

# Imbalance settlement harmonisation

## Informal workshop pursuant the EBGL Art. 52(2)

Date: 23 March 2018

Time: 10:00 – 16:00

Place: ENTSO-E premises, Brussels

## Notes of the informal workshop

### Participants

#### ENTSO-E participants from PT ISH<sup>1</sup>

Role	Name	Organisation
Convener PT ISH	Frank Nobel	TenneT NL
Chair main components table	Eveliina Seppälä	Fingrid
Chair dual pricing table	Pär Lyden	SvK
Chair imbalance adjustment table	Steve Wilkin	Elexon
Chair value of avoided activation table	Donald Kreiken	TenneT NL
Chair main components	Benjamin de Boissezon	RTE
ENTSO-E	Ricardo Renedo Williams	ENTSO-E
ENTSO-E	Alexander Dusolt	ENTSO-E
PT ISH	Pavla Erhartova	OTE
PT ISH	Christina Bernklau	APG
PT ISH	Valentīns Lavrinovičs	AST
PT ISH	Alexandre Pitsaer	Elia
PT ISH	Tiago Pereira	REN
PT ISH	Kristofer Vare	Elering
PT ISH	Roger Wiget	Swissgrid
PT ISH	Michele Cosimo Dalena	Terna

<sup>1</sup> ENTSO-E's project team on imbalance settlement harmonisation

## Other participants

Alessandro Ludica (ENI), Alexander Kabinger (E-Control), Alexander Kohler (VKW), Andras Hujber (EC), Andrea Pompa (EDF), Andrea Siri (Edison), Andreas Burger (Ompex), Arnaud Lavoix (EDF), Begoña de la Puente Mora (REE), Blaž Bratina (Energy Agency); Bruno Gouverneur (Synergrid), Charles Ryckeboer (BKW), David Plomp (Vattenfall), Dieter Jong (Anode), Ermo Cappon (PZEM), Erwann Epivent (Engie), Felix Vogt (Axpo), H el ene Robaye (Eurelectric), Hendrik B ohm (NEAS Energy), Henk Nieboer (PVNED), Iason Avramiotis (Swissgrid), Jan Egidi (NEXT Kraftwerke), Jaroslav Hod anek (OTE), J er ome Le Page (EFET), Johannes Schulz (RWE S&T), Jussi Karttunen (Fortum), Leonardo Costa (OFGEM), L iga Sadovi ca (AST), Marco Pasquadibisceglie (Arera), Mar ia Eugenia Leoz Mart in-Casallo (EC), Marie Woithe (BNetzA), Mathieu Fransen (ACM), Mathilde Carbonelle (EC), Matthias Grote (BDEW), Matti Supponen, Nicolas Kuen (EC), Ole L ofsn es (Norsk Industri), Paul de Wit (Alliander), Peter Willis (Bird & Bird), Philip Rodemeyer (APCS), Selim Bousetta (CRE), Silvia Barengi (DXT Commodities), Stefan Janson (EmbW), Teija Pelkonen (UPM), Thierry Lemoyne (IFIEC), Thomas Quinn (CRU), Vincent Cou e (Orsted), Wietse Kroes (Enduris), Yannick Phulpin (EDF).

## 1. Introduction

The Guideline on Electricity Balancing (EBGL) mandates all TSOs to draft a proposal for imbalance settlement harmonisation by end-2018. An ENTSO-E's dedicated project team is preparing the proposal following the specifications enclosed in the EBGL Art. 52(2). To incorporate the opinion of stakeholders in the drafting process of the all-TSO proposal, ENTSO-E organised an informal workshop to gather different points of view and comments.

The workshop was held at the ENTSO-E premises on 23 March. The intention of this workshop has been to gather ideas that can help improving the proposal under development. The workshop has not been part of a public consultation, nor have formal or informal ENTSO-E positions been shared. An introductory presentation was given by Frank Nobel, convenor of the ENTSO-E project team. As introduction to the subject the outcome of the ACER market monitoring report over 2016 was mentioned. In this report the contribution of imbalance charges was calculated in a significant sample of ENTSO-E countries to be around 1  /MWh per MWh consumed. With total consumption in all ENTSO-region at about 4500 TWh/a this amounts to ca.  $4.5 \cdot 10^9$   /a for the whole ENTSO-E region, a not overwhelmingly large value. Secondly, the (non-exclusive) functions of imbalance settlement were addressed: as cost-recovery key to the TSO, or as incentive providing key to BRPs (and BSPs). Although non-exclusive, emphasis on either function has consequences for the design and execution of imbalance settlement, for all involved parties. This presentation further addressed the scope, planning and questions of the proposal and outcomes of a survey performed amongst all TSOs, including third parties entrusted with settlement tasks on the topic of imbalance settlement. The presentation was followed by a set of round-table sessions on the following sub-topics:

1. Main components for calculation of the imbalance price
2. Definition of the value of avoided activation
3. Conditions for application of dual pricing
4. Finalisation of imbalance adjustment, position and allocated volume

Organised in three rounds, each participant of the workshop was able to participate in the round-table sessions of his/her preference. Round-table sessions took place in mixed groups, including representatives from the Commission, regulators, market parties, industry, settlement agents, balance-responsible parties, and TSOs.

This document aims to give a summary and impression of informal workshop and the outcomes of the round-table sessions. In case of any questions or remarks, please refer to [wgas-is@tennet.eu](mailto:wgas-is@tennet.eu) and [ricardo.renedowilliams@entsoe.eu](mailto:ricardo.renedowilliams@entsoe.eu).

## 2. Roundtable 'Imbalance Adjustment'

This table discussed the four items derived from the requirement in the EBGL Article 52(2)(a): “all TSOs shall develop a proposal to further specify and harmonise at least the calculation of imbalance adjustment pursuant to Article 49 and the calculation of a position, an imbalance and an allocated volume following one of the approaches pursuant to Article 54(3)”. The four items were imbalance, imbalance adjustment, position and allocated volume.

### a) Imbalance

None of the three rounds expressed a desire to further consider the definition of an imbalance, which was considered to be sufficiently precise in the current EBGL.

### b) Imbalance adjustment

It was discussed whether imbalance adjustment should be based on requested or metered volumes. It was accepted that this was out of scope and that harmonisation could be on the basis of ‘settled volume’, i.e. the national preference should be retained.

In addition, it was questioned whether Demand Side Response (DSR) activated by independent aggregators should also increment imbalance adjustments. It was confirmed that there were no issues if the BSP and the BRP were the same body, however in case these are not the same and an independent aggregator is involved, there could be need for a baseline (demand if no DSR has been activated).

The need for harmonisation of measurement was introduced, i.e. whether measurements should take place, for example, every minute or every 15 minutes; as well as the concept of volume tolerance.

Various participants raised the opinion that retail suppliers should be kept neutral to DSR and that imbalance adjustments should be applied when independent aggregators are active. From traders perspective, there should be a common approach to transparency of imbalance adjustments.

### c) Position

As it was expressed this was mainly already harmonised to one position and should indeed be harmonised, tables were content not to discuss this further.

### d) Allocated Volumes

There was no desire to harmonise metering or profiling, nor harmonising common EU consumption classes.

One round of discussions distinguished between initial settlement and final settlement. In particular, it was discussed whether smart meters would allow for shorter initial settlement, but some participants highlighted that communications (non-available meter readings in time) would still be an issue. There should be no harmonisation during the next three years, but a path towards shorter settlement over a longer period could be introduced, dependent on smart meter reads.

There was a common view that there could be harmonisation on a maximum target time for both initial settlement and final settlement. And, if we were harmonising, we should not harmonise those who have shorter settlement to take longer, but we should harmonise towards shorter times over longer timescale. It was mentioned that it could be possible to resettle volumes as long as the imbalance prices are fixed quickly and not subject to later changes. It was suggested that a summary of the current differences in settlement timescales between TSOs would be helpful, which has been passed on to the project team. Moreover, it was stressed that costs should be taken into account.

## e) Other

It was noted that DSOs should be involved in these discussions as all connections are covered. The chair noted that there was an opportunity for all to comment, including in the public consultation, and that TSOs welcome early comments, this being one for the informal workshop (where DSOs were invited and present).

## 3. Roundtable 'Main Components'

This table discussed items derived from the requirement in the EBGL Article 52(2)(b): “all TSOs shall develop a proposal to further specify and harmonise at least the main components used for the calculation of the imbalance price for all imbalances pursuant to Art. 55”.

