



Gas
Networks
Ireland

Balancing Workshop

18 January 2017

Dublin

Agenda

1. Review of Minutes form last workshop
2. Review of Actions from last workshop
3. Draft Business Rules: GNI's Participation on a Trading Platform
 - Industry Responses
 - Transporter's Response to Industry Views
4. Discussion on Potential Amendments to Imbalance Cashout Prices and Tolerances
5. Next Steps

1. Review of minutes from last meeting

2. Review of Actions from last workshop

No.	Action	Responsibility	Status
1.	Transporter to circulate (prior to the January Balancing Workshop) the proposed imbalance cashout prices to apply in different long and short Shipper positions in various scenarios, once the TSO participates on a live and liquid Trading Platform.	Transporter	Complete
2.	Transporter to circulate (prior to the January Balancing Workshop) its interpretation of the relevant sections of the EU Balancing Network Code Regulation concerning tolerances.	Transporter	Complete
3.	Industry to provide written feedback on the first draft of Business Rule for the TSO's participation on a Trading Platform by 14 th December 2016.	Industry	Complete
4.	Transporter to review industry feedback received on the first draft of Business Rules, and incorporate this feedback into an amended draft of the Business Rules, for circulation in due course.	Transporter	In progress

3. Draft Business Rules: GNI's Participation on a Trading Platform

Industry Responses to Draft Business Rules *(Slide 1 of 9)*

Following the November 2016 Balancing Workshop, **three responses** to the Initial Draft of ***Business Rules for GNI's Participation on a Trading Platform*** were received from:

- IOOA
- Bord Gáis Energy Ltd.
- ESB (GWM)



Industry Responses to Draft Business Rules *(Slide 2 of 9)*

Response from IOOA

Section 3.1

- IOOA members' preference is to have all trading products at the IBP, and to avoid trading products at entry points, as this is perceived to potentially hamper liquidity. *[TSO Response: There are situations where TSO bal. actions have a locational requirement]*

Section 3.2

- Concerning the following text, it is unclear to the IOOA why the contracts by the TSO will impact the Code:
 - “Completion of relevant contracts by the TSO with each Shipper will have an impact on the Code and credit arrangements with Shippers”. *[TSO Response: Following completion of tender documentation, we agree that the contracts may not impact the Code and will amend the text in V2 of Business Rules accordingly]*

Section 4.2.1.1

- IOOA is uncertain as to the issue the following bullet point is addressing and what the TSO is monitoring.
 - *The issue of the TSO wishing to make trades early in the gas day, while Shippers hold off until later in the day to participate on the Platform and nominate accordingly (i.e. trade timing misalignment) shall be monitored by the Transporter. [Response: If a ‘trade timing misalignment’ becomes apparent, the TSO will communicate accordingly with Shippers in an effort to facilitate securing bal. actions on the TP]*

Industry Responses to Draft Business Rules *(Slide 3 of 9)*

Response from IOOA (continued)

Section 4.3 Use of Balancing Services Contracts (BSCs)

Work Instruction

- IOOA states that the TSO needs to **include industry in developing Internal Work Instruction** for when the TSO should/should not revert to the BSC. *[see ESB (GWM) response: Level of Detail & TSO Response: Slide 16]*

BSC NBP Indexing

- IOOA comments that the TSO could consider changing the pricing of the BSC to a prompt or a day-ahead priced contract. However, they elaborate that the issue can be addressed in the *TSO Work Instruction*, by ensuring that at the time of a TSO trade, the rolling SAP is compared against the TP price with the trade completed using the most competitive price at the time of the trade. *[see TSO Response: Slide 15]*

Section 4.3 and 4.7 Balancing Action Notifications

- IOOA suggests that GNI **“shall provide”** balancing action notifications, rather than **“may provide”**. *[see ESB response on Notifications, BGE response on need for Anonymity, and TSO Response: Slide 16]*

Industry Responses to Draft Business Rules *(Slide 4 of 9)*

Response from IOOA (continued)

Section 4.4 **Operation of a Live and Liquid Trading Platform**

- IOOA states that liquidity on the TP may not occur until the imbalance CO prices are linked to TP prices, in conjunction with the removal of tolerances.

