EU Balancing Regulation EU 312/2014

Interim Measures Report

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Executive Summary

The EU Balancing Regulation intends that TSOs should aim to develop traded markets within their balancing zone by introducing market based balancing rules, with the ideal compliant model being that the TSO can then use that market to buy/sell residual balancing gas at the best possible prices. In Northern Ireland it is not possible for Shippers to trade with each other within the network yet, and there are many other significant changes forthcoming as a result of EU compliance requirements. The development of a liquid wholesale market in NI is a long way off, and may simply be an unrealistic expectation in such a small market, but that is not to say that there will never be any trading. Even so, a trading platform is unlikely to ever be viable in NI, and is certainly not deliverable in the short time frame required for compliance by October 2015 or, using the option to delay, to 2016.

The Balancing Regulation suggests that 'balancing services' may be used as an alternative where short term wholesale markets will not be able to provide the necessary balancing response, and NI currently uses balancing contracts which meet the criteria for being balancing services. However balancing services are not explicitly sufficient on their own for reaching compliance and their definition, and their use as a last resort 'interim measure', makes it clear that TSOs should be aiming to reduce reliance on balancing services where it is possible to do so.

The Balancing Regulation offers as a possibility that the TSO may trade at an adjacent balancing zone in order to procure balancing gas. This is relevant in the NI context because of the adjacency of the NBP market, and because it might provide a faster route to compliance. However, it is arguable that the current means of requiring Shippers to compete with each other in a tender process to provide NBP-sourced balancing gas may be more competitive than relying solely on the TSO to undertake essentially the same trading activity as those Shippers, but which is not otherwise part of its core skills. It may also be a challenge to manage a transition from the current approach to a TSO-trades-at-the-NBP approach.

Adopting 'Interim Measures' would permit up to five years, and potentially five more if a balancing platform is being used, to achieve compliance and effectively provides for the phased introduction of market based balancing rules by allowing Shippers to have imbalance tolerances, at least initially. Balancing contracts may be used and where there is sufficient interconnection capacity to enable a balancing platform to increase the liquidity of the market, a balancing platform may be implemented and used to procure balancing gas.

At present the lack of VRF capacity and the non-existence of trade means that a balancing platform is not feasible, however this may change in future. Since NI already has an effective means for procuring balancing gas which satisfies the criteria for being an interim measure, relying on balancing services would be the starting point. Shipper to shipper trading functionality will be provided from October 2015, and how to deliver the required information in relation to offtakes and inputs is planned to be determined by 2016. Potential future market developments may provide some trade in the NI market place, and also the potential for increased interconnection capacity. Should either of these develop, it might indicate that a balancing platform could be a useful means of both encouraging further market development and/or sourcing balancing gas even more competitively. The TSOs would keep this under review and if appropriate implement a balancing gas contracts and see if there was merit in introducing a direct TSO-trades-at-the-NBP approach as well. The Interim Measures approach is therefore recommended as the best means of meeting the objectives of the Balancing Regulation to help develop the traded market and minimise the costs of residual balancing in Northern Ireland.

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1. Introduction: Purpose of the Balancing Regulation and Routes to Compliance

The EU Balancing Regulation of 24th March 2014 ('the Balancing Regulation') implements legislative requirements concerning gas balancing on gas transmission networks. The Balancing Regulation is intended to introduce market based balancing rules, and further develops and harmonises the balancing rules which were set down in Article 21 of Regulation 715/2009 (the 'Third Package' Regulation).

The Balancing Regulation offers three possible routes to compliance. In the first instance, Transmission System Operators (TSOs) are required to comply with the requirements of the Balancing Regulation by 1st October 2015. Alternatively, TSOs may seek approval from their National Regulatory Authorities (NRAs) for up to 24 months delay from 1st October 2014 (i.e. until 1st October 2016) provided that they do not implement any 'Interim Measures'. The third approach is to adopt Interim Measures.

An Interim Measures approach is recommended as the most appropriate for Northern Ireland. This report provides an interpretation of the text of the Balancing Regulation and how and why adopting Interim Measures is recommended by the TSOs, including an assessment of the state of development of the wholesale market in Northern Ireland. Firstly though, for context, the report provides an overview of the intentions of the Balancing Regulation.

2. Principles and Intentions of the Balancing Regulation

The Balancing Regulation aims at introducing market based balancing rules, in which network users are responsible for balancing their inputs and offtakes. Conceptually, the introduction of market based balancing rules is seen as an essential pre-requisite to a liquid short term wholesale market in gas for the EU¹.

2.1. Balancing Zones

Balancing zones are regions of gas networks across which Shippers are required to balance their inputs and offtakes. Balancing zones do not necessarily have to be aligned to the physical boundaries of a particular national network, or of a particular network operator's assets. The balancing zone in GB (the NBP) is 'bounded' by the entry and exit points of National Grid's network, whereas in Germany multiple TSOs have come together with commercial arrangements between themselves to provide two balancing zones (Gaspool and NCG). Balancing zones are also sometimes loosely referred to as 'entry-exit systems' and 'hubs'.

To transport gas from one balancing zone to the next, it is necessary to buy exit capacity from the first and entry capacity into the second.

Under the CAM Regulation 984/2013 TSOs are required to bundle capacity on either side of the Interconnection Points (IPs) between adjacent balancing zones, and bundled capacity may be used via a single nomination. The approach is intended to make transactions for Shippers between hubs easier, and as ease of access between hubs develops, economic theory suggests the price of gas traded at the hubs will tend to converge. The EU rules are also designed to promote trading at hubs rather than at the interfaces between them, in order to focus the trading into one point for each balancing zone, rather than having disparate trading at various points around a hub. But how does gas trading at a hub develop in the first place?

¹ The Recitals at the start of the Balancing Code set out the intention to develop 'the internal energy market to contribute to ensuring the supply of affordable and sustainable energy to the Union's economy' as it 'is crucial to the objective of increasing competitiveness and ensuring that all consumers can purchase energy at the keenest prices.'

2.2. The development of traded markets: 'hubs'

Under 'market based balancing', network users face financial incentives in the form of imbalance charges to balance their position on a day. A network user needing to balance their portfolio of inputs and offtakes on a particular day may trade gas (where network rules permit) with another who is out of balance in the opposite direction on the network/within the same balancing zone. Since network users are likely to get a better price by trading with each other than the charge for being out of balance, this approach should minimise the need for a TSO to intervene and take balancing action to correct a network user's position. (It should also minimise changes to the total flows in and out of the zone/network which promotes efficiency of physical operation). The need for individual network user balancing therefore promotes gas trading at a hub, where the 'hub' is a notional point at the 'centre' of each balancing zone.

