

Balancing Options Assessment

Regulation EU 312/2014 ‘Balancing Network Code’ Compliance

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1 Introduction & Background

1.1 Introduction

The purpose of this Balancing Options Assessment report is to:

- Evaluate the range of tools available to the Transporter in carrying out its operational balancing activities in accordance with Regulation EU 312/2014 (Balancing Network Code); and
- Propose a series of steps to be taken in the ‘interim measures’ period, with a view towards Balancing Network Code compliance by April 2019.

To this end this report includes the following:

- **Section 1: Introduction & Background** - sets out the origins of this Balancing Options Assessment report and outlines where it sits relative to the other planned reports such as Interim Measures Reports etc.
- **Section 2: Recommendations & Next Steps** - outlines the Transporter’s proposed approach to the interim measures period, including medium term timelines and next steps in the shorter term.
- **Section 3: Operational Balancing Tools** - describes the menu of options available to a TSO for operational balancing purposes i.e. trading platform, balancing platform, trading in an adjacent zone, balancing services contract. The Transporter’s current view on each option is also provided.
- **Section 4: Short Term Standardised Products** - provides descriptions of each of the short term standardised products included in the Regulation along with the Transporter’s current assessment of each product.

This report shall not include the following items, which will instead be addressed in Interim Measures Report #2 in June 2016:

- Proposed amendments to imbalance tolerances;
- Proposed amendments to imbalance cash-out prices; and
- Impact of previous interim measures on market liquidity;

It is worth noting that Interim Measures Reports are a direct requirement of the Regulation, must be produced on an annual basis throughout the interim measures period, and are subject to national regulatory authority approval. In contrast, the Balancing Options Assessment report is not a direct stipulation of the Regulation, but is instead a one-off report which does not, as such, require regulatory approval. Accordingly, this report is issued as a discussion document for Industry consultation, with consultation responses feeding into the preparation of the Interim Measures Report to be published in June 2016.

1.2 Background

Chapter 10 of the Regulation provides a means for Member States to transition to full implementation of the Regulation through the application of ‘interim measures’ in the period between October 2015 and April 2019. In April 2015, the CER approved the Transporter’s [Interim Measures Report](#), in turn notifying ACER and the European Commission that Ireland would utilise interim measures as provided for in the Regulation.

The Interim Measures Report set out a high level roadmap towards 2019 compliance with the intention of developing liquidity at the IBP during that period. The report signalled that imbalance tolerances and imbalance cash-out prices would be reviewed annually ([Code Modification A068](#) implemented the first iteration in Oct. 2015) with a view to providing an incentive for Shipper's to balance their portfolios.

The report also committed the Transporter to considering the feasibility of the various balancing options available for the implementation of an enduring solution (referred to as the *'Trading Platform Feasibility Study'*), such as a trading platform, a balancing platforms, trading in an adjacent zone, balancing services contracts, and short term standardised products. As the items under consideration are somewhat wider than the feasibility of a trading platform alone, the title of this report has been amended to *'Balancing Options Assessment'* and aims to articulate the Transporter's preliminary assessment of the various options, while proposing to undertake a more detailed Cost Benefit Analysis in due course.

2 Recommendations & Next Steps

The Transporter makes a number of recommendations regarding the development of the balancing regime over the coming years, including suggested next steps towards the realisation of these recommendations.

2.1 General

Recommendation No. 1:

Continuous Monitoring & Evolution of Interim Measures

2015 - 2018

Continuously monitor market development from 2015 - 2018

A number of items are to be closely monitored throughout the interim measures period in order that:

- a) the development of liquidity and the effectiveness of the interim measures can be assessed;
- b) sufficient time is afforded for other developments in the market (e.g. independent platform and introduction of Bellanaboy) to mature; and
- c) an informed decision can subsequently be made as to the most appropriate balancing options to be adopted by the Transporter by the end of the interim measures period (April 2019).

