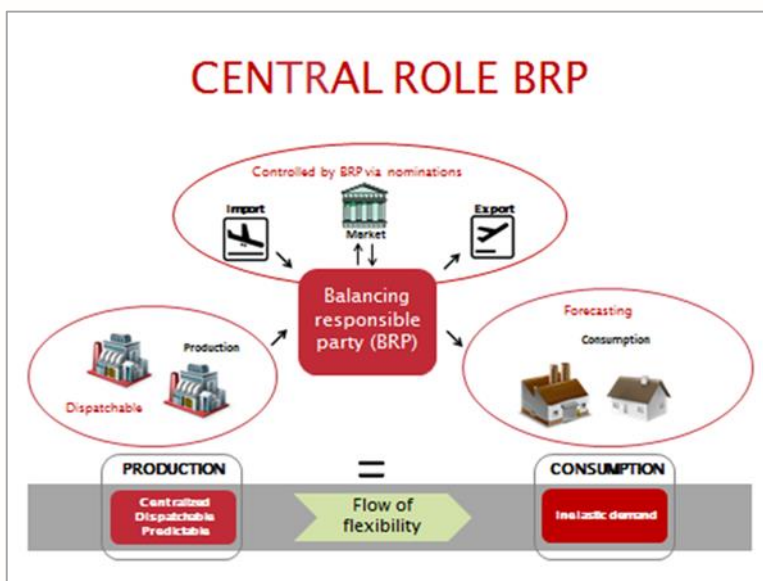


INFORMATION NEEDS OF THE BALANCING RESPONSIBLE PARTY

Brussels, 25th of June, 2015

The Balancing Responsible Party (BRP) has a fundamental and central role in the electricity market: he has the obligation to balance his own position and by doing so he contributes to the balance of the electricity system. New evolutions (growing share of renewables, demand flexibility, interventions of third parties, ...) increase the complexity and the risks related to the responsibilities of the BRP's. Therefore, FEBEG considers it essential that the BRP's are correctly informed: as the BRP has the obligation to balance, he also has the right to be properly informed to be able to fulfil this obligation.

1. CENTRAL ROLE BRP'S



The Balancing Responsible Party (BRP) has the **obligation to balance** his own position.

To that end the BRP will forecast the consumption of the consumers in his portfolio and source the required amount of energy to match that consumption. This volume of energy could be produced by generation units in the portfolio of the BRP, but could also be imported or bought on the market.

By balancing his own position the BRP contributes to the balance

of the electricity system. A BRP has thus – and this is acknowledged by all stakeholders – a **fundamental and central role in the electricity market**. As system adequacy is deteriorating, the role of the BRP's is becoming even more important.

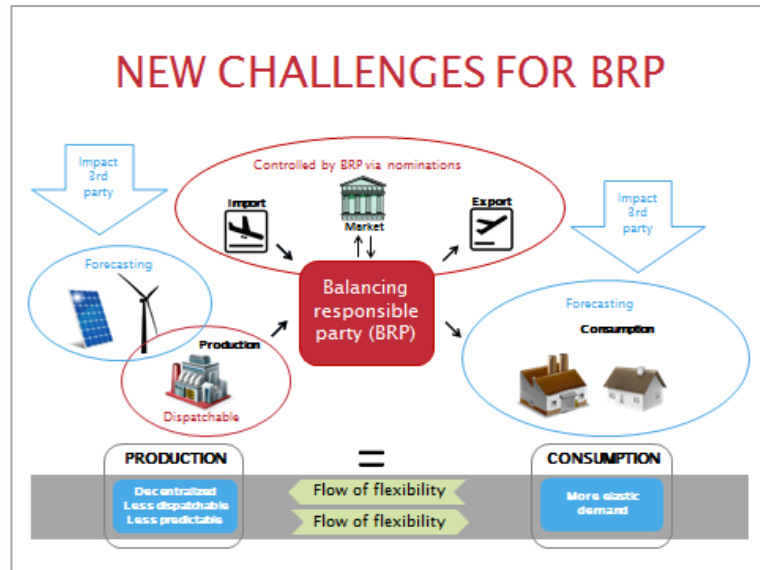
2. NEW CHALLENGES FOR BRP'S

Increasing share of renewables

The growing share of renewable energy resources (RES) is challenging the BRP's: the **intermittent and unpredictable character of these RES**, as well as the fact that a **large part of their electricity generation is not accurately measured in real-time** (e.g. almost 3 GW of PV equipped with backward turning yearly measured meter), increases the complexity and the risks related to the tasks of a BRP. The BRP's will not only have to forecast consumption, but they will also have to forecast, monitor and balance an important – and growing – share of the generation park.

