

**CER**

Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

# Gas Networks Ireland Allowed Revenue and Transmission Tariffs 2017/18

## Decision Paper

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Queries to:

Daniel Ward  
dward@cer.ie

*Regulating Water, Energy and Energy Safety in the Public Interest*

The Exchange, Belgard Square North, Tallaght, Dublin 24, Ireland

+353 1 4000 800 | [info@cer.ie](mailto:info@cer.ie) | [www.cer.ie](http://www.cer.ie)

# Public Impact Statement

Gas Networks Ireland (GNI) owns and operates the gas network which supplies all gas customers in Ireland. GNI charges gas customers an amount towards the cost of safely operating and maintaining the gas network through gas customers' bills.

One of the Commission for Energy Regulation's (CER) roles is to protect gas customers by ensuring that GNI spends customers' money appropriately and efficiently to deliver necessary services. The CER does this through the Price Control review, which is carried out every 5-years, and through the annual tariff setting process.

The annual tariff setting process is important as it ensures that GNI has the required amount of money to safely operate the gas network and in turn customers are correctly charged for the services.

The CER will continue to monitor GNI's performance and will challenge GNI to become more efficient over PC4. The benefits to gas customers will be:

- A gas network that is operated to the highest safety standards, ensuring safe supply of gas to customers;
- A reliable and secure supply of gas to homes and businesses;
- The efficient management of the gas network resulting in stable tariffs; and
- A high standard of customer service at all times with timely resolution to complaints.

As a result of this decision document and the transmission decision document the average annual residential customer's bill will rise by **€2.89** which is an increase of less than half a percent.

Transmission Network Tariffs for 2017/18 have decreased by 3.8% compared to 2016/2017. Network tariffs are charged to gas suppliers who may choose to pass them on to their customers.

At present transmission network tariffs make up approximately 10% of a domestic customers bill. The network tariff changes in this paper will equate to a c. 0.38% decrease on an average residential gas customer's bill.

# Executive Summary

This Decision Paper sets out the Allowed Revenues that Gas Networks Ireland (GNI) may recover during the course of Gas Year 2017/18 stemming from the CER's PC4 Decision Paper (CER/17/260).

The Transmission revenues are required for the safe and efficient operation and maintenance of the high pressure natural gas transmission system.

Normally, the annual tariff decision paper provides updates on additional revenue requests from GNI which the CER has approved and examines key inputs such as the Cost of Capital, the inflation rate and the forecast capacity bookings and commodity flows which all influence the level of GNI's tariffs. However the CER has completed the price control review for PC4 and consequently this information was examined as part of that review and can be found at (CER/17/260).

On the basis of the revenues and forecast capacity bookings and forecast commodity flows the network tariffs, that will prevail from 01 October 2017 to 30 September 2018 are set out in Section 3.

The transportation cost of UK gas has decreased in nominal terms by 3.5% as a result of the lower revenue requirements and the forecast capacity bookings for the forthcoming year. Transportation costs from Bellanaboy have increased by 2.1% and Inch Production and Storage have decreased by 4.5% and 5.5% respectively.

The network tariff changes in this paper will equate to a c. 0.38% decrease on an average residential gas customer's bill.

The combined effect of the Transmission and Distribution Network Tariffs for 2017/18 on an average residential gas customer's annual bill is an increase of €2.89, which is less than half a percent

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# Glossary of Terms and Abbreviations

Abbreviation or Term	Definition or Meaning
<b>Allowed Revenues</b>	The sum of revenues that the TSO is entitled to obtain in a given period, as approved by the CER.
<b>Capex</b>	Capital Expenditure (Capex) is the initial expenditure on investment in network infrastructure, such as underground cables.
<b>CER</b>	Commission for Energy Regulation
<b>Correction Factor (K-Factor)</b>	An adjustment of revenue applied to rectify over or under recoveries.
<b>Cost of Capital</b>	The return that GNI are permitted to earn during a given year.
<b>Euribor</b>	Euro Interbank Offered Rate indicating the average interest rates at which Eurozone banks offer to lend to other banks.
<b>Extra-over items</b>	Work items not included in the Price Control
<b>GNI</b>	Gas Networks Ireland
<b>HICP</b>	Harmonised Index of Consumer Pricing
<b>I&amp;C</b>	Industrial and Commercial
<b>Pass-through items</b>	Work items that were included in the Price Control but the costs of which were not certain at the time of the Price Control.
<b>PC</b>	Price Control
<b>Price Control</b>	A 5 - yearly review of GNI's allowed revenues.
<b>VRF</b>	Virtual Reverse Flow
<b>WACC</b>	Weighted Average Cost of Capital (WACC) is a weighted average of the expected equity and debt for the transmission and distribution system operator, which is GNI.