As more gas is traded between parties and more parties become involved in trading (i.e. as market 'liquidity' develops) the more competitive traded prices become, and the market is said to become more 'efficient', (economically speaking). In a theoretical perfectly liquid market, prices reflect supply and demand and are unaffected by the trading actions of a single party. In an illiquid market however, parties can make use of dominant positions, e.g. to charge more for their gas, as there may be little or no choice of alternative trading partners.

As more parties become involved in trading greater volumes of gas at a hub, (i.e. where there is increasing liquidity) it becomes more attractive for parties who are not otherwise shippers (i.e. traders) to become involved in trading, for the financial benefit, and this adds further liquidity to the market, as volumes get re-traded between parties before being sold on to a shipper which needs the gas to be physically delivered to meet its end user needs and/or its obligations to balance its physical inputs and outputs².

Where there is sufficient liquidity developing, it becomes useful for all parties to make use of a common trading platform which facilitates trade between them. It does this by providing for standard products to be traded (e.g. in terms of contract durations and volumes or units of volumes) and where the market is also 'cleared' by a third party, it can provide for anonymous trading between network users. A clearing party acts as the counterparty to all trades.

The overall aim of the Third Package is to promote an economically efficient internal EU market in energy/gas, and so market based balancing is a key component to delivering liquid wholesale trading markets at hubs.

2.3. The role of the TSO - 'Residual Balancing'

Whilst network users are to have prime responsibility for making sure they have balanced their gas inputs with their outputs on any day, the TSO remains responsible for the physical operation and safety of the network and so must take a 'residual' balancing role and buy/sell balancing gas to make up for any aggregate imbalance position. This means that the TSO only takes action to balance the system where it is physically necessary, because network users have not done so for themselves.

Where there is a liquid wholesale gas market trading at a hub, it should be possible for the TSO to use that market to buy or sell balancing gas, since by definition the market is liquid so the TSOs' actions should not impact traded volumes or prices in the marketplace. In this scenario,

² Shippers can obviously take part in trading and re-trading gas between themselves, but the introduction of traders whose interests are primarily in the financial benefits of trading typically tends to add liquidity to the market by increasing the number of parties and the volumes traded. The presence of sufficient liquidity and trading parties is also generally required to develop futures and forwards trading, which allow a forwards price curve to be established for a particular wholesale marketplace. As financial trade develops to reflect future supply/demand expectations this should, in theory, provide a platform for the most competitive prices in short term products as parties are able to hedge their forwards positions.

the TSO can simply buy/sell balancing gas as an anonymous trading party on a trading platform, and the price that the TSO pays/receives for its balancing gas should be the most competitive (economically efficient) available. This is another key aim of the Balancing Regulation.

However, achieving this aim is dependent on there being a sufficiently liquid market at the hub.

There are perceived benefits from requiring a TSO to participate in a market to buy/sell balancing gas because it provides a reason for parties to trade there, and hence might be seen as a potential driver of liquidity. However, using a very illiquid market to buy/sell residual balancing gas is risky, where it is even possible, since the TSO would generally be a 'distressed buyer' (or seller) (because it would be needing to buy/sell to physically balance the system, so it cannot choose for example, to make the trade at a later date). In these circumstances the TSO could have no option but to pay/get paid at prices which are not the most competitive that they could be, and in extremis, could be open to abuse by dominant players.

The Balancing Regulation describes other means for TSOs to perform their residual balancing roles, including the use of a 'Balancing Platform' and 'Balancing Services'. These are seen as inferior market measures because it is assumed that there is less competition amongst Shippers/Traders in the provision of gas under these arrangements, implying that the prices to be obtained for residual balancing gas using these approaches would not be as favourable as they would be if a liquid trading market were available.

Obviously, where there is no liquid trading market, TSOs should take the next best option.

However, the key objectives of:

- encouraging development of wholesale trading market liquidity; and
- minimising the costs of residual balancing;

remain at the centre of the intentions of the Balancing Regulation.

3. Scope of the Balancing Regulation

The Balancing Regulation contains the following sections:

Chapter I: General Provisions Chapter II: Balancing System Chapter III: Operational Balancing Chapter IV: Nominations Chapter V: Daily Imbalance Charges Chapter VI: Within Day Obligations Chapter VII: Neutrality Arrangements Chapter VIII: Information Provision Chapter IX: Linepack Flexibility Service Chapter X: Interim Measures Chapter XI: Final and Transitional Provisions

Chapters II, III and X are discussed in the subsequent sections of this paper, but the remainder are summarised below.

Chapter I sets out the scope of the Balancing Regulation and gives defined terms. The Balancing Regulation applies to all balancing zones in the Union, except those with derogation. It does not apply:

- to meter reconciliation quantities related to non-daily metered offtakes;
- in emergency situations.

Chapter IV sets out rules for Nominations and Re-nominations at an IP, which the TSOs are intending to implement for October 2015 so that they coincide with the introduction of the new CAM products and rules in Northern Ireland (NI), and the start of the Gas Year. These will be introduced via a Code Modification Proposal during Q1/2 2015, to be effective from October 2015.

Chapter V gives the rules for Daily Imbalance charges which would apply if a trading platform approach is being delivered. Since this is not recommended, it is not considered any further here, though it is worth noting that NI Shippers are already subject to Imbalance Charges which are based on NBP prices. These will be retained, subject to some refinement of the imbalance tolerance arrangements to reflect the requirements of the Balancing Regulation as well as the introduction of Entry Capacity into NI. The TSOs propose to amend the tolerances accordingly, by way of a Code Modification Proposal during Q2/3 2015.

Chapter VI refers to an hourly balancing –type regime which is not and will not be applicable in NI.

Chapter VII refers to neutrality arrangements, which ensure that the TSOs have no commercial interest (i.e. do not gain or lose financially) as a result of acting in their residual balancing rule. It also provides for Shippers as a community to share in the overall costs/gains associated with system balancing. NI already has neutrality arrangements and the TSOs intend to maintain them.