The primary items to be monitored are as follows:

1. **Activity / Liquidity at IBP** - Monitor and assess the extent to which activity increases and liquidity develops at the IBP over time and the degree to which the previously implemented interim measures have been effective. The annual Interim Measures Reports will serve as a means to capture this information. The proposed schedule of reports is as follows;

IMR No.	Publication Date
#1	Apr 2015
#2	June 2016
#3	Q2 2017
#4	Q2 2018

Recommendations arising from each Interim Measures Report (e.g. changes to tolerances or cash-out prices) will be given effect by way of Code Modification proposals, most likely with implementation dates on 1 October following the publication of the respective reports.

2. **Independently Operated Platforms at IBP** - Monitor any independent third party platforms active in the Irish market over the interim measures period, particularly regarding activity and liquidity levels etc.
3. **Impact of the Bellanaboy Entry Point on Operational Balancing Activities** - The impact of the Bellanaboy Entry Point on the TSO's balancing activities is as yet unknown and will also be monitored closely in terms of its interaction with the evolving balancing regime.

Note that the Transporter proposes to **retain the existing balancing services contract indefinitely** as this monitoring and assessment exercise is underway.

Recommendation No. 2: Trial Period Oct 2015 - June 2017

Apply a number of trial measures to foster liquidity at the IBP

The Transporter proposes to conduct a trial period until June 2017, during which the following measures will be applied with the aim of fostering liquidity at the IBP:

	Description	Implemented by:
1	Take <i>smaller & more frequent balancing actions</i> where operationally possible	Immediate effect
2	Provide <i>notice to ALL Shippers in advance of taking a balancing action</i>	March 2016
3	Provide <i>hourly within-day updates re system balancing status</i>	TBC
4	Consider <i>further reduction in tolerances</i> (pending IMR #2)	[Oct 2016]
5	Consider <i>increased spread in imbalance cash-out price</i> (pending IMR #2)	[Oct 2016]

The effectiveness of these measures will be monitored on an annual basis through Interim Measures Report #2 in 2016 and Interim Measures Report #3 in 2017. The individual measures listed are described further below:

1. Since February 2015, the Transporter has endeavoured to reduce the size of its typical balancing actions from 10 GWh to 5 GWh and proposes to continue with this approach¹.
2. The Transporter proposes to provide advance notice of balancing actions to all Shippers. While the Transporter will only transact with the contracted supplier, the notification may facilitate trade at the IBP between the contracted supplier and other Shippers.
3. Article 32 (1) of the Regulation requires the TSO to provide information relating to the system balancing status of the transmission network in accordance with point 3.4 (5) of Annex 1 to Regulation (EC) No. 715/2009. At the start of each gas day, the Transporter proposes to publish the quantity of gas in the system at that time, and the quantity of gas forecast to be in the system at the end of the gas day. The Transporter will update this forecast during the day should if the forecast changes. The forecast quantity at the end of the gas day will only vary from the quantity at the start of the gas day if a balancing action is scheduled to take place i.e. fluctuations in Shipper nominations will not impact the forecast quantity
4. Interim Measures Report #1 as approved by the CER in April 2015 proposed that imbalance tolerances be reduced on a phased basis over the interim measures period, with the quantum of each phased reduction being proposed in the subsequent Interim Measures Reports. To this end, Interim Measures Report #2 (June 2016) will make recommendations regarding tolerance levels, most likely for implementation on 1 October 2016.
5. As with tolerances, the imbalance cash-out price is subject to transition throughout the interim measures period, with Interim Measures Report #2 to include recommendations regarding the imbalance cash-out price, most likely for implementation on 1 October 2016.

¹ Note that balancing actions in amounts of both 10GWh and 15GWh were required on occasion in 2015, and may also be required in the future.

Recommendation No. 3:

Cost Benefit Analysis, Decision, Implementation

June 2017 – April 2019

Cost Benefit Analysis (CBA) re Balancing Options

The trial period referenced in Recommendation No. 2 effectively ends with the publication of Interim Measures Report #3 in June 2017. At this point, it is proposed to carry out a cost benefit analysis as a means to select the most appropriate balancing option(s) for implementation by April 2019.