# 1 Introduction

## 1.1 Commission for Energy Regulation

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

This paper outlines the CER's decision in relation to the GNI's allowed revenues and distribution tariffs that will apply from 01 October 2017 to 30 September 2018.

The calculation of tariffs for the forthcoming gas year is based on the CER's recent decision regarding GNI's allowed revenues for the next 5 years. GNI is currently in its fourth Price Control (PC4) with 2017/18 being the first year of PC44.

## 1.2 Revenue Setting Process and Inputs

In August 2017, the CER 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. The CER PC4 decision has allowed €923.7m (15/16 monies) to be recovered for transmission business over the 5 year period.

The methodology employed by GNI and then inputs used when setting the tariffs for 2017/18 are detailed in Appendix B.

## 1.3 Related Documents

- Decision on October 2017 to September 2022 transmission revenue for GNI (CER/17/260).

Information on the CER's role and relevant legislation can be found on the CER's website at [www.cer.ie](http://www.cer.ie)

## 1.4 Structure of Paper

This Paper is divided into a number of sections detailed below:

- **Section 1** Introduction.
- **Section 2** outlines the PC4 forecast capacity and commodity trends.
- **Section 3** details the CER's decision on Transmission tariffs for the upcoming gas year 2017/18.

## 2 Demand Projections

As part of the PC4 Decision demand projections were estimated by GNI for each of the five years of the control period. When setting the annual tariffs over the course of PC4, the demand figures will be updated to reflect the latest forecasts.

### 2.1 Exit forecasts

GNI anticipate that transmission exit capacity and commodity utilisation will grow by c. 3% and 4% respectively by 2021/22. The majority of this growth will occur in the period 2019/20 to 2020/21. This is mainly due to the expectation that peat fired generation will cease from 2019/20 due to the expiration of Public Service Obligation (PSO) levy payments in 2019/20. As a result gas fired generation is expected to increase.

The North South Interconnector, which is assumed to be completed in 2019/20, will also contribute to an increase in demand due to the effective removal of the existing physical constraint on the electricity transmission network between Northern Ireland and ROI. However, gas commodity in the power sector is decreasing in the first two years of the period (albeit capacity is increasing), despite growth in the overall level of electricity demand due to increased competition from renewables.

Large Industrial and Commercial (I&C) commodity is forecast to grow by 11% by the end of PC4 from 2015/16 due to the remainder of the contracted loads for the new towns i.e. Wexford connecting in 2017 and Listowel connecting in 2018. A return to economic growth and the additional I&C customers to be targeted under GNI's growth strategy also contribute to this growth.

Residential and Small/Medium I&C demand is forecast to grow by 2% from 2015/16 due to a return to economic growth and the additional customers to be targeted under GNI's growth strategy.

GNI is targeting c. 5% penetration of CNG for commercial fleet transport and 10% of the bus market in Ireland by 2025. GNI forecast that by 21/22 CNG will make up a quarter of a percent (134.6 GWh/yr) of total commodity demand.

## 2.2 Entry forecasts

In order to meet Transmission exit demand, GNI forecast that Transmission commodity entry demand will grow by 3% in total by the end of the PC4 period, compared to 2015/16 levels. In December 2015 the Corrib gas field commenced production. Corrib is expected to meet c. 66% of ROI's Transmission demand by 2017/18, with the Inch and Moffat Entry points supplying the balance.

By 2021/22 gas supply from the Corrib field is projected to reduce to 60% of its initial supply level (which corresponds to c. 38% of ROI's total demand). This anticipated reduction in Bellanaboy gas supply, together with the reduction in Inch gas supply will re-establish the Moffat Entry Point as the dominant supply point in Ireland. By the end of PC4, c. 61% of demand will be met by Moffat.

## 3 CER Decision on Transmission Tariffs for 2017/18

Previous sections outline the elements affecting the Transmission tariffs which will apply from 01 October 2017 to 30 September 2018.

### 3.1 Firm Capacity Network Tariffs

The CER hereby directs Gas Networks Ireland to implement the following tariffs from 01 October 2017 to 30 September 2018

**Table 3.1: Transmission Tariffs 2017/18**

		Bellanaboy €	Inch Production €	Inch Storage €	Moffat €	Exit €
Firm <sup>1</sup>	Capacity per peak day MWh	658.431 <sup>2</sup>	156.656	53.027	359.183	402.080
	Commodity Per MWh	0.114				0.238

#### 3.1.1 Interconnection Point Tariffs

In addition, as CER/15/140 (per Decision 10) the Postalised Exit tariff (as indicated above) does not apply to Interconnection Points from the GNI system, such the Gormanston Exit Point.

The GNI Matrix model produces the Exit tariff for Gormanston which is indicated below. For clarity the Exit Commodity charge will apply where flows arise at the Interconnection Point.

