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Stephen English
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Belfast
BT7 1SH

Dear Stephen

firmus energy Networks welcomes the opportunity to respond to the recently published Business Rules consultation regarding the update to the Virtual Reverse Flow (VRF) Product and Tariff Methodology.

As a Distribution Network Operator (DNO) in Northern Ireland, we currently have responsibility for booking Exit capacity on behalf of gas suppliers operating in our licensed area. We are also engaged in a programme of work with key stakeholders, including all gas network operators, to develop arrangements within the industry that will facilitate the potential opportunities for renewable gases in Northern Ireland. In considering our views and response we have focused on the potential impact that the updated arrangements might have on DNOs, gas suppliers and biomethane producers in Northern Ireland.

The consultation paper acknowledges that the main commercial driver for the review of the VRF services is the development of the biomethane sector in Northern Ireland, however, the paper does state that the changes are not intended to target the biomethane sector. In these early stages of developing a biomethane economy in Northern Ireland, investors and producers will need to have confidence that they can make a sustainable return. Therefore, we consider that any changes introduced into the regime should consider the wider policy

environment and ensure that changes continue to enable the growth of the local biomethane markets. Developments within the gas regime should support the integration of biomethane into the gas network, enhance the overall energy system, and promote sustainability. In the absence of supporting policy and incentives, network operators should ensure that changes to the regime do not present further barriers to potential markets.

Context of the proposed changes

The Business Rules consultation provides a background to the origins of the VRF, which sets out a useful context to the current review. The current arrangements allow for a maximum of 1,228,000 kWh/d of VRF capacity. To date, this has been sufficient as the requirement for the VFR product has been low. However, as the consultation paper highlights, in the absence of any grid-connected CNG fuelling stations in Northern Ireland, biomethane producers connecting to the gas network may wish to avail of the Renewable Transport Fuel Certificates (RTFCs) by moving gas virtually out of NI via the Moffat IP. Recent engagement with biomethane producers has indicated that the volatility in the value of the RTFCs has meant that European markets might present more stable revenue. The recent Biomethane Request for Information (RFI) undertaken by the NI Gas Network Operators indicates that if all biomethane producers assessed as likely to connect in the next three years were to do so and virtually transport all of their renewable gas to GB (or beyond), the current capacity would be exceeded by 2026. Specifically, if all biomethane producers identified in the RFI as most likely to connect by the end of 2026 were to do so, this would result in a demand of 951 GWh per annum, or 2,605,479 kWh per day. firmus energy Networks are therefore supportive of the requirement to review the current arrangement to ensure that there is sufficient capacity available, should biomethane producers wish to avail of this incentive or access European markets.

Registration

This section of the consultation paper highlights the requirement for IT system development for VRF services to be initiated at the South North IP. The need to establish if there is likely to be sufficient forward flow nominations to enable a service to be provided and to establish if there is sufficient demand for a VRF service is set out in the consultation paper. The proposed

mechanism to establish future demand is based on applications for registration at the VRF IP Exit Point. If there is an application for registration at the South North VRF IP, the Transporter will monitor the forward flow nominations on a rolling 60 day basis and, if there is sufficient forward flow and a reasonable forecast to indicate future VRF demand, the Transporter will then initiate the IT system development needed (which would have a minimum of 12 months lead time). Whilst it is prudent to develop IT systems based on anticipated demand, the proposed mechanism to forecast this demand seems cumbersome and lengthy. Furthermore, based on the current regime, it is unlikely that the same Shippers will apply for South North IP registration in both directions and therefore it will be difficult for an individual Shipper to understand the likelihood of other Shippers registering for forward flow.

firmus energy Networks has concerns about the timing of IT systems development, as early expressions of interest in VRF at South North IP may not provide enough actionable data to trigger development. This could result in a significant delay between Shippers expressing interest and the operational readiness of the IT systems, potentially stalling opportunities for trade in ROI and hindering biomethane production in NI. While the Transporter's approach of verifying demand before committing to IT development is understandable, alternative approaches or interim solutions may be needed to ensure timely IT development and accommodate evolving VRF requirements.

Given the limited capacity at the Moffat IP and the likelihood of increased Entry flows at the South North IP, firmus energy Networks would suggest that a more effective mechanism to forecast future demand for the South North VRF IP Exit Point would be more direct engagement and consultation with Shippers and key stakeholders (including Biomethane Producers) to ensure that the industry processes are developed to meet the needs of a changing gas regime in Northern Ireland.

