



Design note: Transfer of Energy in DA and ID markets

Market Development

NON-CONFIDENTIAL VERSION

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1 Terminology

Access point	As defined in article 2 §1 (29) of the Federal Grid Code for an access to the transmission grid of ELIA. For an access to the ELIA Grid other than transmission grid, or to a Public Distribution Grid, or to a CDS: a point, defined by physical location and voltage level, at which access to the ELIA Grid other than transmission grid, or to a Public Distribution Grid, or to a CDS is granted, with a goal to injecting or taking off power, from an electricity generation unit, a consumption facility, a non-synchronous storage facility, connected to this grid;
Activation combo Or Simultaneous combo	An Activation Combo is defined as the use of a single Delivery point for multiple activations (e.g., in DA and mFRR) during the same imbalance settlement period.
Asymmetric Imbalance Adjustment Or AIA	The term Asymmetric Imbalance Adjustment is used to refer to the process of capping of the sum of the volume of flexibility delivered by all Delivery points activated for the provision of a service to the Requested volume of that service, and the pro-rata reduction of the volume of flexibility delivered by the involved Delivery points. Asymmetric Imbalance Adjustment will not be applied to the DA/ID market segment, and removed from all other market segments.
Balance Responsible Party Or BRP	As defined in article 2(7) of the EBGL and listed in the register of Balance Responsible Parties;
Baseline	Value (in MW) representing an estimation on a quarterly-hour basis of the average power that would have been measured on the considered Delivery point if no activation would have taken place;
BRPfsp	The Balance Responsible Party appointed by the FSP. The BRPfsp takes in its balancing perimeter the perimeter corrections performed by Elia related to Requested volume of flexibility and the perimeter corrections related to the Supplied volume of flexibility applicable in case of the activation of Delivery points DP_{PG} for which a Transfer of energy regime applies. In the context of this document, BRPfsp is a general term which includes a BRPbsp and $BRPfsp_{DA/ID}$.
$BRPfsp_{DA/ID}$	The Balance Responsible Party, appointed by the $FSP_{DA/ID}$.
BRPfrp	The Balance Responsible Party, appointed by the FRP.
BRPsource	The Balance Responsible Party who has in his portfolio the Access Point of the Grid User providing flexibility with a Delivery point.

BSP	Balancing Service Provider; An FSP with whom ELIA has concluded a contract to provide Balancing Services (and as defined in Art. 2 (6) of the Electricity Balancing Guideline).
Contractual combo	The situation in which one or more Delivery points are prequalified and/or registered in the context of multiple contracts for the delivery of distinct services.
Combo delivery point	A Delivery point that is used for multiple activations during the same imbalance settlement period (in the context of a single or multiple products).
DA/ID flexibility service	The service(s) and tasks provided by the FSP _{DA/ID} in the context of the energy trades carried out by the BRP _{FSP,DA/ID} (associated to this FSP _{DA/ID}) on the day-ahead and intraday markets or over-the-counter, and consisting of the activation by this FSP _{DA/ID} of a volume of energy by Delivery points DP _{PG} located in the portfolio of a BRPsource;
Demand-side flexibility	As defined in the Electricity Law.
Delivered volume of flexibility Or Delivered volume	The volume actually delivered by the FSP through the activation of Demand-side flexibility on a Delivery point DP _{PG} that falls under a ToE regime. This Delivered volume of flexibility is used as a basis for the calculation of the perimeter corrections of the BRPsource and the BRPfsp as well as for the data exchange to facilitate the financial settlement between the FSP and the Supplier.
Delivery point	A point on an electricity grid or within the electrical facilities of a Grid User where a balancing service, an SDR service strategic demand reserve or a DA/ID Flexibility Service is delivered. This point is associated with measurement system(s) that enables Elia to control and assess the delivery of the service.
Delivery point DP _{PG} Or DP _{PG}	Delivery point for which ELIA does not receive Daily Schedules and that can be pooled in Providing Group(s) when offered in balancing services (mFRR or aFRR), in the form of SDR units or in the context of the DA/ID flexibility service;
DP _{DA/ID,max,up}	The maximum active power (in MW) that can be supplied by a Delivery point upwards (decrease of net offtake or increase of net injection) during an activation of the DA/ID Flexibility Service. This value is positive;
DP _{DA/ID,max,down}	The maximum active power (in MW), in absolute value, that can be supplied by a Delivery point downwards (increase of net offtake or decrease of net injection) during an activation of the DA/ID Flexibility Service. This value is negative;
Electricity Law	Law on the organization of the electricity market of 29 of April 1999.

Flexibility Service Provider Or FSP	As defined in article 2, 64° of the Electricity Act; the FSP may offer balancing services as BSP, strategic reserve services as Strategic Reserve Provider (SRP) or the DA/ID Flexibility Service as FSP _{DA/ID} ;
FSP _{DA/ID}	A Flexibility Service Provider who provides the DA/ID Flexibility Service and with whom ELIA has concluded an FSP _{DA/ID} Agreement.
FSP _{DA/ID} Agreement	The agreement between ELIA and the FSP _{DA/ID} to provide the DA/ID Flexibility Service.
FSP -DSO Contract	An agreement between a FSP and a Distribution System Operator allowing the FSP to provide a service, including the DA/ID Flexibility Service, with the Delivery points listed in the corresponding FSP-DSO Contract;
Grid User	As defined in article 2 §1 (57) of the Federal Grid Code for a Grid User connected to the ELIA Grid or to a Public Distribution Grid; or as defined in article 2 §1 (58) of the Federal Grid Code for a Grid User connected to a CDS.
Load-Frequency control block Or LFC block	As defined in article 3 (18) of the SOGL.
Multiple FSP Delivery point	A Delivery point that was activated by at least two FSPs during the same imbalance settlement period.
Nomination BRPfsp	Nomination BRPfsp Day-ahead and/or Nomination BRPfsp Intraday
Nomination BRPfsp Day-ahead Or Nomination BRPfsp DA	A table containing a series of data for a certain Day D, submitted by the BRPfsp _{DA/ID} representing the quantity of Active power activated by the FSP _{DA/ID} in the context of the provision of a DA/ID Flexibility service for every quarter hour of the activation.
Nomination BRPfsp Intraday Or Nomination BRPfsp ID	A table containing a series of data for a certain Day D, submitted by the BRPfsp _{DA/ID} representing the quantity of Active Power activated by the FSP _{DA/ID} in the context of the provision of a DA/ID Flexibility Service for every quarter hour of the period of the activation.

Opt-out arrangement	Arrangement according to which the FSP, the BRPfsp, the BRP(s) _{Source} and the Supplier(s) of a Delivery point jointly agree to enter in an Opt-out regime;
Opt-out regime	As defined in the ToE Rules. In case all concerned parties are the same entity, this is considered as an implicit Opt Out;
Pass-through contract Or Contract with valorisation of the deviation	Contract between the Grid User and the Supplier by which the Supplier valorises the deviation between the nomination and the final position of the Grid User and through which the Grid User nominates his fixed offtakes before the real time (mostly day ahead) and the difference between the nomination and the actual offtake is charged / reimbursed by its Supplier at an agreed tariff, as described in CREG's Decision (B) 1677.
Pass-through regime	As defined in ToE Rules;
Pool	The complete list of Delivery points included by the FSP _{DA/ID} in the present Agreement or in a FSP-DSO Contract;
Power measured	The net active power, i.e. the difference between gross offtake and gross injection, measured at a Delivery point. Net offtake from the ELIA Grid is considered as a positive value, net injection into the ELIA Grid is considered as a negative value;
Public Distribution Grid Or DSO Grid	As defined in article 2, 49° of the Federal Grid Code;
Distribution System Operator Or DSO	A natural person or legal entity appointed by the designated regional regulator or regional authority, who is responsible for the exploitation, the maintenance and, if necessary, the development of the Public Distribution Grid in a certain zone and, where applicable, for its interconnectors with other systems and who is responsible for guaranteeing the long-term ability of the Public Distribution Grid to meet reasonable demands for electricity distribution;
Rules for the Organization of the Transfer of Energy Or ToE Rules	The set of rules, as defined by article 19bis §2 of the Electricity Act and approved by the CREG, that lay down the principles for Transfer of Energy;
Requested volume of flexibility Or	The volume requested by the Transmission system operator during an activation of flexibility in the context of the delivery of a Balancing service or a Strategic reserve service

Requested volume	
Supplier	Any physical person or legal entity who sells electricity to one or more Grid User(s). The Supplier produces or buys electricity sold to the Grid User(s).
Technical unit	A facility connected within the LFC Block of ELIA
Working day	Any calendar day except for Saturday, Sunday, and Belgian public holidays;

2 Introduction

This note describes the design to allow the flexibility from demand to provide the DA/ID Flexibility Services via the Transfer of Energy mechanism (hereafter referred to as “ToE”). This in addition to the earlier implemented ToE mechanism as implemented for the mFRR products.

This ToE mechanism allows the end user (or Grid User) to value his demand flexibility in the electricity markets by himself or via an intermediary of his own choice called “Flexibility Service Provider” and this independently from his Supplier and BRPsource. The ToE mechanism is based on the principles described in the CREG Study (F)160503-CDC- 1459¹ relative to the *“means to be implemented to facilitate the participation of the flexibility of demand in the electricity markets in Belgium”*.

In addition to the ToE mechanism, the present design note also provides the rules to allow distributed flexibility to provide the DA/ID Flexibility Services via two alternative mechanisms, namely the Opt-out regime and Pass-through regime. In the Opt-out regime the FSP_{DA/ID}, his associated BRPfsp_{DA/ID}, the Supplier and the BRPsource of a concerned Delivery point are all the same party or have an Opt-out arrangement. The Pass-through regime allows a simplified participation of the Grid User with the FSP_{DA/ID} (and BRPfsp_{DA/ID}) independently from the Supplier and BRPsource for those Grid Users who have concluded a Pass-through contract with their Supplier.

The design for an extension of the ToE mechanism for the provision of the DA/ID flexibility service has been analysed in a study published in June 2019². Besides the design for the extension of the ToE mechanism to the DA/ID market segment, the study also analysed the Activation combo functionality (i.e., the use of a single Delivery point for providing different services during the same quarter hour) and the Multiple FSP functionality (i.e., an Activation combo in which different FSPs would activate a single Delivery point during the same quarter hour). This study has been publically consulted and a consultation report has been published in October 2019. After the publication of the study of the extension of the ToE mechanism to the DA and ID markets and the publication report, an implementation plan has been proposed to the CREG, and presented in the Working Group Balancing.

This aim of this design note is to provide a final, global overview of the design that is compliant with the proposed implementation plan. Specific design adaptations compared to the design consulted in 2019 triggered by remarks received during the public consultation and additional implementation details are highlighted for the sake of clarity. Comments or questions regarding these adaptations or new elements of the design note can be provided via email to kris.poncelet@elia.be till end of August 2020.

This design note together with the received comments will be used as a reference document for the redaction of the ToE rules and the T&C BRP that will be publically consulted in the last quarter of 2020.

2.1 Legal framework and context

The Electricity Law relative to the organization of the electricity market of 29th of April 1999 was amended on 13th of July 2017 in order to create a framework for the participation of Demand-side

¹ This study can be consulted on the CREG’s website in [NL](#) and [FR](#).

² The study and the consultation report can be consulted on [website of Elia](#).

flexibility to the FRR balancing market segments, the Strategic Demand Reserve market and the DA/ID markets.