IOOA expresses concern about the TSO not reviewing CO prices and tolerances until proven liquidity on a TP exists; stating these reviews are required as part of/ in conjunction with developing BRs. *[Documentation circulated by TSO - Agenda Item 4]*

Section 4.5 **Imbalance Cashout (CO) Prices**

- IOOA considers:
 - there to be a need for a market-based dynamic balancing regime, in which CO prices (determined on a TP) vary in-line with status of the system linepack, to tackle current large imbalances left on the system.
 - the threat of negative pricing (which may occur in exceptional circumstances), which can be achieved through market-based dynamic pricing on a TP, to be the ultimate incentive for shippers to remain balanced and the TSO needs to deliver such a market-based dynamic balancing regime ASAP. *[see ESB response]*

Section 4.6 **Tolerances**

- IOOA believes that the removal of tolerances is required, in order to develop TP liquidity by incentivising shippers to trade out imbalances using a TP. *[see ESB response]*

Industry Responses to Draft Business Rules *(Slide 5 of 9)*

Response from Bord Gáis Energy Ltd

Implementation

- BGE considers it imperative that a robust TP is in place and strongly advise a steady, considered approach in the implementation phase. BGE notes that an early fault at implementation could prove costly and delay the project.

Information

Ensuring Anonymity

- BGE stresses the importance of ensuring all Platform trades (including TSO trades) remain anonymous until concluded *(as per Article 10 of the Regulation)*.
 - BGE considers anonymity to allow the TSO to participate competitively, and optimise profitability.
[See TSO Response: Slide 16 - Importance of ensuring anonymity will be stressed in V.2 of Business Rules].
- BGE believes that linepack information should be publicised in **ranges rather than absolute figures** (otherwise, the market can identify when the TSO places a bal. sell/buy and hence TSO bids will not be anonymous).

Access to Necessary Data

- BGE states that GNI Grid Control will require read access to live NBP prices and appropriate training.

Industry Responses to Draft Business Rules *(Slide 6 of 9)*

Response from Bord Gáis Energy Ltd *(continued)*

Section 4.2.1.1 **Decisions and Actions by GNI Grid Control**

- BGE states that ‘tolerances’/boundaries need to be set on balancing buy and sell prices.
 - BGE believe that if GNI trades erroneously outside set limits, with reference to the default price in the BSC, i.e. if the TSO trades at prices worse than the default BSC prices, it should be made liable for its actions, and not be able to recover the ‘losses’ on these trades. *[see TSO Response: Slide 15]*

Section 4.2.2.1 **Information Flows into GTMS**

- BGE considers it to be a bit harsh that a counterparty could be in default if they do not match the nomination within the hour, as they could have made a simple mistake in the matching process. *[TSO Response: This procedure is currently adhered to, as per Section 1.2.5 [IBP Nominations] Part D of the Code). As per the Draft Bus. Rules, at this point, the TSO may, at its discretion, reissue the IBP nomination to the counterparty Shipper to match].*

Section 4.9.1 **Governance Oversight Committee**

- BGE stresses that stringent governance procedures will be required to be implemented, to ensure the TSO optimises their contracts and that controls are set to mitigate against any expensive errors.

Industry Responses to Draft Business Rules *(Slide 7 of 9)*

Response from ESB (GWM)

ESB GWM highlights, at the outset, their concerns about progressing with an IBP TP, stressing the need to ensure the balancing option chosen is both cost efficient and enduring.

- They question the rationale of using a TP, when the option of trading on an adjacent hub (NBP), in their opinion, has not been given any real consideration. **That said**, in light of progressing the TP option, ESB provides the following comments:

Level of Detail and Economic Incentives to Minimise Balancing Costs *[see TSO Response: Slides 15 and 16]*

- ESB GWM believes the Bus. Rules go beyond what is required in terms of outlining how GNI will take bal. actions on a TP.
- They believe that **having prescriptive rules** around timing, quantity and price for the TSO's balancing actions and when to revert to the BSC **could ultimately add to TSO balancing costs**.
 - ESB describes how the TSO could be seen as a distressed seller/buyer and prescriptive rules could remove the commercial incentive to minimise balancing costs.
- Instead, the ESB stresses the need for a clear economic incentive on the TSO to minimise balancing costs (in turn, creating an incentive to use the TP) *(referencing Article 11 of the Regulation)*.
 - They believe such a **financial incentive**, in addition to an annual audit of bal. actions, would give reassurance that actions taken are economic, rather than having the need for prescriptive TSO TP rules.