- a) ***Cost Benefit Analysis (CBA)*** - The options to be assessed in the CBA include the following:
 - TSO utilises existing third party platform;
 - TSO develops and builds its own trading / balancing platform;
 - TSO procures third party to develop, build, operate trading / balancing platform;
 - TSO requests extension to interim measures beyond April 2019
- b) ***Decision*** - based on the outcome of the CBA, a preferred option will be selected and progressed towards implementation.
- c) ***Implementation*** - While each option considered in the CBA will have its own particular characteristics in terms of implementation steps, there are certain contractual arrangements which are common to the options listed above, perhaps with the exception of the interim measures extension. A Code Modification proposal would be required to implement these arrangements:
 - a) ***Multi-Party Framework Contract*** - Allow for a non-exclusive arrangement to be in place to facilitate the TSO procuring balancing services on a short-term (day-ahead or within-day) basis from multiple contracted parties and with the IBP as the delivery/offtake point² for such balancing gas. Such arrangements could be incorporated directly within the Code of Operations, meaning that any Shippers who have signed a framework agreement to the Code of Operations would be eligible to submit bids/offers (potentially subject to pre-qualification criteria) in response to the Transporter's requests for balancing gas.
 - b) ***Short Term Standardised Products***³ - a set of short term standardised products which the Transporter can trade with Shippers for the purpose of undertaking balancing actions will be defined. The proposed list of products are as follows:
 - Day-ahead Title Product
 - Within-Day Title Product

² Currently (both contractually and in GTMS), balancing gas is delivered/offtaken by a single balancing supplier (rather than multiple suppliers) at a single designated entry point (rather than at IBP).

³ See Section 4 for further detail regarding short term standardised products

2.1.1 Rationale for Recommendations

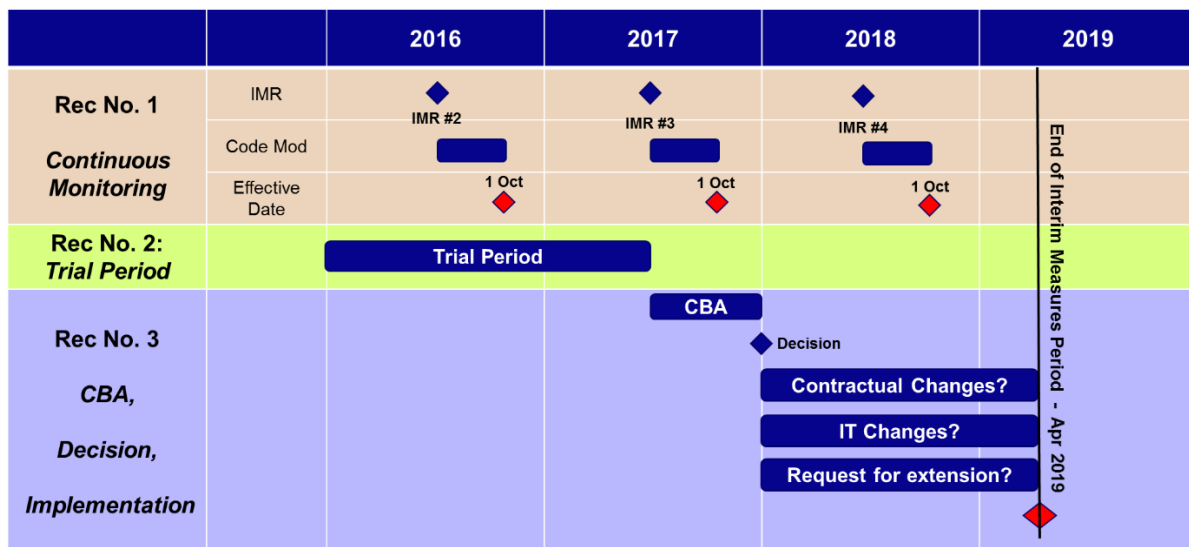
The Transporter believes that it is currently premature to make a decision regarding the precise nature of the balancing regime which should apply at the end of the interim measures period (April 2019). The proposed trial period allows a number of adjustments to be made to the balancing regime, without radically overhauling the contractual or IT infrastructure at this time. The effects of these measures can be observed while the market adjusts to other significant changes such as the introduction of bundled capacity at Moffat, the commencement of flows at the Bellanaboy Entry Point in December 2015, the imminent commencement of an independently operated trading platform (expected Q1 2016), and amendments to tolerances and cash-out prices in 2015 and 2016. Given that the market is in a period of considerable flux at this time, the proposed Cost Benefit Analysis may be carried out at a time where the items previously referred to have developed and matured to an extent.