Conform Art. 19bis §2 of the Electricity Law, Elia proposed for approval to the CREG the Transfer of Energy rules³ (hereafter called "ToE-rules"⁴). These ToE-rules describe, amongst others:

- The applicable principles for the determination of the Delivered volume of flexibility, for the correction of the perimeter of the concerned BRPs and for the data exchange among concerned parties, and this as well for the ToE mechanism as for the alternative mechanisms (such as the Opt-out mechanism and soon the Pass-through mechanism);
- A phased implementation of ToE⁵ in the different market segments that are foreseen by the Electricity Law. Each extension of the ToE to a new market segment is preceded by a specific feasibility study, aiming at demonstrating the technical feasibility and economic opportunity of the ToE for each concerned market segment.

³ The first publication of the ToE-rules goes back to May 2018.

⁴ The ToE rules can be consulted on [Elia's website](#).

⁵ See section 5 of the [ToE-rules](#).

2.2 Overview of roles

The following distinct roles, as illustrated in Figure 1, are possibly involved in the activation of Delivery points DP_{PG} for the DA/ID markets:

- The Grid User, also called end user, who takes off energy from the grid and who can voluntarily activate his pool of Delivery points by reducing/increasing his net-offtake based on an external signal;
- The Supplier of the Grid User which is responsible to foresee and provide energy to the Grid User at any moment;
- The BRPsource who has the Access Point of the Grid User in his perimeter and who is responsible to keep his portfolio balanced;
- The $FSP_{DA/ID}$ who has a flexibility contract with the Grid User in order to use his flexibility for the DA/ID markets. The $FSP_{DA/ID}$ is associated to a $BRP_{fsp_{DA/ID}}$ and activates the flexibility in order to deliver the volumes sold by the latter. This flexibility activated by the $FSP_{DA/ID}$ comes from assets at access points within the portfolio of one or more BRPsource(s);
- The $BRP_{fsp_{DA/ID}}$ associated to the $FSP_{DA/ID}$. This BRP has access to the wholesale markets and sells/buys energy to/from a BRPfrp.
- The BRPfrp buys/sells energy from/to the $BRP_{fsp_{DA/ID}}$.

Remark: For the sake of simplicity, Elia will in the present document refer to exchanges on the DA/ID markets. Nevertheless all the rules described in the present note are also valid and applicable for exchanges between $BRP_{fsp_{DA/ID}}$ and BRPfrp via over-the-counter (OTC) trades.

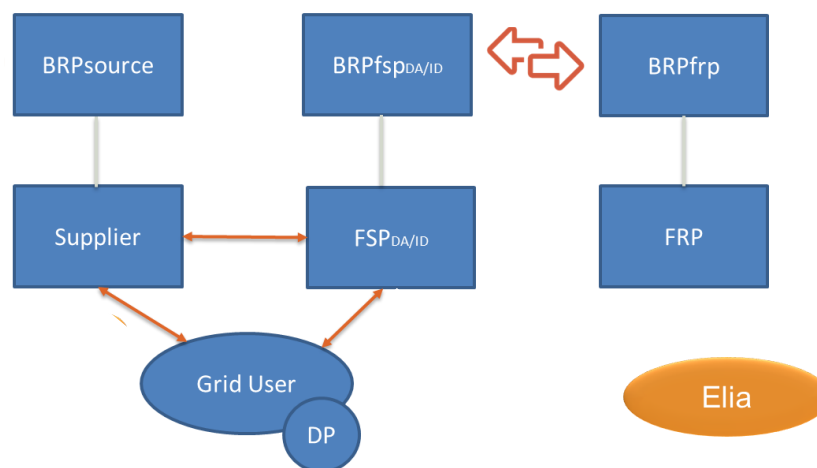


Figure 1 : Overview of the roles involved in the activation of Delivery points DP_{PG} for the DA/ID markets.

2.3 Overview of market regimes (ToE, Pass-through, Opt-out)

In case of an activation of Delivery points DP_{PG} , two types of situations can occur depending on the identity of the different market roles (described in Section 4.1), and/or the agreements made between them:

- Situation with Transfer of Energy (ToE regime)
- Market regimes without Transfer of Energy (Pass-through or Opt-out regime)

In the ToE regime, there is a transfer of energy characterized by:

- 1 The calculation of the Delivered volume of flexibility by Elia.
- 2 The correction of the balancing perimeter of the BRPsource, such that the effect of the activation of the Demand-side flexibility on the balancing perimeter of the BRPsource is neutralized.
- 3 The correction of the balancing perimeter of the BRPfsp, such that the BRPfsp takes responsibility for the balance related to the activation of the Demand-side flexibility by the FSP.
- 4 An exchange of data (notably the Delivered volume of flexibility) to enable the financial compensation between the FSP and the Supplier.

The ToE regime is applicable for an activation of Demand-side flexibility for all Delivery points DP_{PG} on medium or high voltage with a positive net offtake on an annual basis, unless in case of one of the following exceptions:

- The same entity takes the role of the FSP, Supplier, BRPfsp and BRPsource (this situation is referred to as an “implicit Opt Out”). In this case, there is no need to neutralize the impact of an activation of the Demand-side flexibility on the perimeter of the BRPsource, and for a transfer of energy between the FSP and the Supplier, as they are all the same entity.
- The FSP, Supplier, BRPfsp and BRPsource have an Opt-out arrangement, which renounces the application of the regulation applicable in case of the ToE regime (as described above). In this case, the situation is referred to as an explicit Opt Out regime. A proof of the existence of such an Opt-out arrangement needs to be communicated to the Transmission system operator by the FSP. The arrangement is applicable to all Delivery points with a net annual offtake on an annual basis common to their portfolios, and for all Delivery points with a net annual injection on an annual basis common to their portfolios.
- The Grid User related to the Delivery point has a Pass-through contract with his Supplier(s). In this case, the Supplier(s) and the BRPsource pass through the financial impact related to the activation of the Demand-side flexibility to the Grid User. Hence, there is no need to perform perimeter corrections and/or exchange information between the FSP and the Supplier(s) to neutralize the impact of the activation of Demand-side flexibility. The existence of a Pass-through contract needs to be communicated to the Transmission system operator. This situation is referred to as the “Pass-through regime”. The supplier informs the Transmission system operator of the existence of one or more Pass-through with the corresponding Grid users via the contract Elia-Supplier.

In case of an explicit or implicit Opt-out regime, or in case of a Pass-through regime, there is:

- No perimeter corrections of the BRPsource and the BRPfsp with the Delivered volume of flexibility (as in point 2 and 3 above in case of the ToE regime). Note that in case of the provision of a Balancing service or a Strategic reserve service, the perimeter of the BRPfsp will still be corrected with the Requested volume.
- No exchange of data (notably the Delivered volume of flexibility) to enable the financial compensation between the FSP and the Supplier (as in point 4 above in case of the ToE regime).

Remark: The Opt-out and Pass-through regimes are applicable to all Delivery points, regardless of whether there is a net offtake on an annual basis.

An overview of the impact on the alternative mechanisms Opt-out and Pass-through (together with a comparison to the ToE mechanism) is described in the table below:

	Transfer of Energy	Implicit Opt-out	Explicit Opt-out	Pass-through
Relation between market actors	1. Default	FSP _{DA/ID} = Supplier = BRPfsp _{DA/ID} = BRPsource	Agreement between FSP _{DA/ID} , Supplier and their respective BRP's (BRPfsp _{DA/ID} and BRPsource) to renounce a market situation with ToE	Pass-through contract between the Grid User and the Supplier
Applicable to following Delivery points	DP _{PG} located on medium or high voltage with a net offtake on an annual basis	All DPs		
Section in the ToE- rules	Section 8.1: Market situation with transfer of energy	Section 8.2: Exceptions		
Perimeter correction of BRPs	1. BRPsource is corrected with the Delivered volume of flexibility (- E _{delivered}) ⁶ 2. BRPfsp _{DA/ID} is corrected with the Delivered volume of flexibility (+E _{delivered}) ⁷	No correction of the perimeters of the BRPsource and the BRPfsp _{DA/ID} with the Delivered volume of flexibility		
Data exchange to facilitate the financial	Yes	No		

⁶ For simplicity, the perimeter corrections mentioned here are assumed to relate to a single Delivery point DP_{PG}. In reality, the perimeter correction of the BRPsource is done by summing the Delivered volume of flexibility over all activated Delivery points DP_{PG} located in the perimeter of the BRPsource for which a ToE regime applies.

⁷ For simplicity, the perimeter corrections mentioned here are assumed to relate to a single Delivery point DP_{PG}. In reality, the perimeter correction of the BRPfsp_{DA/ID} is done by summing the Delivered volume of flexibility over Delivery points DP_{PG} activated by the FSP_{DA/ID} for which a ToE regime applies. Further note that, in contrast to the ToE mechanism applied to balancing markets, the BRPfsp_{DA/ID} for ToE in DA/ID markets is only corrected with the Delivered volume of flexibility of Delivery points DP_{PG} activated by the FSP_{DA/ID} for which a ToE regime applies (+ E_{delivered}). The Requested volume (- E_{requested}) is already in its perimeter via the hub nomination.

settlement between the FSP _{DA/ID} and the Supplier		
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Remark: the market regime is unique per Delivery point. In case a Delivery point is registered and/or prequalified for multiple services (e.g., the DA/ID flexibility service and mFRR), the contractual regime is the same for all these services.

2.4 Example of steps involved in the ToE market regime for DA/ID markets

Let us consider the case of a volume of energy sold on the DA market by a BRP_{fsp_{DA/ID}} and delivered by the associated FSP_{DA/ID} by means of a net-offtake reduction of one Delivery point located in the perimeter of the BRP_{source} (corresponding to an upwards activation)⁸. The concerned Delivery point is operated under a ToE regime.

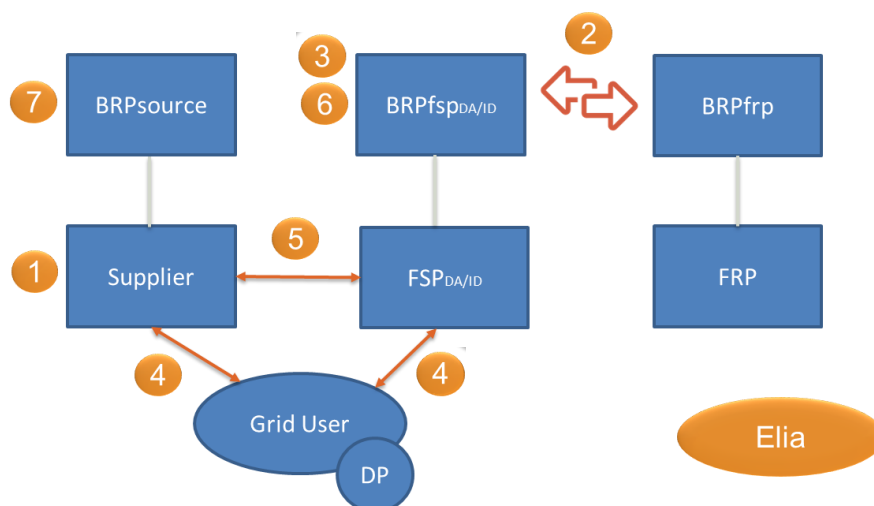


Figure 2 : Overview of different steps in ToE DA/ID

1. The Supplier of the Grid User buys energy in advance (via the BRP_{source}) on the electricity market to cover the estimated energy offtake of each Access Point in his portfolio. (For simplicity, in this example we take the assumption that Delivery point = Access Point).
2. The BRP_{fsp_{DA/ID}} sells a volume of energy in the DA market to a BRP_{frp} for a given period and nominates the energy sold to Elia via an existing hub nomination. At this stage the BRP_{fsp_{DA/ID}} is imbalanced if he doesn't take any additional action.
3. The BRP_{fsp_{DA/ID}} must ensure that the FSP_{DA/ID} will activate flexibility (upwards) to deliver a volume corresponding to the energy sold. The BRP_{fsp_{DA/ID}} has to nominate the volume of flexibility that will

⁸ The principles described here below apply also for the ID markets as well as for downwards activations by means of an offtake increase corresponding respectively to a volume of energy bought on the market.

be activated upwards by the FSP_{DA/ID} via a Nomination BRPfsp (in order to have a balanced portfolio DA)⁹. The Delivered volume of flexibility corresponding to the activation will later be added to the perimeter of the BRPfsp_{DA/ID} via a perimeter correction applied by Elia (cfr. Step 6).

