Minutes of Meeting of Workshop on System Balance Philosophy on 20th January

Meeting

Date	20/01/2022
Organiser	James Matthys-Donnadieu

Participants

		Attended	Excused
AXPO	Limpens Tanguy	☒	
AXPO	Mouratidis Georgios	☒	
BASF	Verrydt Eric	☒	
Centrica	Adigbli Patrick	☒	
Centrica	Benquey Romain	☒	
Cogen Vlaanderen	Reyniers Stefaan	☒	
CREG	Bertrand Gilles	☒	
CREG	Libert Brice	☒	
CREG	Marijn Maenhoudt	☒	
Eneco	van den Berg Jasper	☒	
Eneco	Williame Jean-François	☒	
ENGIE	Donnay de Casteau Loïc	☒	
ENGIE	Laleman Ruben	☒	
ENGIE	Maes Guillaume	☒	
Eoly Energy	Kormoss Aymeric	☒	
FEBEG	Waignier Jean-Francois	☒	
Febeliec	Van Bossuyt Michael	☒	
Flexcity	Maes Emiel	☒	
Lampiris	Michiels Yannick	☒	
Lampiris	Pirard Sacha	☒	
Luminus	Chaqafi Laila	☒	
Luminus	Harlem Steven	☒	
Next Kraftwerke	Dierckxsens Carlos	☒	
Next Kraftwerke	De Keyser Elias	☒	
ODE	Celis Chris	☒	
Power Pulse	Taverniers Hans	☒	
RAP-Green	Bayart Pierre	☒	
RAP-Green	Fieuws Arthur	☒	
RWE	Bieman Ton	☒	
RWE	Hendel Manfred	☒	
RWE	Schulz Johannes	☒	
Virtual Power	Pascal Braecke	☒	

Yuso	Debaere Elias	☒
Yuso	Vermandere Jasper	☒

Participants		Attended	Excused
Elia	Attanasi Arnaud	☒	
Elia	Bosschaerts Caroline	☒	
Elia	Leroux Amandine	☒	
Elia	Matthys-Donnadieu James	☒	
Elia	Motté Arno	☒	
Elia	Pierreux Nicolas	☒	
Elia	Tsiokanos Anna	☒	

Report

Author			
Date report	21/01/2022		
Status	☐ Draft	☒ Final version	

1. Agenda

1. System Balance Philosophy

2. Report

Febeliec asks when Elia will be able to quantify the XB contribution on slide 9. Elia refers to its study on the daily prediction of non-contracted balancing energy bids that was performed in 2021, as well as to the follow-up study that will be carried out in 2022. This new study will analyse the possibilities and impact of partially / intermittently reduce balancing capacity procurement. The robustness after implementation of the EU balancing platforms, explicit bidding and shorter full activation time of mFRR should be confirmed in a study in 2023/2024.

Febeliec states that Elia takes the most conservative approach in all direction (as well in its evaluation of reserve capacity needs, as in its evaluation of flexibility means), which creates a false sense of urgency. Elia answers that if we could have perfect forecast, we could go even lower than the "best case scenario" calculated by Elia and have reserve capacity needs equal to the dimensioning incident. However, we don't live in this ideal world with perfect forecast. Elia believes that it is optimistic to stick to the "green curves" on slide 8. On the one hand it is not excluded that the system and markets reach the "best" scenario (or even better) – and all our (design) efforts should be targeted towards this. On the other hand, we also have to take reasonable assumptions in our analyses.
Febeliec reacts and says that if the reserve capacity increases, the costs will be assumed by the customers, and that we should make a clear distinction between capacity and real-time energy. Elia clarifies that "reserve capacity needs" is the EBGL terminology which might be quite confusing but which actually represents the FRR needs, not yet how these needs will be covered. The "reserve capacity needs" is therefore different from the "balancing capacity" which is what we have to contract. However, it is quite clear that if we manage to reduce the "reserve capacity needs", it can only be beneficial to reduce the balancing capacity we have to procure.

RAP-Green indicates it is surprised not to see large scale battery storage on the graph on slide 9, as any balancing strategy in the future should rely on batteries, with reasonable activation costs, in order to avoid RES curtailment or load shedding. Elia answers that large scale battery storages are included in one of the categories indicated on the slide and clarifies that the graph is extracted from AdeqFlex study which does not deviate from the political ambitions in terms of generation mix. The purpose of slide 9 is to show that we also have to capture the decentral potential for flexibility considering the large challenge ahead (large increase of reserve capacity needs that we will be facing).

On slide 10, Febeliec indicates that the figure (and more specifically the coexistence of the "contracted FRR" and "non-contracted FRR" categories) gives the impression that we are doing partial procurement. Elia clarifies that already today we have "non-contracted FRR" through reserve sharing. The local free bids are however not accounted in the "non-contracted FRR" for upwards mFRR because we don't do partial procurement as decided earlier. The possibility to perform partial procurement will be assessed again this year. However, Elia fears that partial procurement will be complicated, since the chance is great that the volume that would have been offered as free bids is the volume which is contracted first.
Febeliec argues that reserve sharing is "contracted FRR" (since it is subject to a bilateral agreement for a certain volume) and that the figure should show either "contracted FRR" or "non-contracted FRR" but not both at the same time. Elia agrees that the figure could be

improved but clarifies that there is no reservation costs associated to reserve sharing which can therefore be considered as “non-contracted FRR”. Elia admits that, except from reserve sharing, we cannot today have part of the remaining needs that is contracted and part that is not contracted. We are currently contracting “all or nothing” and we will consider this year if we can move away from this principle.

Febeliec indicates that its nightmare scenario would be the flexibility needs increasing, along with not enough price-based reaction, because it would mean that the volume-based part would increase and hence, especially in the absence of partial procurement, that we will procure much more balancing capacity.

Centrica welcomes Elia’s intention to analyze submetering requirements and asks by when this analysis is expected to be performed. Elia answers that its ambition is to implement CCMD by the end of 2023 for TSO-connected assets and by the end of 2024 for DSO-connected assets. Centrica asks if the updated submetering requirements will also be applicable for TSO-connected assets. Elia replies that the consumer centric market design targets all assets and ensures these requirements will be discussed with stakeholders in the course of the year.

CREG asks which TSOs have been benchmarked by Elia regarding the Imbalance price formation, and if TenneT was included. CREG indicates that TenneT recently held a workshop presenting their relatively mature design, and it seems their vision deviates from Elia’s. Elia answers that it contacted the TSOs that will be part of the first wave to be connected to the EU platforms and that TenneT is not part of them. Elia thanks the CREG for this information and ensures it will take contact with TenneT. Elia however indicates that TenneT & ACM already had divergent views compared to other European countries regarding the pricing of balancing energy, which is closely related to the calculation of the imbalance price.

Centrica does not really see the issue if some expensive aFRR balancing energy bids are activated while cheap mFRR bids are not. aFRR and mFRR are two different products, it is therefore not the same service that is provided and prices can be different.
Elia agrees on the fact that the service is not the same, but insists that the question here is how to translate the situation illustrated into imbalance price: when the SI is relatively small prices should not be sky-high.
Centrica wonders whether BRPs shouldn’t simply react to these high imbalance prices to reduce their residual imbalance and avoid being exposed to the high aFRR prices. Elia does not necessarily agree: if there is a lack of liquidity in aFRR leading to the activation of the last (expensive) bids while the SI is small (and there is residual cheaper flexibility in the system, sometimes even with the same technical characteristics as these expensive aFRR bids), the Imbalance price should not be high.
Febeliec agrees with Elia: there is an issue if extreme imbalance prices don’t reflect the volume of the imbalance. Febeliec stresses that imbalance prices should reflect the imbalance in Belgium and the means we still have, because the imbalance costs will eventually be passed through the grid user.

RWE argues that this “national” approach is not in line with the European ideology consisting in sharing balancing volumes within the EU non-congested area. Disconnecting and putting local

prices is like cherry picking. Febeliec reacts and says that it is not cherry picking because in the opposite situation (high imbalance in Belgium) we should have high prices in Belgium too.
Elia believes there is a confusion between the roles and scope of the BRP and the BSP. Elia does not intend to use local prices for BSPs: if we import energy we will pay the price of the platform for the energy imported. The question is what prices should we expose our BRPs to, in order balance our control area, especially in a reactive balancing model such as ours. The BSP prices (there exist different prices for the different products) across the uncongested area are different from the BRP Imbalance price.