Chapter VIII describes detailed obligations for the provision of information to support a balancing regime, in particular the provision of non-daily metered forecast information. NI Shippers do currently receive this information, but the Balancing Regulation requirements are more extensive. They involve the Distribution Network Operators and are a fairly wide ranging set of obligations which are going to need to be reviewed and addressed in detail, and have the potential to entail some IT development to facilitate the information provision in a compliant manner. Given the scale and extent of the change which NI is needing to deliver for 2015, and the currently undeveloped state of the wholesale gas trading market in NI, the TSOs propose to hold a review of these Information Provisions during 2016, along with a Review of (transmission) Exit Arrangements in order to implement these requirements in the most efficient way and at the earliest feasible time.

Chapter IX describes an option whereby TSOs may offer any spare linepack flexibility they have to Shippers, which is unlikely to be appropriate in the NI context.

Chapter XI confirms that there are 3 routes to compliance as described in the Introduction:

- 1. Full compliance by 2015
- 2. Delay full compliance until 2016 provided no Interim Measures are used
- 3. Adopt Interim Measures

The remainder of this paper focuses on the elements of the Balancing Regulation which relate to the decision as to which route is recommended for TSO residual balancing, and then to an analysis of the realistic options for NI and conclusions. Direct quotes from the Balancing Regulation are given in italics.

4. Chapter II: Balancing System

4.1. General Principles

Article 4 of the Balancing Regulation sets out four general principles:

• Network users are responsible for balancing their inputs and offtakes, such that the TSO takes the role of residual balancing;

- Balancing rules shall reflect genuine system needs taking into account resources available to TSOs and shall provide incentives for network users to balance their inputs and offtakes efficiently;
- Network users should be able to make trade notifications to the TSO irrespective of whether they have contracted transport capacity or not; and
- In a balancing zone where more than one TSO is active, the Regulation applies to all the TSOs in that zone.

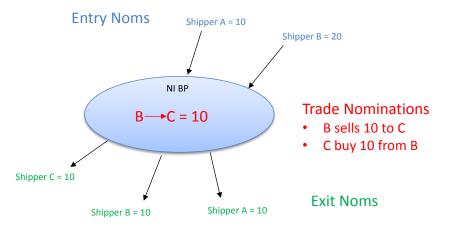
NI has 3 TSOs but they already co-operate to provide a common, postalised charging regime and a single balancing zone covering the whole of the NI Network, and this will be maintained.

4.2. Provision of Trade Notifications

Article 5 sets out rules for the provision of Trade Notifications and allocations from network users/shippers to TSOs. This is something which the NI TSOs will have to comply with, regardless of the approach to purchasing/selling balancing gas. As described above, the ability of network users to trade gas between themselves at the hub (the NI Balancing Point) is seen an essential pre-requisite to the development of wholesale liquid traded markets at a hub.

The following diagram provides a simple illustration of trading notifications at the NI hub 'NI Balancing Point' or 'NI BP':

Illustration of Trade Notifications at NI Balancing Point



The TSOs intend to provide this functionality for October 2015 by introducing trade nominations into the Code via a Code Modification for Nominations and Allocations in Q1/2 2015.

5. Chapter III: Operational Balancing

This chapter sets out the rules about how TSOs should approach their role as residual balancer in order to maintain the network within its operational limits and in particular, aim to achieve an End of Day (EOD) linepack position which 'is consistent with economic and efficient operation of the transmission network' (Article 6 (1)(b)). (i.e. over and above the aggregate of Shippernominated inputs and offtakes).

5.1. TSO considerations

Article 6 (2) describes what TSOs have to consider while undertaking balancing actions in respect of the balancing zone, namely:

a) The TSOs own estimates of demand over and within the gas day for which balancing action(s) is (are) considered;

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- b) Nomination and allocation information and measured gas flows;
- c) Gas pressures throughout the transmission network(s).

Article 6 (3) says:

The TSO shall undertake balancing actions through:

- a) purchase and sale of short term standardised products on a trading platform; and/or
- b) the use of balancing services;

Article 6 also requires TSOs to take balancing actions in a non-discriminatory manner as well as bearing in mind any obligations to operate an efficient and economic network.

The remaining Articles in this chapter (7 to 11) go on to describe certain 'tools' which are to be available to TSOs, and in doing so, refers to the circumstances when the use of each is appropriate.

5.2. Short Term Standardised Products

Article 7 sets out minimum requirements of short term standardised products STSP) which are traded for delivery on a within day or a day-ahead basis, 7 days a week, on a trading platform:

- Title: trades are for 'title' to (i.e. ownership of) the gas only,
- Locational: trades are for title but at a specific location on the network
- Temporal: trades are for specific hourly quantities

5.3. Balancing Services

Article 8 says that: The TSO is entitled to procure balancing services for those situations in which short term standardised products will not or are not likely to provide the response necessary to keep the transmission network within its operational limits or in the absence of liquidity of trade in short term standardised products.

It goes on in paragraph 8 (2) to set out what the TSO must consider when undertaking balancing actions using balancing services namely:

- a) How balancing services will keep the transmission network within its operational limits;
- b) The response time of balancing services compared to the response time of any STSP;
- c) The estimated costs compared to costs of STSP
- d) The area where gas needs to be delivered
- e) Gas quality requirements
- f) To what extent the procurement and use of balancing services may affect the liquidity of the short term wholesale gas market

Paragraph 8 (3) says:

Balancing services shall be procured in a market-based manner, through a transparent and nondiscriminatory public tender procedure in accordance with the applicable national rules, in particular:

- (a) prior to any commitment to contract for a balancing service, the transmission system operator shall publish a non-restrictive call for tender indicating the purpose, scope and related instructions to tenderers, to enable them to participate in the tender process;
- (b) the results shall be published without prejudice to the protection of commercially sensitive information and individual results shall be disclosed to each tenderer.

Article 8 goes on:

 to allow the NRA to approve an alternative non-discriminatory process other than a public tender;

- to require that balancing service contracts should only be for 1 year duration, unless otherwise approved by the NRA;
- to require the TSO to report on the costs and quantities of balancing services used; and
- to assess if their use could be reduced the following year

NI currently undertakes network balancing by using balancing contracts, which meet the criteria above. These are key to compliance for NI and are discussed in more detail in section 6 below.