Demand flexibility

In order to make the maximum use of RES, market mechanisms and products are being developed to incentive consumers to consume at times of high RES generation and to reduce consumption when RES generates no or little energy. This implies that more often consumption is steered to match generation. This again adds a layer of complexity and additional risks to the role of the BRP.



Interventions of third parties

BRP's are also more and more faced with interventions of third parties in their perimeters. In order to integrate RES into the system and into the market, to incentivize demand flexibility and to cope with adequacy issues, new tools and mechanisms are being developed that will – if not properly designed – further impact the BRP. **To the extent that the BRP is not 'neutralized' for and properly informed about these interventions in his perimeter, these mechanisms are undermining the role of the BRP.**

	CONGESTION	BALANCING	ADEQUACY
NOW	<ul style="list-style-type: none"> TSO or DSO curtailing generation in the perimeter of the BRP (e.g. flexible access contract) 	<ul style="list-style-type: none"> Flexibility Service Providers (FSP's) activating flexibility in the perimeter of the BRP to sell it to the TSO (e.g. R3 Dynamic Profile) 	<ul style="list-style-type: none"> FSP's activating flexibility in the perimeter of the BRP to sell it to the TSO (Strategic Demand Reserve) Preventive adequacy measures of the government impact the perimeter of the BRP (shutting down public transport, reducing consumption in government buildings, ...)
FUTURE	<ul style="list-style-type: none"> FSP's activating flexibility in the perimeter of the BRP to sell it to the TSO or the DSO 	<ul style="list-style-type: none"> FSP's activating flexibility in the perimeter of the BRP to sell it to other BRP's 	<ul style="list-style-type: none"> FSP's activating flexibility in the perimeter of the BRP to sell it in the capacity market

3. INFORMATION NEEDS OF BRP'S

Balancing

A BRP needs to be balanced on a quarter-hourly basis. **To that end he will closely monitor generation and off-take in his perimeter and act accordingly.** As regards off-take: as soon as a BRP notices that off-take is dropping, he will act accordingly and adjust his position – less injection – to be balanced again. Doing so, the BRP will in fact – if the lower off-take is the result of an activation of demand side flexibility – neutralize the activation, i.e. **counter-balancing**, and undo the effect of the activation on the system. For this reason, the BRP needs to be informed within the quarter of an hour – as balancing is on a quarter-hourly basis – of the exact activated volume in his perimeter: he will then take this volume into account when assessing his balancing position and not correct for it.



Forecasting

To be able to fulfil his balancing obligation, the BRP will need to source energy to match the demand in his perimeter. As a BRP will try to optimize his sourcing – forward, day-ahead and intraday market – **he will forecast generation and demand in his perimeter for all timeframes**, i.e. for the short, the mid-term and the long term. This forecast will be based on historical generation and consumption profiles: regular activations of flexibility will impact these generation and consumption profiles and as a consequence the forecast of the BRP.

As a BRP needs to be balanced on a quarter-hourly basis, **he will intraday update his forecasting on a quarter-hourly basis**. Therefore the BRP needs to be able to correctly interpret the behavior of his generation units and his clients: in that respect it is important to know whether a reduction of generation or consumption is the result of an activation of flexibility or not: if the reduction is caused by an activation **the BRP will anticipate a possible ramp-up and rebound as soon as the activation ends**, e.g. cogeneration (no rebound) versus cooling (rebound). On top of that, a correct assessment of the reduction of generation or consumption is important to avoid that – by nature of some forecasting tools and techniques (regression) – it is interpreted as a recurrent phenomenon, as a result of which, for example, the BRP will forecast the clients future consumption too low, not source enough energy and will run into a future imbalance.



Monitoring

The BRP also wants to dispose of certain information **to be able to monitor processes, both for balancing purposes as for settlement reasons**. As it is a fundamental right of any market party to have access to underlying data to be able to check invoices, FEBEG is convinced this information need will exist independent of the choices that will be made in terms of a future design of the flexibility market.

This information need already exists in the current market set-up, e.g. a BRP who has a commercial contract with a FSP to manage flexibility in its portfolio. The concerned BRP needs information because he wants to monitor – in real-time – the activities of his FSP for balancing purposes, but he also needs insight in data to be able check invoicing in the settlement of this commercial contract.