Engie states that Elia counts on explicit action (volume based) as well as on implicit action (price based) which are services provided respectively by BSPs and BRPs, and raises two questions. Question 1: Why should those market players receive a different remuneration for providing the same service, meaning balancing the system. Question 2: why couldn't BRPs help the power system as a whole instead of the Belgian system. According art. 17 of EBGL, BRPs shall strive to be balanced or help the power system to be balanced; power system could as well be Belgian system as European one.
Regarding question 1: Elia answers that the services provided by BSPs and BRPs are very different. A BRP performing implicit reaction is not subject to any activation control or exposed to any penalty other than the imbalance price. A BSP explicitly activated by the TSO has to fulfil strong requirements (delivery profile,…) and is exposed to other types of risks (e.g. continuous switch on/off leading to wear and tear). Elia, as a TSO, uses two distinct mechanisms to balance the Belgian system: from a competition perspective, BSPs compete in Europe while BRPs are in competition nationally.
To answer question 2, Elia presented a slide which illustrates that incentivising BRPs to help the European balance instead of the Belgian one could lead to RT overloads and oscillations of the imbalance prices (and therefore in reaction of market parties). The problem is that the BSP_CBMP does not take into account the ATC margin at the borders. If this price signal is provided to the BRPs it might trigger implicit reaction that largely exceeds the ATC margin. Elia clarifies that it is not against letting its BRPs help the European zone, as far as this implicit reaction is under control and does not cause any grid security issue or affect the balancing capacity to be procured.

CREG questions the fact that the reaction of Belgian BRPs does not influence the EU system. Elia indicates that although BRPs' role is defined in a local context and that BRPs should not be directly influenced by the behaviour of BRPs in another Balancing area, it is true that BRPs' capability to balance the system in one balancing area may have an indirect impact on the other areas: e.g. their reaction influences the volume of FRR to be activated (hence possibly the CBMP) and their reaction impacts the bids that will be offered on the European platforms.

CREG does not understand the RT overload at the borders argument as the aFRR controller adapts the activation every 4". Elia explains that the overload is caused by the implicit reaction: the assets causing the overload (or their operators) will present some "inertia". Before reducing their implicit reaction the operators will have to look at the new price and take the decision to revert back. Then there will be an additional delay linked to the asset ramping rate. CREG asks what is the difference between this situation and today's situation where implicit reaction influences the FRCE and hence the fluxes at the borders. Besides we also have overshoots today

with oscillations of the price. Elia answers that in today's situation, the price always incentivises a reduction of our Belgian SI and therefore the implicit reaction only reduces the flows that are foreseen at the borders. Besides the overshoots and resulting oscillations are centred around zero which impacts less the system stability. CREG mentions that we have seen overshoots up to 800MW and that it is still not convinced by the example in a context of aFRR. Elia answers that the example illustrated could also apply in a context of mFRR with a 15' timescale. Elia explains that BRPs today can anticipate the fact that they can create an overshoot by looking at the volume of the SI (if the imbalance price is very high but the Belgian SI is small, they might limit their reaction to avoid switching the system in the other direction). In the example illustrated here, to avoid overshoots (and hence possible overloads on the border), the BRPs should develop a very complex algorithm (similar to the Picasso/Mari algorithm) to anticipate market reaction, ATC at the borders, needs from other TSOs etc. Such an algorithm could be developed only by a few BRPs.

Febeliec comments that the target pursued by Elia in the design of the imbalance price should not be the stability of the prices but rather an imbalance price that reflects the local situation. If there is a forced outage between the end of the ID and the real-time, ID price and imbalance price should not be the same. Elia agrees with Febeliec and explains that the use of an ID index as imbalance price would only be applicable for small SIs and hence in situations for which nothing occurs between the end of the ID and the RT.

Next Kraftwerke asks more information about the 'DA 15 minutes granularity' initiative mentioned on slide 23. Elia answers that implementation of DA 15 minutes granularity is foreseen in 2024 since it requires important adaptations in neighbouring countries (e.g. adapting the current 30' ISP in France). Elia suggests to complete its summary slide (slide 27 of this presentation) with more information about all the ongoing and future initiatives.

At stakeholders' request, back-up slides will be added to the presentation that will be sent again to the participants.