4. The FSP_{DA/ID} operates his pool of Delivery points and asks the Grid User to reduce his net-offtake in order to deliver the volume sold by the BRPfsp_{DA/ID}. The FSP_{DA/ID} notifies Elia of this activation and its characteristics¹⁰ via a sequence of FSP-Notifications.

Elia notifies the BRPsource with the volumes that are activated in his perimeter via a sequence of BRP-Notifications (based on the information provided by the FSP_{DA/ID} in the preceding FSP-Notifications). These BRP-Notifications are used by Elia to inform the BRPsource of the activations within his perimeter to avoid that the BRPsource does counterbalancing.

Elia quantifies the Delivered volume of flexibility for each Delivery point used during an activation, and for all quarter hours of the period of activation. The Delivered volume of flexibility is quantified by comparing the Baseline to the measured offtake/injection during the period of activation, without applying asymmetric imbalance adjustment.

5. As a consequence of the reduction in net-offtake resulting from the upward activation (step 4), the Supplier cannot invoice the Delivered volume of flexibility to the Grid user. The FSP_{DA/ID} financially compensates the Supplier¹¹ for the loss of revenues related to the Delivered volume of flexibility, either based on a price bilaterally agreed with the Supplier, or, in absence of such a bilateral agreement, via the application of a default price equation determined by the CREG¹². This compensation is performed in order to financially neutralize the impact of the activation on the Supplier.
6. The balancing perimeter of the BRPfsp_{DA/ID} is corrected with the sum, over all activated Delivery points DP_{PG} under a ToE regime in the pool of the FSP_{DA/ID}, of the Delivered volume of flexibility, and this for each imbalance settlement period (quarter hour) of the activation period. As such, the BRPfsp_{DA/ID} takes up the balancing responsibility for the activation of the flexibility via the concerned Delivery points.
7. The balancing perimeter of the BRPsource is corrected with the sum, over all activated Delivery points DP_{PG} under a ToE regime that are located in its perimeter, of the Delivered volume of flexibility, and this for each imbalance settlement period (quarter hour) of the activation period. This correction is performed in order to neutralize the impact of the activation of those Delivery points on the balancing perimeter of the BRPsource.

⁹ Although the hub Nomination is taken into account for the (ex-post) calculation of the imbalance of the BRPfsp_{DA/ID}, the Nomination BRPfsp is not (i.e., the Nomination BRPfsp is treated similar to a Physical nomination).

¹⁰ Activated Volume, Activation Period and list of Delivery points used for the activation as well as their contribution (in MW) to the Activated Volume.

¹¹ The volumes for which the FSP_{DA/ID} and Supplier proceed to a financial compensation are communicated by Elia and the DSOs through a "TSO-DSO data-hub".

¹² CREG Decision (B) 1677 can be consulted on the CREG's website in [NL](#) and [FR](#).

2.5 Sign Conventions

- A positive sign “+” will be used for any injections and any purchase of energy of a BRP;
- A negative sign “-” will be used for any offtake and any sale of energy of a BRP;
- A positive sign “+” will be used for any upwards activation of the FSP (corresponding to an increase of injection or a decrease of offtake of a Delivery point);
- A negative sign “-” will be used for any downwards activation of the FSP (corresponding to a decrease of injection or an increase of offtake of a Delivery point);
- A positive sign “+” will be used for the offtake of a Delivery point when calculating the Baseline;
- A negative sign “-” will be used for the injection of a Delivery point when calculating the Baseline.

3 Registration phase

3.1 Application procedure for the FSP_{DA/ID} and designation of a BRP

In order to be allowed to activate flexibility exchanged on the DA/ID markets by his corresponding BRPfsp_{DA/ID}, a candidate FSP_{DA/ID} needs to **sign an Elia-FSP_{DA/ID} agreement/contract**. Before signing an Elia-FSP_{DA/ID} agreement, the FSP_{DA/ID} needs to designate a BRPfsp_{DA/ID}. The qualification procedure for the FSP_{DA/ID} and the procedure for designating a BRPfsp_{DA/ID} are described in detail below.

A candidate FSP_{DA/ID} has to designate a BRP (in the context of DA/ID markets referred to as BRPfsp_{DA/ID}) with a valid BRP contract, who is:

- himself: in this case, a notification is sent by the FSP_{DA/ID} to ELIA; or
- another party: in the latter case, the FSP_{DA/ID} provides the name of the BRPfsp_{DA/ID}, complemented by an electronic copy of the signed declaration of the BRPfsp_{DA/ID}

Remark: Each FSP designates a single BRP. In case the FSP_{DA/ID} also concludes a BSP Contract with ELIA for the provision of a balancing service or the SDR contract for the provision of strategic demand reserve, the BRPfsp_{DA/ID} is the party designated as BRPbsp (respectively BRPsrp) by the FSP_{DA/ID}, in his role as BSP (respectively SRP).

3.2 Pool of Delivery points

A Delivery point may be any Technical Unit or a group of Technical Units identified by:

- a Headmeter at an Access Point connected to the ELIA Grid or to a CDS;
- a Headmeter at an Access Point connected to the Public Distribution Grid;
- a Submeter within the electrical facilities of a Grid User downstream of an Access Point connected to the ELIA Grid or to a CDS;
- a Submeter within the electrical facilities of a Grid User downstream of an Access Point connected to the Public Distribution Grid.

3.2.1 Registration of a pool of Delivery points

The FSP_{DA/ID} has to provide Elia with the list of Delivery points to be added in his pool and with the following information for each of them:

- Delivery point name;
- Access Point EAN (if different from EAN code)
- Grid User Name
- DP_{DA/ID,max,up} and DP_{DA/ID,max,down}
 - In case the DP_{DA/ID,max,up} or DP_{DA/ID,max,down} does not apply for a Delivery point, the FSP_{DA/ID} should indicate "N/A". The DP_{DA/ID,max,up} (DP_{DA/ID,max,down}) does not apply in case the Delivery point can only be used for upward (downward) activations.
 - In case a Delivery point is covered by a BSP Contract mFRR signed between ELIA and the FSP_{DA/ID} – in his role as BSP – the DP_{DA/ID,max,up} (respectively DP_{DA/ID,max,down}) for the concerned Delivery point is not necessarily the same as the DP_{mFRR,max,up} (respectively DP_{mFRR,max,down}).
- Whether or not the FSP requests a Baseline adjustment (as discussed in Section 5.5)

NEW

Remark: per DP, there can be maximum one FSP¹³.

Moreover per Delivery point used to offer the DA/ID product, the FSP_{DA/ID} submits a:

- Grid User declaration if the Delivery point is connected to the Elia grid;
- A copy of a signed DSO/FSP contract if the Delivery point is connected to the DSO grid;
- The CDSO declaration, if applicable;
- The Submeter Technical Checklist (and successfully complete a Submeter commissioning test), if applicable.



3.2.2 Combinability conditions

This sections gives an overview of conditions regarding the combinability of the provision of different services using the same Delivery point.

Although the Activation combo functionality has the advantage that it allows market players to valorize all their flexibility in several market segments, there is an important uncertainty relative to its effective usage¹⁴. Therefore, after the publication consultation of the study in 2019, Elia concluded to be open to develop this feature when a better view can be built on the volumes effectively participating in the DA/ID and the eventual needs of the stakeholders for a simultaneous/activation combo. The need for an Activation combo will be re-assessed at the latest 1 year after the entry into force of the ToE rules that extend the domain of the application of the ToE framework to the DA/ID market segment.

Thus, simultaneous activations of a single Delivery point for the provision of different services will initially not be allowed. In the meantime, a Contractual combo between the DA/ID flexibility service and other services will be enabled. This constitutes a consensus allowing market parties to benefit from most of the advantages of the simultaneous combo while avoiding the implementations costs linked to the settlement of a simultaneous combo. A Contractual combo is defined as the situation in which a Delivery point is prequalified and/or registered in the context of multiple contracts for the delivery of distinct services but is activated for one product at the time.

- Example: a single DP is prequalified in the context of a BSP mFRR contract and can be registered in the context of a contract for the delivery of the DA/ID flexibility service (Elia-FSP_{DA/ID} contract).
- An FSP can take part to the mFRR capacity auction and then sell/buy a volume in the DA/ID market with the *remaining* DPs of his portfolio not needed to meet his contracted mFRR capacity obligations.

Contractual Combos with the DA/ID flexibility service are generally allowed, except for SDR. Thus, a Delivery point can be registered for the DA/ID flexibility service and:

- be registered/prequalified in a contract for mFRR, and/or
- be registered/prequalified in a contract for aFRR; and/or
- be registered/prequalified in a contract for FCR.

¹³ In the context of this section the general term “FSP” is used as reference to the roles of FSP_{DA/ID} and BSP. Similarly the role of “BRPfsp” includes the role of BRPbsp and BRPfsp_{DA/ID}.

¹⁴ Indeed the study performed in 2019 highlighted the fact that today all DPs are bid with their maximum flexibility (mFRR, max,up) in contracted mFRR energy bids in order to meet the contracted mFRR capacity of the BSPs and no non contracted mFRR energy bids are submitted on the bidladder platform.

Activation Combos with the DA/ID flexibility service are generally not allowed, except for Activation combos with FCR (FCR is no energy product and therefore its activation will not be corrected or taken into account when calculating the Delivered volume of flexibility for DA/ID).

Remark: A single activation of a DP to deliver the volume related different trades of energy in DA/ID markets concerning the same period (e.g., D 17h00-18h00) is not considered as an Activation Combo. Indeed, whether or not the energy is sold ID, DA for a given period, the service delivered remains the same. An example where different trades are done concerning the same period is provided in Section 4.2

NEW During an activation of the DA/ID Flexibility Service, for each quarter hour of the activation period, ELIA will verify that Delivery point(s) contributing to the activation are not also part of the pool of Delivery points entered in mFRR or aFRR balancing energy bids for that quarter hour. In case this situation takes place, the Delivery point concerned will be suspended from the DA/ID flexibility service for a period of one month. In case this happens another time within a period of 6 months (starting from the first detection), the Delivery point will be suspended from the DA/ID flexibility service for a period of 4 months.

Further note, that (also in case of a Contractual Combo), a single Delivery point has to have a single contractual regime: the Delivery point either has a ToE-regime, a Pass-through-regime or an Opt-out-regime. This contractual regime is independent from the market segment (mFRR, DA/ID, ...) in which the Delivery point is active.¹⁵

Further recall from Section 3 that there is maximum one FSP active on a DP, and that every FSP is associated to maximum one BRPfsp.