The proposed approach allows the Transporter, CER, and Industry to monitor development of the market over time while seeking to minimise / avoid IT development costs in the early stages until a more informed decision can be made regarding the most appropriate balancing options to be applied on an enduring basis.

2.2 Summary of Timelines

2.2.1 Timeline: 2016 - 2019

The recommendations outlined above can be represented in terms of an indicative timeline from 2016 through to 2019:



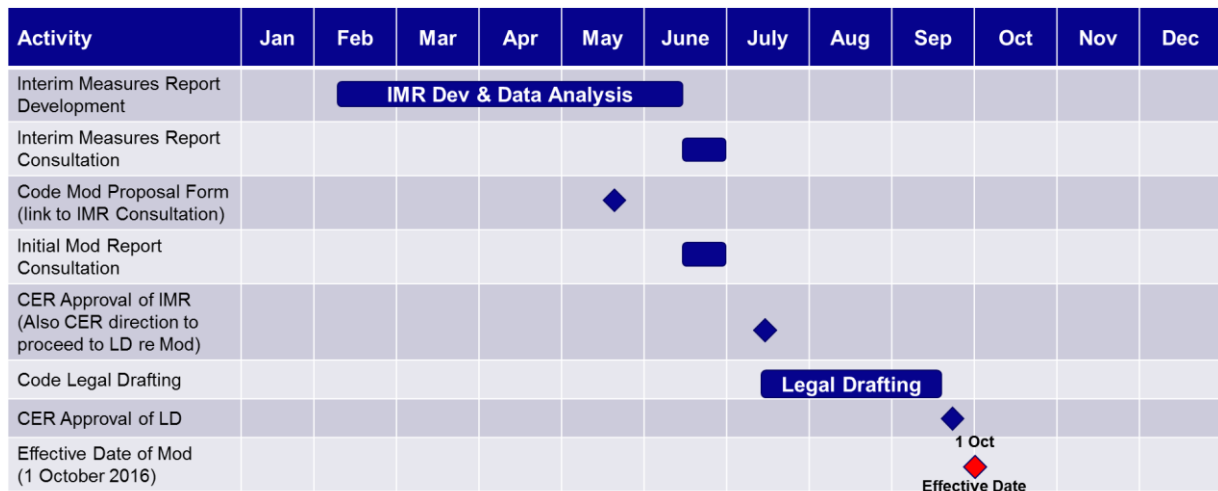
In each year from 2016 to 2018, an annual cycle will be repeated whereby an Interim Measures Report assesses the current status of market liquidity and the effectiveness of the previous measures. Based on the recommendations of the Interim Measures Report, a Code Modification proposal will be launched to implement the recommendations (e.g. amendments to imbalance tolerances and cash-out prices), most likely with effective dates of 1 October in the respective years:

2.2.2 Timeline: 2016

Interim Measures Report #2 will be published in June 2016, with the associated Code Modification proposal to follow. June has been proposed as the publication date in an attempt to maximise the amount of data which can be collected since the implementation of the first iteration of interim measures in

October 2015 and the commencement of flows at the Bellananboy Entry Point in December 2015. This gives the best opportunity to determine whether liquidity has progressed over time.

However, a consequential result of this is that the time period following approval of the report and the target implementation date of 1 October 2016 is quite short in terms of completing a formal Code modification process from start to finish. It is therefore proposed to streamline the modification process such that the modification is launched in advance of publication of the Interim Measures Report and that the consultation period in respect of the Interim Measures Report is included as an integral part of the modification process. See below timeline for indicative sequencing:



3 Operational Balancing Tools

The Regulation offers a number of possible tools which a TSO may utilise for the purpose of operational balancing. Article 9 of the Regulation sets out a merit order whereby the preferred means for a TSO to balance its system is by way of short term standardised products traded on a trading platform. However, where insufficient liquidity has been shown to exist, the Regulation allows for the use of a balancing platform and/or balancing services contracts during the interim period. Additionally, the Regulation facilitates an option whereby a TSO may trade on a platform in an adjacent jurisdiction. These various options are described in further detail below.

3.1 Trading Platform

The Regulation:

The Regulation defines a trading platform as ‘*an electronic platform operated by a trading platform operator by means of which trading participants may post and accept..... bids and offers for gas required to meet short term fluctuations in gas demand or supply.....and at which the transmission system operator trades for the purpose of undertaking balancing actions.*’

The Regulation states that the TSO shall endeavour to ensure that the criteria outlined in Article 10 (1) are met by at least one trading platform and that the TSO shall trade on such a platform for the procurement of short term standardised products.

A trading platform should:

- Provide transparent and non-discriminatory access;
- Provide services on an equal treatment basis;
- Ensure anonymous trading, at least until trade is concluded;
- Provide a detailed overview of current bids and offers; and
- Ensure that all trades are duly notified to the TSO.

Any trades carried out on the platform must be notified to the TSO by way of trade notifications (i.e. IBP Nominations) and parties may only trade on the trading platform if they are entitled to make trade notifications to the TSO. The trading platform operator must publish the evolution of the marginal buy/sell price after each trade (or provide the information to the TSO to publish it) without delay.

Options for Implementation of a Trading Platform in Ireland

There are a number of options in terms of the both the type of trading platform and the operator of the platform. In terms of platform types, the two primary options and their key differentiating features are described below:

1. Cleared Platform

- Credit and financial settlement arrangements are dealt with by the platform operator i.e. Shipper puts credit in place directly with the platform operator
- No bilateral credit or settlement arrangements required between Shippers

2. Brokered Platform

- Platform provides a ‘meeting place’ for Shippers to trade, but credit and settlement arrangements are managed bilaterally between Shippers

Likewise, there are two primary options in terms of the operating model which could be applied:

1. TSO as developer and/or operator

- The TSO may develop a trading platform, either building new IT functionality entirely from the ground up or by adopting and adapting existing IT functionality from elsewhere.
- TSO may procure a third party to develop and/or operate a platform on behalf of the TSO

2. Independent Platform Operator

- Alternatively, an independent third party platform operator may establish a trading platform as per the criteria prescribed in the Regulation.
- TSO participates on the platform just as any other user

Regardless of which combination of the four options above might be used, there are a number of common requirements which underpin any trading platform:

- **Standard Terms & Conditions** - standard trading terms and conditions would need to be developed and signed by all platform users to standardise obligations, quantities, units, currency, payment terms etc. While these would serve as the standard terms and conditions for trades between parties using the platform, trading arrangements would remain entirely bilateral and any two parties may agree alternative terms to the standard, should they so wish.
- **Platform User Agreement** - Standard rules for use of the platform would need to be developed by the platform operator.
- **STSPs** - short term standardised products would need to be defined and incorporated in the contractual arrangements.
- **Multi-Party Framework Contract** - a multi-party framework contract would need to be developed by the TSO to allow the procurement of short term (day-ahead and within-day) balancing services from multiple Shippers / platform users on a framework basis.
- **IBP as delivery point on GTMS** - Changes to the GTMS system⁴ would be required to ensure that multiple Shippers can submit IBP Nominations (with TSO as counterparty) in response to a trade carried out with the TSO under the multi-party framework contract and that these IBP Nominations are distinguished as balancing actions and treated as such in the disbursements account process.
- **Platform / GTMS IT Interface** - the level of information flow between the platform and GTMS would need to be agreed, designed, built and implemented.
- **Governance / Regulatory Designation** - Whether the TSO or an independent party develops and/or operates a trading platform, it will be necessary for that platform to be designated as the platform to be used by the TSO and potentially as the platform for the derivation of the imbalance cash-out price. The exact manner by which such regulatory designation would be given effect is as yet unclear and would need to be agreed with the CER.