Product definition and available quantity of VRF IP Capacity

The consultation paper sets out that the VRF IP Exit Capacity will be offered as a Daily Product with a maximum duration of one Gas Flow Day. firmus energy Networks consider that the most likely future use of VRF IP Exit Capacity will be the transportation of biomethane out of

Northern Ireland, for the purpose of claims for RTFCs or for virtual transportation to other jurisdictions. Biomethane plants most typically will produce a consistent hourly and daily output and therefore the demand for this product will most likely be a flat daily demand all year round. Only offering a daily product for such a strategic daily demand does not seem appropriate. The paper indicates that the amount of capacity offered before the Gas Day will be based on the minimum summer demand. The paper does not indicate what this might be, however, for the purposes of analysing the potential amount of capacity available, we have assumed that the minimum summer demand would be in line with the Northern Ireland Gas Capacity Statement 2024-25[1] (as per extract below).

Summer minimum day

Gas year	Power	Distribution (NI)	Total NI demand	Non-NI demand	Total NI Network demand	Biomethane supply	Net demand*
2024/25	7.58	7.36	14.95	1.02	15.96	0.9	15.09
2025/26	7.58	7.53	15.11	1.43	16.54	3.4	13.16
2026/27	4.88	7.75	12.62	1.43	14.05	5.9	8.17
2027/28	4.88	7.83	12.71	1.45	14.16	7.2	6.97
2028/29	2.71	8.00	10.71	2.17	12.88	7.7	5.23
2029/30	2.71	7.97	10.68	2.21	12.89	8.0	4.86
2030/31	2.71	8.19	10.90	2.21	13.11	8.5	4.62
2031/32	2.71	8.17	10.88	2.25	13.12	8.7	4.46
2032/33	2.71	8.28	10.99	2.25	13.23	8.7	4.57
2033/34	2.71	8.25	10.96	2.27	13.23	8.7	4.57

Table A1-2: Summer minimum day

Based on this assumption, the minimum summer demand for the total NI network would offer enough VRF IP Exit Capacity to meet the demand of future potential biomethane injection in Northern Ireland. We would ask for clarification that this assumption is sound.

The dynamic method for determining available VRF IP Exit Capacity outlined in the consultation offers advantages, particularly in terms of flexibility, real-time adaptation, and improved system efficiency. It ensures that capacity is allocated based on actual demand and operational conditions, leading to more efficient and responsive operations. However, these

[1] NIGCS-2024-25.pdf (gmo-ni.com)

advantages do not appear relevant to how VRF will be utilised in a Northern Ireland context. The complexity of implementation, uncertainty in capacity availability, and potential risks related to Over-Nominations may pose challenges for certain Shippers, particularly those with stable, flat demand profiles, such as biomethane producers. Careful consideration must be given to these risks to ensure the final VRF methodology works effectively in practice and meets the needs of Northern Ireland users, particularly those requiring more predictable capacity for stable operations.

The requirement to book such capacity daily (with the earliest window for booking opening at 16:30 on D-1) introduces an element of unpredictability and seems unnecessary for a product that will have sufficient availability. We would therefore ask if there are other options available to provide the VRF product as a more predictable and manageable annual, quarterly or monthly product.

Firmus energy Networks acknowledges that interruptions to VRF IP Exit Capacity are likely to occur only in very specific and limited circumstances, typically beyond the Transporter's control. However, the proposed 45-minute lead time for notification of such interruptions may be too short, especially from a biomethane producer's perspective. Producers with tight production schedules or those relying on stable, predictable capacity could find this challenging. Given the very low likelihood of interruptions, we would request that consideration be given to offering a firm VRF product to ensure more reliable and predictable capacity for biomethane producers.