3.3 Conditions for the application of the Transfer of Energy regime

In case of the ToE contractual regime, the FSP_{DA/ID} needs to provide a proof to Elia of an agreement between the FSP_{DA/ID} and the concerned Supplier(s) on the transfer price or a CREG Decision authorizing the FSP_{DA/ID} and the concerned Suppliers(s) the use of the default price formula. Recall from Section 2.2 that transfer of Energy, resulting in a Transfer Price (possibly being Transfer Price by Default), is only applicable to Delivery points presenting a positive yearly average net offtake.

In case of the Opt-out contractual regime, the FSP_{DA/ID} needs to provide proof to Elia of the Opt-out agreement. The Pass-through contractual regime is applicable for all Delivery points covered by a Pass-through contract between the concerned Grid User and the concerned Supplier; Elia verifies the existence of such a Pass-through contract via the Elia-Supplier Contract

3.4 Communication tests

The FSP_{DA/ID} must successfully complete the IT communication test to verify that the FSP_{DA/ID} is able to send notifications to Elia, as specified in Annex 5 (related to the required FSP-Notifications, as detailed in Section 4).

¹⁵ The conditions for the application of the ToE regime, the pass-through or the Opt-out regime are described in Section 3.3.

4 Activation phase

This section describes the impact on the nomination process and the notification process. Nominations are discussed in Section 4.1 and notifications in Section 4.3. A use case to illustrate the principles is described in Section **Error! Reference source not found.**

4.1 Nominations BRPfsp

A new type of nomination called “Nomination BRPfsp” is introduced on top of the existing types of nominations a BRP submits to Elia¹⁶.

This nomination refers to flexibility volumes that will be activated by the associated FSP_{DA/ID} for which the BRPfsp_{DA/ID} is responsible.

Only BRPs that are designated as a BRPfsp_{DA/ID}, i.e., are associated to at least one FSP that has a valid contract with Elia¹⁷ can submit nominations of the type Nomination BRPfsp.

Two subtypes of Nomination BRPfsp are possible: Nomination BRPfsp DA and Nomination BRPfsp ID. Their specificities are discussed below.

4.1.1 Nomination BRPfsp DA

The BRPfsp_{DA/ID} has to submit both his DA hub nominations (related to energy trades), and a Nomination BRPfsp DA, before 14h00 CET on the day before the activation (D-1).

A Nomination BRPfsp DA contains the flexibility volume that is supposed to be activated by the FSP(s)_{DA/ID} associated to the BRPfsp_{DA/ID} for every quarter hour of the day D (which is the day of the activation). The BRPfsp_{DA/ID} can update this Nomination BRPfsp DA until 14h00 CET on D-1¹⁸.

Elia will use the last update of the Nomination BRPfsp DA together with all other DA nominations of the BRPfsp_{DA/ID} to verify if his portfolio is balanced in day-ahead¹⁹.

4.1.2 Nomination BRPfsp ID

A BRPfsp_{DA/ID} who exchanges a volume on the Intraday market that he wants to balance with activations of flexibility (by the associated FSP(s)_{DA/ID}), has to submit, on top of his ID hub nominations, a Nomination BRPfsp ID before 14h00 CET on D+1.

The flexibility volume nominated in a Nomination BRPfsp ID indicates the volume that is supposed to be activated by the associated FSP(s)_{DA/ID} for every quarter hour of day D (on top of the volume that was supposed to be activated for that quarter hour based on the Nomination BRPfsp DA. The BRPfsp_{DA/ID} can update this Nomination BRPfsp ID until 14h00 CET on D+1²⁰.

¹⁶ As described in article 24 of the current [BRP contract](#).

¹⁷ Contract for the delivery of a DA/ID Flexibility service.

¹⁸ Deadlines of the submission of the nominations are harmonized with the deadlines of the existing nomination process.

¹⁹ As specified in article 24 of the current [BRP contract](#).

²⁰ Deadlines of the submission of the nominations are harmonized with the deadlines of the existing nomination process.

The result of the sum of the last update of the Nomination BRPfsp DA and the last update of the Nomination BRPfsp ID of the BRPfsp_{DA/ID} for a given quarter hour of day D corresponds to the volume to be activated by the FSP(s)_{DA/ID} associated to the BRPfsp_{DA/ID}.

Remark: Note that the Nominations BRPfsp are not used for the final imbalance settlement of the perimeter of the BRPfsp_{DA/ID} in a similar way as Physical nominations provided by BRPs are not used for the imbalance settlement.

4.2 Illustration: Nominations

The following use case illustrates the principles for nominations and notifications that are described in the previous subsections:

- a) A FSP_{DA/ID} has a pool of Delivery points registered for the DA/ID flexibility service in his portfolio
- b) The BRPfsp_{DA/ID} exchanges following volumes on the DA and ID market for a quarter hour X on day D:

Market	Volume	Buy/Sell	Counterparty
DA	- 15 MW	Sell	BRPfrp 1
ID	+ 10 MW	Buy	BRPfrp 2
ID	- 12 MW	Sell	BRPfrp 3

To balance his perimeter the BRPfsp_{DA/ID} will ask the FSP_{DA/ID} to activate his pool.

Remark: at this stage, if the BRPfsp_{DA/ID} does not take any other action his perimeter will be in imbalance with - 17 MW for quarter hour X when Elia will proceed to the imbalance calculations (- 15 MW + 10 MW - 12 MW).

- c) BRPfsp_{DA/ID} nominates in **DA** (submission to Elia before 14h00 CET on D-1):
 - ✓ Hub nomination: - 15 MW, Sell, for quarter hour X on day D to Counterparty BRPfrp 1
 - ✓ **NEW:** Nomination BRPfsp DA: + 15 MW for quarter hour X on day
 - ⇒ BRPfsp_{DA/ID} is balanced in D- 1

Remark: In this example, the BRPfsp_{DA/ID} has no physical assets in his portfolio so he has to call the flexibility of his associated FSP_{DA/ID} to cover the volume sold in the market. One could also imagine that a BRPfsp_{DA/ID} has a physical CIPU unit in its portfolio and that he uses this CIPU unit to balance a part of his deal traded on DA. For instance he sells 40 MW on the DA market and in order to be balanced he nominates 25 MW of injection of his CIPU unit and submits a Nomination BRPfsp DA of 15 MW. Those 15 MW of the Nomination BRPfsp DA correspond to a volume of flexibility that will be activated by his associated FSP_{DA/ID} via Delivery points DP_{PG}.

BRPfsp_{DA/ID} nominates in **ID** (submission to Elia before 14h00 CET on D+1)

- Hub nomination: + 10 MW, Buy, for the concerned quarter hour on day D to Counterparty BRPfrp 2;

- Hub nomination: - 12 MW, Sell, for the concerned quarter hour on day D to Counterparty BRPfrp 3.
 - **NEW:** Nomination BRPfsp ID: +2 MW for the concerned quarter hour on day D with FSP_{DA/ID} identifier;
- d) The total sum of the last updates of the Nomination BRPfsp DA and the Nomination BRPfsp ID of the BRPfsp_{DA/ID} for the quarter hour X on day D equals 17 MW (= 15 MW + 2 MW). This corresponds in this case to the total volume supposed to be activated by the FSP_{DA/ID} for the same period in order to balance the perimeter of the BRPfsp_{DA/ID}.

Remarks:

- i. Only the BRPfsp_{DA/ID} submits Nominations BRPfsp. Neither the BRPfrp nor the BRPsource(s) need to do specific nominations. All other nomination types remain unchanged and are aligned with existing nomination process;
- ii. Although several trades can be done concerning the same quarter hour, and several Nominations BRPfsp can be introduced or adjusted for the same quarter hour, in real-time the FSP_{DA/ID} only activates one volume per Delivery point for that quarter hour. This means that an activation of one Delivery point for different exchanges of energy in DA/ID markets is not considered as an Activation Combo/Simultaneous Combo (as described in Section 3.2.2) but as the same DA/ID product. Indeed, whether or not the energy is sold ID, DA (or even before DA) for a given quarter hour, the service delivered remains the same (i.e., the reduction of the offtake or an increase of the injection of the Delivery point during that quarter hour).

4.3 Notifications by the FSP_{DA/ID}

For each activation of Delivery points DP_{PG} for providing the DA/ID Flexibility Service, the FSP_{DA/ID} informs Elia regarding the characteristics of the activation (including data regarding the Total activated volume, the Activation period, a list of Delivery points used for the activation, and the distribution of the activated volume over these Delivery points) via a set of FSP-Notifications.

The notification procedure between the FSP_{DA/ID} and Elia is similar to the Notification procedure already applicable²¹ for mFRR and SDR²². The notifications that need to be provided by the FSP_{DA/ID} to Elia consist of an FSP-Notification 0 (sent before the start of the activation), an FSP-Notification 1 (sent at the start of the activation) and an FSP-Notification 2 (sent at the end of the activation). In addition, in case of unforeseen changes happening after the start of the activation (i.e., after FSP-Notification 1 has been provided) in terms of the total activated volume or the division of the total activated volume over the pool of Delivery points, the FSP_{DA/ID} needs to provide an update of the information provided in the FSP-Notification 1.

Remark: This implies that, although the BRPfsp_{DA/ID} is allowed to introduce his Nomination BRPfsp ID until 14h00 CET D+1 he has to inform the FSP_{DA/ID} on time of the volumes to be activated, so that the FSP_{DA/ID}

²¹ And consulted via the [ToE-rules](#) and the [T&C BSP mFRR](#).

²² As described in section 13 of the [ToE-rules](#).

can activate the correct volume and send the corresponding notifications to Elia before the start of the activation.

Elia will use the information provided in the set of FSP-Notifications received by the FSP_{DA/ID} to provide the BRP_{source} with close to real-time information regarding the aggregated activated volume within his portfolio to avoid counter balancing. This information is sent via “BRP-Notifications”.

In addition, the list of Delivery points reported to be used by the FSP_{DA/ID} in its FSP-Notification 2 with an activated volume bigger than zero, are used to calculate the Delivered volume of flexibility of the activation (as described in Section 5.3).

4.3.1 FSP-Notification 0

The FSP_{DA/ID} sends an FSP-Notification 0 at the earliest 15 minutes and at the latest five (5) minutes before the start of the activation to Elia with the following information:

- Activation period²³
- List of contributing Delivery points DP_{PG}
- Total activated volume (MW) per every quarter hour in the activation period
- Expected volume that each Delivery point DP_{PG} will deliver (MW) per quarter hour of the activation period

The FSP-Notification 0 triggers the effective activation and cannot be provided later than five (5) minutes before the start of the activation.

Further note that a single Delivery point cannot be entered in two FSP-Notifications 0 having at least one quarter hour in common, i.e., a Delivery point cannot be activated simultaneously for two activations for the provision of the DA/ID flexibility service²⁴.

4.3.2 FSP-Notification 1

The FSP_{DA/ID} has to send the FSP-Notification 1 to Elia at the earliest five (5) minutes before the start of the activation and at the latest three (3) minutes after the start of the activation. The notification contains an update of the total activated volume and the expected volume that each Delivery point DP_{PG} will deliver for every quarter hour of the activation period.

²³ The Activation period cannot span two different days. In case the FSP_{DA/ID} wants to activate one or multiple Delivery points during a period bridging two different days (e.g., 22h00 on D – 01h00 on D+1), the activation needs to be split into two separate activations (e.g., 22h00-24h00 on D and 00h00-01h00 on D+1).

