why the CRU should not implement the proposed change are as follows:

- Issues with outcomes
 - Leads to increases in annual capacity tariff / not appropriate to increase costs at this time.
 - Favours those who can book non-annual capacity products.
- Limitations of analysis
 - Forecasted capacity bookings assumed perfect / no sensitivity analysis / backward looking / includes periods of atypical bookings.
- Lacked evidence
 - Proposal not adequately tested or evidenced / rationale needs to be stronger.
 - Seasonal factor incentive continues to influence behaviour.
 - Renewable natural gas entry points need to be considered further.

2.4 Decision

The CRU thanks the respondents for sharing their views and has decided not to make a change to the multipliers and seasonal factors for gas year 2021/22, as set out in Table 2.4. In coming to that decision, the CRU notes that it has not identified any harm from the current seasonal factors, which have been in place for a number of years.

In making the above decision, the CRU would note that the proposed change and its impact were relatively minor and it was not addressing any measured harm but rather seeking potential benefits. The changes to the use of the gas network, that the proposal was seeking to adapt the seasonal factors to, can be considered as important steps in the energy transition. However, more and greater changes are to come. In addition to the important supporting role that gas fired generation is already playing in the energy transition, the first steps in decarbonising the gas network have been taken. This saw the first commercial flows of biomethane on the distribution network in 2020. Steps to decarbonise the gas network will continue and more changes are

expected in response to new EU directives and the national Climate Action Plan. The CRU considers, on balance, that the impacts of the energy transition should be further monitored before they drive any changes to multipliers or seasonal factors. This would reduce the risk of unintended consequences.

The CRU will keep the multipliers and seasonal factors under review as these changes occur and will also consider work undertaken by neighbouring NRAs in this area (e.g., Utility Regulator). The CRU will keep parties updated on this work through its annual Art 28. consultation. The CRU notes that carrying out a consultation next year with a similar level of detail to this review is unlikely to provide as much value. This reflects the fact that the use of the gas network or the strength of these incentives are unlikely to change significantly from year to year. As such, going forward the level of detail provided in the consultation may vary depending on recent analysis and whether any need for change has been established. The CRU expects the focus of any future analysis will be similar to the consultation paper.

Table 2.4: Combined multiplier & seasonal factor profile as a % of annual product for gas year 2021/22

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 Level of discounts

3.1 LNG

TAR NC¹¹ allows for the adjustment (i.e., discount) of tariffs at entry points from LNG facilities. Unlike storage¹², TAR NC allows for, but does not require, the application of discounts to LNG for the purposes of increasing security of supply. There are currently no LNG facilities in Ireland.

The CRU set out non-binding criteria¹³, against which applications for discounts would be assessed and timelines for submissions (the CRU must be notified of an application 18 months before the start of the gas year in which discounts are sought, with a formal application 12 months before tariffs are set for that year). Any discount being considered under such an application would be consulted upon.

With no applications for a discount received, no discount is currently in place for LNG. As such, the CRU is not in a position to consult on the level of any LNG discount.

3.2 Interruptible discounts – Virtual Reverse Flow

3.2.1 Introduction

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.¹⁴ VRF is a day-ahead interruptible¹⁵ product and the only interruptible product.

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

¹¹ Art. 9 – Adjustments of tariffs at entry points from and exit points to storage facilities and at entry points from LNG facilities and infrastructure ending isolation.

¹² There are currently no storage facilities in operation in Ireland since the Kinsale gas fields began the blowdown of cushion gas. However, as stated in CRU/19/060, in the event that a storage facility began operation the CRU would apply at least a 50% discount in accordance with Art. 9. 1.

¹³ See Section 3.8.3. of CRU/19/060 for further information.

¹⁴ For example, if there is a total nomination of 100 units of gas for delivery from GB to Ireland and a gas shipper in Ireland wishes to virtually transport 10 units of gas from Ireland to GB, these 10 units are netted off the 100 units, resulting in the delivery of 90 units into the Irish gas network.

¹⁵ ‘Interruptible’ capacity means gas transmission capacity that may be interrupted by the network operator. As this capacity is not guaranteed to be available it is often discounted. VRF is interruptible as flows from GB to Ireland are required to enable VRF as highlighted by the example in footnote 14.

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.

The formula for calculating the adjustment which should be applied is set out in TAR NC and is as follows:

$$Di_{ex-ante} = Pro \times A \times 100\%$$

Where:

$Di_{ex-ante}$ is the level of the ex-ante (forecast) adjustment;

Pro Factor is the probability of interruption;

A Factor is the adjustment factor which should reflect the estimated economic value of the interruptible capacity product. The TAR NC restricts the A Factor to being equal to, or greater than one (i.e. it can only increase the level of reduction).

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),

- 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.
- 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 of 6 for Moffat VRF and an A-factor of 2.25 for the Gormanston VRF.¹⁶

¹⁶ For the gas year 2020/21 this resulted in a Gormanston VRF reference price of €76/MWh and a Moffat VRF reference price of €271/MWh. By comparison, the Gormanston exit reference price is €385/MWh and the Moffat Entry reference price is €315/MWh. Daily multipliers are not applied to the VRF product as it can only be booked on a daily basis (there is no annual VRF product). However, seasonal factors are applied to the VRF product. So, for example, the cost to book daily VRF capacity at Moffat in February is €57/MWh, while the cost in June is €1/MWh.

In accordance with Art.4 of TAR NC, commodity charges apply to use of the VRF product.