5.4. Merit Order

Article 9 requires the TSOs to prioritise the use of STSP over other available options, and within that, to prioritise the use of title products over locational or temporal, and within day over day ahead products. In a re-statement of the content of article 8, it specifies again that balancing services are only to be used where STSP will not or are not likely to provide the response necessary to keep the transmission network within its operational limits. Article 9 includes an option in paragraph 9 (3) whereby the TSOs can use a trading platform in an adjacent balancing zone for the purposes of residual balancing. This is an important possibility, and is explored further in section 6 below.

5.5. Trading Platform

Article 10 prescribes how a trading platform should be used by a TSO for residual balancing, setting down criteria for an acceptable form of a trading platform, including for example that it provides for anonymous trading. It also requires the trading platform operator to publish price information, and how trade notifications resulting from trades agreed on the platform are fed back to the TSOs system. Typically this is done electronically. The following diagram gives a simple illustration of a trading platform³:

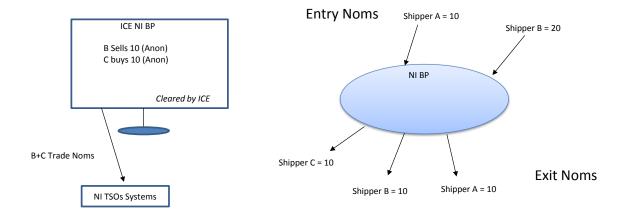


Illustration of a Trading Platform Arrangement

5.6. Incentives (on TSOs)

Article 11 provides an option for NRAs to place incentives on TSOs to undertake residual balancing actions as efficiently as possible, and/or to maximise the use of STSP. Where TSOs are actively trading in a wholesale gas market, it is important that their obligations to perform residual balancing to maintain system safety are not confused or diluted by the prospects of

³ ICE Endex is the trading platform provider for the GB OCM (short term wholesale gas market), hence the illustration shows a hypothetical platform called ICE NI BP.

financial gains to be made, but at the same time, TSOs familiar with an active spot market will also have the experience to use effective trading strategies in any given day to obtain the best possible price. In this case, incentives may be appropriate to ensure, for example, that any potential financial gains or losses accruing to the TSO are capped, whilst encouraging the TSO to utilise an appropriate level of skill and judgement in buying/selling balancing gas.

6. Application of the Balancing Regulation in Northern Ireland – Which route to compliance?

6.1. Assessment of the State of Development of the Market

Northern Ireland is a small region, in the context of the European Union. At present there are 8 shippers in Northern Ireland. Peak daily demand in 2013/2014 was c. 6.5 mcmd. For comparison, in GB there are over 200 companies registered as shippers, of whom at least 40 are sizeable and active parties. Peak day gas demand in GB is typically around 400mcmd.

At present it is not possible for Shippers to make trade notifications/nominations between themselves within the NI network, though as a result of the arrangements for making nominations and allocations at Moffat, Shippers have historically been able to trade effectively 'at the flange'. There is therefore no gas trading within NI itself, and Shippers currently rely on their ability, and/or the ability of their upstream counterparties in GB, to trade at the adjacent NBP, or at the flange.

This means that there is no liquid wholesale trading market in NI which the NI TSOs could use to procure residual balancing gas.

6.2. Delivery of a Trading Platform

Since there is currently no trading market in NI at all, delivery of a trading platform will certainly not be immediately achievable for October 2015, or indeed under the second route (i.e. delayed implementation) for 2016, and it may never be viable in such a small market.

6.3. Existing NI Balancing Arrangements = 'Balancing Services'

The NI TSOs already have arrangements in place for buying and selling balancing gas, which are procured through a competitive tender process. These contracts are annual in duration. For example, in the case of a balancing buy, the contracts are awarded to Shippers who buy the gas at the NBP and transport it to the Moffat Entry Point where it is sold to PTL (NI TSO). There is no capacity reservation associated or required for this in NI, since the gas is flowed on an interruptible basis within the NI regime. The price of the arrangement comprises:

- The OCM Price for quantity of gas purchased (i.e. the NBP price)
- The OCM transaction fee
- The NTS Commodity Charge
- The Moffat Agent Fee
- A standing contract fee and
- A fee for making a purchase

Whilst being similar conceptually to the approach offered in Article 9 (3) as they are explicitly providing access to balancing gas sourced in an adjacent balancing zone, the existing balancing contracts do not offer immediate compliance with the Balancing Regulation under Article 9 (3), since they do not provide for the **TSO** to do the trading at the NBP.

Furthermore the existing arrangements do not provide for balancing sells to be provided via access to the NBP. The current balancing sell arrangement is a 'turn-down' contract and broadly reflects the above form for a reduction specifically in the end use of gas within NI.

The existing arrangements do however, fall clearly within the definition of 'Balancing Services' in Article 8 (see description above), as they are competitively procured in a non-discriminatory manner, and they have a proven track record as an effective means of procuring balancing gas. Whether or not balancing services, on their own, would be sufficient for compliance is discussed in the Appendix, and their role in an Interim Measures approach is described in section 8.

6.4. Realistic options for compliance

As noted in 5.4 above, one of the approaches proposed in the chapter on Operational Balancing (Article 9 (3)) is to develop a 'TSO-trades-at-the-NBP' approach. In the context of NI's adjacency to the NBP, the largest gas trading market in Europe, it is clearly something which the TSOs should consider carefully.⁴

However, it does presents some issues and whilst it might offer a route to compliance at least by 2016, it is also worth considering the alternative, which is Interim Measures.

Interim Measures offers the possibility of five years to achieve compliance as well as other benefits (imbalance tolerances for Shippers) which may be more appropriate for a balancing zone in its infancy.

The next section discusses the TSO-trades-at-the-NBP approach, and section 8 describes the Interim Measures approach.

7. Option 1: Develop a 'TSO-trades-at-the-NBP' approach in line with Article 9 (3)

7.1. What is the TSO-trades-at-the-NBP approach?

Article 9 (3) says:

3. The transmission system operator may seek approval from the national regulatory authority to trade within an adjacent balancing zone, and have the gas transported to and from this balancing zone, as an alternative to trading title products and/or locational products in its own balancing zone(s). When deciding on granting the approval, the national regulatory authority may consider alternative solutions to improve the functioning of the domestic market. The applicable terms and conditions shall be reconsidered on an annual basis by the transmission system operator and the national regulatory authority. The use of this balancing action shall not limit the access to and use by the network users of capacity at the interconnection point concerned.

Article 9 (3) therefore offers TSOs an alternative to developing and using a fully-fledged trading platform.