²⁴ Note however that this does not restrict the FSP_{DA/ID} since the FSP_{DA/ID} has the option to merge the two activations of the Delivery point into a single activation (in case they start simultaneously) or provide an update of FSP-Notification 1 for an ongoing activation (in case of overlapping activations). For instance, in case the BRP_{fsp_{DA/ID}} does a trade on the DA market to sell 10 MW for the period 16h-20h for which the FSP_{DA/ID} activates DP1 (with the corresponding FSP-Notification 0 and FSP-Notification 1). In case the BRP_{fsp_{DA/ID}} sees an opportunity to sell 5 MW for the period 18h-19h for which he wants to use the same Delivery point DP1, the FSP_{DA/ID} can do an update of the FSP-Notification 1 (see Section 4.3.2) to change the expected volume that DP1 will deliver for the quarter hours in the period 18h-19h from 10 MW to 15 MW.

Note that the list of contributing Delivery points and the activation period cannot be changed with respect to the corresponding information provided in FSP-Notification 0. The FSP-Notification 1 can only be provided in case the FSP-Notification 0 has been provided.

NEW

In addition, in case of changes happening during the activation with respect to the total activated volume and the expected volume that each Delivery point DP_{PG} will deliver, the $FSP_{DA/ID}$ is requested to provide as soon as possible an update of the information provided in its last notification via an update of its FSP-Notification 1. Within such an update, the total volume and the volume per DP can only be changed for those quarter-hours of the activation period that start at the earliest 3 minutes after the update is provided. For instance, for an activation with activation period 16h-20h for which an update is provided at 18h02, only the total volume and the volume per DP for the quarters starting at 18h or later can be adapted.

A new element in the design with respect to the publicly consulted study on Transfer of Energy in DA and ID markets is that FSPs are enabled to provide updates of the activated volume and the distribution per Delivery point during the activation period. The aim is to provide the BRPsource with the best possible information to avoid counter balancing. This is particularly relevant for DA/ID activations, as activations are expected to be longer than for mFRR or aFRR.

4.3.3 FSP-Notification 2

The $FSP_{DA/ID}$ has to send FSP-Notification 2 at the earliest immediately after the end of the activation period, and at the latest within (3) three minutes after the end of the activation period. The notification contains an update of the total activated volume and the expected volume that each Delivery point DP_{PG} delivered for every quarter hour of the activation period.

Note that the list of contributing Delivery points and the activation period cannot be changed with respect to the corresponding information provided in FSP-Notification 0.

4.3.4 Additional rules regarding FSP notifications

To ensure a consistent ensemble of notifications and to inform a BRPsource in an optimal way following additional rules apply:

- Any FSP-Notification within the above-mentioned notification process not received by Elia within the specified timeframe is considered as a missing notification (regardless if it is an FSP-Notification 1 or an FSP-Notification 2).
- If Elia notices three or more missing FSP-Notifications within a period of 90 calendar days, Elia will suspend, after notification to the CREG, the concerning Delivery points from the provision of the DA/ID flexibility service for a period of 30 calendar days.
- In case the same issue, as described in the previous bullet point (i.e. three or more missing notifications in a period of 90 days), happens another 3 times during the 12 months starting from the first missed notification, Elia will disqualify, after notification to the CREG, the concerned Delivery points from the provision of the DA/ID flexibility for 90 calendar days and the $FSP_{DA/ID}$ needs to redo the communication tests before the concerned Delivery points are again admitted to provide the DA/ID Flexibility Service.

- For the calculation of the Delivered volume of flexibility for Delivery points for which the ToE regime applies: Elia will consider only those DPs with a notified value different from zero in FSP-Notification 2 (similarly to what is applied today in ToE for mFRR). If Elia does not receive FSP-Notification 2, Elia will for this purpose consider the last received notification (again similar to what is already applied today in ToE for mFRR).

NEW

- Elia will monitor the notifications provided by the FSP_{DA/ID}. In case the volume notified by the FSP_{DA/ID} in its FSP-Notification 2 is significantly different from the volume notified in earlier FSP-Notifications particularly in case Delivery points are indicated with a participation = to 0 in the FSP-Notification 2, Elia will request the FSP_{DA/ID} for a sound justification regarding the difference between the information provided in the FSP-Notification 2 and its earlier notifications. If such a justification cannot be provided or remains insufficient, Elia reserves the right, after notification to the CREG, to suspend the concerning Delivery points from the DA/ID flexibility service for a period of 3 months.

4.4 Notifications to the BRPsource

Elia will provide the BRPsource with close to real-time information regarding the impact of activations of Delivery points DP_{PG} located in his portfolio of access points such that counter balancing can be avoided.

NEW

The system of notifications to inform the BRPsource has been modified with respect to the design described in the publically consulted study on Transfer of Energy in DA and ID markets in order to provide a more user-friendly overview of the total impact of activations of Delivery points DP_{PG} on the perimeter of the BRPsource. This is particularly relevant in case of multiple simultaneous or overlapping activations (in the context of possibly different provided services) impacting the perimeter of the BRPsource. Instead of informing the BRPsource about the impact that each individual activation has on its perimeter, the new system of notifications informs the BRPsource about the total impact (aggregated over all activations) on his perimeter. The BRPsource will receive an update of this total impact on his perimeter each time Elia receives new information.*

** 3 notifications per activation that are possibly overlapping*

To construct the notifications to the BRPsource, Elia will use the information provided in the set of FSP-Notifications received by the FSP(s)_{DA/ID} as well as the notifications received by the BSP(s) in the context of the activation of an mFRR balancing energy bid using Delivery points DP_{PG} and the notifications received in the context of the provision of the demand-side strategic reserves (SDR).

Each notification to the BRPsource takes the format of a table indicating for every impacted quarter hour:

- the total activated volume (aggregated over all activated Delivery points) within his portfolio of access points, and
- the maximum activated volume (per direction) within his portfolio of access points.

The aggregated activated volume is based on the expected volume that each Delivery point DP_{PG} will deliver as indicated by the FSP(s)_{DA/ID} in the FSP-Notifications in case of the provision of a DA/ID flexibility

service²⁵, the expected volume that each Delivery point DP_{PG} will deliver as indicated by the BSP(s) in the Acceptation and Confirmation Notifications in case of the activation of mFRR balancing energy bids by Delivery points DP_{PG} ²⁶ as well as the notifications provided in the context of the provision of SDR.

Similarly, the maximum activated volume within the portfolio of each BRPsource is based on the $DP_{DA/ID,max,up/down}$ values²⁷ in case of an activation of a Delivery point DP_{PG} for the provision of the DA/ID flexibility service, the $DP_{mFRR,max,up/down}$ ²⁸ values in case of the activation of the a Delivery point DP_{PG} in the context of the activation of an mFRR balancing energy bid and similarly in case of the activation of SDR.

Note that the information provided is aggregated on the level of each BRPsource to respect confidentiality and to provide a single, user-friendly overview of the activations impacting the balancing perimeter of the BRPsource. More specifically, the aggregation is done over all activated Delivery points DP_{PG} located in the portfolio of access points of the BRPsource, regardless of whether the Delivery point is activated for the provision of a DA/ID flexibility service or whether the Delivery point is activated in the context of the activation of an mFRR balancing energy bid or in the context of an activation of SDR.

To provide the BRPsource with near-real time information regarding the total impact on his perimeter, a notification to the BRPsource will be provided in the following moments:

- After the deadline for receiving FSP-Notification 0 has passed (and a notification has been provided);
- After the deadline for receiving FSP-Notification 1 has passed;
- After the deadline for receiving FSP-Notification 2 has passed;
- In case of an FSP_{DA/ID} provides an update of its earlier notification (in between FSP-Notification 1 and FSP-Notification 2);
- After a request to activate an mFRR balancing energy bid using DP_{PG} ²⁹;
- After the deadline for receiving the Acceptance notification has passed, in case of an activation request for a mFRR balancing energy bid;
- After the deadline for receiving the Confirmation notification, in case of an activation request for a mFRR balancing energy bid;
- After a request to activate SDR
- After the deadline for receiving the first notification of the FSP related to an activation request of SDR
- After the deadline for receiving the first notification of the FSP related to an activation request of SDR

²⁵ See Section 4.3.

²⁶ See Annex 10.C of the BSP mFRR contract.

²⁷ Provided as part of the registration of a pool of Delivery points to be used for the provision of the DA/ID flexibility service, as described in Section 3.2.

²⁸ See Section II.3.12 of the BSP mFRR contract.

²⁹ In case Elia request the activation of an mFRR balancing energy bid using DP_{PG} , only the maximum impact on the perimeter of the BRPsource will be considered. Only after Elia receives information from the BSP on the expected volume that each Delivery point will deliver (i.e., after the Acceptation notification is received), Elia will inform the BRPsource regarding the expected impact on his perimeter.

This means that the BRPsource will not necessarily receive three notifications related to each individual activation. Rather, the BRPsource will receive a notification providing an overview the total impact on his perimeter. This overview is updated each time Elia receives new information that could impact his perimeter. For instance, in case there are two activations for the provision of DA/ID flexibility services that have the same start of the activation period, the BRPsource will receive a single notification before the start of the activation containing an overview of the total expected and maximum impact on his perimeter rather than two separate notifications based on the information provided in each FSP-Notification 0.

4.5 Illustration: Notifications

The following example illustrates the principles for the notifications in case of the provision of the DA/ID flexibility service.

Note that in the example below, there is only a single activation being considered. As such, the modifications in the design of the system for notifying the BRPsource, as presented in Section 4.4, have no impact in this case. A modified example in which there are two overlapping activations is presented in Annex 1.

- a) A FSP_{DA/ID} has a pool of Delivery points registered for the DA/ID flexibility service in his portfolio:

Delivery point	BRPsource	DP _{DA/ID,max_up}	DP _{DA/ID,max_down}	Contr.Regime
DP 1	BRPsource A	+ 10 MW	- 10 MW	ToE
DP 2	BRPsource A	+ 7 MW	N/A	Opt-out
DP 3	BRPsource B	+ 8 MW	- 4 MW	ToE

- b) The BRP_{fsp_{DA/ID}} has performed trades on the DA and the ID markets, leading to the following nominations (corresponding to a volume to be activated by the FSP_{DA/ID} of 17MW between 17h00 and 18h00 and a volume of 15MW between 18h00 and 19h00):

Nomination	17h00–	17h15–	17h30–	17h45–	18h00–	18h15–	18h30–	18h45–
	17h15	17h30	17h45	18h00	18h15	18h30	18h45	19h00
BRP _{fsp DA}	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW
BRP _{fsp ID}	+2 MW	+2 MW	+2 MW	+2 MW	+0 MW	+0 MW	+0 MW	+0 MW

- c) FSP_{DA/ID} sends FSP-Notification 0 to Elia at the latest five minutes before the start of the activation (i.e., 16h55) with the following information:

- Activation period: 17h00-19h00
- List of contributing Delivery points DP_{PG}: [DP1, DP2, DP3]
- Total activated volume:

17h00–	17h15–	17h30–	17h45–	18h00–	18h15–	18h30–	18h45–
17h15	17h30	17h45	18h00	18h15	18h30	18h45	19h00

Total activated volume	+17 MW	+17 MW	+17 MW	+17 MW	+15 MW	+15 MW	+15 MW	+15 MW
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- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW
DP2	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW
DP3	+7 MW	+7 MW	+7 MW	+7 MW	+5 MW	+5 MW	+5 MW	+5 MW

- d) A first notification is sent to the BRPsources to inform them on the expected and maximum impact on their perimeter (the maximum impact on their perimeter per direction is presented between square brackets):

Activated volume within portfolio [MW]	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
BRPsource A	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]
BRPsource B	+7 [-4,+8]	+7 [-4,+8]	+7 [-4,+8]	+7 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]

