



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

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Amendments to Moffat Interconnection Point Agreements

Information Note

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Reference:	CRU/21072	Date Published:	16/07/2021	Closing Date:	N/A
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Executive Summary

GNI UK calculates the volume of gas that is to flow through the Moffat Interconnection Point. This is called the Agreed Target Quantity (ATQ) and is based on shipper nominations. As these nominations could come from Ireland, Northern Ireland and indeed GB, how the Agreed Target Quantity is calculated by GNI(UK) is included in agreements with the various system operators.

Since the introduction of the Balancing Network Code and the Corrib Gas Field starting production, some shippers have tended to under nominate up to 8 pm or even 1am on the gas day. Thereafter, their nominations begin to align closely with actual demand. Until that time, the compressors have been operated from an artificially low ATQ. This requires the compressors to be run harder in the later hours of the gas day (to make up the shortfall). This ramping up of compression is an inefficient way to run the compressors as it leads to more wear and tear and higher emissions.

To improve the situation, GNI has requested to make amendments to the agreements between it and the other system operators relating to the Moffat IP. The proposal would enable GNI (UK) to calculate an ATQ which more accurately predicts actual gas demand earlier in the gas day. The proposal has also been submitted to NIAUR and Ofgem due to their role in approval of amendments to the Moffat IP agreements.

The CRU has considered GNI's request and decided to approve the amendments. The amendments are expected to allow for the gas compressors to be run at a more steady rate throughout the day, leading to greater efficiency. This will save fuel and reduce emissions. It will also save money. As the compressors are paid for through GNI's allowed revenues, this should result in savings on customers' bills.

The CRU's approval follows a consultation by GNI on the amendments during which only one submission was received, containing queries which were resolved by GNI. The amendments have also been approved by the regulatory authorities in Northern Ireland and Great Britain.

Public Impact Statement

Ireland and Northern Ireland import gas from GB through undersea pipelines. There are a number of parties involved in moving this gas from GB to Ireland and Northern Ireland. There are a number of agreements in place that set out how these parties engage with one another. These agreements include how the volume of gas to be moved from GB to Ireland and Northern Ireland is calculated. Compressors are used to move this volume of gas. The higher the volume, the harder the compressors run (like a car going up a hill or travelling at faster speed).

The volume of gas to be moved is calculated from adding up requests from gas shippers. Gas shippers are licensed companies involved in the gas wholesale market. They provide gas to licensed gas suppliers who sell gas directly to final customers (households and businesses).

Through the course of the day, gas shippers may update how much gas they want to import from GB. Since the introduction of an EU network code on gas system balancing and the start of production at the Corrib Gas Field off County Mayo, some shippers have left it late in the day to request all the gas that they need. This leaves only a few hours for the shortfall to be imported from GB. This has led to the compressors having to be run harder later in the day. This has impacted on the fuel efficiency of the compressors. To address this, the CRU has approved a change to the agreements so that the parties operating the pipelines can account for this shortfall earlier in the day. However, it will be ultimately gas shippers who continue to determine how much gas is flowed across the entire day. This change should allow the compressors to run more efficiently (as there will be less of a need to run them harder to meet a shortfall). This will have environmental benefits as well as cost savings.

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 on 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

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1. Introduction

Gas Networks Ireland (GNI) is the owner and operator of the natural gas transportation system in Ireland. It owns and operates two interconnector pipelines which are connected to pipelines in Scotland owned by GNI UK, a subsidiary of GNI. The GNI UK pipelines are in turn connected to the gas transportation system in Great Britain (operated by National Grid Gas or NGG). The systems connect at the Moffat Interconnection Point (IP).

Most of the gas that flows through the Moffat IP supplies Ireland via the interconnectors but some supplies Northern Ireland via the Scotland-Northern Ireland Pipeline, operated by Premier Transmission Ltd (PTL). A smaller amount of gas which flows through Moffat supplies customers in Scotland at an offtake point called Stranraer, and the Isle of Man via a 'spur' pipeline from Interconnector Pipeline 2 (IC2). This can be seen in the below figure.



Figure 1. Transmission pipeline map showing island of Ireland and pipelines from Moffat IP

2. Overview of proposed changes

2.1 Present arrangements at Moffat IP

GNI (UK) calculates the amount of gas that is to flow through the Moffat Interconnection Point each day. This is called the Agreed Target Quantity (ATQ) and is based on shipper nominations.

Nominations are requests to flow an amount of gas for the day and are made to the system operator. Depending on where the shipper is based, these nominations could be made to GNI, NGG or PTL. How the Agreed Target Quantity is calculated by GNI (UK) based on these nominations is set out in agreements with the various system operators, specifically:

1. The Interconnection Agreement between GNI (UK) and NGG
2. The Tripartite Agreement between GNI (UK), GNI, and NGG
3. The Tripartite Agreement between GNI (UK), PTL and NGG.