Industry Responses to Draft Business Rules *(Slide 8 of 9)*

Response from ESB (GWM) (continued)

Section 4.3 and 4.7 **Balancing Action Notifications** *[see TSO Response: Slide 16]*

- The ESB considers the provision of linepack information to be sufficient information for shippers to take a view on whether the system is long or short and encourage their participation on the TP when needed by the TSO.
- They consider additional information, such as giving notice of pending TSO balancing actions, to be unnecessary and to potentially only serve to increase balancing costs.

Section 4.4 **Operation of a Live and Liquid Trading Platform**

- ESB expresses concerns about IBP TP liquidity remaining extremely low, while the current VRF pricing structure remains.
 - They state that until VRF tariffs are appropriately priced to reflect value, IBP prices will be distorted by putting in place an artificial floor IBP price (in turn reducing liquidity).
- ESB describes how imbalances typically result from changes to the operational schedules for gas fired plants from EirGrid and SONI (which will likely increase in iSEM) and forecast errors in LDM/DMs. However, the TP will not be open during this period.

Section 4.5 **Imbalance Cashout Prices**

- EBS believes that a **review of CO pricing is not needed** until after TP go-live (i.e. when an IBP price has been established).
- They note that it is not clear what impact the current pricing of VRF will have on the market.
 - If the TSO believes CO pricing need restructuring, the ESB urge for implementation of a straightforward, uniform price regime, rather than different pricing methodologies depending on the scenarios outlined in the Bal. Consultation.

Industry Responses to Draft Business Rules *(Slide 9 of 9)*

Response from ESB (GWM) (continued)

Section 4.6 Tolerances *[see discussion points under Agenda Item 4]*

- The ESB notes that *(in relation to Article 50 of the Regulation)*:
 - It could be argued that tolerances are no longer needed, given access to NBP for shippers to balance portfolios (point (a)).
 - It does not perceive there to be sufficient information regarding input and off-takes for shippers in Ireland (point (c)).
 - Specifically, in relation to information for DM/NDMs as final indicative allocations are only received on D+1.
- ESB describes how indicative operational schedules for gas fired plant can change at day end, between 02:00 and 05:00, when no renoms can be submitted. Hence, Shippers do not have access to gas required to meet ST fluctuations in demand/supply (point (b)). These changes to operational schedules during the night are perceived to increase as RES penetration in electricity increases.
- ESB concludes that any changes to or removing tolerances **cannot be warranted until sufficient information is provided to shippers and they have the ability to trade 24/7**. Otherwise shippers may be penalised for issues beyond their control.
 - An option suggested is to consider having specific tolerances for customer types to reflect their uncontrollable uncertainty.
- ESB welcomes clarity on why 3 hours is needed by the TSO to balance the system and whether there are plans to reduce this deadband period.

Transporter's Response to Industry Views *(Slide 1 of 3)*

Reviewing Actions Taken and Price Comparisons

- While recognising that the TSO must follow agreed rules and secure a reasonable price on behalf of shippers in so far as is operationally possible, the TSO is not willing to accept any proposal that it would, in any way, be “liable” for what might retrospectively be considered “sub-optimal” balancing actions taken.
 - Any appraisal of TSO actions taken should be considered in the context of ensuring the safe operation of the network.
 - The TSO is in the situation that it has to take necessary balancing actions, due to Shipper imbalances on the network.
 - Price is one of several variables (including quantity available on the TP, urgency of actions required) to consider.
- In response to views expressed by industry on prices comparisons to Balancing Services Contract (BSC) prices:
 - the TSO wishes to re-state that GNI cannot compare like-with-like, as the BSCs are an ‘after the day’ index.
 - to ensure, in so far as is possible while operating the Network, reasonable value is achieved on the TP, the TSO proposes to draft and implement internal Work Instructions on when to revert to the relevant BSC.
 - As part of these rules, for example, a rolling NBP SAP may be used to guide decision making.
 - Consequently, the TSO may require access to a read-only APX screen (UK OCM trading screen) – arrangements TBC.

Transporter's Response to Industry Views *(Slide 2 of 3)*

Information Dissemination

Internal Work Instructions

- Mixed views from industry expressed, as to whether and to what extent industry should be involved in developing Internal Work Instructions on TSO TP Activity.
- In light of the TSO's efforts to minimise balancing costs, in addition to an annual audit of all actions taken, it may not be necessary for the TSO to disseminate and consult on prescriptive TSO TP rules.

Balancing Action Notifications

- Mixed views from industry concerning whether the TSO should issue balancing action notifications.
- The TSO will address BGE's view about stressing the need for anonymity in Version 2 (V2) of Bus. Rules.
- The Transporter will reflect on the suggestions from industry in V2 that:
 - linepack information should be publicised in ranges rather than absolute figures.
 - the provision of linepack information is sufficient information for shippers to take a view on whether the system is long or short and encourage their participation on the TP when needed by the TSO.
 - the provision of balancing action notifications could potentially increase balancing costs.

Transporter's Response to Industry Views *(Slide 3 of 3)*

Liquidity

- While recognising industry concerns expressed about possible low TP liquidity, the TSO believes that we will have to wait until the TP is live to determine liquidity.
- The various proposed cashout prices presented by the TSO *[discussed under Agenda Item 4]* take account of (in)activity on the TP.
- Concerns expressed by ESB about IBP TP liquidity remaining extremely low, while the current VRF pricing structure remains, will be discussed during the proposed VRF Workshop.

Cashout Prices and Tolerances

- The Transporter's standpoints are included in the Review Document circulated.
- The TSO will reflect on industry's varied responses in terms of:
 1. preference for an uniform imbalance CO price regime vs a scenario dependent, market-based regime.
 2. timelines for implementation of any changes to CO prices.

Shippers need to be mindful of the impact on the disbursement account of any proposed changes to cashout prices and/ or tolerances applied.

4. Discussion on Potential Amendments to Imbalance Cashout Prices and Tolerances

Primary* Imbalance Cashout Prices the TSO considers to potentially be appropriate to apply in different scenarios, once participating on a liquid TP

Scenario	CO Buy Price to Apply to Shippers' Short Positions	CO Sell Price to apply to Shippers' Long Positions
A. GNI has no bal (buy or sell) requirements, but there are trades on IBP TP	SAP (IBP) plus [10%] differential <i>(as per Article 22(2b) (ii) – see Note 3)</i> <i>(also see Note 4 re Differential to Apply)</i>	SAP (IBP) minus [10%] differential <i>(as per Article 22(2a) (ii) – see Note 3)</i> <i>(also see Note 4 re Differential to Apply)</i>
B. GNI has no balancing requirements, and there are no trades on IBP TP	SAP (NBP) plus [10%] differential plus Transportation Costs <i>(as per Default Rule – see Note 5)</i>	SAP (NBP) minus [10%] differential minus Transportation Costs <i>(as per Default Rule – see Note 5)</i>
C1. GNI has bal buy requirements, and it has to utilise the BSC, and other parties trades with each other on IBP TP	SAP (IBP) plus [10%] differential <i>(as per Article 22(2b) (ii))</i>	SAP (IBP) minus [10%] differential <i>(as per Article 22(2a) (ii))</i>
C2. GNI has bal buy requirements, and has to utilise the BSC, and no trades on an IBP TP	SAP (NBP) plus [10%] differential plus Transportation Costs <i>(as per Default Rule)</i>	SAP (NBP) minus [10%] differential minus Transportation Costs <i>(as per Default Rule)</i>
D1. GNI has bal sell requirements, and it has to utilise the BSC, and other parties trades with each other on IBP TP	SAP (IBP) plus [10%] differential <i>(as per Article 22(2b) (ii))</i>	SAP (IBP) minus [10%] differential <i>(as per Article 22(2a) (ii))</i>
D2. GNI has bal sell requirements, and has to utilise the BSC, and no trades on IBP TP	SAP (NBP) plus [10%] differential plus Transportation Costs <i>(as per Default Rule)</i>	SAP (NBP) minus [10%] differential minus Transportation Costs <i>(as per Default Rule)</i>
E. GNI has bal buy requirements, and trades these out on IBP TP	IBP Marginal Buy Price <i>(see Note 3 re Article 22(2b) for options (i) and (ii))</i>	IBP Marginal Sell Price <i>(see Note 3 re Article 22(2a) for options (i) and (ii))</i>
F. GNI has bal sell requirements, and trades these out on IBP TP	IBP Marginal Buy Price <i>(see Note 3 re Article 22(2b) for options (i) and (ii))</i>	IBP Marginal Sell Price <i>(see Note 3 re Article 22(2a) for options (i) and (ii))</i>