If the TSOs were to take this approach, they would have to:

- become registered as a Shipper in the UK regime (or seek appropriate exemption, if it were available);
- pay for access to buy and sell gas on the ICE Endex NBP Spot Market (OCM);

⁴ NI is also adjacent to the ROI balancing zone. At present there is very little trade in ROI, and it is possible that the ROI will use the approach provided for in article 9 (3) and develop arrangements to buy ROI balancing gas at the NBP and have it transported to ROI. This means that there is unlikely to be a liquid wholesale market within ROI for the NI TSOs to turn to, at least in the short to medium term.

- develop the relevant skills and capability to trade gas in an active Spot market;
- pay National Grid for transportation between the NBP and Moffat Exit Point; and,
- consider how to ensure that exit capacity from GB and entry capacity into NI, and VRF capacity in the opposite direction, was available when it would be needed (under the new EU IP CAM rules) without limiting access to it by other users (i.e. probably relying on Interruptible Capacity).

7.2. 'TSO-trades-at-the-NBP' Transition Issues

In order to implement arrangements which meet the requirements of Article 9 (3), the TSOs would have to consider how to manage the transition, i.e. whether to:

- replace the existing balancing contracts completely with their own 'TSO-trades-at-the-NBP' option, or
- maintain the existing balancing contracts (as balancing services) and add their own option as well.

There would be an element of operational risk in replacing what are currently effective tools for physical balancing with untested new capability in one step. One interpretation of the Balancing Regulation would imply this is essential, and this is discussed in the Appendix.

This is a particular concern as the impact of offering Shipper-Shipper trading functionality for the first time in NI is not known, and there are other significant changes in the NI regime (in capacity, nominations & allocations) due to be implemented in October 2015.

Clearly a more phased approach would be preferable operationally, to ensure that at least some confidence could be gained that the new 'TSO-trades-at-the-NBP' approach would deliver the necessary physical response. This may not take a long period, given its fundamental similarity to the existing balancing contracts, but it would be an important step nonetheless.

7.3. Relative Economic benefits: Would Residual Balancing costs be reduced?

If the TSOs were to develop their own 'TSO-trades-at-the-NBP' approach to access the NBP directly, it is not clear that they could accomplish a significantly keener cost structure than provided for in the existing balancing contracts. This is primarily because the underlying gas price in the balancing buy contract is the NBP price on the day. In fact the TSOs would need to incur additional costs relative to that structure, to provide staff with trading capability and the other 'standing' costs of being a GB Shipper (e.g. access to Gemini, Shipper Licence, etc). The key question would be how these would compare with the standing charge and transaction charge elements of the existing balancing contract form.

Also, with the introduction of a TSO-trades-at-the-NBP model, careful consideration would need to be given to the impact on the competitiveness of the tender for balancing contracts.

At present, balancing gas for NI is sourced from the NBP, but Shippers compete for its provision to the TSO. Arguably this may be more economically efficient than relying solely on the TSO to undertake a trading activity which is not otherwise part of its core skills.

7.4. Would liquidity at the NI BP be enhanced?

It is not explicit in the text that using a TSO-trades-at-the-NBP approach would entirely remove the obligation on TSOs to develop or use any STSP in the longer term, and the overall intention of the Balancing Regulation to develop market liquidity clearly must, we assume, remain a key objective.

Perhaps perversely, it is not clear that the 'TSO-trades-at-the-NBP' solution for residual balancing gas would enhance trading within NI. It would probably in fact remove any scope for direct Shipper-Shipper competition in the provision of balancing gas completely.

With such as small market adjacent to such a big one, attempting to enhance trading in NI might be considered a futile exercise anyway.

However, it is possible that some shipper-shipper trading may develop in NI and this is discussed further in 6.5.8 below. Without any experience of how Shippers may or may not use trading functionality at the NI BP, it may be premature to disregard this as an objective, as there are wider potential benefits to NI from having some form of trading market (e.g. access for new market entrants) even if it is not the optimal source of balancing gas.

7.5. Compliance Timescales

The timescales for delivering a 'TSO-trades-at-the-NBP' solution would mean that the TSOs would need to have implemented these arrangements by October 2016. This may be achievable in its own right, but it needs to be considered alongside the planned workload of the TSOs delivering a CJV arrangement for the NI TSOs, IT Systems, a major review of Exit Capacity, DSO information provision and compliance with the Tariffs Network Code.

7.6. Conclusion on the Article 9 (3) route

Despite the possible issues outlined above, the 'TSO-trades-at-the-NBP' approach does offer a reasonably logical approach for compliance, and it would be possible to argue for delayed implementation until 2016 for complete compliance (see also the Appendix for further discussion on this point).

This would still only give Shippers one year to gain experience of completely new trading arrangements and a longer, more evolutionary approach to development may be preferable on a number of fronts, so it is worth now considering what is required for compliance using the Interim Measures approach.

8. Option 2: Interim Measures

8.1. General Provisions of Chapter X

Chapter X on Interim Measures starts with some general provisions in Article 45:

- 1. In the absence of sufficient liquidity of the short term wholesale gas market, suitable interim measures referred to in Articles 47 to 50 shall be implemented by the transmission system operators. Balancing actions undertaken by the transmission system operator in case of interim measures shall foster the liquidity of the short term wholesale gas market to the extent possible.
- 2. The resort to an interim measure is without prejudice to the implementation of any other interim measure(s) as an alternative or additionally, provided that such measures aim at promoting competition and liquidity of the short term wholesale gas market and are consistent with the general principles set out in this Regulation.
- 3. The interim measures referred to in paragraph 1 and 2 shall be developed and implemented by each transmission system operator, in accordance with the report, referred to in Article 46 (1), approved by the national regulatory authority in accordance with the procedure set out in Article 46.

4. The report shall foresee the termination of the interim measures no later than five years as from the entry into force of this Regulation.

Article 45 (1) thus makes it explicit that where there is an absence of sufficient liquidity, Interim Measures are permitted. This is clearly the case in NI.

8.2. Annual Reporting on Interim Measures

Article 46 describes in detail how TSOs should produce an annual report on the status of liquidity in the short term wholesale gas market, including the number of transactions and bid/offer spreads at the hub, number of participants who have access and the number who are active.

The TSO must also justify the use of interim measures, why they are needed given the state of the wholesale market, and an assessment of how they will increase the liquidity of the wholesale market. TSOs are to consult on their report, revise as appropriate, and submit it to the NRA.