3.2.2 Consultation

In developing the consultation paper, the CRU analysed data covering the full gas year since the new VRF tariff was introduced. The goal of this analysis was to assess whether the VRF discount was appropriate, by examining the trends over time, comparing VRF use before and after the new tariff was introduced and the factors that might affect the use of VRF. However, this data did not point to any definitive factor or trigger point, which determined the use of VRF, which was very low throughout gas year 2020/21.

The CRU noted this possibility last year, *“a continued lack of use of VRF in these coming [summer] months may indicate that issues regarding its use cannot be solved by changes to the VRF tariff given that the tariff may be as low as can possibly be achieved.”* It appears from the timing of the change that the limited use of VRF is in some part driven by the new tariffing approach. However, the numerous push and pull factors in play at any one time, continues to make it difficult to have full sight of what is driving the use of VRF. This makes it challenging to set a discount (referred to as the A factor), the purpose of which is to reflect the economic value of the VRF product.

From the evidence gathered to date, both in the form of the quantitative data provided in the consultation paper and in the form of qualitative data from respondents to previous consultations the CRU could not put forward a reasoned alternative VRF discount. In light of such the CRU asked the following consultation questions.

CRU Questions

3. Do you have any views on the CRU's analysis of VRF use? Please provide a rationale for your answer.
4. Do you have any proposals (supported by data and analysis) for an alternative VRF discount (within the context of the Art. 28 consultation scope) that could be considered as part of next year's consultation?

3.2.3 Responses

Four of the eleven respondents responded to the CRU's requests for comment on VRF and the CRU thanks these respondents for their feedback. The CRU has published the responses alongside this paper (see CRU/21/049a). In summary, three of these respondents were of the view that the cost was prohibitive to the use of VRF. The other respondent disagreed with this. In addition, respondents raised additional views such as:

- The lack of use makes it difficult to analyse the right pricing for VRF.
- VRF Reducing the risk of Shippers/ market participants (including biomethane) by providing export opportunities to the GB market which is more liquid and GB offers a biomethane support mechanism.
- VRF impacting balancing, causing a high tariff to incentivise Shippers to leave the system long and take the imbalance penalty.
- The VRF tariff should not be changed for at least 1-2 years due to impacts of Covid-19.
- The VRF Tariff methodology is not suitable and should be classified as a non-transmission service.

3.2.4 Decision

The CRU recognises that a number of respondents were of the view that the methodology applied to derive the VRF tariff is not appropriate. However, the CRU notes that the overall methodology (e.g. classification as non-transmission service) is not within the scope of the Art. 28 review, which is focused on the level of the discount.¹⁷ With regard to a point raised relating to VRF and balancing, the CRU provided detailed analysis in the consultation paper and GNI has confirmed that there has been no increase in imbalance penalties since the VRF tariff was introduced. The CRU continues to be of the view that the limited use of VRF is in some part driven by the new tariffing approach. However, there are a number of push and pull factors in place, which influence its use as discussed in the consultation paper.

Based on the evidence gathered to date the CRU could not put forward a reasoned alternative VRF discount for consultation and the responses raised did not put forward any proposals for an alternative VRF discount (within the context of the Art. 28 consultation scope). For reasons that are unclear to the CRU, it appears that participants currently prefer the option of commercial swaps of gas. Importantly, the CRU notes that it has not identified any harm from the current VRF tariff.¹⁸ As a result, **the CRU has decided to maintain the level of the discount (referred to as the A-factor) as set out in the table below for gas year 2021/22.** The CRU will further

¹⁷ The overall methodology is examined as part of the Art 26. Consultation process, which the network code requires is carried out at least every five years. The CRU's most recent Art. 26 decision in CRU/19/060.

¹⁸ In the CRU's decision (CRU/19/060), it stated that "Counterparties in Ireland and GB can enter into commercial agreements to trade gas between the NBP and IBP directly rather than by making use of the forward flow and VRF products. It could therefore be argued that VRF is only valuable to the extent that it provides an alternative option to a commercial 'swap' of gas." As stated in the consultation paper (CRU/21/14) "Importantly, the CRU has not identified any obvious negative outcomes for the gas market resulting from this change. Prior to the introduction of VRF, network users undertook swaps, these users also now have the ability to use the IBP trading platform which wasn't in place when the VRF product was first introduced."

consider the points raised by respondents and continue to engage with industry on this topic as part of its annual Art 28. consultation requirement and will examine wider changes to the VRF tariff methodology as part of the Art. 26 consultation process.

Table 3.1: Virtual reverse flow A-factor

Interconnection point	A-factor
Moffat	6
Gormanston	2.25

4 Summary

Following the publication of the CRU's annual Art 28. consultation (CRU/21/14) the CRU has considered the views of stakeholders and come to a decision. The CRU thanks these respondents for their feedback and these responses are published alongside this paper (see CRU/21/049a). The CRU has with this decision concluded its annual tariff network code Art. 28 review, in advance of gas year 2021/22.

Within section 2 of this paper the CRU has stated its decision to maintain the current multipliers and seasonal factors for gas year 2021/22.

Within section 3 of this paper the CRU has stated its decision to maintain the current VRF discount for gas year 2021/22.

4.1 Next steps

The following are the milestones that follow the publication of this decision paper.

- GNI will proceed with the calculation of tariffs for the gas transmission and distribution networks for gas year 2021/22 in accordance with the decisions set out in this paper.
- CRU publication of tariffs for gas year 2021/22 – by 05 June 2021.
- New gas tariffs coming into effect – 01 October 2021.