⁴ Note that current IBP Nomination and disbursement account functionality caters for a single (rather than multiple) balancing supplier delivering gas at a single entry point (rather than at IBP).

Transporter Assessment

The Cost Benefit Analysis exercise will ultimately inform the Transporter's decision as to whether a trading platform should be adopted, but the Transporter nonetheless notes the following general points:

- The Transporter does not believe it prudent or cost effective at this point in time to develop its own trading platform.
- The Transporter notes the interest from third parties in independently developing and/or investigating the possibility of developing a trading platform at the IBP. The Transporter expects that the introduction of such a platform would have a positive impact on IBP liquidity over time.
- In terms of potential platform providers, there are a number of international operators (e.g. ICE-Endex, Marex-Spectron) currently operating platforms and offering energy trading services across various European markets. Such operating models will be considered as part of the proposed CBA.
- Domestically, Energy Broking Ireland Ltd. (EBI) has been working closely with participants in the Irish gas market during 2015 to develop an IBP trading platform and anticipates a launch date during Q1 2016. The EBI platform will be considered as part of the proposed CBA.
- The Transporter will further investigate the potential regulatory and governance steps which may be required were the Transporter to utilise a third party platform in the future.
- The Transporter will further investigate the level of interaction that might be required if interfacing an independent platform with GTMS

3.2 Balancing Platform

The Regulation

Article 3(4) and 3(6) of the Regulation describe a balancing platform as '*an electronic platform.....by means of which trading participants may post and accept bids and offers for gas required to meet short term fluctuations in gas demand or supply.....and at which.....the transmission system operator is a trading participant to all trades;*'. Under the interim measures provisions of the Regulation, a balancing platform may be used where a trading platform is not in place or is not deemed viable due to insufficient liquidity.

How does a balancing platform differ from a trading platform?

The primary differentiating feature of a balancing platform relative to a trading platform is that the TSO must be a participant to all trades on the platform. The platform is solely a tool for the TSO to trade with Shippers for the purpose of balancing the system. While it offers an opportunity for Shippers to trade with the TSO, it does not facilitate trades between Shippers.

Transporter Assessment

The Cost Benefit Analysis exercise will ultimately inform the Transporter's decision as to whether a balancing platform should be adopted, but the Transporter nonetheless notes the following points:

- As a balancing platform would most likely be developed by the TSO, this would result in a higher degree of autonomy for the TSO in the development and operation of the platform, with

less of a reliance on a third parties. Conversely, the TSO would perhaps be more exposed to risk should errors / disputes arise in the operation of the platform.

- In the event that the TSO subsequently utilises a trading platform, it may be prudent for the Transporter to maintain a basic balancing platform for contingency purposes such that the Transporter could trade short term standardised products with Shippers on this balancing platform in a situation where the trading platform is unavailable.
- At the most basic level, a balancing platform could take the form of a manual solution, using email (to issue TSO balancing requests, receive bids/offers and issue confirmations) and spreadsheets (to evaluate and select bids/offers received).
- Alternatively, a systemised module on GTMS⁵ to communicate and evaluate bids/offers could be developed.

3.3 Balancing Services Contract

The Regulation

The Regulation defines a ‘balancing service’ as ‘*a service provided to a transmission system operator via a contract for gas required to meet short term fluctuations in gas demand or supply, which is not a short term standardised product*’. Article 8 of the Regulation sets out that balancing services should be procured through a competitive public tender process and be reviewed annually to assess whether short term standardised products might better meet the TSO’s balancing requirements and if the use of balancing services could be reduced in the following year. As per the merit order established in Article 9 of the Regulation, balancing services should only be used where short term standardised products are insufficient.