8.3. Balancing Platform

Article 47 describes the use of a Balancing Platform as a possible interim approach. Specifically, paragraph 47 (1) says: Where the short term wholesale gas market has or is anticipated to have insufficient liquidity or where temporal products and locational products required by the transmission system operator cannot reasonably be procured on this market, a balancing platform shall be established for the purpose of transmission system operator balancing.

A balancing platform is a development of the Shipper-Shipper trading functionality (which is an essential requirement, described in 4.2 above), where the TSO acts as counter-party to every trade. The following diagram provides a simple illustration:

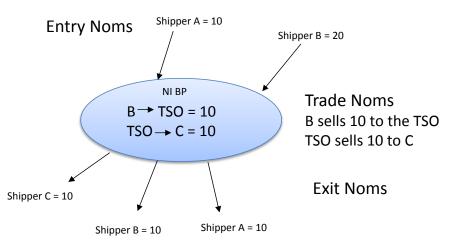


Illustration of a Balancing Platform Arrangement

8.4. Extended time for use of a Balancing Platform

Article 47 (3) says: In case the situation described under paragraph 1 has not fundamentally changed after five years the national regulatory authority may, without prejudice to Article 45 (4) and after submitting the appropriate amendment of the report, decide to continue the operation of the balancing platform for another period of no more than five years.

Whilst acknowledging that TSOs should still be striving to develop the wholesale market, this does provide for a further five years of 'extension' of Interim Measures if a balancing platform is used.

8.5. Alternative to a Balancing Platform = Balancing Services

Article 48 reads: Where the transmission system operator can demonstrate that as a result of insufficient interconnection capacity between balancing zones a balancing platform cannot increase the liquidity of the short term wholesale gas market and cannot enable the transmission system operator to undertake efficient balancing actions, it may use an alternative, such as balancing services, subject to the approval by the national regulatory authority. Where such an alternative is used, the terms and conditions of the subsequent contractual arrangements as well as the applicable prices and duration shall be specified.

Article 48 therefore permits a TSO to resort to balancing services, provided that a Balancing Platform cannot increase the liquidity of the market. As noted above, NI already takes an approach to balancing contracts procurement which meets the criteria of Balancing Services set out in Article 8. Therefore, in practice, it would not need to do anything further in its procurement of residual balancing gas to deliver compliance with Article 48.

Specifically, though, Article 48 refers to a lack of interconnection capacity as criteria for using balancing services instead of a balancing platform, even though balancing services are also permitted as an option within the main route to compliance, albeit as a secondary tool.

The amount of available interconnection capacity is a relevant consideration because it is this which restricts how much gas can be transported between two hubs, almost regardless of physical supply/demand patterns. Where there is infinite capacity, theoretically the markets could converge completely (the ultimate goal of the Third Package). Where there is a restriction, trading parties need to be careful about the quantities of gas which can be physically moved from one hub to another since, as described in 2.1, trading markets are fundamentally based on the trade of physical quantities at a hub.

At present, there is almost certainly insufficient interconnection capacity to enable a balancing platform to rapidly and significantly increase the liquidity of trading in NI from zero to the point at which it could be safely used for sourcing residual balancing gas. The total technical capacity for transport from NBP to NI is 8.08mcm (of which just over half has been sold long term) against a total NI peak day demand of c.6.5mcm. From NI to the NBP, the available VRF Capacity is 4,100,000 kWh (c. 0.37mcm) which is a severe restriction on the ability to efficiently deliver a balancing sell or any other trade transaction to the NBP.

However, it is impossible to be completely certain, in the absence of any trading market at all, whether it is a lack of interconnection capacity or simply a lack of trading due to the small demand in the NI market that would be the inhibiting factor, or indeed whether the NI market will be inhibited in its development (although its small domestic consumption is always likely to be a limiting factor). In any event, with such low VRF capacity, the TSOs could not rely on a balancing platform approach to deliver a balancing sell capability and be confident in the required physical response, and this leads to the conclusion that Balancing Services are acceptable as NI's first Interim Measure, against the criteria of sufficiency of interconnection capacity.

8.6. Implementation Issues for a Balancing Platform

Assuming the market developed to a point of liquidity which indicated that a balancing platform might be beneficial (discussed further below), implementation would be relatively simple, though it wouldn't necessarily be achieved in a very short time (months). It would also carry an implementation cost which would have to be weighed against the potential benefits.

In order to implement this approach the TSOs would have to:

- Develop/implement the requisite IT functionality
- Obtain appropriate regulatory approvals to operate as a trading party

- Obtain financial regulatory clearance to act as counterparty to all Shipper trades
- Develop the internal capabilities and processes to manage the arrangements

8.7. Transition Issues

In the same way as abandoning the existing balancing tools and implementing a 'TSO-trades -atthe-NBP' approach would create operational risks which are unlikely to be acceptable, the 'overnight' introduction of a balancing platform and removal of balancing contracts would present operational risks which are not sensible to contemplate, particularly when there is no trade at all in NI at present. It would therefore be preferable to retain the existing balancing contracts at least temporarily alongside the introduction of a balancing platform, if it were implemented.

8.8. Impact on the market: Would liquidity be enhanced? Would balancing costs be minimised?

As noted above there is a tension between introducing a 'TSO-trades-at-the-NBP' in competition with the existing balancing gas contracts, and there is a similar question as to the competitive impact of trying to use balancing contracts and a balancing platform at the same time.

However, it is possible that a balancing platform could be introduced as a source of balancing gas which may be less detrimental to competition in the procurement of balancing services contracts than a TSO-trades-at-the-NBP option. This incremental approach is described further below.

8.9. Incremental Implementation of a Balancing Platform for Balancing Gas Procurement

Assuming that some level of trade in NI develops, for example as Shippers make new arrangements to bring GB gas or ROI gas into NI as a result of CAM or other market developments, the TSOs could implement a balancing platform, but could choose to only rely on this for balancing gas buys at first.

Only once there was sell-side liquidity (either through reverse flow or development of end-user turn-down contracts) would a balancing platform be used to address residual balancing sell requirements. Whilst using this method, the TSOs could continue to procure balancing services contracts, but might prioritise the use of the balancing platform if better prices are available on the day. This would encourage price competition in balancing services as well as in the prices offered on the Balancing Platform.

A balancing platform therefore may offer an incremental approach to development which may be less undermining to the current competitiveness of gas balancing procurement than a TSO-trades-at-the-NBP approach, and which would allow current tried and tested tools to be retained for a transitional period.