- e) FSP_{DA/ID} sends FSP-Notification 1 to Elia at the latest three minutes after the start of the activation (i.e., 17h03) with the following information:

- Total activated volume:

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
Total activated volume	+17 MW	+17 MW	+17 MW	+17 MW	+15 MW	+15 MW	+15 MW	+15 MW

- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW

DP2	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW
DP3	+5 MW	+5 MW	+5 MW	+5 MW	+3 MW	+3 MW	+3 MW	+3 MW

- f) A second notification is sent to the BRPsources to inform them on the expected and maximum impact on their perimeter:

Activated volume within portfolio [MW]	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]
BRPsource B	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]

- g) FSP_{DA/ID} sends FSP-Notification 2 to Elia at the latest three minutes after the end of the activation (i.e., 19h03) with the following information (with changes in the information provided indicated in red):

- Total activated volume:

	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
Total activated volume	+17 MW	+17 MW	+17 MW	+17 MW	+16 MW	+16 MW	+16 MW	+16 MW

- Expected volume that each Delivery point DP_{PG} has delivered (MW):

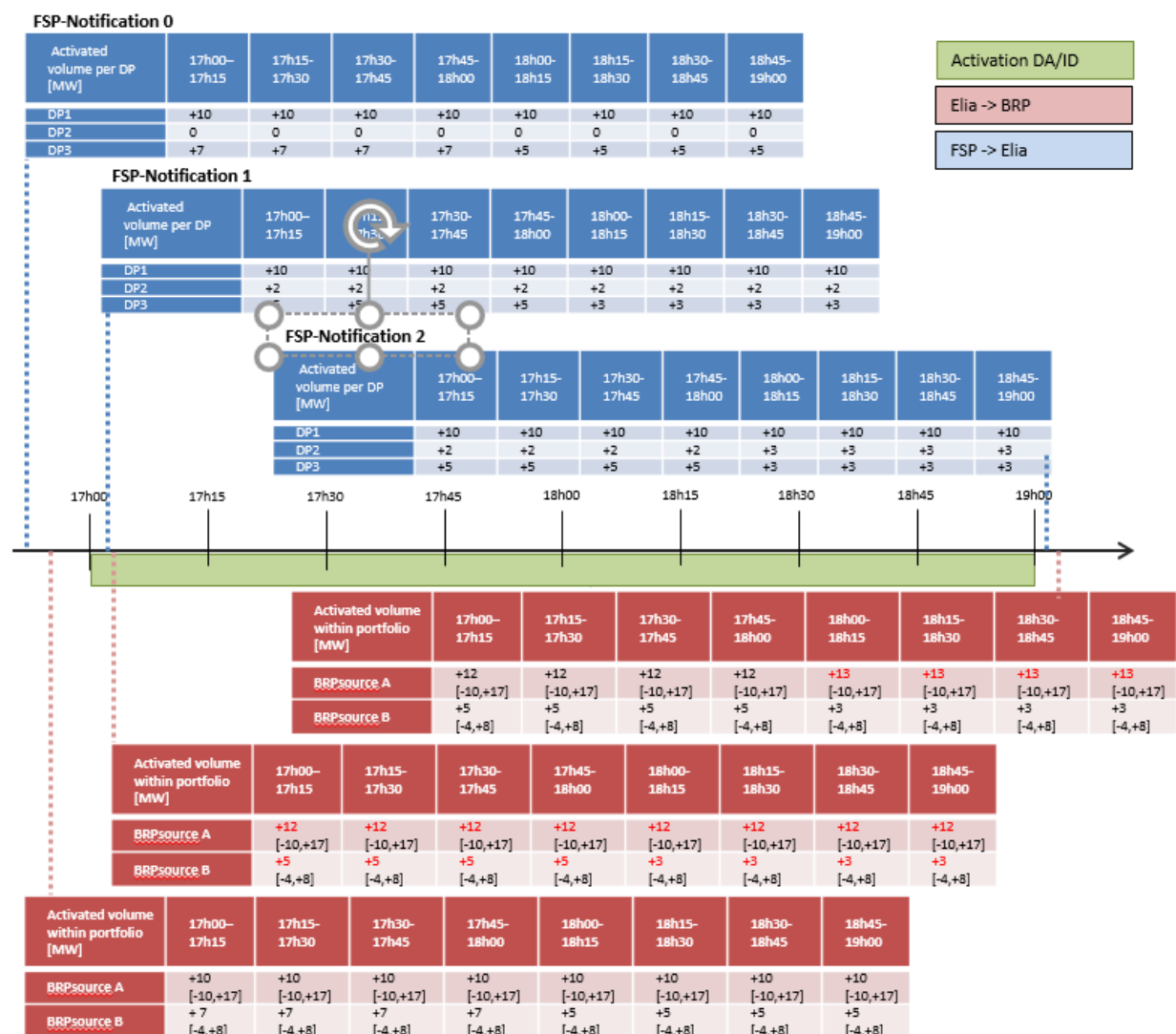
	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW
DP2	+2 MW	+2 MW	+2 MW	+2 MW	+3 MW	+3 MW	+3 MW	+3 MW
DP3	+5 MW	+5 MW	+5 MW	+5 MW	+3 MW	+3 MW	+3 MW	+3 MW

This FSP-Notification 2 will be used to determine for each quarter hour for which Delivery points to calculate the Delivered volume of flexibility required for the settlement of that quarter hour.

- h) A final notification is sent to the BRPsources to inform them on the expected and maximum impact on their perimeter:

Activated volume within portfolio [MW]	17h00-17h15	17h15-17h30	17h30-17h45	17h45-18h00	18h00-18h15	18h15-18h30	18h30-18h45	18h45-19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+13 [-10,+17]	+13 [-10,+17]	+13 [-10,+17]	+13 [-10,+17]
BRPsource B	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+5 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]	+3 [-4,+8]

A graphical overview of the notifications is provided in the schematic below.



5 Settlement phase

This section describes the principles regarding the perimeter corrections of the BRP_{fsp_{DA/ID}} and the BRP_{source}, and the exchange of information enabling the financial settlement between the FSP_{DA/ID} and

the Supplier in case of activations of Delivery points DP_{PG} for which a market situation with Transfer of energy applies. In addition, the section describes the calculation of the Delivered volume of flexibility, which is used as a basis for these perimeter corrections and the exchange of information.

5.1 Principles for perimeter corrections

The main principles for the perimeter correction of the BRP_{source} and BRP_{fsp_{DA/ID}} in case of the activation of Delivery points DP_{PG} for the provision of the DA/ID flexibility service, are:

- For each quarter-hour of the activation period, the perimeter of the BRP_{source} is corrected such as to neutralize the impact of the activation on his perimeter. The perimeter corrections corresponds to the minus the sum, over all activated Delivery points DP_{PG} for which a market situation with ToE applies and that are located in its portfolio, of the Delivered volume of flexibility: $- E_{\text{delivered}}$
- For each quarter-hour of the activation period, the perimeter of the BRP_{fsp_{DA/ID}} is corrected such that the BRP_{fsp_{DA/ID}} takes the balancing responsibility related to the activation. The perimeter correction corresponds to the sum, over all activated Delivery points DP_{PG} in the pool of the FSP_{DA/ID} for which a market situation with ToE applies, of the Delivered volume of flexibility: $+ E_{\text{delivered}}$.

Remark:

- The calculation of the Delivered volume of flexibility is only done for Delivery points DP_{PG} that have an activated volume different from zero in the FSP-Notification 2³⁰ and for which a market situation with Transfer of energy applies.
- The BRP_{fsp_{DA/ID}} is, for the provision of the DA/ID flexibility service, only corrected with the Delivered volume of flexibility of all Delivery points DP_{PG} for which a market situation with Transfer of energy applies, and not with the difference between the Delivered volume by Delivery points for which a market situation with Transfer of energy applies and the Requested volume as is the case for the mFRR and SDR market segment. The BRP_{fsp_{DA/ID}} is not corrected with the Requested volume as this volume is implicitly already integrated in the calculation of his perimeter's imbalance through his hub nomination (see step 6 of the illustration described in Section 2.4, and step 5 of the illustration in Section 5.45.4).
- In case of a market situation with Opt-out and Pass-through regimes, Elia will not perform perimeter corrections of the BRPs. In case of an Opt-out, all market parties have a joint agreement to settle their imbalances and for Pass-through, the BRP_{source} and Supplier are not impacted by the deviations of the Grid User due to activations of the FSP_{DA/ID} as they pass their imbalance to the Grid User.

³⁰ In case the FSP-Notification 2 is missing, last received notification will be used. In any case, an FSP-Notification 0 will act as a trigger to proceed to the settlement.

5.2 Exchange of information for the financial compensation between the Supplier and the FSP

To enable the financial compensation between the Supplier and the FSP:

- Elia informs the Supplier regarding the validated aggregated Delivered volume of flexibility per quarter hour and per FSP. The aggregation is done over all activated Delivery points DP_{PG} in the pool of the respective FSP for which a market situation with Transfer of energy applies and which are located within the portfolio of the Supplier³¹, and this regardless of the market segment for which the Delivery point is activated. This information will be provided to the Supplier at the latest at the end of the second month following the month during which the activation(s) has (have) taken place, and if applicable split between upward and downward activations.
- Elia informs the FSP regarding the validated aggregated Delivered volume of flexibility per quarter hour and per Supplier. The aggregation is done over all Delivery points DP_{PG} activated by the FSP for which a market situation with Transfer of energy applies and which are located within the portfolio of the Supplier, and this regardless of the market segment for which the Delivery point is activated.³² This information will be provided to the FSP at the latest at the end of the second month following the month during which the activation(s) has (have) taken place, and if applicable split between upward and downward activations.

5.3 Method for calculating the Delivered volume of flexibility

The Delivered volume of flexibility for each Delivery point DP_{PG} for which a market situation with Transfer of energy applies is calculated for every quarter hour of the activation period for which the expected volume delivered, as indicated by the $FSP_{DA/ID}$ in his FSP-Notification 2, is different from zero.³³

This Delivered volume of flexibility for a given quarter hour in case of an activation of a Delivery point DP_{PG} for the provision of the DA/ID flexibility service corresponds to the difference between the Baseline and the validated metering (Power measured), and is limited to the maximum upward and downward flexibility of the Delivery point ($DP_{DA/ID,max_up}$ or $DP_{DA/ID,max_down}$)³⁴:

Delivered volume of flexibility $_{DA/ID} = \min(\text{Baseline-Measured}, DP_{DA/ID,max_up})$ in case of an upward activation (Baseline > Measured)

Delivered volume of flexibility $_{DA/ID} = -\min(|\text{Baseline-Measured}|, |DP_{DA/ID,max_down}|)$ in case of a downward activation (Baseline < – Measured)

Remark:

³¹ As described in section 15 of the [ToE-rules](#).

³² As described in section 15 of the [ToE-rules](#).

³³ In case the FSP-Notification 2 is missing, last received notification will be used. In any case, an FSP-Notification 0 will act as a trigger to proceed to the settlement.

³⁴ As stipulated in section 11 of the [ToE-rules](#).