Notes on Proposed Imbalance Cashout Prices *(Slide 1 of 3)*

** If Second Tier imbalance Cashout Prices are to continue once a live and liquid ROI Trading Platform exists, an appropriate Second Tier Pricing Regime (and an associated 'Second Table') will have to be developed and agreed upon.*

Note 1: IBP and NBP Prices

- NBP (National Balancing Price, Great Britain) SAP prices are currently used to calculate Shipper imbalance cashout prices.
- When a ROI Gas Trading Platform goes live, it will generate IBP (Irish Balancing Point) SAP prices. The Regulator shall decide on a specific future date, following Platform go-live, from which point onwards:
 - the IBP SAP price shall apply to calculations of Shipper imbalances, when available (i.e. when there is activity on the ROI Trading Platform on the gas day in question).
 - the NBP SAP price shall only apply in the absence of an IBP price for the given gas day.
- Where the NBP SAP is the reference price for Shipper imbalance calculations, Imbalance Gas Transportation Costs will apply, as per the default rule re prices (see Note 5).
 - Such transportation costs will not apply where IBP prices are applied.
- IBP and NBP prices are in Pence (Sterling) per Therm, and will need to be converted accordingly (to Euros per KWh) for billing purposes. Current exchange rate conversion mechanisms (which use the ECB daily closing price) will continue to apply.

Note 2: SAP (System Average Price)

- As per Article 22(3) [Applicable Price] of the [Balancing Network Code Regulation](#) (EU 312/ 2014), the weighted average price shall be the energy weighted average price of trades in title products carried out at the virtual trading point in respect of a gas day.

Notes on Proposed Imbalance Cashout Prices *(Slide 2 of 3)*

Note 3: Marginal Sell and Buy Prices

- As per Article 22(2), the marginal sell and buy prices shall be calculated for each gas day pursuant to the following:
 - (a) a marginal sell price is the lower of:
 - (i) the lowest price of any sales of title products in which the TSO is involved in respect of the gas day; **or**
 - (ii) the weighted average price [SAP] of gas in respect of that gas day, minus a small adjustment [of 10%].
 - (b) a marginal buy price is the higher of:
 - (i) the highest price of any purchases of title products in which the TSO is involved in respect of the gas day; **or**
 - (ii) the weighted average price [SAP] of gas in respect of that gas day, plus a small adjustment [of 10%].

Note 4: Differential to Apply

- As per Article 22(7), the value of the small adjustment:
 - may differ for determining the marginal buy price and the marginal sell price.
 - **shall not exceed 10%** of the weighted average price unless the TSO can justify otherwise to the NRA and have it approved pursuant to Article 20.
- The ROI Transporter reserves the right to request to the Regulator to increase this differential above 10% if necessary.

Note 5: Default Rule re Prices

- Article 22(4) states that a default rule shall be defined in case paragraphs 2(a) and (b) [of Article 22] do not allow for the derivation of a marginal sell price and/or a marginal buy price.
- The Transporter proposes to define the default rule for ROI as follows:
 - NBP SAP minus/plus a pre-defined differential minus/plus Imbalance Gas Transportation Costs shall apply in situations where Article 22 2(a) and/or (b) do not allow for the derivation of a marginal sell price and/or a marginal buy price at the IBP.

Notes on Proposed Imbalance Cashout Prices *(Slide 3 of 3)*

Note 6: Different Trade Products

- As per Article 22(5), subject to NRA, the price of locational products may be taken into account for the purpose of determining marginal and weighted average prices, where proposed by the TSO with corresponding consideration of the extent of the TSO's use of locational products.

Note 7: Balancing Services Contracts

- Prices for the balancing (buy and sell) services contracts will not affect Shipper imbalance buy and sell cashout prices.

Note 8: First and Second Tier Shipper Imbalance Calculations

- Once the TSO is operating on a live and liquid Trading Platform, current methods of calculating First and Second Tier Cashout Price Imbalances will be reviewed and amended, as appropriate.