It may also be the case that the possibility of the TSO using a balancing platform to buy balancing gas might, on its own, provide a reason for Shippers to start to trade at the NI BP and thereby encourage some liquidity in the market. However it is also possible that there will simply not be enough trade within a five year period to justify even a balancing platform.

Until more is known about likely Shipper trading behaviour, it is not possible to evaluate this accurately.

8.10. Potential for 'natural' wholesale trading market development

8.10.1. Shipper motivations

Although there is no trade at the NI hub at present it is possible that Shippers will want to start to trade within NI, as a result of the introduction of the CAM changes to capacity arrangements. For example, new or smaller Shippers in NI may prefer that their upstream counterparties buy bundled capacity at Moffat, allowing them to bring their own purchase transactions to the NI BP rather than getting involved in Moffat capacity auctions, and larger Shippers who are perhaps already GB Shippers may see the NI BP as an opportunity to sell to new NI Shippers.

8.10.2. Wider Market Developments

There is currently no source of supply within NI, but a storage project is planned. It may also be the case that, should a physical reverse flow requirement develop, interconnection capacity between NI and the NBP may increase, and forward flow capacity may be increased either via investment and/or an extension of the TA. Another significant possibility is that a balancing zone merger of the NI BP with the NBP could be considered, in due course.

Whilst Shippers currently have the option to transport gas to NI via ROI and the South North IP, this is a more expensive way to bring NBP gas to NI as it means the Shipper has to also pay ROI entry and exit charges, so it is unlikely to be a competitive source of balancing gas. However as the markets develop, it may ultimately add some additional liquidity to the NI market, particularly if ROI Shippers choose to bring forthcoming ROI-sourced gas into NI. This combined with greater reverse flow capacity to the NBP could change the pattern of supply-demand, network flows, and of trade on the island significantly.

Even if all of these potential developments occur and combine to develop some consistent level of trade within NI, it is unlikely that the volume of trade will ever constitute a sufficiently liquid market to justify an NI trading platform. However it is possible that it might start to offer sufficient liquidity to justify developing a balancing platform, provided that insufficiency of interconnection capacity does not prove to be a continuing problem.

8.11. A Joint Balancing Platform

Regulation (Article 47 (2)) suggests a further possibility for TSOs using Interim Measures:

The transmission system operators shall consider whether a joint balancing platform may be implemented for adjacent balancing zones in the framework of cooperation between the transmission system operators or where there is sufficient interconnection capacity and such a joint balancing platform is deemed efficient to be implemented.

Although not a very clearly defined mechanism, an incremental approach to compliance with the Balancing Regulation would also provide the opportunity for the TSOs to explore and consider the possibilities for a joint balancing platform with either of the adjacent balancing zones (i.e. GB or ROI), over time and depending on how the market was otherwise developing. It would also depend on the views of the adjacent TSOs, NRAs and whether such an approach would be seen to have benefits in the adjacent balancing zones.

8.12. Imbalance Tolerances for Shippers

Article 50 in the chapter on Interim Measures provides for Shippers to be given a tolerance on their imbalances between the inputs and offtakes. It says:

1. Tolerances may only be applied in case network users do not have access:

- (a) to a short term wholesale gas market that has sufficient liquidity;
- (b) to gas required to meet short term fluctuations in gas demand or supply; or
- (c) to sufficient information regarding their inputs and off-takes.

2. Tolerances shall be applied:

- (a) with regard to network users' daily imbalance quantity;
- (b) on a transparent and non-discriminatory basis;
- (c) only to the extent necessary and for the minimum duration required.

Balancing tolerances reduce Shippers financial exposure to marginal prices for their out-ofbalance position. NI Shippers currently benefit from balancing tolerances which are derived based on the constituents of their end-user portfolio.

From October 2015, NI will be transitioning from a point-to-point to an entry-exit regime, and Shippers will for the first time be required to buy IP entry capacity independently, and will need to participate in auctions in order to do so. Trading functionality will be available for the first time, and Shippers will be separately nominating entry and exit flows for the first time.

Paragraph 1 (c) refers to provision of information regarding inputs and offtakes, and as described in section 3, the TSOs are not anticipating being able to deliver the information required for compliance with those elements of the Balancing Regulation until 2016 at the earliest.

The application of balancing tolerances would provide for a 'soft landing' for Shippers who will be facing significantly more complex arrangements, without the data that the Balancing Regulation prescribes as being necessary, and needing to take more actions to manage their position on a day than they do at present.

Article 50 in the Interim Measures section of the Balancing Code requires that tolerances should **only be used for as long as is necessary** and that tolerance levels should not be so wide as to completely undermine the Shippers' incentive to balance. Depending on how the market develops it may be appropriate to phase out tolerances, and this is also something which the TSOs are required to keep under review.

However it would seem clear that the use of Interim Measures and the provision of tolerances would be highly beneficial for NI Shippers in managing the transition from a small, relatively simple market to a new EU compliant gas transmission regime.

9. Recommendation and Proposed Actions for Compliance using Interim Measures

9.1. Recommendation

An Interim Measures approach, relying initially on balancing services under Article 48, is recommended as the most appropriate means for achieving Balancing Regulation compliance in Northern Ireland.

This would provide a sensible period of time to evaluate the impact of introducing Shipper-Shipper trading in NI, alongside the implementation of CAM capacity rules and the other developments in the regime. It would also provide for the important benefit of balancing tolerances for Shippers to help them manage the transition.

Interim measures would mean that the TSOs can continue to use the existing balancing contracts approach which has proven to be effective in safely managing the NI network balance.

They would then consider carefully every year, based on experience and analysis as required by the Interim Measures approach, what would be the most effective way to continue to minimise residual balancing costs and encourage liquidity in the Northern Irish market, whether this be by implementing a balancing platform, a 'TSO-trades-at-the-NBP' option and/or any other appropriate methods.