Current Practice

Currently, the Transporter uses balancing services contracts to meet its operational balancing needs. Following a public tender process, a ‘balancing buy’ and balancing sell’ contract is awarded to the successful bidder. The contract provides that the balancing services supplier will provide (balancing buy) or dispose of (balancing sell) gas to/from the system when requested to do so by the Transporter. The supplier is paid the contract price (linked to the GB System Average Price) for each action undertaken. The Code of Operations includes disbursement account arrangements which ensure that the Transporter is cash neutral in respect of the balancing services contracts and distributes the costs among the Shippers on a throughput basis.

The current balancing services contract has an end date of 30 September 2016, with an option to extend to 31 December 2016 and a further extension option to 31 March 2017.

⁵ Note that while we are not proposing systemisation of the platform (i.e. issue, receipt, evaluation, confirmation of bids/offers), GTMS will need to be amended to ensure that multiple parties can submit IBP nominations with GNI as the counterparty and that these IBP nominations are identified as ‘balancing actions’ and treated as such in the disbursements account and billing process.

Transporter Assessment

It is critical that a balancing services contract be in place at all times (even where short-term standardised products are offered on a trading/balancing platform) so that the Transporter can be confident that the required balancing action can be met by at least one party. It is important to note that while the short-term standardised products provide Shippers with the opportunity to meet the Transporter's balancing needs, the balancing services contract confers an obligation on the contracted Shipper to do so.

3.4 TSO trading on an adjacent Platform

Article 9(3) of the Regulation provides, subject to regulatory approval, for the TSO 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)*.

The Transporter will consider this option as part of the proposed Cost Benefit Analysis, which will take account of factors such as:

- The regulatory and licencing arrangements required to facilitate a TSO trading at NBP and transporting gas on the NTS i.e. would GNI need to be licenced as a GB Shipper and sign up to the UNC?;
- The potential impact of this option on the development of liquidity at the IBP;
- The effectiveness of this tool in addressing scenarios where the system is long, given that the interconnection point with the adjacent zone is uni-directional and subject to the availability of virtual reverse flow capacity;
- Whether the existing balancing services contract already provides the TSO with (indirect) access to the NBP i.e. the TSO's contracted balancing supplier has the option to source gas at NBP, transport it on the NTS and deliver it to the Irish system.

4 Short Term Standardised Products

Short term standardised products (STSPs) are a suite of products which serve as a mechanism to deliver short term flexibility to:

- Shippers, in order to balance their individual portfolios; and
- the TSO, in order to balance the system as a whole.

Article 7 of the Regulation describes four types of STSP:

- Title;
- Locational;
- Temporal;
- Temporal Locational;

Article 9 of the Regulation establishes a merit order requiring the TSO to prioritise the use of title products, followed by the remaining short-term standardised products, and finally the balancing services contract. Further descriptions of each product are provided in Section 4.1 below, while Section 4.2 sets out the Transporter's preliminary assessment of which standardised products are appropriate for use as TSO balancing tools in the Irish market. This preliminary view will be kept under review during the trial period and will be confirmed as part of the CBA exercise.

4.1 Product Descriptions

4.1.1 Title Products

Title products involve a simple trade of gas between two parties at the Irish Balancing Point (IBP). The product does not mandate a physical location at which the Shipper's associated entry/exit renominations must take place. Title products should be used by the TSO in situations where the system is either long or short but where delivery / offtake of a certain quantity of gas at *any* point on the network will be sufficient to address the system imbalance on the day.

Being the simplest of the short term standardised products, it is likely to be used both for Shipper to Shipper trades and also for TSO to Shipper trades. It is the product placed highest in the merit order and should be the first product used by the TSO, assuming that there is not a locational or temporal element to the TSO's balancing needs on a given day.