Review of Tolerances *(Slide 1 of 2)*

- TSO has agreed to circulate its interpretation of the relevant sections of the EU [Bal NC Regulation](#) concerning tolerances.
- In the Initial Business Rules, the TSO outlined how Article 50(1) of the Regulation provides for tolerances unless network users have access to;
 - a) A short-term wholesale gas market that has sufficient liquidity;
 - b) A market proven to meet short-term fluctuations in gas demand and supply; and,
 - c) Sufficient information regarding their inputs and offtakes.
- The TSO wishes to reiterate its standpoint, that it will be some time after a TP goes live before it can be adjudged that the criteria outlined are satisfied and whether tolerances should be removed.
- That said, the TSO is cognisant that some stakeholders may question the extent to which the aforementioned criteria are provided for.
 - Concerning criteria (a) and (b), some stakeholders may consider access to Great Britain’s Gas Market, in addition to the ability to trade bilaterally at the IBP, to provide access to a short-term wholesale gas market that has sufficient liquidity.
 - Concerning criterion (c), some stakeholders may perceive there to be insufficient inter-day information available to Shippers regarding their inputs and offtakes.
- **The Transporter welcomes industry standpoints, as to whether they consider these criteria to be provided for.**

Review of Tolerances *(Slide 2 of 2)*

Industry views on Sections 4-6 of Article 50 (as outlined below) are also welcome:

- According to **Article 50(4)**, the tolerance level shall be the maximum quantity of gas to be bought or sold by each network user at a weighted average price. If there is a remaining quantity of gas that constitutes each network user's daily imbalance quantity which exceeds the tolerance level, it shall be sold or bought at marginal sell price or marginal buy price.
- According to **Article 50(5)**, the design of the tolerance level shall:
 - a) reflect the transmission network's flexibility and network user's needs;
 - b) reflect the level of risk to the network user in managing the balance of its inputs and off-takes;
 - c) not undermine the development of the short term wholesale gas market;
 - d) not result in an unduly excessive increase of the TSO's balancing actions' costs.
- According to **Article 50(6)**, the tolerance level shall be calculated on the basis of each network user's inputs and off-takes, excluding trades at the virtual trading point, for each gas day. The subcategories shall be defined under the applicable national rules.

The shipping community should be mindful that any potential amendments to tolerances will have an impact on the Disbursements Account.

In 2017, the TSO will provide each individual Shippers will an overview of their tolerances applied to date, in addition to aggregate anonymised figures for all Shippers.

5. Next Steps

Summary of Activities Completed/ to be Completed

Activities Completed to date

- Balancing Arrangements Consultation completed.
- Initial Draft of Business Rules circulated and industry feedback collated.
- Tender for TP services at launch stage.
- Initial review of tolerances and cashout regime completed.
 - Proposed imbalance CO prices to apply once the TSO participates on a liquid TP and TSO's interpretation of the relevant sections of the Regulation concerning tolerances circulated, for feedback.

Activities to be Completed

Issues requiring industry/GNI/CER agreement:

- Review tender submissions received for TP services by a third party operator.
- Redraft/finalise Business Rules for TP activity, reflecting industry feedback.
- Establish sections of the Code possibly requiring amendments.
 - Further review tolerances and proposed cashout pricing regime for when the TSO participates on a live and liquid TP.
 - TSO to reflect on industry views on Article 50.
 - TSO to provide Shippers with an overview of their individual tolerances applied to date.
- Information Provision
 - Publication of data on system linepack.
 - Signalling of balancing buy/sell requirements and info on GNI participation on TP.
- Other Activities
 - IT systemisation change requirements.
 - Business process amendments (e.g. Grid Control operations, validation of bal. actions, invoicing/settlement).
 - Code Modifications to reflect new regime.
 - Internal Work Instructions and GNI Grid Control training.

Proposed Next Steps by the Transporter

- The Transporter will:
 - Review tender submissions received for TP services by a third party operator, and select service provider.
 - Establish business process amendments and internal IT systemisation change requirements of the TSO transitioning to a TP, and develop an appropriate ‘roadmap’ to deliver required changes.
 - Redraft and circulate an amended version of Business Rules.
 - Establish sections of the Code which possibly require amendments, as a result of the TSO moving to participate on a TP.
 - Code Mods are anticipated to be required, and will be consulted upon accordingly.
 - Further review tolerances and proposed CO pricing regime for when the TSO participates on a liquid TP.
 - TSO to provide Shippers with an overview of their individual tolerances applied to date.
 - Finalise internal *Work Instructions* and build competence in GNI Grid Control in utilising a TP.
 - Assess arrangements for accessing a live feed of rolling UK SAP/SMP prices.



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Thank you for your participation