Amendments to any of these three agreements require the approval of the CRU and Ofgem, the energy regulator for Great Britain. Amendments to the Tripartite Agreement involving PTL additionally require the approval of NIAUR, the Northern Ireland Energy Regulator. In addition, and under the provisions of Article 4.2 of the Interoperability Network Code, transmission system operators are obliged, before amending an interconnection agreement, to engage in a consultation process with network users for a minimum two-month period in advance of any such amendment.

As mentioned, the ATQ is calculated from shipper nominations. The ATQ is set for each gas day, which runs from 5 am to 5 am. Shippers can make initial nominations up to 1pm the day before the gas day begins (D-1). Shippers can then submit an adjusted nomination ('renominate') every two hours (each 'nomination cycle') from 4pm on D-1 until 2am on the gas day (day D). The ATQ is used to develop a flow profile for the compressors. This determines how the compressors are run throughout the day.

Since the introduction of the EU Balancing Network Code (EC 312/2014) and the start of production at the Corrib Gas Field, some shippers have tended to under nominate up to 8 pm or even 1am on the gas day. This means they initially request less gas for the day than they are likely to actually need. Thereafter, their nominations begin to align closely with actual demand. This has an effect on how the natural gas compressors, which move gas through the pipelines to customers, are used. Until nominations align with demand, the compressors have been operated from an artificially low ATQ. The compressors must then be run harder in the later hours of the gas day to make up the shortfall. This ramping up of compression leads to increased emissions and greater

wear and tear on the compressors, as it is more efficient to operate the compressors at a steady load.

This trend of under nominating has also led to issues for the GB market, where it is causing some difficulties for NGG in accurately predicting closing linepack. That forecast is important as it influences GB market prices. As Ireland's gas prices tend to follow GB prices, more efficient GB prices are in Irish customers' interests.

2.2 Proposed amendments and CRU's decision

In April 2020, GNI applied to the CRU for approval of amendments to the Interconnection Agreement and both Tripartite Agreements. The amendments would enable GNI (UK) to provide an ATQ which more accurately predicts actual gas demand earlier in the gas day. Prior to submission, GNI has consulted with network users, as required by the Interoperability Network Code.

Under the proposal, the calculation of the ATQ would be adjusted. Up to now it has been calculated by adding up shipper nominations. However, we know that they tend to be low and do not reflect actual gas demand until later in the gas day. To account for this, it is proposed that the ATQ would consider a new factor called the Additional Forward Flow Quantity (AFFQ). This new factor would be provided to GNI(UK) by the relevant system operator and would estimate the difference between the shippers' nominations and what the necessary flows to meet system demand will be. GNI would calculate an AFFQ for its system demand (demand in Ireland and from the spur to the Isle of Man¹) and PTL would calculate an AFFQ for its system (Northern Ireland as well as Stranraer).

In calculating the AFFQ the system operator would have to consider:

- the quantities which it expects will be physically delivered to its System other than at the Moffat IP on that Gas Day; and
- the quantities of gas which it expects will be offtaken from its System on that Gas Day.

The calculation of the AFFQ is set out in Annex B of the Tripartite Agreements.

¹ GNI's system demand includes flows to the Isle of Man via the spur from IC2. Hence GNI's AFFQ would include consideration of demand to the Isle of Man.

The proposal further provides that at midnight each day, the ATQ would revert to being calculated as simply the sum of the shipper nomination quantities, as it is at present. This is to ensure continued compliance with the Interoperability and Data Exchange EU Network Code for gas transmission systems. Midnight was chosen as the time to revert to the nominations based on analysis by both GNI and NGG of historical within-day nomination patterns. The analysis showed that between 8pm and 1am, shippers' nominations begin to align with their exit nominations (ie user demand).

GNI's analysis indicates that the proposal would allow for the calculation of an ATQ that more accurately reflects demand early in the Gas Day. This will enable more steady flows of gas and more efficient use of compression, leading to less wear and tear on GNI and NGG compressor assets. This will reduce emissions and costs. As the cost of GNI's natural gas compressors comes from GNI's allowed revenues, this should result in a reduction in customers' bills. The proposal is also expected to allow for the calculation of a more accurate predicted closing linepack forecast for the GB system by NGG and a requirement for fewer balancing actions for the GB system. This is expected to have a positive effect on GB market functioning, which should also be positive for Ireland's gas market as Irish prices tend to follow GB prices.

Based on the above, the CRU considers that the proposals can deliver tangible benefits that will benefit the Irish customer. The CRU is therefore approving the proposed amendments. This will see changes to:

- Annex H (Operational Balancing Account) of the Interconnection Agreement;
- Annex B (Nominations) of the GNI Tripartite Agreement; and
- Annex B (Nominations) of the PTL Tripartite Agreement.

In approving these agreements, the CRU notes that the required consultation, as per article 4.2 of the Interoperability Network Code, has been completed by the system operators and no objections were received by GNI. The CRU also notes that Ofgem and NIAUR have approved the proposed amendments.