9.2. TSO Proposed Actions for Interim Measures Approach

In adopting Interim Measures, the TSOs propose to undertake the following actions on the timescales set out below:

Action		Timescales
1)	Introduce Trading Functionality and compliant Nominations Arrangements at IPs	Code Modification Q1/2 2015 Effective from October 2015
2)	Use Balancing Services for Residual Balancing	Ongoing, contract form to be amended for entry-exit regime as of October 2015
3)	Modify Balancing Tolerances & Charging for compliance with Interim Measures rules	Code Modification Q2/3 2015 Effective from October 2015
4)	First Report on Interim Measures	This Report Approval date target: May 2015
5)	Exit Review (including demand forecast information provision)	During 2016
6)	Assess/Analyse Market Development and Produce Report	Interim Measures Annual Report To be submitted annually for end of each Gas Year

9.3. Ongoing Annual Reporting

Since there will be no change in the NI balancing arrangements until the introduction of the entryexit regime and associated systems in October 2015, should UR choose to approve the Interim Measures approach, the TSOs propose to schedule the submission of the ongoing Interim Measures annual report for the end of each subsequent Gas Year. This means that the next report would therefore be prepared for submission to UR in September 2016. This is to allow time for the introduction of trading functionality in NI and to allow a reasonable period of market development before making a further full analysis/assessment.

The TSOs will continue to monitor developments on an ongoing basis and, if appropriate, would bring forward any proposals for improvements in the intervening period. In particular, should it become apparent that there was a need for balancing tolerances to be reduced or removed in order to provide a sharper incentive for Shipper balancing, the TSOs would not wait for the next Interim Measures report before bringing forward a Code Modification to amend them.

In preparing the Annual Report, the TSOs will be required to consider the items listed in the Regulation, which cover reporting market development, the use of interim measures, how they facilitate the development of short term wholesale gas market liquidity, and identifying steps

which may be made to remove them. The following is an indicative list of topics which the TSOs would expect to cover in the context of NI:

Market Analysis

- a) Volumes of trade at NI BP, number of parties trading, etc. i.e. the state of development of the short term wholesale market in NI;
- b) The amounts of balancing gas purchased/sold and associated prices, including analysis of any patterns/trends;

Possibilities for further development, including any relevant potential timescales

- c) Potential Improvements to the Balancing contracts/tender process to improve participation/ competitiveness;
- d) Whether a TSO-trades-at-the-NBP approach may be viable/appropriate to develop;
- e) Whether a balancing platform may be viable/appropriate to develop;
- f) Whether a joint balancing platform may be feasible/appropriate to develop;
- g) Whether or not it may be possible to otherwise remove or reduce reliance on Balancing Contracts as the means of procuring residual balancing gas;
- h) Whether or not it may be appropriate to phase out balancing tolerances;
- Whether the TSOs have identified any other possible means of improving the competitiveness of the market and/or reduce the costs of procurement of residual balancing gas.

Appendix – Some Points of Interpretation of the Regulation

A1 Can Balancing Services be used in conjunction with a Route 2 approach to compliance?

A possible reading of the requirements of the route 2 approach to compliance (delay for 24 months) could also be taken to suggest that, if the existing arrangements constitute balancing services, the TSOs would not be allowed to use the existing balancing contracts approach after October 2014. This is because the use of balancing services is described as an Interim Measure in Article 48.

If the TSO seeks approval for a delay under the Transitional Provisions in Article 52, it is explicitly prohibited from using any Interim Measure in the meantime. The consequence of this interpretation would be that the TSOs had to get the arrangements in place for direct TSO-trading at the NBP by October 2014, otherwise they would have no means available of buying/selling residual balancing gas.

On the other hand, this interpretation would appear to conflict with Article 6 (3) (b) where the TSO is explicitly allowed to use balancing services as an alternative to STSP, and to Article 8 which says balancing services can be used where STSP will not provide the required response or in the absence of liquidity in STSP.

Reading the Balancing Regulation as a whole, it is clear that the Balancing Regulation is intended to drive forward the development of wholesale markets and that balancing services are permitted as an alternative to STSP where there is insufficient liquidity. It is also clear that TSOs should act in a way which:

- · Aims to minimise the costs of residual balancing;
- Aims to foster the development of Shipper-Shipper trading at the NI BP;
- Enables the physical operation of the system to be managed safely and as efficiently as possible.

Therefore, in any event, it would seem appropriate that NI should continue to use the existing balancing contracts whilst experience is gained of Shipper to Shipper trading.

A2 Would Balancing Services be sufficient for compliance, on their own?

Given that NI already purchases balancing gas in a manner which is compliant, it is worth considering whether in fact it is necessary to do any more to comply with the Balancing Regulation requirements for sourcing balancing gas.

It is clear from Article 6 (3) that both STSP and balancing services are acceptable means of achieving residual balancing. Article (8) is explicit that balancing services should only be used where STSP will not or are not likely to provide the response necessary. In this context, the reference to providing 'the response necessary' implies that the description of balancing services may be aiming at specific 'exotic' or at least non-standard arrangements which some TSOs might have to balance the extremities or other tricky parts of their networks. For example contracts to deliver LNG injection or storage gas into local parts of the network will give a faster response than shipping gas from another part of the network to meet an urgent local requirement. Article 9 (1) (c) repeats again that balancing services are only to be used where STSP will not provide (upon the assessment of the TSO concerned) the response necessary to keep the system within its operational limits.

Clearly NI has no STSP, and so balancing services offers an acceptable approach under Articles 6 (3), (8) and (9) and the existing balancing contracts meet the criteria for balancing services.

However it is not completely clear in the text that this can be considered sufficient in such a way as to exempt the TSO from otherwise trying to develop the wholesale market.

This is compounded by the fact that balancing services is also referred to in the Interim Measures chapter (Article 48) as a 'last resort' option if a Balancing Platform cannot deliver a reasonable means of procuring balancing gas. It also requires annual reporting setting down specifically how the use of balancing services may be reduced each year.

The way balancing services are described here appears to conflict with their earlier acceptability in chapter III. It also brings into question whether, on their own and with no other action to develop the market, balancing services would be sufficient for compliance.

Again reading the Code as a whole, it is clear that the Interim Measures approach is intended to help undeveloped markets take the first steps towards development, and this is highly appropriate in the case of NI.

Since the Interim Measures approach offers other benefits, including the longer time for compliance, the use of imbalance tolerances, the need for annual review of the market and a clear focus on trying to develop the market, there would seem to be relative merit in using this approach.

NI already has in place the key 'last resort' measures, the balancing services contracts, which means moving into Interim measures is as simple as possible.

Once the market has taken at least the initial steps of development, if other means have been analysed and even tried out, and balancing services are then established as the best and most competitive route to procuring balancing gas for NI, then the case will be clearly justified for depending on their sole use for ultimate compliance.