A high level representation of the TSO using a title trade is as follows:

- STEP 1:** TSO posts a title trade bid/offer on the platform, selects from the bids/offers received, and completes the trade with the Shipper counterparty on the platform.
- STEP 2:** TSO and Shipper counterparty submit matching trade notifications (IBP Nominations) on GTMS - this is mandatory under the terms of the contract
- STEP 3:** Shipper counterparty may amend its entry and/or exit nominations (at any physical location(s) it chooses) to keep its own portfolio in balance - *this is NOT mandated by the contract and is entirely at the Shipper's discretion.*

4.1.2 Locational Products

Locational products comprise of a trade of gas between the TSO and a Shipper counterparty at the IBP and an associated entry or exit renomination by the Shipper at a physical location specified by the TSO.

This product should be used by the TSO in situations where the system is either long or short but where the delivery / offtake of gas at a specific location on the network is required to address the system imbalance on the day.

A locational product can only be initiated by the TSO and cannot be used as a Shipper-Shipper trade. It sits below title products in the merit order, meaning that the TSO should first attempt to meet its balancing needs through the use of title products.

A high level representation of the TSO using a locational trade is as follows:

- STEP 1:** TSO posts a title trade bid/offer on the platform, selects from the bids/offers received and completes the trade with the Shipper counterparty on the platform.
- STEP 2:** TSO and Shipper counterparty submit matching trade notifications (IBP Nominations) on GTMS - this is mandatory under the terms of the contract
- STEP 3:** Shipper counterparty must amend its entry and/or exit nominations at the physical location specified by the TSO in a quantity equal to that of the associated IBP trade - *this is mandated by the contract and is not at the Shipper's discretion*

As part of the design of any locational product, the TSO would need to specify the entry/exit points or groups thereof which applied to each product.

4.1.3 Temporal Products

As with the title and locational products, a temporal product involves a trade of gas between the TSO and a Shipper counterparty at the IBP. Additionally, it allows the TSO to specify a start and end time during which the gas should be delivered and the hourly flow rate at which it should be delivered.

This product should be used by the TSO in situations where the system is either long or short but where the nature of the system imbalance is such that the delivery / offtake of a gas is required within a specific time period. A temporal product can only be initiated by the TSO and cannot be used as a Shipper-Shipper trade. Again, the TSO should first attempt to meet its balancing needs through the use of title products.

4.1.4 Temporal Locational Products

Temporal locational products are effectively a combination of the locational and temporal products outlined above and are used when the TSO has both locational and temporal requirements as regards system balancing.

4.2 Transporter Assessment

The Transporter's preliminary assessment of each of the standardised products is as follows:

Title products

The Transporter proposes to include title products in its suite of balancing tools and proposes that two title products be developed:

- Day-ahead title product; and
- Day-ahead title product.

The Transporter proposes, subject to the outcome of the CBA, that these products be incorporated directly in the Code of Operations, with the detailed design of the products to be developed through a Code Modification proposal, where product parameters such as the following would be agreed:

- Units, currency, lot size, minimum quantity, maximum quantity;
- Timing of TSO request, submission of bids/offers, confirmation of successful bids/offers etc;
- Bid/Offer selection methodology:
 - Lowest price?
 - Accept only individual bids/offers which meet TSO's requested quantity in full?
 - Accept multiple bids/offers which in aggregate meet the TSO's requested quantity?

Note that as per the timelines outlined in this report, such contractual arrangements are not envisaged to be developed until the CBA is complete.

Locational products

The Transporter does not propose to develop locational products at this point in time. However, the Transporter will continue to monitor the development of system balancing practices over time to assess whether a requirement for locational products exists.

Temporal Products & Temporal Locational Products

The Transporter does not propose to develop temporal products or temporal locational products as it does not foresee the need to specify the delivery/offtake of balancing gas on an hourly basis. While such products may be appropriate and necessary where an hourly balancing regime applies, they are not deemed necessary in the Irish market.