- As result of the public consultation performed in 2019, there will be no “Asymmetric Imbalance Adjustment” (hereafter also referred to as AIA) for the extension of ToE to DA/ID markets, and
- AIA will be removed from all the existing markets segments where ToE is applied³⁵ (i.e., the mFRR market and the SDR market segments).
- AIA means that the sum, over all Delivery points used in a single quarter hour of an activation, of the Delivered volume of flexibility is restricted to the Requested volume of flexibility. This means that in case of over delivery related to a certain activation, the Delivered volume of flexibility of the involved Delivery points, as calculated above, is pro-rate reduced such that the sum of the Delivered volume of flexibility equals the Requested volume of flexibility. Not using AIA implies that the calculation of the Delivered volume of flexibility of a Delivery point DP_{PG} is not impacted by the Requested volume of the service for which the Delivery point has been activated.
- **NEW** In case a single Delivery point is activated during a given quarter hour for the provision of the DA/ID flexibility service and for the provision of mFRR balancing, the Delivered volume of flexibility will be calculated using the Baseline as selected in the context of the registration of the Delivery point for mFRR, and the perimeter correction for the BRPfsp and the BRPsource as well as the information exchange to enable the financial settlement between the $FSP_{DA/ID}$ and the Supplier will be based on this Delivered volume of flexibility.³⁶ Note that such an Activation combo will currently not be allowed and be penalized, as described in Section 3.2.2.

5.4 Illustration: Perimeter correction

The principles described in Sections 5.1 and 5.3 are illustrated in the example below.

Example: consider the illustrations described in the Section 4.2 and Section 4.5: Based on the hub nominations of the $BRP_{sp_{DA/ID}}$ for the quarter hour between 17h00 and 17h15, the $FSP_{DA/ID}$ has to activate 17 MW to balance the perimeter of the $BRP_{sp_{DA/ID}}$ with a pool containing Delivery points DP 1, DP 2 and DP 3.

0. As described in step b and c of the illustration in Section 4.2, the $BRP_{sp_{DA/ID}}$ has submitted hub nominations (to nominate his exchanges of energy in the DA/ID markets) and Nominations BRP_{sp} to balance the share of his hub nominations that will

- $BRP_{sp_{DA/ID}}$ Imbalance (before perimeter correction, as illustrated in section 4.2) = $\sum \text{hub nominations} = -15 \text{ MW} + 10 \text{ MW} - 12 \text{ MW} = -17 \text{ MW}$

³⁵ As explained in Section 2.1 of the consultation report that can be consulted on [Elia's website](#), the decision not to apply AIA has been taken based on stakeholders remarks received during the pre-consultation workshops, the public consultation as well as after analysis by Elia.

³⁶ As an example, consider a situation where an FSP does a 10 MW balancing energy bid for mFRR for which DP1 would be used, and notifies that DP1 is also used for a DA/ID activation in the same quarter hour. This is not allowed and leads to penalizations as described in Section 3.2.2. On top of that, if Elia also does a request to effectively activate the balancing energy bid, and the FSP notifies in its last notification (called the confirmation notification) to Elia that the Delivery point DP1 would be used for this activation, Elia will proceed as follows. To avoid that the supplied volume is counted double when doing the perimeter corrections and the data exchange to facilitate the financial transfer between the FSP and the Supplier, the Supplied volume of flexibility of DP1 for the concerned quarter hour is calculated only according to the rules applicable for mFRR (i.e., the baseline applicable for mFRR is used, and the $DP_{mFRR,max,up/down}$ value is used as a cap).

<p>be balanced with an activation of flexibility by the FSP_{DA/ID}. Only the hub nominations submitted by BRPfsp_{DA/ID} will be used for the calculation of his imbalance</p>	
<p>1. The FSP_{DA/ID} provides Elia, via its FSP-Notification 2, with detailed information regarding the total volume delivered by the FSP_{DA/ID} per Delivery point for the concerned quarter hour.</p>	<p>FSP-Notification 2 to Elia</p> <ul style="list-style-type: none"> • DP 1 = + 10 MW • DP 2 = + 7 MW • DP 3 = 0 MW
<p>2. Delivery points for which the volume reported by the FSP_{DA/ID} in the previous step is equal to 0 MW as well as DPs not having a ToE regime are further excluded by Elia.</p>	<ul style="list-style-type: none"> • DP 1 = + 10 MW • DP 2 = + 7 MW (DP 2 has an Opt-out regime) • DP 3 = 0 MW (notified volume = 0)
<p>3. Elia calculates the Delivered volume of flexibility ($E_{delivered}$) for each remaining Delivery point, taking into account the measurement data and the Baseline. This may differ from the values reported by the FSP_{DA/ID} in its FSP-Notifications.</p>	<p>Volumes delivered per Delivery point as calculated by Elia:</p> <ul style="list-style-type: none"> • $E_{delivered_dp1} = + 11 \text{ MW}$
<p>4. Elia verifies whether the calculated Delivered volume of flexibility falls within the range [$DP_{DA/ID,max,down}$, $DP_{DA/ID,max,up}$]. If the $DP_{DA/ID,max,up}$ is exceeded, the Delivered volume of flexibility is taken equal to the limit that is exceeded.</p>	<p>$DP_{DA/ID,max,up}$ for DP1 equals +10 MW (see the illustration in Section 4.5) => the $DP_{DA/ID,max,up}$ is exceeded for DP 1 so $E_{delivered_dp1}$ is capped:</p> <ul style="list-style-type: none"> • <math>E_{delivered_dp1} = +11 \text{ MW} + 10 \text{ MW}</math>
<p>5. Elia adds the sum of the Delivered volume of flexibility at the various Delivery points (that are under ToE mechanism) to the perimeter of the BRPfsp_{DA/ID}.</p>	<p>Perimeter of BRPfsp_{DA/ID} is corrected with $E_{delivered_dp1}$ (DP 2 has an Opt-out regime so no correction is applied). = + 10 MW</p> <p>Remark: In contrast to an activation in the context of a mFRR or SDR service, the perimeter of the BRPfsp_{DA/ID} is not corrected with $E_{requested}$. This because there isn't a request made by Elia. Instead, the activation is to cover one or more trades in the energy markets. These trade(s) already impact the perimeter of the BRPfsp via the corresponding hub nominations (see step 0).</p> <p>Remark: The Nominations BRPfsp do not impact the settlement. These Nominations BRPfsp are, among others, required to verify whether the BRPfsp has a balanced position DA.</p>
<p>6. Elia neutralizes the perimeters of the relevant BRPsources (only those that have activated Delivery points in their portfolio for which a market situation with ToE applies) with the Delivered volume of flexibility of the Delivery points in their respective portfolios, as calculated in step 4.</p>	<p>Elia corrects the perimeters of the BRPsources as follows:</p> <ul style="list-style-type: none"> • BRPsource A: - 10 MW (= $-E_{delivered_dp1}$) <p>(BRPsource B: no correction as Delivery point DP3 had an activated volume of 0 MW)</p>

5.5 Determination of the Baseline

This subsection describes the methodology that is used to calculate the Baseline of a Delivery point in case of an activation for the provision of the DA/ID flexibility service. For the provision of the DA/ID

flexibility service, the Baseline is determined using the methodology High X of Y* ³⁷, which is a variant of the High X of Y³⁸ methodology.

For an activation during a Period of activation P on a day A the Baseline High X of Y* is determined following the three (or four) steps described in the following sections.

5.5.1 Step 1. Selection of Representative Days

In this step, a set of Y representative days is determined. In the next step, X reference days will be chosen from this set of Y representative days. The quarter-hourly measurement data of the Delivery point for those reference days will be used to determine the Baseline.

The representative days are the last Y days of the same category as day A that precede day A, except for days that are excluded. The days that are excluded are:

- the day before day A;
- the day(s) excluded by the FSP_{DA/ID} as described below.

The categories of representative days are:

- o Category 1: Working days;
- o Category 2: Week-end days and holidays;
- o Category 3: Monday or 1st Working day following a holiday. This category is optional. In absence of an explicit request of the FSP_{DA/ID} to consider the days of this category as a separate category, all days will be categorized as days of category one or two.

Depending of the category to which day A corresponds, the number of reference days (X) and representative days (Y) used to construct the Baseline are defined as presented in the table below:

Category of day A	X	Y
Working day	4	5
Weekend day/bank holiday	2	3
Mondays (only applied in case of an explicit request by the FSP _{DA/ID})	2	3

The FSP_{DA/ID} may ask to exclude one (or more) days of the representative days at the following conditions only:

- a) The request is motivated and justified by the FSP_{DA/ID};
- b) The justification must correspond to one of the following list:
 - i. An activation of a balancing service or a DA/ID flexibility service for which the Delivery point was activated;

³⁷ This Baseline methodology is based on remarks received during the public consultation. Remarks and adaptations are described in Section 2.1 of the consultation report (which can be consulted on [Elia's website](#)).

³⁸ Described in Section 9.3.2 of the [ToE-Rules](#).

- ii. A “Force Majeure”
 - iii. A planned or unplanned maintenance;
 - iv. Holidays, strike days or a closing period and that have an impact on the injection/offtake profile of the Delivery point;
 - v. in case of an upward activation, days for which the average DA electricity price for the day to be excluded during the period corresponding to the Activation period P on day A is both bigger than 150 EUR/MWh and bigger than the average DA electricity price during the period of activation P of day A.
 - vi. in case of a downward activation , days for which the average DA electricity price for the day to be excluded during the period corresponding to the Activation period P on day A is both smaller than 0 EUR/MWh and smaller than the average DA electricity price during the period of activation P of day A.
- c) In case the justification of the exclusion of a potential representative day corresponds to one of the circumstances ii-iv indicated above, the justification is only valid in case those circumstances do not also apply for the day of the activation (e.g. a day with maintenance cannot be excluded if on the day of the activation there was also a maintenance).

5.5.2 Step 2: Identification of reference days

This step consists of identifying X days for which quarter-hourly metering data of the Delivery point will be used to calculate the Baseline.

Those X days are retained from the Y Representative Days. They correspond to the X days for which the average net offtake of active power during the period corresponding to the Period of activation P of day A is the highest.

5.5.3 Step 3: Baseline calculation

This step is dedicated to the calculation of the Baseline value for each quarter hour of the period P of day A. This value is the average of the X values of active power of the considered Delivery point, measured at the same quarter hour of the X reference days.

5.5.4 Step 4: Adjustment of the Baseline level (Optional step)

By default, the Baseline methodology High X of Y* does not apply an adjustment of the Baseline level.

The FSPDA/ID has the possibility to ask in the Elia-FSP_{DA/ID} agreement for the delivery of the DA/ID flexibility service for an adjustment of the Baseline as calculated in steps 1-3 above, and this per Delivery point (see Section 3.2.1). The Baseline adjustment can be approved under the following conditions:

- a) The request is motivated and justified by the FSP_{DA/ID};
- b) The Baseline after adjustment has provided more accurate estimations of the offtake/injection at the Delivery point than the Baseline before applying an adjustment. For verifying whether the Baseline with adjustment performs better, the root-mean-square error (RMSE) values of the estimations provided by the Baseline determined by the High X of Y* method with and without Baseline adjustment are compared on a daily basis during a testing period of 90 days, excluding days in which an activation of the Delivery point has taken place, preceding the request of the FSP to apply a Baseline adjustment. For a given day and for a given Baseline, the RMSE is calculated as:

NEW

$$\text{RMSE}_{\text{Baseline}} = \sqrt{\frac{1}{n} \sum_{q=1}^n (bl_q - m_q)^2}, \text{ with:}$$

- n : number of quarter hours within the given day;
- q : a given quarter hour within the given day;³⁹
- bl_q : value of the considered Baseline for quarter hour q;
- m_q : measured offtake/injection at the Delivery point for quarter hour q.

The Baseline with adjustment is considered to provide more accurate estimations than the Baseline without adjustments if the RMSE of the Baseline with adjustments is lower than the RMSE without adjustments during at least 75% of the test days.