**Table 3.2: Gormanston Tariffs**

Firm	Gormanston Exit Capacity	€ per peak day/MWh	386.41
	Gormanston Exit Commodity	€ per MWh	0.238

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

<sup>2</sup> This is composed of two elements; one to remunerate the Allowed Revenue of GNI (€169.2) plus a Corrib Linkline Element (€489.0), which will remunerate the revenues relating to the Corrib Linkline (Corrib Partners).

## 3.2 Interruptible Virtual Reverse Flow Charges

Decision Paper CER/11/190 established the tariff methodology that would be in place to calculate the charges applicable for the Virtual Reverse Flow (VRF) product. This was based on the marginal cost of providing the service, depreciated and divided over an expected number of Shippers. At the time of setting the VRF charges for 2015/16 the CER stated that *“This methodology will continue to apply to shippers who register for use of the service until such time as the enhanced VRF is made available”*. The enhanced within-day VRF product has been made available since April 2016 and is being utilised extensively.

Pending a review of the current methodology to take account of both the enhanced product and impending EU requirements, the CER has decided that the registration fee will continue to prevail for the forthcoming year. However the CER has decided to accelerate the depreciation profile in order to recover the remaining costs of the initial implementation and any enhanced product costs over the next two years at Moffat and Gormanston. The rationale for this accelerated recovery is due to anticipated changes that the EU network code on harmonised tariffs will bring the current arrangements will come to an end in 2019. The CER is of the view that it is equitable and appropriate that those parties who used the system should pay for the service, this is consistent with the CER's decision contained in CER/11/190.

The VRF tariff is calculated as the sum of the initial implementation costs the enhanced product costs, and any additional enhanced implementation costs, all inflated to 2017/18 monies. The registration fees recovered to date are then subtracted from this amount and the result is divided over the forecast number of registered shippers for the upcoming year and the following year over which the remaining costs will be recovered.

The charges associated with both VRF products at Moffat and at Gormanston are indicated below.

**Table 3.3: VRF tariff calculation - Moffat**

<b>Moffat</b>	<b>€</b>
Total Implementation Cost (11/12)	177,000
Enhanced Implementation Cost (15/16)	108,000
Additional Enhanced Implementation Cost (16/17)	23,212
<i>Total Cost including inflation (17/18)</i>	<i>312,889</i>
Registration fees (15/16)	13,779
Registration fees (16/17)	36,580
<i>Remaining VRF cost (17/18)</i>	<i>262,350</i>
Total number of shippers forecast in 2017/18	5
Depreciation period	2 years
<b>Registration Fee for VRF in 2017/18</b>	<b>26,253</b>

**Table 3.4: VRF tariff calculation - Gormanston**

<b>Gormanston</b>	<b>€</b>
Total Implementation Cost (12/13)	80,000
<i>Total Cost including inflation (17/18)</i>	<i>80,764</i>
Total number of shippers	2
Depreciation period	2 years
<b>Registration Fee for SNP Virtual Reverse Flow</b>	<b>20,191</b>

**Table 3.5: VRF tariffs**

			<b>€</b>
Interruptible	VRF at Moffat	Shipper Registration Fee	26,253
	VRF at Gormanston	Shipper Registration Fee	20,191
	Commodity Charge	Exit Per MWh <sup>3</sup>	0

<sup>3</sup> Applies to both VRF products

# Appendix A: GNI Transmission Tariffs 2017/18

<b>GNI Transmission Tariffs for 2017/18</b>			<b>Published Tariffs</b>		<b>% Change</b>
	<b>€ (17/18 Monies)</b>		<b>2015/16 Tariffs</b>	<b>2016/17 Tariffs</b>	<b>Nominal</b>
<u>Exit</u>	<b>2017/18 Tariff</b>		<b>€</b>	<b>€</b>	<b>from 16/17</b>
capacity	<b>402.080</b>	per peak day MWh	430.882	428.352	-6.1%
commodity	<b>0.238</b>	per MWh	0.267	0.256	-7.1%
<u>Moffat Entry</u>					
capacity	<b>359.183</b>	per peak day MWh	367.786	360.253	-0.3%
commodity	<b>0.114</b>	per MWh	0.118	0.123	-7.1%
<u>Bellanabov Entry</u>					
capacity	<b>658.431</b>	per peak day MWh	617.996	610.463	7.9%
commodity	<b>0.114</b>	per MWh	0.118	0.123	-7.1%
<u>Inch Storage Entry</u>					
capacity	<b>53.027</b>	per peak day MWh	53.058	53.058	-0.1%
commodity	<b>0.114</b>	per MWh	0.118	0.123	-7.1%
<u>Inch Production Entry</u>					
capacity	<b>156.656</b>	per peak day MWh	164.186	156.653	0.0%
commodity	<b>0.114</b>	per MWh	0.118	0.123	-7.1%
<b>Illustrative Transmission Transportation Costs</b>					
	<b>€</b>		<b>€</b>	<b>€</b>	
<u>Transmission Transportation Cost of UK Gas</u>					
capacity	<b>761.263</b>	per peak day MWh	798.668	788.605	-3.5%
commodity	<b>0.352</b>	per MWh	0.385	0.379	-7.1%
<u>Transmission Transportation Cost of Bellanabov Gas</u>					
capacity	<b>1,060.511</b>	per peak day MWh	1048.878	1038.815	2.1%
commodity	<b>0.352</b>	per MWh	0.385	0.379	-7.1%
<u>Transmission Transportation Cost of Inch Storage Gas</u>					
capacity	<b>455.107</b>	per peak day MWh	483.940	481.410	-5.5%
commodity	<b>0.352</b>	per MWh	0.385	0.379	-7.1%
<u>Transmission Transportation Cost of Inch Production Gas</u>					
capacity	<b>558.736</b>	per peak day MWh	595.068	585.006	-4.5%
commodity	<b>0.352</b>	per MWh	0.385	0.379	-7.1%