The imbalance price should provide a proper signal for the system-state and the right incentives for BRPs to balance their portfolio and be active on the ID-market. Socialisation of imbalance cost should be avoided since it delineates from the polluter-pays principle where balancing responsible parties are responsible for the balancing energy cost. TSOs should see recovery of their costs as a secondary target of imbalance prices – there should be other ways to implement cost recovery.

For the possible choice between average price and marginal pricing, there was understanding for both options. With regards to the financial neutrality of TSOs a weighted-average price leads to a cost-reflective imbalance price, but a marginal price may create surplus. In general, the system should minimize the amounts to be redistributed.

Clear rules need to be developed on how excessive income/cost incurred by the TSO should be distributed in the case balancing areas are coupled, and in the situation when, for example, TSO A is in balance but TSO B required a lot of activations. Another problem occurs when different products are activated, e.g.: TSO A activates RR but TSO B does not have any RR to begin with.

Regarding the volumes, a majority of stakeholders' opinion was towards using local incentives in the uncongested area. The polluter-pays principle was considered important, e.g. the volumes should be taken into account when calculating the price. Volumes should be used to determine the imbalance price if there are more than 1 prices and costs within platforms through the volume weighted average price (challenging known volumes) or marginal price. The main components for determining imbalance prices should include actual energy activated within the ISP (taking into account activations from different products). It was also remarked to carefully look at the utilization of specific products. If there is an elastic demand curve, what would be the impact of integration of the components for these respective products in the imbalance prices (as transparency requirements are lower on these products).

For the question on what should be the level of harmonisation, the harmonised calculation and transparency were seen important to allow for predictability for the market. In this case, the ‘marginal price of marginal price’ was said to introduce difficulties in hedging against the DA or ID market prices, which is important for BRPs. Harmonisation should establish a link with balancing energy and the imbalance price, with a full marginal price as target. As long as there are different processes, the weighted average price of marginal prices could be a possible transitory solution.

The inclusion of price components should serve a fundamental justification of price and have a market-based reference. The balancing price was seen as the main driver of the imbalance price, with only €/MWh energy to be included in some formula, of which it is clear where in the process components are added.

Other, additional components would at least include the avoided activations. For minor components this could be left to national choice? Here a cost adder may be used. On the question what should not be included in main components, there were concerns on the effect of activation purposes other than balancing on the imbalance price, such as congestion management.

One BRP's imbalance price risk is also currently determined by another BRP's imbalances. A BRP's point of view does not change depending on whether BRPs in the same or another imbalance area are determining the price. There was a concern of how specific products could affect imbalance prices.

The flow based capacity makes it hard for market participants to predict the possible congestions in the grid and possible negative effects should be avoided for the imbalance price calculation

#### 4. Roundtable 'Value of Avoided Activation' (VoAA)

This table discussed items derived from the requirement in the EBGL Article 52(2)(b): "all TSOs shall develop a proposal to further specify and harmonise at least the main components used for the calculation of the imbalance price for all imbalances pursuant to Article 55 including, where appropriate, the definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves".

##### a) Applicability of VoAA

It was that imbalance netting is also a form of activation, since the TSO activates (with a TSO as counterparty), rendering a price for everyone to be the same.

The VoAA was said to affect:

- TSO-TSO settlement
- TSO-BRP settlement
- BSP remuneration (indirectly)
- Potentially, financial neutrality of the TSO; will money be transferred to BSPs? (do we apply VoAA as price to remunerate bids?)

##### b) Establishment of VoAA

For the VoAA, the performed survey showed the DA/ID as reference price in 17 countries, of which in two of those as a function thereof, in four as a regulated price and in two based on persistency.

For the establishment of the VoAA, the following conditions were desired: transparency, reflectiveness of the situation and robustness. There was the common view that the VoAA should be market-based and therefore the use of persistency, historical prices or fixed prices should be out of scope.

The DA (D-1) price would be known to everybody in advance, but it was agreed that the price does not reflect the current situation in the system. Here, the ID price would be better since the price better depicts the real-time situation of the balancing state – issues however arise when ID markets are illiquid; furthermore, when multiple trades takes place price determination for the VoAA would be hard. It was suggested to investigate the harmonisation to DA or ID, for member-states to choose one or the other.