Tariff Methodology

The consultation paper sets out the existing, very low, VRF tariff (0.0001p/kWh) and the rationale for reviewing this tariff in the context of the wider proposals. The paper indicates that the requirements of the EU Tariff Network Code (TAR-NC) should be applied. The VRF forecast revenue does not currently form part of the tariff setting process, however, the proposals for the new arrangements would introduce the inclusion of forecast VRF revenue into both the tariff setting process and the year-end reconciliation process. We consider that this is appropriate. Whilst not explicitly set out in the paper, it is our understanding that the

VRF tariff will be applied using the Daily IP entry capacity price, discounted by 10%. As highlighted previously, the requirement to only offer this product daily may be problematic for several reasons, including the impact on tariff setting. We would again ask that consideration is given to the ability to offer the VRF product on a more stable basis. The daily entry capacity products are important, as they allow Shippers to top up their capacity as required, however, it is unlikely that the VRF product will be used in this manner; it is most likely to be used consistently throughout the year due to the stable, flat loads generated by biomethane production facilities.

The forecasting of daily entry capacity in the context of the transmission tariff setting has introduced significant volatility to the tariffs in recent years. Ensuring tariffs are set at levels that encourage efficient use of available VRF capacity is essential. Shippers must not be disincentivised from using VRF capacity. The tariff for VRF capacity should therefore support this broader goal of improving market connections while maintaining affordability for all users. If the VRF product must be made available on a daily basis, we would question if the seasonal multipliers must be applied. Based on the previous assumption that there will be sufficient VRF capacity (based on the minimum summer demand) to accommodate potential biomethane being virtually transported out of Northern Ireland, this product will not be restricted at certain times of the year and therefore it should be priced appropriately. We would therefore caution against any proposals that will further add to this volatility. This could be achieved by pricing the VRF product in line with the annual tariff.

The preference for an ex-ante approach (pre-setting the discount) rather than an ex-post (post-interruption compensation) discount makes sense, given the anticipated low likelihood of interruptions for VRF capacity. An ex-ante discount provides more clarity and stability for shippers, especially smaller participants, and avoids the unpredictability and potentially higher costs of ex-post compensation. This approach ensures predictability and transparency in the tariff-setting process, which is essential for all shippers.

Our analysis shows that, for a biomethane producer injecting 1,500m3 per hour (400k kWh per day) and virtually transporting all of their renewable gas to GB, the proposed tariff

structure would introduce an additional £459,784 annual cost (when compared against the current tariff). This would decrease to £182,588[2] if the tariff was based on the annual entry capacity tariff.

If all biomethane connections planned to end of 2026 (those identified in the RFI as most likely to connect) were to utilise the VRF product (951 GWh per annum / 2,605,479 kWh/day[3]), the annual cost would be £2,994,899 and the difference in revenue between pricing as a daily product and pricing as an annual product would be £1.8m. This seems disproportionate, particularly when there is no annual product being offered.

firmus energy Networks believes the timelines for implementation of the arrangements outlined in the consultation paper are challenging as more time is needed to thoroughly consider the approach to tariff setting methodology. Given the importance of these changes for the commercial viability of biomethane production and the broader renewable gas sector in Northern Ireland, rushing through these steps may inadvertently create barriers to market entry or hinder sector growth. Stakeholder consultation, particularly direct engagement with biomethane producers, must be prioritised to ensure that any adjustments to the VRF services and tariff structure align with the evolving needs of the market.

Conclusion

firmus energy Networks, as a Distribution Network Operator, is committed to working with GMO NI and other stakeholders to develop a supportive framework for renewable gas in Northern Ireland. Increasing the availability of VRF capacity is welcomed as necessary to enhance market liquidity, facilitating trade between hubs and benefiting all market participants, including renewable gas producers. However, it is vital that proposed changes to the VRF services and tariff structure do not inadvertently create barriers to market entry or hinder the growth of the biomethane sector. The commercial viability of biomethane production in Northern Ireland could be significantly influenced by the tariff structure for VRF

[2] Based on GY 24/25 tariffs NI-FORECAST-TARIFF-PUBLICATION-FOR-GAS-YEAR-202425.pdf (gmo-ni.com)
[3] Based on assumption that all likely biomethane connections planned to end of 2026 will utilise the VRF product (951GWh per annum)

IP Exit Capacity. As renewable gases like biomethane become more central to the energy mix, the tariff for VRF capacity must balance the need for financial sustainability of the transmission network with the commercial needs of biomethane producers. It would be useful to understand to what extent the wider energy policy environment has been (or can be) considered by GMO NI in the development of the proposals. Stakeholder consultation, including direct engagement with biomethane producers, is key to ensuring that any adjustments align with the evolving needs of the market.

Yours sincerely

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