4. IMPROVEMENTS INFORMATION TOWARDS BRP

Balanced and coherent approach

All metering, tools and data needed to determine the balancing positions of BRP's, are in fact managed by the TSO and the DSO's. Both **are doing considerable efforts to improve information flows towards the BRP's**: new tools for forecasting and monitoring of intermittent generation, enhanced and more detailed balancing publications, publication of information about infeed to substations, ... FEBEG welcomes these initiatives as they allow BRP's to better monitor local demand and decentralized generation and to make the corresponding adjustments in their balancing positions. A consequence of this improved balancing of BRP's is that the TSO will have to resolve less residual imbalances which will reduce the overall costs of the system.

FEBEG calls to continue these efforts in order to further improve the information flows towards the BRP's. At the same time FEBEG cannot accept that these efforts would be undone by new initiatives, i.e. unilateral interventions in the perimeter of the BRP without properly informing the BRP.

FEBEG is aware that the information needs of the BRP's have **consequences for the system operators and other market parties and that a balance need to be found** between these information needs, on the one hand, and, on the other hand, the technical and operational

impact and complexity, the investment costs of setting up the necessary IT-tools to accommodate the data flows and concerns of conflicts of interest and confidentiality on behalf of market operators.

Near real-time information about balancing position

One of the major challenges of the BRP's is to assess their balancing position in real-time, as the actual imbalances are only communicated to the BRP in the following month for settlement purposes. Ideally, FEBEG would envisage the real-time publication of the balancing position of the BRP's and the real-time settlement of the imbalances. This would no doubt be a challenging project with high investment costs that would take a long time.

For this reason, FEBEG proposes to **publish in near real-time the calculation of the balancing position of the BRP for information purposes, while the validated imbalance volumes at the end of the month will be further used for the settlement.** The balancing position should be published by BRP and only be accessible for the concerned BRP via a dedicated web application. Considering the challenges the BRP's are facing for the moment, FEBEG is convinced that this publication should be launched as soon as possible based on the available information the TSO and DSO's dispose of for the moment and that – in a second phase – the quality of this publication could be gradually improved. Unfortunately, BRP's cannot calculate their balancing position themselves – even with improved balancing publications – as they don't dispose of the relative market shares by BRP to split the global infeed over the respective BRP's. The real-time calculation and publication of the balancing position of the BRP **will bring a lot of advantages for the BRP's as well as for the TSO.**

- ADVANTAGES FOR BRP'S AND TSO**
- Better forecasting by the BRP's
 - Empowering BRP's that can no longer assume that other BRP's are causing the imbalance
 - Better detection of structural imbalances
 - Reduced uncertainty and risks for the BRP's
 - BRP's will be able to better assess to what extent they dispose of the resources to help the system
 - Improved quality of balancing by BRP's will reduce the residual imbalances for the TSO and thereto related costs

Information about interventions of third parties

Several new tools and mechanisms (e.g. curtailment of generation according to flexible access contract by TSO or DSO, activation of R3 DP by TSO, activation of preventive adequacy measures by the Ministry, ...) will impact the perimeter of the BRP. **In order to be able to cope with these interventions of third parties, the BRP wants to be informed as accurately as possible.** In this respect, FEBEG is of the opinion that at least the following information flows have to be set-up as regards the interventions of third parties in the perimeters of the BRP's:

	Real-time	Ex post
Objective	Balancing, monitoring and forecasting	Monitoring and forecasting
Information need	Near real-time metering of injection/consumption and activated flexibility volumes	Validated metering data
Granularity	<ul style="list-style-type: none"> ➢ Injection: by EAN ➢ Consumption: by EAN or aggregated by 'type of customer' on a lower voltage level 	By EAN
Timing	Within 15 minutes	As validated metering data are available

Considering the abovementioned diverging interests, FEBEG concludes that – as regards demand side flexibility – BRP's should at least be properly informed about **demand side flexibility with a 'substantial impact' on their processes.** For this reason, FEBEG is of the opinion that the required information should be provided **by EAN, but that a certain degree of aggregation for the real-time information needs on a lower voltage level could be accepted: FEBEG proposes to aggregate the data on the lower voltage levels 'by type of customer',** as this is how information is usually dealt with in the forecasting tools of the BRP's.