By others, the ID price was still considered too far from real-time. Therefore, the mid-price of activated balancing energy would best reflect the closer to real-time value of balancing energy. Another possibility would be to use a non-activated bid-based solution, as it would depict the actual price of the system. Inefficiencies could occur when the balancing market is illiquid – although some liquidity is guaranteed by the TSO procurement of ancillary services - and the market could be manipulated. Complexities also arise since we have different balancing energy products and platforms.

A solution in the spirit of the EBGL was advocated, with the expectation that the outcomes of the EBGL will shift liquidity to balancing markets.

### c) Impact of VoAA

The VoAA should not dampen incentives to BRPs and it was argued that the VoAA for TSO-BRP settlement should be reflective of the local situation and provide incentives accordingly, thus the VoAA should be the same given balancing energy would have been activated.

On the other hand it was argued, the system state would be balanced and thus the VoAA should be neutral, reflecting the last transaction for that delivery period (which would then be DA or ID).

On harmonisation for cross-zonal trading and markets, it was argued that harmonisation of other matters was more important and complicated given different market designs in several countries (CDM, SDM). If lead times for bids and T&Cs on platforms are not harmonised, there will be no level-playing field.

It was asked to ensure consistency with the European balancing platforms.

It was also suggested to include examples in the explanatory document. An example presented in the workshop relative to cases with four imbalance areas (A, B, C, D) and their respective local imbalances:

- Case 1, nothing activated and not congested (rare situation): A:+1; B:+1; C:+1; D:-3 → Do you have four prices from local/common MOLs?
- Case 2, with some activation, some avoided activation given congestion: A:+1; B:+1; C:+1; D:-5 → Do you have one price from local/common MOLs in area D?

## 5. Roundtable 'Conditions for Dual Pricing'

This table discussed items derived from the requirement in the EBGL Article 52(2)(d): “all TSOs shall develop a proposal to further specify and harmonise at least the definition of conditions and methodology for applying dual imbalance pricing for all imbalances pursuant to Article 55, which defines one price for positive imbalances and one price for negative imbalances for each imbalance price area within an imbalance settlement period, encompassing: (i) conditions on when a TSO may propose to its relevant regulatory authority in accordance with Article 37 of Directive 2009/72/EC the application of dual pricing and which justification must be provided; (ii) the methodology for applying dual pricing”.

### a) Conditions for Dual Pricing

There was a general consensus and broad acceptance in all three sessions that dual pricing could be justified for operational security reasons, to mitigate risk of overreactions/overshoot from BRPs.

No additional conditions were mentioned and no other conditions except for operational aspects were mentioned that could justify application of dual pricing.

BRP self-regulation helps the system and single pricing is needed, but mitigation measures are sometimes justified. System efficiency was considered more important than harmonisation.

For financial neutrality, dual pricing leads to a surplus that may be generated from scarcity adder.

A correction coefficient (currently in France) allows 0-balance account – always dual pricing.

The importance of price consistency between markets (ID in particular) and imbalance settlement was addressed. Also, dual pricing as a tool may have a role in creating liquidity on the ID market.

It was stated by several stakeholders that the joint European balancing market should be followed (and justifies) a harmonised imbalance settlement scheme in order to ensure consistency and a level playing field (same economic signals to all BRPs).

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## b) Impact of Dual Pricing

Dual pricing imposes cost on everyone, is a punishment to everyone (contrary to single price, not making it more expensive than it is).

Dual pricing should not be used as a tool to mitigate market dominance.

Dual pricing affects new and small players more, lower threshold for forecast accuracy, and small players unduly penalised by dual pricing, that dual pricing therefore should be avoided in order to create a level playing field.

On the other hand, dual pricing is seen an important driver for high qualitative production plans and was argued to especially incentivise qualitative wind power plans.

There was a warning for a “last minute effect” that the system balancing state changed during the last minute of the ISP and therefore resulted in dual pricing. This limits the positive effect of the single pricing scheme. Several stakeholders emphasised the importance of timely and comprehensive publication of real time market information in order to reach the full benefit of a single pricing scheme. Delay of market data publication would impact BRP’s behaviour. The link to publication of information was considered very strong, and should be considered in conjunction to the imbalance pricing scheme.

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