# Appendix B: Background to CER Tariff setting

## Tariff Calculation and Inputs

In July 2015, the CER published its Decision Paper on the “Entry/Exit Tariff Methodology” which developed a new methodology for the calculation of Entry and Exit tariffs, which are the means by which GNI’s Allowed Revenues are recovered.

In addition, developments at an EU level on the Network Code on Harmonised gas Transmission Tariffs are close to being finalised. One of the key requirements in this legislation will be the requirement to publish specific revenue related information as part of the tariff setting process. Therefore, as part of the 2017/18 tariff setting process this paper will outline additional information on the revenues, methodology and tariffs that apply.

**Table 0.1: Tariff setting process**

Revenues	Methodology	Tariffs/Charges
Details on the revenues that GNI can recover in 2017/18	Details on the methodology that is used to derive firm Capacity and Commodity tariffs that recover revenues for 2017/18	Detail on the tariffs and charges detailed in this Decision Paper

Below highlights the revenue setting details and inputs that are in place for Price Control 4 and therefore for 2017/18.

In addition to the revenues allowed in the Price Control, each year GNI submits requests for items that are either considered “pass-through” or “extra-over”. Pass through items are those for which at the time of the Price Control, the exact expenditure was not finalised. Extra over items are requests from GNI for items that were not anticipated in the Price Control. However as this year was a Price Control review year there are no “pass-through” or “extra-over” items for the transmission business for this tariff period.

**Table 0.2: Key Transparency inputs as per Draft EU Network Code on Transmission Tariffs**

<b>Key Transparency inputs as per Draft EU Network Code on Transmission Tariffs</b>			
<i>Inputs</i>	<i>Revenue Period</i>	<i>Area of review</i>	<i>Detail</i>
Revenue Regime	2017-2022	Revenue	Allowed Revenue
Allowed Revenue as per PC4	2017/18	Revenue	€177.2m
Capital Expenditure	2017/18	Revenue	€113.1m
Operating Expenditure	2017/18	Revenue	€76.9m (pre-adjustment)
Yearly change in Allowed Revenue	2017/18-2016/17	Revenue	€177.2m - €198.0m = -€20.8m
Reconciliation Process	Price Control	Revenue	Correction Factors have been reconciled and included in the overall PC4 K-Factor.
Actually obtained Revenue	2015/16	Revenue	€210.2m
Cost of Capital	2017-2022	Revenue	4.63%
Inflation Index	2017-2022	Revenue	<u>HICP</u> Central Bank, ESRI, Department of Finance
Intended use of Auction Premium	2017-18	Revenue	None forecast
Capacity-Commodity Split	2015	Methodology	90:10 of Allowed Revenues
Entry-Exit split	2015	Methodology	33:67 of Allowed Revenues

## Methodology Details

Details the key assumptions used in the tariff methodology used to derive the firm Capacity and Commodity tariffs for the transmission system. The model used to derive these tariffs is available directly from GNI by contacting [paul.dowling@gasnetworks.ie](mailto:paul.dowling@gasnetworks.ie). In addition, the distance data between each of the entry points and the active exit points are available by contacting GNI at the email address above.

**Table 0.3: Key Methodology inputs as per Draft EU Network Code on Transmission Tariffs**

<b>Key Methodology inputs as per Draft EU Network Code on Transmission Tariffs</b>	
<i>Input</i>	<i>Detail</i>
Tariff Methodology	Matrix
Input	Long Run Marginal Costs (LRMC)
Key inputs	Expansion Constants, Annuitisation Factor
Secondary adjustments applied	Rescaling to obtain required revenues
Capacity assumptions	Annualised forecast Capacity bookings
Capacity-Commodity split	90:10
Entry-Exit Split	33:67
Active Entry Points	3
Exit Points	109