Elia has the possibility to reject, after motivation, the demand of the FSP_{DA/ID} to apply a Baseline adjustment. In that case, Elia notifies the CREG of its decision.

In case the Baseline is adjusted in the High X of Y* methodology, the adjustment is an uncapped, constant, additive adjustment of the Baseline, which is similar (but not identical) to the adjustment applied in the High X of Y methodology applicable for mFRR.

An uncapped additive adjustment means that the adjustment is done by adding a “correction value” (positive or negative) to every quarter-hourly value of calculated in Step 3. This correction value is calculated as the difference between the average measured offtake of the Delivery point during the adjustment period of day A (referred to as P_{adjust,A}), and the average measured offtake of the Delivery point during the period corresponding to the adjustment period of the X reference days (referred to as P_{adjust,X})⁴⁰.

One additional difference with the adjustment applied in the High X of Y Baseline methodology is that a different adjustment period is used in the High X of Y* Baseline methodology: the adjustment period is defined by the 3 hours preceding the 3 hours before the start of the activation (which is also illustrated in Figure 3 below).

Market parties are welcomed to provide remarks regarding the duration of the testing period of the prequalification and the criteria used to prove that the baseline with adjustment performs better.

³⁹ Some moments or days can be excluded from the testing period to avoid side-effects after a discussion between Elia and the FSP_{DA/ID}.

⁴⁰ Assuming that the convention is used that offtake is expressed using positive values and injection is expressed using negative values.

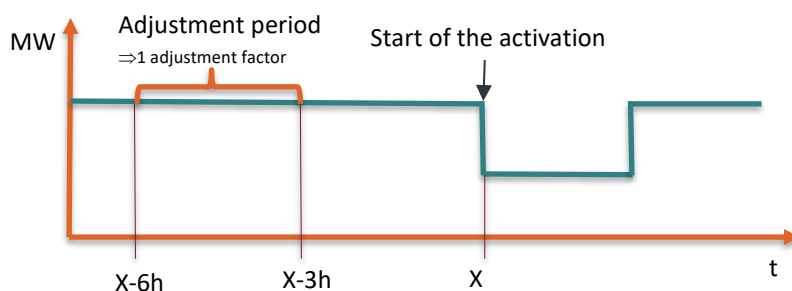


Figure 3: Adjustment period applied for the adjustment on the High X of Y* Baseline methodology

To avoid gaming, Elia will monitor the adjustment if applied: if the adjustment factor is $> +15\%$ in case of an upward activation or $< -15\%$ in case of a downward activation, Elia will request the FSP_{DA/ID} for a sound justification regarding the difference between the average active Power measured during the adjustment period and the averaged measured power during period corresponding to the adjustment period during the X reference days. If such a justification cannot be provided or remains insufficient, Elia reserves the right, after notification to the CREG, to no longer apply a Baseline adjustment for the concerned Delivery point. Elia will in this case also inform the FSP_{DA/ID} of its decision.

ANNEX 1. ILLUSTRATION OF NOTIFICATIONS TO THE BRPSOURCE

This illustration extends the illustration presented in Section 4.5. The main purpose is to illustrate how information is aggregated in case of multiple overlapping or simultaneous activations before sending it to the BRPsource. The aggregation, as presented below, allows providing to the BRPsource a user-friendly and up-to-date overview of the total impact on his perimeter related to activations of Delivery points DP_{PG} . Instead of receiving a series of notifications describing the impact on his perimeter of each individual activation, making it difficult to keep track of the total impact on his perimeter in case of multiple simultaneous or overlapping activations, the BRPsource will now receive notifications describing the total (expected) impact on his perimeter. As such, it provides the required information to avoid counter balancing. In addition, the aggregation performed serves to ensure confidentiality.

- a) A FSP has a pool of Delivery points:

Delivery point	BRPsource	$DP_{DA/ID,max_up}$	$DP_{DA/ID,max_down}$	$DP_{mFRR,max,up}$	$DP_{mFRR,max,down}$	Contr.Regime	Registered/prequalified
DP 1	BRPsource A	+ 10 MW	- 10 MW	-	-	ToE	DA/ID
DP 2	BRPsource A	+ 7 MW	N/A	-	-	ToE	DA/ID
DP 3	BRPsource B	+ 8 MW	- 4 MW	-	-	Opt-out	DA/ID
DP4	BRPsource A	+ 30 MW	- 8 MW	+ 20 MW	- 8 MW	ToE	DA/ID, mFRR

- b) The $BRP_{fsp_{DA/ID}}$ has performed trades on the DA and the ID markets, leading to the following nominations (corresponding to a volume to be activated by the $FSP_{DA/ID}$ of 17MW between 17h00 and 18h00 and a volume of 15MW between 18h00 and 19h00):

Nomination	17h00–	17h15–	17h30–	17h45–	18h00–	18h15–	18h30–	18h45–
	17h15	17h30	17h45	18h00	18h15	18h30	18h45	19h00
BRPfsp DA	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW	+15 MW
BRPfsp ID	+2 MW	+2 MW	+2 MW	+2 MW	+0 MW	+0 MW	+0 MW	+0 MW

- c) For the DA/ID activation, the $FSP_{DA/ID}$ provides a set of FSP-Notification to Elia
- i. FSP-Notification 0 at the latest 5 minutes before the start of the activation (i.e., 16h55)

- Activation period: 17h00-19h00
- List of contributing Delivery points DP_{PG} : [DP1, DP2, DP3]
- Total activated volume:

Total activated volume	17h00–	17h15–	17h30–	17h45–	18h00–	18h15–	18h30–	18h45–
	17h15	17h30	17h45	18h00	18h15	18h30	18h45	19h00
	+17 MW	+17 MW	+17 MW	+17 MW	+15 MW	+15 MW	+15 MW	+15 MW

- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW
DP2	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW	0 MW
DP3	+7 MW	+7 MW	+7 MW	+7 MW	+5 MW	+5 MW	+5 MW	+5 MW

- ii. FSP-Notification 1 at the latest three minutes after the start of the activation (i.e., 17h03) with the following information:

- Total activated volume:

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
Total activated volume	+17 MW	+17 MW	+17 MW	+17 MW	+15 MW	+15 MW	+15 MW	+15 MW

- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW
DP2	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW	+2 MW
DP3	+5 MW	+5 MW	+5 MW	+5 MW	+3 MW	+3 MW	+3 MW	+3 MW

- iii. FSP-Notification 2 at the latest three minutes after the end of the activation (i.e., 19h03):

- Total activated volume:

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
Total activated volume	+17 MW	+17 MW	+17 MW	+17 MW	+16 MW	+16 MW	+16 MW	+16 MW

- Expected volume that each Delivery point DP_{PG} has delivered (MW):

	17h00– 17h15	17h15– 17h30	17h30– 17h45	17h45– 18h00	18h00– 18h15	18h15– 18h30	18h30– 18h45	18h45– 19h00
DP1	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW	+10 MW
DP2	+2 MW	+2 MW	+2 MW	+2 MW	+3 MW	+3 MW	+3 MW	+3 MW
DP3	+5 MW	+5 MW	+5 MW	+5 MW	+3 MW	+3 MW	+3 MW	+3 MW

- d) During the DA/ID activation, Elia requests to activate an mFRR balancing energy bid that uses DP4 (for simplicity, we assume here that the balancing energy bid only uses DP4). The activation request is sent at 17h20, and concerns a Requested volume of 15 MW for the period 17h30-18h00. As a result of this activation request, there is an overlap between two activations impacting the perimeter of the BRP source. ⁴¹
- e) The FSP (in its role as BSP) accepts and confirms the activation request, and provides the corresponding notifications:

i. Acceptance notification:

- Total activated volume:

	17h30– 17h45	17h45– 18h00
Total activated volume	+15 MW	+15 MW

- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h30– 17h45	17h45– 18h00
DP4	+15 MW	+15 MW

ii. Confirmation notification (no changes with respect to the acceptance notification assumed):

- Total activated volume:

⁴¹In the current example, the two activations are performed by the same FSP and concern activations for the provision of different services (i.e., the DA/ID flexibility service and an mFRR balancing service). However, the same principles, in terms of notifying the BRPsource regarding the total impact of activations by Delivery points DP_{PG} on its perimeter, apply in case multiple FSPs are involved in different activations, and regardless of whether it concerns multiple activations for the provision of DA/ID flexibility services, mFRR services and/or SDR services.

	17h30- 17h45	17h45- 18h00
Total activated volume	+15 MW	+15 MW

- Expected volume that each Delivery point DP_{PG} will deliver (MW):

	17h30- 17h45	17h45- 18h00
DP4	+15 MW	+15 MW

f) This leads to the following sets of notifications that will be sent to BRPsource A⁴²:

- i. First notification after the FSP-Notification 0 (as soon as possible after 16h55):

Activated volume within portfolio [MW]	17h00– 17h15	17h15- 17h30	17h30- 17h45	17h45- 18h00	18h00- 18h15	18h15- 18h30	18h30- 18h45	18h45- 19h00
BRPsource A	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]	+10 [-10,+17]

- ii. Second notification after the FSP-Notification 1 (as soon as possible after 17h03):

Activated volume within portfolio [MW]	17h00– 17h15	17h15- 17h30	17h30- 17h45	17h45- 18h00	18h00- 18h15	18h15- 18h30	18h30- 18h45	18h45- 19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]

- iii. Third notification after the activation request for the mFRR balancing energy bid (as soon as possible after 17h20):

Activated volume within portfolio [MW]	17h00– 17h15	17h15- 17h30	17h30- 17h45	17h45- 18h00	18h00- 18h15	18h15- 18h30	18h30- 18h45	18h45- 19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+12 [-18,+37]	+12 [-18,+37]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]

⁴² For BRPsource B, the situation remains unchanged with respect to the situation in the illustration presented in Section 4.5. For this reason, the notifications to BRPsource B are not shown here.

Due to the fact that another Delivery point located in the portfolio of access points of BRPsource A is used for the mFRR energy bid, the maximum impact of activations taking place in his perimeter is updated.

- iv. Fourth notification after the acceptance notification related to the mFRR balancing energy bid (as soon as possible after 17h33):

Activated volume within portfolio [MW]	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+27 [-18,+37]	+27 [-18,+37]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]

As a result of the specification of the contribution per Delivery point in the acceptance notification, the activated volume by DP_{PG} located within the perimeter of BRPsource is updated. For the period of the mFRR activation, this now corresponds +27 MW (+12 MW for the DA/ID activation using DP1 and DP2 + 15 MW for the mFRR activation using DP4).

- v. Fifth notification after the confirmation notification related to the mFRR balancing energy bid (as soon as possible after 18h03):

Activated volume within portfolio [MW]	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+27 [-18,+37]	+27 [-18,+37]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]	+12 [-10,+17]

For the given example, the contribution per Delivery point as notified via the confirmation notification is unchanged with respect to the information provided in the acceptance notification.

- vi. Final notification after the FSP-Notification 2 (as soon as possible after 19h03):

Activated volume within portfolio [MW]	17h00–17h15	17h15–17h30	17h30–17h45	17h45–18h00	18h00–18h15	18h15–18h30	18h30–18h45	18h45–19h00
BRPsource A	+12 [-10,+17]	+12 [-10,+17]	+27 [-18,+37]	+27 [-18,+37]	+13 [-10,+17]	+13 [-10,+17]	+13 [-10,+17]	+13 [-10,+17]

The overview of notifications is presented graphically in the schematic below:

