Study on the Designation of Multiple Balance Responsible Parties on an Access Point

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Table of content

1 Introduction

Each Grid user connected to the Elia grid has access to the Elia Grid at the condition that its Access Point is registered in the balancing perimeter of a BRP so that the offtake/injection measured at the level of this Access Point is well allocated to a BRP. In practice, the Access Contract Holder (ACH) of the Access Point needs to designate a Balance Responsible Party (BRP) that will be responsible for that Access Point in his Access Contract.

The current Access Contract contains several annexes allowing to share the balancing responsibility on an Access Point by designating more than one BRP responsible for this Access Point. These annexes contain some specific schemes for sharing the balance responsibilities on the same Access Point as described in the table below.

Annex	Description	For what type of Access Point
Annex 3bis (GIER/GOER)	Split load/local production	Industrial site with local production with one BRP responsible for the gross load, one for the gross production
Annex 3ter (NIER/NOER)	Split net offtake/injection	Industrial site with local production with one BRP responsible for the netto load, one for the netto offtake
Annex 9	Shared energy	Injection point (production unit)
Annex 10	Fixed band	Offtake point
Annex 11	Flexible band	Offtake point
Annex 14	CDS	CDS
Annex 14ter	Same than annex 9 but in a CDS	Production unit within a CDS

Table 1: Summary of existing multi-BRP annexes in the Access Contract

Over the years, Elia has experienced that those schemes have limitations for the designation of more than one BRP on an Access Point. As these schemes were previously developed for specific situations, they might not sufficiently address all the potential needs of market parties. In practice, more options need to be provided in the possibilities to split the balancing responsibility on an Access Point.

Besides, the revision of these schemes should also consider the evolution of the electricity market design. In particular, the impact of the future split of market roles (Scheduling Agent (SA), Outage Planning Agent (OPA), Balance Responsible Party (BRP), Balancing Service Provider (BSP)) should be assessed.

The **objectives** of the present study are to:

1. Assess, together with market parties, the relevance and the possible **limitations of the existing schemes** for the designation of multiple BRPs on a same access point considering
    - The need of flexible and modular solutions for market parties
    - The evolution of the electricity market
2. Propose **improved/ or new scheme(s)** to give more options to market parties for designating multiple BRPs behind an access point
    - E.g. allowing more than two BRPs per Access Point
    - Allowing to define different BRPs per asset/group of assets behind an Access Point)
    - Respecting the applicable legislation (EBGL, FGC)

In addition to this introduction, the present document contains:

1) A description of the need for improvement of the schemes allowing the designation of multiple BRPs on an Access Point
2) A description of the current framework concerning the BRP responsibilities, the existing possibilities to designate multiple BRPs on an Access Point and the scheduling obligations in the framework of iCAROS project
3) A summary of the feedback and attention points from market parties that were collected through bilateral interviews and workshops
4) Based on the inputs from market parties, the requirements for a new solution for the designation of multiple BRPs on an Access Point
5) The design proposal of a solution for the designation of multiple BRPs on an Access Point
6) The next steps and a first explanation about the implementation plan for the proposed design
7) A general conclusion of the study

2 Need for improvement

2.1 Generic Example

One very simple generic example that can be given to describe the need for improvement that's underpinning this study is the following:

A Grid User has different assets behind the same Access Point: an industrial site, some wind turbines, a battery, and a CHP.

This Grid User wants to appoint different BRPs for each or a part of his assets for operational reasons. For example, isolate an asset that has a higher volatility (ex. wind turbines) and assign it to a BRP that has a large portfolio capable of mitigating highly volatile generation units and isolate the battery in order to assign it to a BRP who also takes the role of BSP for the offering of the flexibility to the balancing market.

In the present scheme of things, as can be seen in Figure 1, Elia requires that only one BRP is accountable for the entire Access Point. In some specific cases (cf. table 1), two BRPs are allowed but the current scheme does not leave room to allow that multiple BRPs operate different physical assets within the site behind the Access Point.

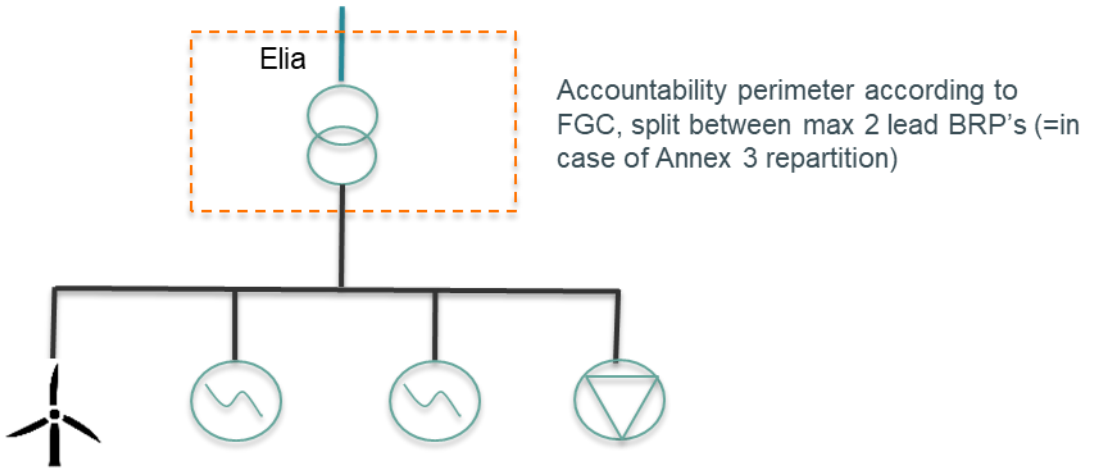


Figure 1: Simple example of a Grid User with several assets behind an Access Point

The only case in which more than one BRP would be allowed to operate with the Access Point perimeter, would be in the framework of one of the annexes 3bis, 3ter, 9, 10 and 11 of the Access Contract. These annexes however describe very specific cases and do not provide with a framework that gives enough modular options, and the fact that they are not largely used by market parties only emphasizes this further.

This problem is especially pressing for off-shore wind farms; in the current situation, any BRP accepting these within his platform as a single asset is introducing in his portfolio a very large and very volatile (hence risk-inducing) asset. Hence allowing to "split" the assets of a Grid User behind the Access Point and to designate several BRPs would reduce the financial

risk of the BRPs (as this later would be shared among the designated BRPs) and would therefore provide more choices for the Grid User in the designation of his BRP(s).

2.2 Facilitate flexibility with a third party

Another reason for which market parties requested a universal multiple BRP appointment framework is linked to Transfer of Energy. As is, whenever a FSP wishes to offer flexibility using a specific asset within an Access Point, it is most of the time obliged[1] to make a specific arrangement (Opt-out or Transfer of Energy also called ToE) in order to address the impact of the flexibility activated on the BRP and Supplier of the Access Point which complicates the situation.

In some cases, the asset providing the demand-response flexibility (by definition a demand facility) is a small asset downstream from an Access Point to which are connected much larger production or offtake assets.

In such an event, the contract with the BRP or Supplier of the Access Point may be more important for the Grid User than the flexibility that he wishes to offer to Elia with a smaller asset. If the BRP_{source}, the Supplier, the Flexibility Service Provider (FSP) and his BRP_{FSP} fail to conclude an opt-out agreement, all of the aforementioned parties need to implement a ToE solution, in which settlement of imbalances and financial flows are implemented according to the ToE Rules[2]. Besides, in the ToE solution a specific agreement has to be found between the Supplier and the FSP for the transfer price that will be applied for the settlement of the ToE. Only if no agreement has been found on this transfer price, the FSP may ask the CREG the agreement to apply a transfer price per default.

The procedures that have to be followed in order to land with an Opt-out or ToE solution (with or without transfer price per default) can be long and heavy for all involved parties.

Market parties have questioned Elia whether it would be possible to create a solution in which the possibility is provided to assign a separate BRP (and hence Supplier if necessary) only for the asset with which the Grid User and FSP wish to provide the flexibility. This would allow the Grid User to assign a BRP_{source} for the flexible asset with which an opt-out agreement is concluded with the FSP, or even more simply, assign the FSP as BRP_{source} of the asset in question in order to avoid implementing the (potentially burdensome) ToE procedure.

[1] Except when the Grid user has concluded a so called "pass-through contract " with his Supplier as specified in the ToE rules

[2] The ToE rules are available here: https://www.elia.be/-/media/project/elia/elia-site/electricity-market-and-system---document-library/capacity-allocation-and-capacity-calculation/2020/2020_toe-rules_fr.pdf

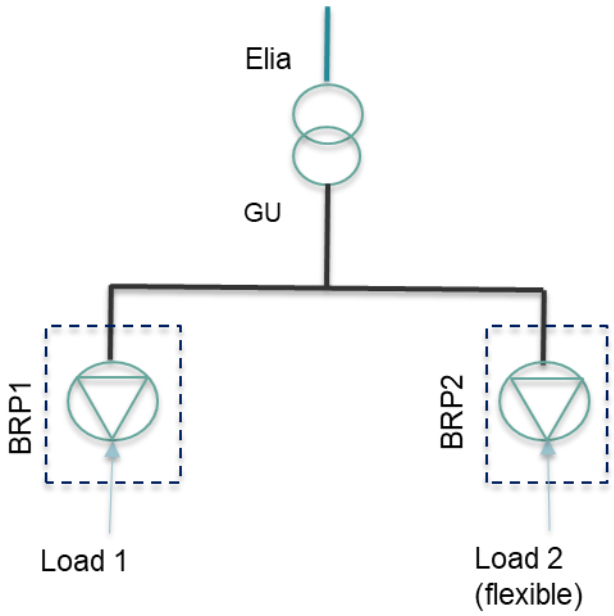


Figure 2: Example of a possible configuration where a separate BRP_{source} is designated only for the asset providing flexibility

The root cause for both aforementioned problems is the problem of not allowing a BRP to undertake a specific asset in his portfolio as a physical perimeter.

As will be analyzed in section 3.3, existing multi-BRP annexes in the Access Contract cannot respond to the aforementioned problems, either because they only foresee an "accounting" split of one single measured perimeter (=the Access Point, as foreseen in annexes 9, 10 and 11), or because they are restrictive in the physical split configurations they allow (annexes 3bis, 3ter, 14, 14ter) or finally because each option targets a specific kind of access point (for ex. annex 9 is only applicable to pure injection points, annex 10 & 11 only to offtake points, and annexes 3 and 14 only to injection/offtake points).

3 Current Framework and future evolutions

This chapter describes some elements of the current market, legal and contractual framework. Some future evolutions linked to iCAROS[3] are also described, mainly concerning scheduling and operational exchanges.

In sections 3.1, 3.2 and 3.3, the existing framework on BRP responsibility is assessed.

In sections 3.4 and 3.5 the relevant emerging elements from recent legal and contractual framework as well as some evolutions coming from iCAROS are analyzed.

3.1 BRP responsibility in the Federal Grid Code

The Federal Grid Code describes a specific perimeter of responsibility for BRPs in the Articles 204 and 205.

> ***Art. 204.*** *Le détenteur d'accès visé à l'article 188, alinéa 2, désigne, pour chaque point d'accès, un ou plusieurs responsable(s) d'équilibre inscrit(s) au registre des responsables d'équilibre tenu par le gestionnaire de réseau de transport. Le suivi du prélèvement ou de l'injection d'un point d'accès est assuré à chaque point d'accès ou d'injection et de prélèvement pour lesquels le détenteur d'accès peut désigner jusqu'à deux responsables d'équilibre chargés du suivi sous réserve des dispositions prévues dans les modalités et conditions applicables aux responsables d'équilibre.*
>
> ***Art. 205.*** *La puissance active physiquement injectée ou prélevée au point d'accès est attribuée par le gestionnaire de réseau de transport au(x) responsable(s) d'équilibre de ce point d'accès conformément aux dispositions prévues dans les modalités et conditions applicables aux responsables d'équilibre.*

The Federal Grid Code articles mention that any injection and/or offtake to and from an Access Point need to be covered at Access Point level by a BRP; the articles also describe the possibility to designate one or several BRPs on an Access Point while the injection and offtake at a given Access Point to the Elia grid has to be covered by one or two BRPs "lead" ("*chargés du suivi*"). Note that the role of BRP lead is not defined in the federal grid code. In practice, in the schemes described in existing multi-BRP annexes of the Access Contract the BRP lead has some additional/different responsibilities than the others. For example, in annex 9, the BRP lead is the one making the nominations and signing the OPA and SA contracts; for annex 10, the BRP lead is called BRP_{follow} and is responsible for the difference between the effective metering at the Access Point and the nominated power by the BRP band.

[3] More information about iCAROS project is available on the Elia website

In conclusion, the FGC provides the possibility to designate several BRPs per Access Point. An analysis should however be made to determine whether these articles (and more particularly the limitation and definition of BRP lead) need to be clarified.

3.2 BRP responsibility in the European network codes

The Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EBGL) describes at the Article 18.6 (a) that:

> *6. The terms and conditions for balance responsible parties shall contain:*
>
> *(a) the definition of balance responsibility for each connection in a way that avoids any gaps or overlaps in the balance responsibility of different market participants providing services to that connection;*

The EBGL clearly states that no gaps or overlaps may exist in the balance responsibility. This means that the accountability of the exact energy injected or offtaken at an Access Point has always to be ensured. In other words the sum of the volumes allocated to each of the BRPs designated for an Access Point may not be larger or lower than the volume of active energy metered at the level of the Access Point.

3.3 Existing multiple-BRP configurations

Currently Elia's Access Contract already provides for some solutions to designate multiple BRPs that partially provide solutions to market parties. These annexes are described below:

Annex 3bis

Annex 3bis allows to separate the metered injection from a local production unit from the offtake of the industrial site and attribute them to different BRPs.

In this annex, the Access Contract Holder appoints a BRP as responsible for the offtake of the load and another for a local production unit located downstream from the Access Point.

- This scheme is limited to two BRPs and allows to "separate" one production unit from the rest of the industrial site.
- The nominations are made by each BRP: the BRP responsible for the load behind the Access Point nominates his forecast of load; the BRP responsible for the production unit nominates the expected production schedule. He also signs the OPA and SA contract if applicable[4].

[4] This later obligation to the BRP is applicable till phase I of iCAROS project. As from phase II a different party than the BRP could be designated as SA and/or OPA of the production unit.

- The allocations are made according to metering of loads and metering of the local production unit. Note that this scheme implies the installation of a valid meter (that can communicate with Elia systems) at the level of the production unit (or the load) in order to allow Elia to separate the gross injection from the gross offtake of the site and to allocate accordingly. The BRP responsible for the gross offtake is allocated with a surplus in % of its allocated offtake to cover for federal transmission grid losses[5].

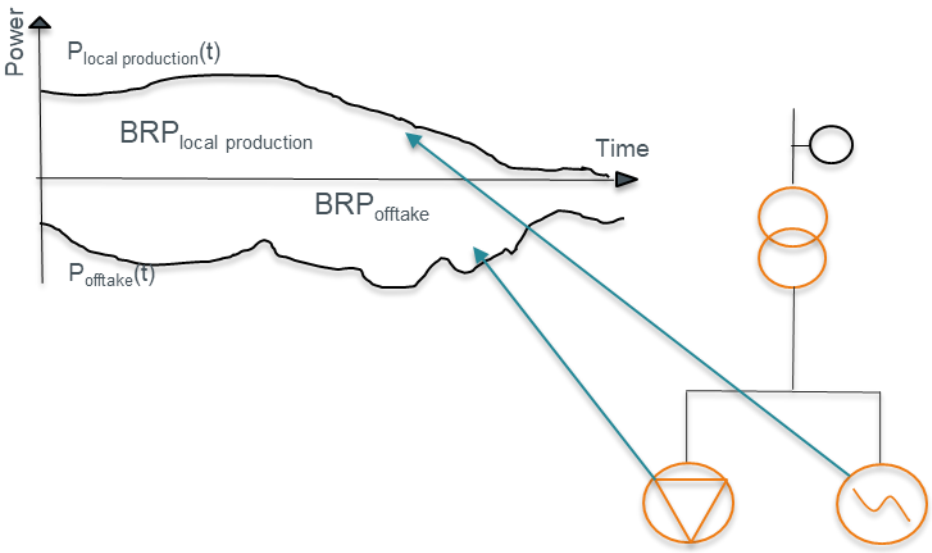


Figure 3: Allocations of energy according to annex 3bis: the BRP responsible for the load is being attributed all offtake metered at asset level whereas the BRP responsible for the local production unit(s) is being attributed all metered volume injected (metered at asset level) by the local production unit(s) (non-netted)

Annex 3ter

In this annex, the Access Contract Holder appoints a BRP as responsible for the net offtake of the Access Point and another for the net injection of the Access Point.

- The nominations for the entire profile at the Access Point (as well for injection as for offtake) are made by only one BRP: the BRP responsible for injection. This later also signs the OPA and SA contract if applicable[6].

[5] As foreseen by Art. 202 and 203 of the Federal Grid Code

[6] This later obligation to the BRP is applicable till phase I of iCAROS project. As from phase II a different party than the BRP could be designated as SA and/or OPA of the production unit.

- The allocations are made according to metering at the level of the Access Point (or Headmeter[7]): the metered injection at the Access Point is allocated to the perimeter of BRP responsible for the injection and the metered offtake at the Access Point is allocated to the perimeter of BRP responsible for the offtake. The BRP charged with offtake is allocated with a surplus (in % of its allocated offtake) to cover for federal transmission grid losses[8].

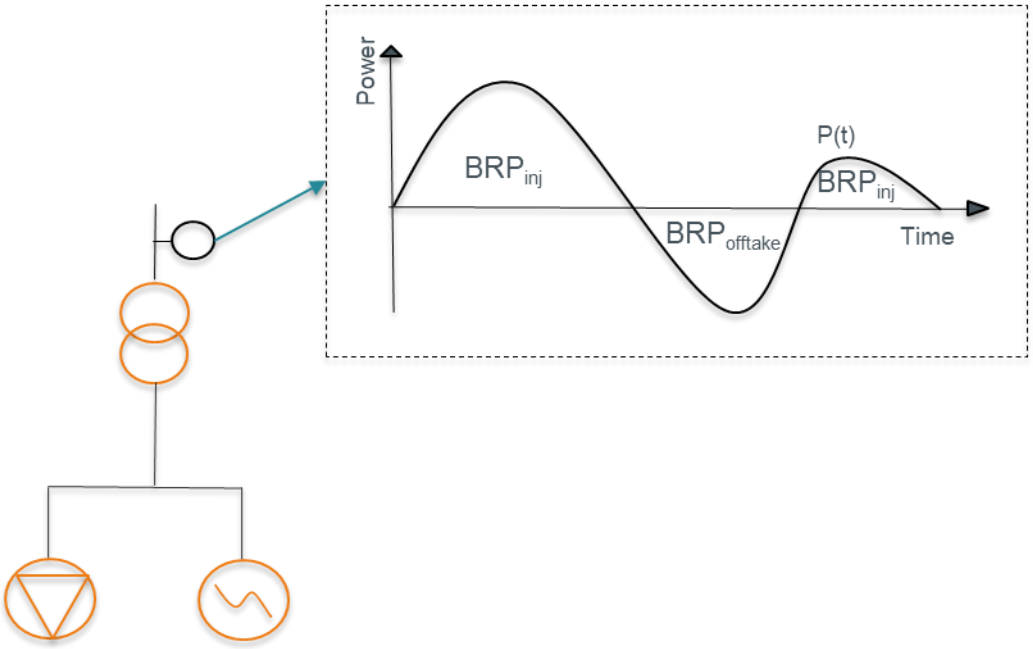


Figure 4: Allocations of energy according to annex 3ter: the BRP responsible for offtake is being attributed the net offtake metered at the Access Point whereas the BRP responsible for injection is being attributed the net injection metered at the Access Point

Annex 9

Annex 9 of the Access Contract gives the possibility to one or more BRPs to "share" responsibility of the injection measured at an Access Point. This scheme is therefore only limited to Access Points that are injection points. In other words this scheme is limited to Power Plants (Power Generating Modules or Power Park Modules) connected to the Elia grid.

A "BRP$_{lead}$" (who is also going to be the signatory of the OPA and SA contracts) is nominated by signature of the Annex, and all other BRPs are "BRP$_{share}$".

- The day-ahead nominations and Intra-Day Program Change Requests (IDPCR's) for the Access Point are made by the BRP$_{lead}$.

[7] A (group of) meter(s), as defined in article 2 §1 5° of the Federal Grid Code, associated with the Access Point as determined by ELIA, or the DSO (for the Public Distribution Grid), installed by ELIA for the ELIA Grid and the DSO for the Public Distribution Grid;

[8] As foreseen by Art. 202 and 203 of the Federal Grid Code

- The measured injected or offtaken power for this Access Point is allocated by Elia to the BRP_{lead} and one or more BRP_{share}, signatories of Annex 9 of the Access Contract, according to a fixed percentage agreed between BRPs and signed in the contract. Losses are applied according to the same key (in case of net offtake, for ex. when the unit is stopped but that the auxiliaries consume).

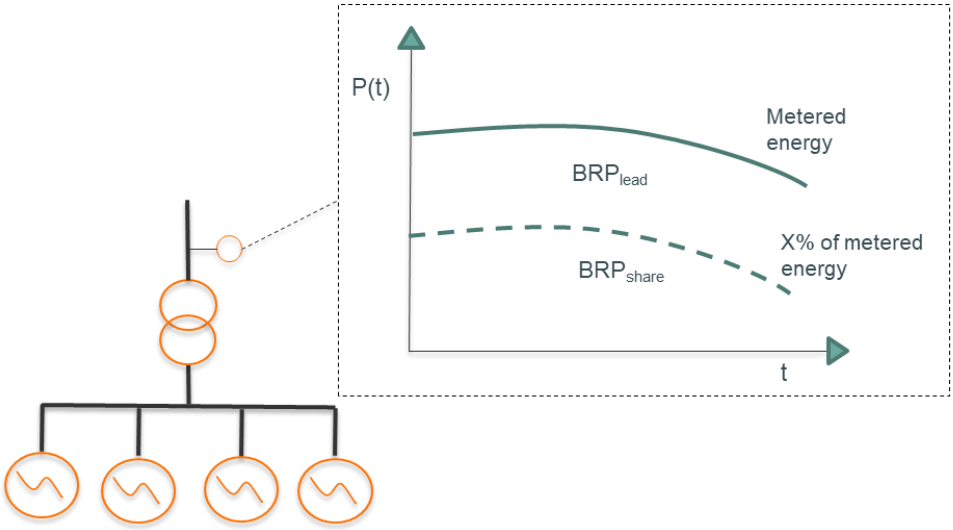


Figure 5: Allocations of energy according to annex 9. The energy is metered at the Access Point and a percentage of it is attributed to different BRPs according to a fixed key.

Annex 10[9]

Two BRPs share the metered offtaken energy according to a fixed formula. $BRP_{fixed\ band}$ is responsible for a maximum value of energy offtaken at the Access Point, whereas BRP_{follow} is responsible for the remaining difference between metered energy at the Access Point and the energy allocated to $BRP_{fixed\ band}$. This scheme is only limited to Access Points that are offtake points.

- The value of the fixed band energy is specified in the Access Contract so that no nomination for the fixed band is necessary, whereas the BRP_{follow} responsible for the rest of the offtake is to nominate normally the rest of the load.
- The $BRP_{fixed\ band}$ is always being allocated the minimum between the metered energy at the Headmeter and the value of the fixed band, whereas the $BRP_{offtake}$ is allocated the delta between metered energy and the fixed band value (when positive,

[9] This annex is part of the current Access Contract and is by consequence described in this note. Please note that the revision of the Access Contract is ongoing and discussions are ongoing concerning the existence of this annex.

otherwise his allocation is zero). An additional provision for federal grid losses is attributed to each BRP as a percentage of their allocated offtake.

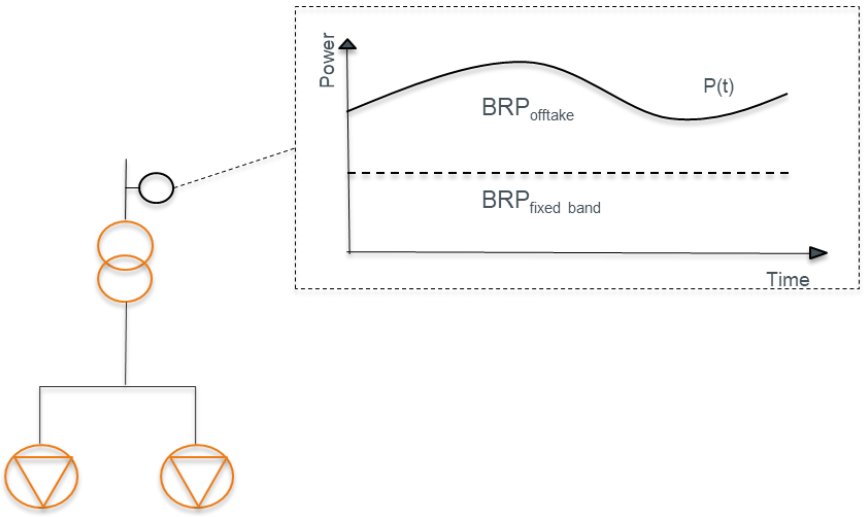


Figure 6: Allocations of energy according to annex 10. Energy is measured at the Access Point. A fixed part of it is allocated to the $BRP_{fixed\ band}$ and the rest is allocated to the $BRP_{offtake}$

Annex 11[10]

Two BRPs share the metered energy according to nominations made by the $BRP_{flexible\ band}$.

The $BRP_{flexible\ band}$ submits by means of a daily nomination, the values of the flexible-band supply (including grid losses[11]) which relate to the balancing perimeter of the BRP for flexible band. This scheme is only limited to Access Points with offtake.

- The $BRP_{flexible\ band}$ nominates the flexible band load, whereas the BRP responsible for the rest of the load nominates the remaining load.
- The $BRP_{flexible\ band}$ is always being allocated the minimum between the metered energy at the Headmeter and the value of the flexible band, whereas the $BRP_{offtake}$ is allocated the delta between metered energy and the flexible band value (when positive, otherwise his allocation is zero), including losses[12].

[10] This annex is part of the current Access Contract and is by consequence described in this note. Please note that the revision of the Access Contract is ongoing and discussions are ongoing concerning the existence of this annex.

[11] As foreseen by Art. 202 and 203 of the Federal Grid Code

[12] As foreseen by Art. 202 and 203 of the Federal Grid Code

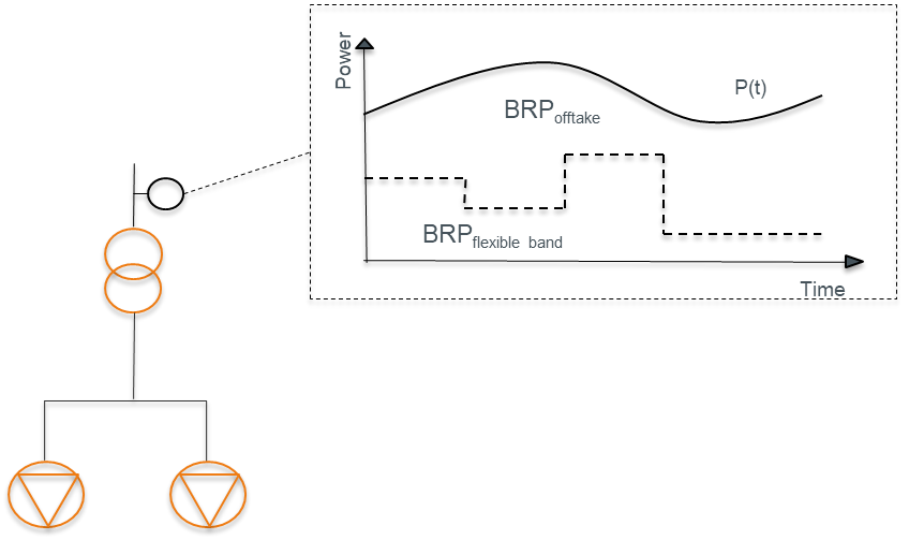


Figure 7: Allocations of energy according to annex 11. The energy is metered at the Access Point level. A changing part of it is allocated to $BRP_{flexible\ band}$ and the rest is allocated to $BRP_{offtake}$.

Annex 14

Annex 14 describes the BRP roles and responsibilities for Closed Distribution Systems (CDS) as defined in the competent legislation. To be noted, CDS is a status that is attributed by competent regulators.

In a CDS that is "active", the CDS Grid Users may appoint their own BRPs, independently from the BRP chosen by the CDSO. Each CDS Grid User appoints a BRP to be responsible for his Market Access Point. As defined in the Federal Grid Code, a Market Access Point is a virtual point used for the determination of part or all of the offtaken or injected active power in a CDS by a CDS Grid User.[13]

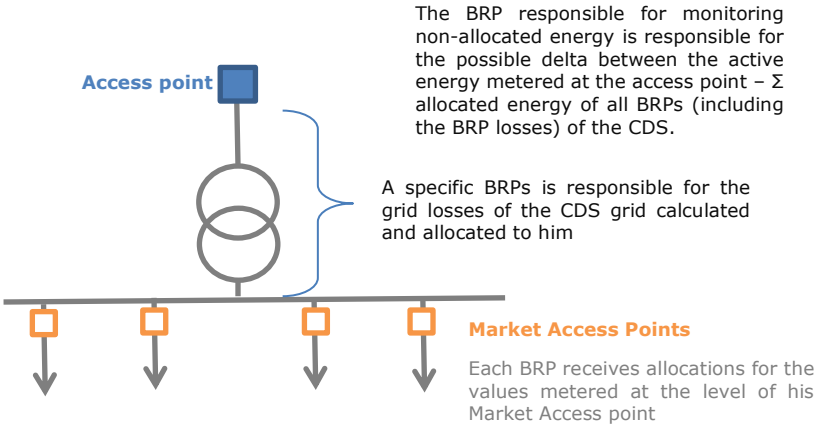
- The nominations for Market Access Points are made directly by each BRP to Elia.
- The allocations for BRPs active within a CDS are submitted to Elia monthly by the CDSO (per BRP). These can be calculated on the basis of metering and/or arrangements between BRPs and CDS grid users.

  The allocations are communicated at M+1 by the CDSO, in a specific template as per Elia's "Metering Manual for CDS's". Market parties have the liberty to make the allocations freely according to mutual agreements, with the responsibility for the accuracy of allocations burdening the CDSO. Metering requirements applicable for CDS are defined in articles 351 to 353 of the Federal Grid Code. The metering is managed by the CDSO for all Market Access Points in its CDS. Article 302 of the Federal Grid Code also states that, in case the metering used for the allocations in a

[13] According to Article 2, 30° of the Federal Grid Code: « point d'accès au marché : un point virtuel servant à la détermination d'une partie ou de toute la puissance active prélevée du et/ou injectée dans le CDS par un utilisateur du CDS »

CDS is not compliant with Elia's metering requirements necessary for the provision of flexibility products, the CDSO and the CDS Grid User need to confer to find an adapted solution (that could be the installation of a compliant sub-meter).

For each CDS, and pursuant to articles 345 and 346 of the Federal Grid Code, the CDSO must also appoint a BRP responsible for monitoring non-allocated energy in the CDS connected to the Elia Grid in order to cover the difference between the volumes metered by Elia at the level of the Access Point (headmeter) and the sum of all allocations for this CDS. Those differences can correspond to non-allocated energy in its CDS resulting from possible errors in allocations or if the designation of one of the BRPs behind the Access Point is terminated and no other BRP has been designated on that Market Access Point. Note that this BRP is not supposed to cover the internal losses of the CDS. Indeed, in order to ensure a fair split of the consumption between concerned parties, in practice the internal grid losses of a CDS are not assigned to this BRP but to a specific BRP or "dispatched" to one or several BRPs of the CDS.



Annex 14ter

Annex 14ter allows for a configuration like the one described in annex 9 for a Market Access Point.

To be noted that in such a configuration, the designation of OPA's and SA's for a certain Market Access Points is under the responsibility of the BRP_{lead} as per Annex 9.

Summary and conclusion

These annexes are presented in overview in Table 2, resuming the roles and responsibilities of BRPs in regards to nominations and allocations:

Annex	Description	Inj/Off	Nominations	Allocations
Annex 3bis	Split Load/Local Production Unit	Both	Done by each BRP	Made by Elia based on energy metered at its headmeter
Annex 3ter	Split Net Offtake/Injection	Both	Done by BRP_{inj}	Made by Elia based on energy metered at its headmeter
Annex 9	Shared Energy	Both	BRP_{lead} nominates for entire AP	Made by Elia based on energy metered at its headmeter and sharing key
Annex 10	Fixed band	Off.	BRP_{FB} does not nominate. $BRP_{offtake}$ nominates in function of information provided by BRP_{FB}	Fixed band attributed to BRP_{FB}, residual to $BRP_{offtake}$ when metering is superior or equal
Annex 11	Flexible band	Off.	BRP_{BFlex} nominate for their own perimeter. $BRP_{offtake}$ nominates in function of information provided by BRP_{FB}.	Allocation of nominated volume to the perimeter of the $BRP_{FB.}$ Delta attributed to the perimeter of $BRP_{offtake}$ when metering is superior or equal.
Annex 14	CDS	Off.	Nomination by every BRP active within the CDS.	Made by the CDSO in function of metering. Delta between allocations and measurement at AP attributed to BRP_{CDSO} .
Annex 14ter	% Repartition of energy volumes of a PU within a CDS	Inj.	BRP_{lead} nominates for the entire Market Access Point.	Made by the CDSO in function of metering and fixed sharing key.

Table 2: Overview of existing multiple-BRP annexes in the Access Contract

Some of these Annexes are used to respond partly to needs formulated in section 2:

- **Annexes 9, 10, 11 and 14ter allow for an "accounting split" of the metered energy between BRPs.** It must be noted that although these Annexes were designed specifically to allow mitigating risks between BRPs (just by reducing the size of the part of the asset that they will have to manage), they were made to allow a mere "accounting" split of the power output, while measurements of all assets behind the Access Point remain aggregated.
  Moreover, the metering that serves for the settlement of imbalances according to these annexes is the netted metered volume at the Headmeter of the Access Point, and is thus by definition unique.
  In addition, Annex 9 makes possible the designation of only one lead BRP that makes the nominations and designates the SA and OPA. This is a limitation in case a Grid User manages multiple independent assets located behind an Access Point and wants to designate different BRPs that could handle these assets independently (e.g. for offshore wind parks)

- **Annexes 3bis, 3ter allow for a "physical" split of the metered energy between BRPs.** For Grid Users using these annexes it is possible to distinguish separate BRP perimeters for each asset. However, these do not fully respond to the need for a split between multiple consumption and generation assets. Annexes 3bis and 3ter allow to split offtake from injection but do not allow to split between assets

(for example between 2 production units or 2 demand units). Annexes 3bis and 3ter also do not allow to designate a specific BRP for an Energy Storage Device as they only cover a split of metered energy.

- **Annex 14** concerns a very specific role, the one of CDS, who is however only applicable according to the rules stated in the regional law (see section 3.4 hereunder). As the CDS are not in the scope of this study, the specific scheme described in Annex 14 is not analyzed for adaptation but can rather be used as a source of inspiration to develop a new solution (see section 3.4).

This analysis shows that these existing schemes do not allow to solve the needs described in section 2. A scheme allowing to designate separate BRPs for each type of asset behind the Access Point, and even for each production unit when several production units are present on the site, is necessary to address them.

3.4 Existing sources of inspiration

In this section, some existing solutions (in Belgium or abroad) are reviewed to assess how to address the needs described in section 2.

Closed Distribution Systems

As per section 3.3, Annex 14 of the Access Contract provides a solution for a physical split of BRP responsibility perimeters downstream of an Elia Access Point.

However, this solution concerns the very specific status of a Closed Distribution System (CDS).

Annex 14 of the Access Contract introduces the concept of Market Access Points which are points downstream of an Elia Access Point and within a CDS. Annex 14 also foresees the role of a BRP responsible for monitoring non-allocated energy in the CDS connected to the Elia Grid, which is a BRP that is accountable for any differences between the sum of allocations of different BRPs and Elia's metered energy values at the Headmeter.

This solution provides many possibilities for the designation of several BRPs while maintaining accountability for all energy in the Access Point, as well as the possibility for all BRPs to submit nominations separately.

However, the CDS status is only granted by competent regulators depending on the region where the CDS is located and the internal voltage level(s) of the CDS and based on the description and conditions of the regional legislation.

For example, the decree of the 11th April 2014 that is relevant to the organization of the electricity market in Wallonia[14] provides the following definition for CDS's:

> ***Réseau fermé professionnel :*** *un réseau raccordé au réseau de distribution ou de transport local qui distribue de l'électricité à l'intérieur d'un site industriel…et dans lequel:…b) l'électricité est fournie essentiellement pour leur propre consommation au propriétaire ou au gestionnaire du réseau fermé professionnel ou aux entreprises qui leur sont liées;*

Hence, although interesting, the solution applicable for CDS cannot be applied to entities that do not have received the CDS status (such as wind parks directly connected to Elia Grid).

Conclusion: The solution of Annex 14 presents some interest for the study at hand, but it only concerns the CDS status which is specific to private industrial networks. A solution needs to be found for Access Points that do not fall under this category.

RTE's CART contract configurations

In France, RTE's *Contrat pour Accès au Réseau de Transport* (CART, the equivalent of the Access Contract) allows the possibility to have different BRPs, each of which is responsible for a specific asset behind the Access Point.

This contract mentions that it is possible to have *Clients en Décompte,* linked to the Site, the rights and obligations of which are described in the *Contrat des Prestations Annexes.*

According to the *Contrat des prestations annexes*, these measurements need to be communicated by Grid Users to RTE who performs the allocations for each BRP.

The CART also foresees that for each point there is a BRP for the entire *Site (Responsable d'Equilibre du Client)* who is responsible for all unaccounted energy flows.

RTE does not leave the possibility to make allocations freely (meaning not based on measured values), although it is possible to apply correction factors to metering data.

3.5 Scheduling and Outage Planning

This section presents some current elements and rules stated in the iCAROS design concerning the scheduling and outage planning processes. In particular, the terminology used in the iCAROS design is recalled.

According to European legislation (System Operation Guidelines) and Federal Grid Code, power units need to provide operational information to the TSO to ensure the operational safety and reliability of the grid. The Obligations depend on the type[15] of the unit: power units have different operational communication obligations according to whether they are

[14] 11 AVRIL 2014 Décret modifiant le décret du 12 avril 2001 relatif à l'organisation du marché régional de l'électricité, https://www.cwape.be/?dir=4.9.2

[15] According to nomenclature of the Requirements for Generators (RfG) network code.

Type A, B, C or D. These obligations are thoroughly explained in relevant texts as well as iCAROS design notes. They will thus not be explained in detail in the present note.

Two actors have some responsibilities concerning the provision of these data:

- The Outage Planning Agent (OPA) which is responsible to provide outage plan
- The Scheduling Agent (SA) which is responsible to provide schedules in day-ahead and intraday as well as explicit redispatching energy bids.

The modalities applicable to the SA and OPA are defined in the Terms and Conditions for Scheduling Agent (T&C SA) and Terms and Conditions for Outage Planning Agent (T&C OPA) respectively.

Currently and for the first phase of the iCAROS project, these two roles are still to be taken by the BRP. After the entry into force of the second phase of iCAROS, the BRP, SA and OPA roles will be totally split.

Any consideration in breaking down the role of the BRP to a level downstream of the Access Point should also consider these respects and consider evolutions stemming from the new iCAROS design.

Scheduling, Outage Planning and ancillary service obligations and modalities according to the new iCAROS design

In its future market design, and according to iCAROS design choices, Elia will establish two physical levels downstream of the Access Point (or CDS Access Point) in which market operations (including scheduling, operational planning and also offering of flexibility) may be performed.

These levels are the following:

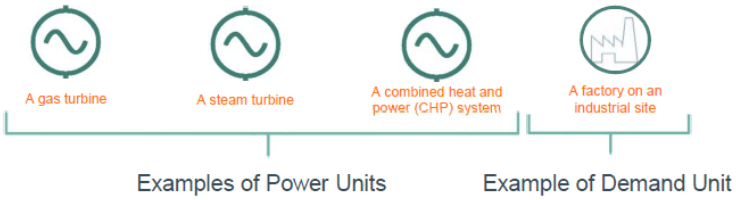
Technical Unit

Device or aggregation of devices connected directly or indirectly to the synchronous electrical network that produces and/or consumes electricity.

A Technical Unit can be :

- A Power Unit (PU)
- A Demand Unit (DU)

Examples :



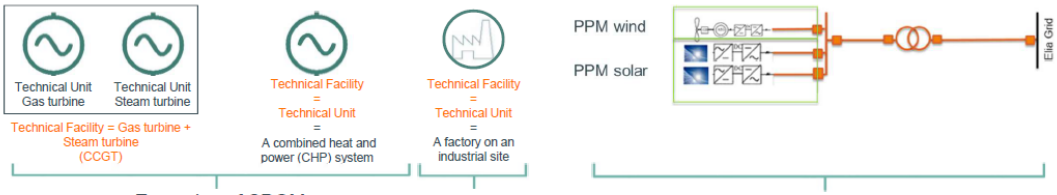
Technical Facility

Complete set of Technical Unit(s) which are operationally linked and which, combined together in one or several operating modes, can consume or generate electricity on its own.

A Technical Facility can be :

- Synchronous Power Generating Module (SPGM)
- Power Park Module (PPM) per primary energy source, i.e. the aggregation of all the components of the Power Park Module (as defined in NC RfG*) supplied from the same source of primary energy
- Demand Facility (DF)
- Energy Storage Device (ESD)

Examples :



* Network code on Requirements for Generators : PPM = *a unit or ensemble of units generating electricity, which is either non-synchronously connected to the network or connected through power electronics, and that also has a single connection point to a transmission system, distribution system including closed distribution system or HVDC system*

9

For example:

- In a CCGT configuration, the gas turbine and steam turbine can be considered each as a TU, but constitute a TF only combined;

- In a PPM such as an offshore wind park, the entire PPM is considered as a single TF;

- In a PPM where PV plant and wind turbines are connected to the grid through the same inverter, the PV plant and wind turbines are considered as different TF's.

Delivery Points

In addition to the classification of Technical Units and Technical Facilities as physical points within a Grid User's grid topology, it is worth to also examine the concept of Delivery Point and the rules applied for the assets covered by the scheduling and outage planning obligation.

A Delivery Point is a conceptual point that designates the level for market operations (schedules, outage planning, and redispatching bidding as a minimum).

iCAROS design defines that the outage plan and the schedule for generation units have to be exchanged at the level of the Delivery Point. The Delivery Point is by default defined at the level of the Technical Unit. For a Technical Facility composed of several Technical Units, the Delivery Point can exceptionally be defined at the level of the TF if the conditions listed below are simultaneously fulfilled:

- All Technical Units of the TF can only be operated simultaneously;
- All Technical Units of the TF are linked to the same Access Point

A certain asset may provide its flexibility to Elia either for congestion management (and thus via the scheduling and redispatching processes) either for ancillary services. To avoid double selling, iCAROS design requires that the levels in which scheduling and ancillary services are performed have to be coherent. This means that whenever a certain physical point is nominated as a Delivery Point, scheduling and offering of ancillary services must be performed at the same Delivery Point level.

4 Market consultation

In the framework of this study, Elia performed a multi-level market consultation to gather input and present the outcomes.

This study was performed in three phases (as visible on Figure 8) and involved market parties through several bilateral discussions and workshops:

1. A first phase aiming at identifying the needs for evolution:
   - ⇨ bilateral interviews with federations and market parties showing specific interest (such as FSPs, BRPs or Grid users) took place to define the needs and analyze the current situation
   - ⇨ A workshop has been organized at the end of the first consultation phase (31/03/21) with a purpose to agree on the needs, the attention points and possibly discuss the first ideas for solutions
2. A phase of analysis to define, compare and analyze possible options for evolution
   - ⇨ A workshop has been organized at the end of this phase (09/06/21) to discuss proposed solutions with market parties
3. An impact analysis of the retained solution(s) in order to propose an implementation plan
   - ⇨ A specific workshop or a slot in working group balancing is also foreseen to present Elia's proposal and to gather feedbacks on implementation plan

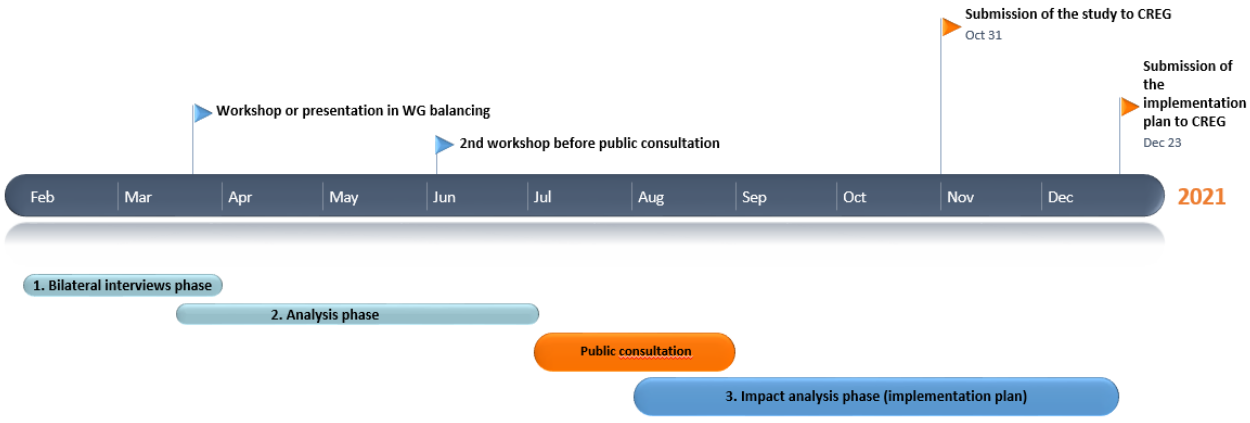


Figure 8: Phases of the study

The main messages emerging from the market parties during bilateral interviews and workshops in phase 1 were the following:

1) In case of designation of multiple BRPs on an Access Point, the impact on the designation of other actors needs to be carefully assessed (BSP, SA, VSP)

2) The study should look into how federal losses will be calculated for BRPs (ex. of netting in the framework of an Annex 3bis configuration) in order to avoid discouraging market parties to choose a specific scheme because of its impacts on the grid losses that are applied to concerned BRPs.

3) Metering and allocations – Avoid introducing unnecessary strict requirements and complexity as well as incoherencies with metering obligations

5 Requirements for new design

To provide a solution to the market's requests, Elia must bring a robust and future-proof solution.

In priority, new iCAROS design elements must be considered:

- Evolution of the role of the BRP
- New roles created (Scheduling Agent & Operational Planning Agent)

This applies for all the roles and responsibilities held by BRPs today, including nominations and responsibility for imbalances.

On top of present requirements, consultation with market parties has added some specific targets for the new design.

Requirement n°1:

Given that the iCAROS design foresees to break up roles and responsibilities for operational planning and balancing between the SA, OPA and BRP, a solution should consider the new roles and responsibilities for SA's and BRPs altogether.

Requirement n°2:

The role and responsibilities of the Balancing Service Providers (BSP's) and possible interactions with BRPs and SA's also in the framework of the Transfer of Energy (ToE) should be considered.

Requirement n°3:

A solution should provide a way to account for all energy coming from and to the Access Point.

Requirement n°4:

The solution must be flexible and technology-agnostic so that it can be universally used by market parties.

Requirement n°5:

The proposed design must allow a high degree of flexibility in regards to allocation process and metering.

6 Design proposal

6.1 General description

The design proposal made in this section derives from the analysis of the eventual limitations that are to be considered in terms of the legal framework and requirements for operational planning and communication, balancing and metering.

In this section is presented the overall concept: the concept of Balancing Delivery Points, the new role of $BRP_{Access\ Point}$, the proposed BRP allocation method, the impact of the design proposal on the role and responsibility of the SA's and OPA's as well as on the offering of flexibility.

Overview of the proposed design

The proposed design can be schematized in Figure 9 that shows a theoretical case in which a Grid User has decided to designate several BRPs behind the Access Point of his site according to the following structure:

- BRP1 for PF1 and PF2
- BRP2 for the DF
- BRP3 for the first string of wind turbines
- BRP4 for the second string of wind turbines
- BRP5 for the two last strings of wind turbines
- This Grid User has decided to attribute the estimated losses in its internal grid to the BRP1

All these BRPs are designated at the level of the Balancing Delivery Points which are a new concept introduced in this design.

Finally, this new design introduces the Access Point BRP which is a BRP designated to undertake the difference between the energy measured at the headmeter and the sum of the energy allocated to the five other BRPs.

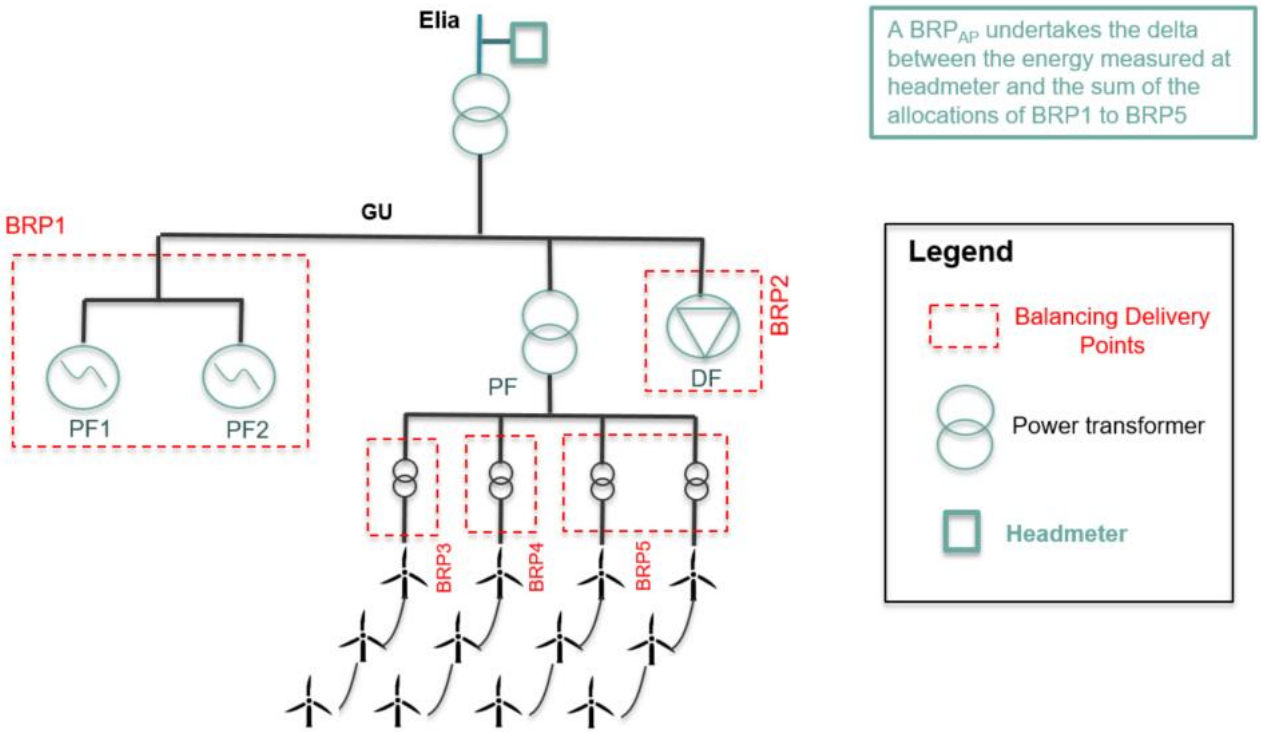


Figure 9: Schematic example of the proposed multi-BRP design. To be noted that for the different strings of wind turbines the anchoring is at metering points, not transformers.

The following main axes of this study are described in the next sections:

1) Introduction of the concept of the Balancing Delivery Point
2) Introduction of a methodology for the allocation of energy to BRPs
3) Introduction of the role of the Access Point BRP (BRP$_{AP}$)
4) Alignment of the perimeters of the Delivery Point and Balancing Delivery Point.

6.2 Notion of the Balancing Delivery Point

The Balancing Delivery Point (or BDP) is a conceptual point on which a BRP is designated. A BDP can be the Access Point or located behind it.

The following rules define the concept of BDP:

1. The BDP is a point on which a BRP is designated. This means that the power injected/offtaken at the level of this BDP will be allocated to the perimeter of the associated BRP.
2. The BDP is the Access Point by default, unless requested otherwise by the ACH and agreed upon by Elia based on the conditions listed in this chapter.

3. It can be an Access Point, a TF, a TU, an aggregation of TU's or an aggregation of TF's located behind the same Access Point while respecting the relation with the Delivery Points as explained in section 6.5

4. A BDP cannot be downstream from another BDP to avoid double counting of the energy (see Figure 10).

5. A BDP can only be assigned to one BRP, except in a situation as in Annex 9 that needs to be explicitly agreed upon in the Access Contract. In this situation, there can be an accounting split of the energy according to a fixed or variable key as described in the aforementioned Annex.

6. TU's that are functionally dependent from one another (i.e. PU's connected to each side of a three-winding transformer, or a gas turbine and steam turbine forming together a CCGT configuration) cannot be part of different BDPs. This is due to the fact it is impossible to ensure independency between the operation of the two units, and hence there would need to be only one SA responsible vis-à-vis Elia.

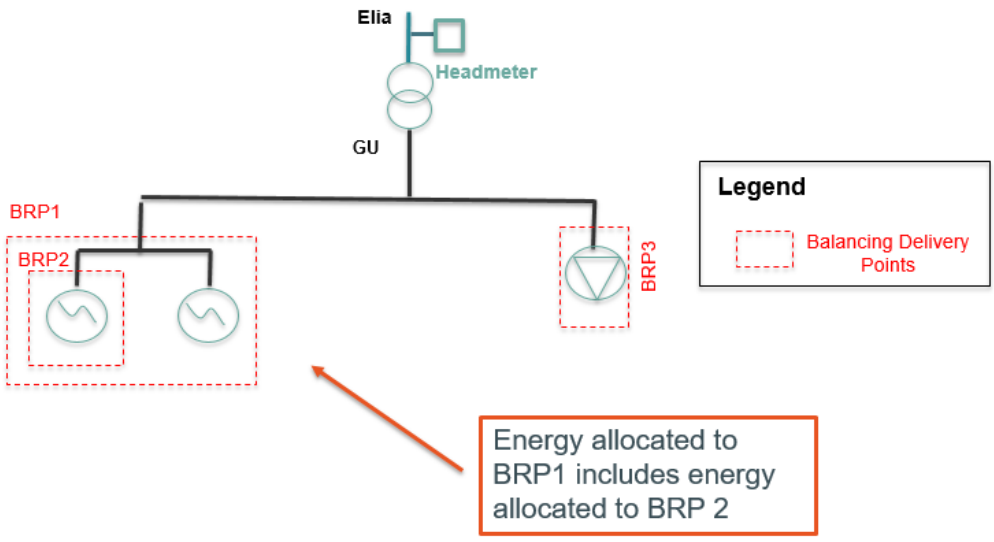


Figure 10: Not allowed configuration due to overlap of BDPs perimeter

6.3 Introduction of the role of the Access Point BRP (BRP_{AP})

To account for all the energy injected or offtaken through an Access Point when the BDP does not coincide with the Access Point perimeter, the ACH should appoint a BRP to undertake the difference between the energy measured at the Access Point by Elia's Headmeter and the sum of the energy allocated to BDPs downstream from the Access Point. This provides a solution to ensure the accountability for all energy coming from and to the

Access Point. The energy undertaken by this BRP_{AP} should in theory be equal to zero except in two situations:

- The allocations of the energy to the different BRPs behind the Access Point are not correct or their sum is different from the measured value at the Access Points due to rounding's up of decimals. The residual energy will be allocated to the BRP_{AP}.
- The designation of one of the BRPs behind the Access Point is terminated and no other BRP has been designated on that BDP. The energy normally allocated to this BRP will be undertaken by the BRP_{AP} until a new BRP is designated by the ACH.

For each quarter-hour, the following volumes of energy are thus appointed to the BRP_{AP}'s perimeter:

$$E_{BRP_{AP}}(qh) = E_{measured}(qh) - \sum_{i}^{n} E_{allocated}(qh)$$

Where :

- $E_{BRP\_AP}(qh)$: The energy to be considered in the perimeter of the BRP_{AP} for the given quarter-hour;
- $E_{measured}(qh)$: The energy measured by Elia's Access Point Headmeter;
- $E_{allocated}(qh)$: The energy allocated for BDPs (downstream of the Access Point) from i to n for the given quarter-hour.

This amount can be positive or negative in function of the net measured and allocated injection or offtake.

The BRP_{AP} can be the ACH itself or a third party designated by the ACH.

This BRP_{AP} can be different than the ones appointed behind the Access Point or this role can be taken by one of the BRPs appointed behind the Access Point.

6.4 BRP allocations

Data for the allocations (including the consumption of the Grid User's internal grid due to internal losses if a specific BRP is designated to source these losses) should be made available by the ACH based on metering and/or calculations as agreed with the BRPs active within the Access Point. All tasks necessary to make the allocations for the different BRPs (management of metering data, calculations...) are the responsibility of the ACH.

Allocations will be communicated by the ACH to the BRPs, Suppliers and Elia on a daily basis in a standardized file template (EXPORT92 or MIG 6) as can be found in the "Metering Manual" published on Elia's website[16].

[16] 2021_CDS-Manual_Metering-data-exchanges-for-CDS-Operator (4).pdf

Elia can undertake the communication of these allocations to BRPs and Suppliers if requested by the ACH and as a remunerated service.

When the ACH wishes to appoint several Balancing Delivery Points behind his (one of his) Access Point(s), he has to:

1) Declare the BDPs on the specific annex to be created in the Access Contract, designate the BRP who manages each of these BDPs by a joint notification as foreseen in Art. 206 of the Federal Grid Code and describe the relation with any DPs downstream; the identification of the BDP must respect the rules mentioned in section 6.2.

2) Be capable to explain, upon motivated request of Elia, the configuration, the topology of the physical metering points as of which the BDP will consist, including in cases where the allocations derive from the sum or subtraction of several physical metering points[17].

The possibility to appoint multiple BRPs downstream of an Access Point has to be given only to Grid Users who are also their own Access Contract Holder. This is because the Responsibility for metering devices used for the allocation burdens the Grid Users (according to Art. 270 of the Federal Grid Code).

Given the impact and importance of this element in the performance of the ACH's duties, there needs to be a continuity responsibility between the two roles.

Metering requirements

As mentioned above, the data for the allocations are made available by the ACH based on meters and/or calculations. The choice of the metering solution (including specifications of the meters) used for the allocations is left to the ACH as long as all the involved parties agree on the chosen solution[18]. However, in case a BDP is at the same level as or upstream a DP that also provides ancillary services (such as balancing and/or redispatching), the allocation needs to be based on (but not necessary limited to) the energy measured by the existing meter that is compliant to the requirements specified in the respective ancillary service contract[19]. For example: assuming that the PF1 on Figure 9 provides an ancillary service and is equipped with a compliant metering device, the energy allocated to the BRP1 has to be the combination of the energy measured by this metering device for PF1 and the energy measured for PF2 (obtained via a metering solution and/or a calculation defined by the ACH).

[17] Elia can request this information at any moment in case incoherencies are detected

[18] E.g. via signature of a new annex of the Access Contract corresponding to the multiple BRP's scheme by all the involved BRPs and the ACH

[19] In case the BDP is the Access Point, the headmeter can be used for the allocation even if some DPs providing ancillary services are defined below the Access Point

Given that in a multi-BRP configuration the ACH is responsible for communicating allocations to Elia, the Grid Users must also be their own ACHs to ensure that there is a continuity in the responsibility for metering devices used for the allocation.

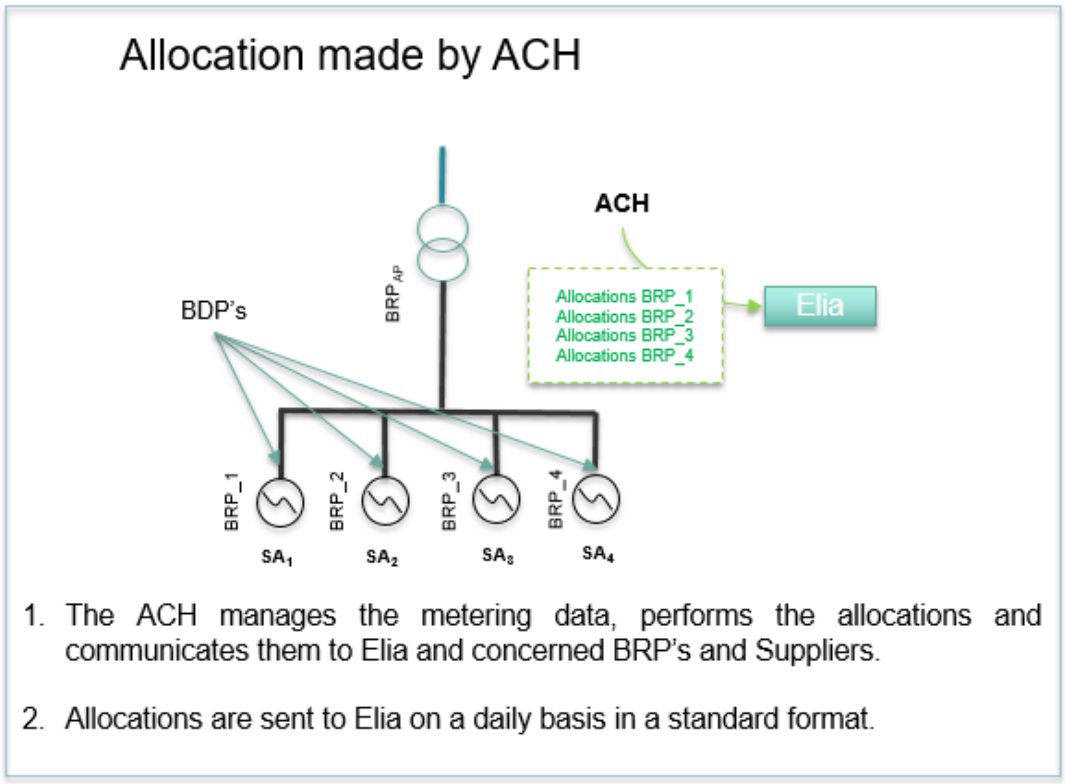


Figure 11: Allocation communication to be made by ACH's

6.5 Relation to Scheduling Agents (SA) and FSP roles and responsibilities

Reminder on iCAROS design (section 3.5): scheduling and offering of balancing ancillary services should be performed at the Delivery Point level, which can be anchored at the level chosen by the iCAROS design.

Moreover provision of ancillary services and redispatching bids (linked to schedules) must coincide to avoid double-selling.

However, provision of ancillary services at a level of a certain Delivery Point requires that Elia be able to apply perimeter corrections to relevant BRPs.

BRP perimeter correction

When offering its flexibility in ancillary services (as for example mFRR), the perimeter of the BRP (BRP_{source} as well as BRP_{FSP}) is corrected in order not to impact the BRP for an imbalance caused by an activation solicited by Elia.

In order to correct the BRPs perimeter however, **Elia needs to know the exact energy activated as part of an activation of an ancillary service within the BRPs perimeter**. This means that whenever a BSP activates an ancillary service using DPs belonging to different BRPs, it must be clear what volume he activated for each BDP.

To consider an example:

A BSP offers mFRR to Elia using an entire Access Point as a Delivery Point within which exist 2 Balancing Delivery Points, each within a different BRPs perimeter.

The BSP activates the service following a request by Elia at the level of the Delivery Point. However, Elia does not have the information determining on which of these Balancing Delivery Points the activated volume has to be corrected.

As Elia cannot split the volume per BDP (based on the activation at the level of the DP), Elia cannot perform a correct perimeter correction for the BRPs.

Moreover, there is no way to determine the exact amount of energy that transits between the Delivery Point and the Balancing Delivery Point that is linked to the activation.

Conclusion: To reconcile requirements for BRP perimeter correction and iCAROS requirements stated in Section 3.5, the following rule must apply:

BDP perimeter>=Delivery Point perimeter

The designation of a BDP perimeter needs to match the perimeter of a Delivery Point with which a BSP is offering flexibility.

A BDP cannot be downstream of a Delivery Point; a Delivery Point can however be downstream from a BDP.

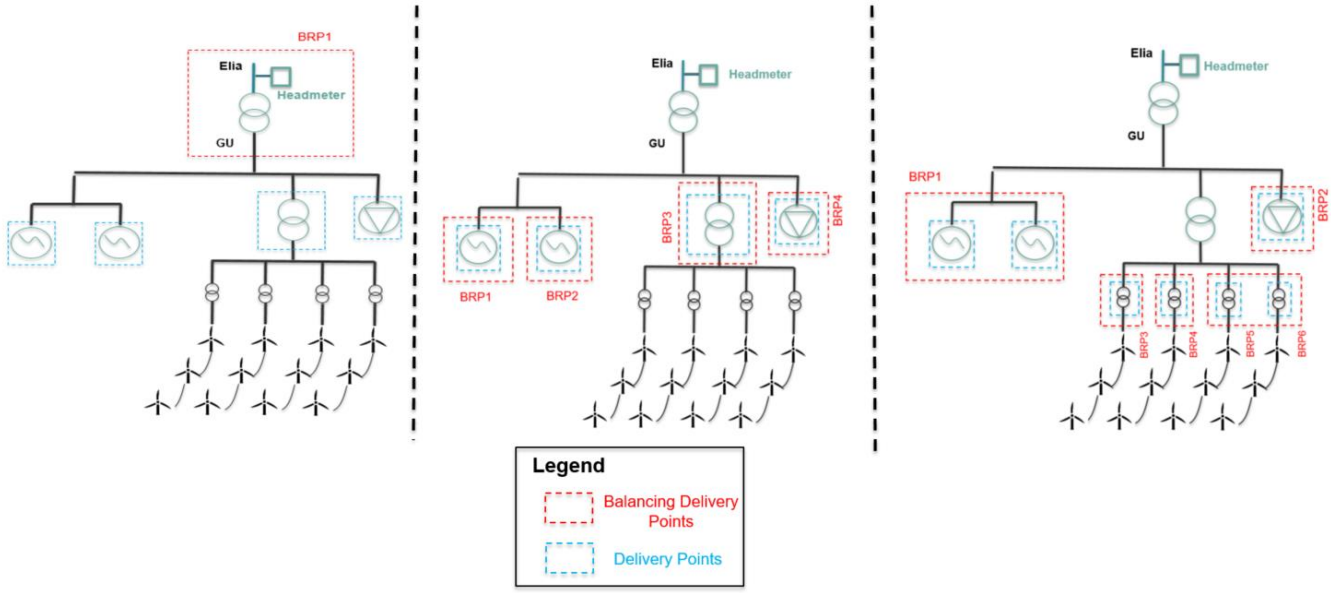


Figure 12: Three different examples of possible configurations of BDPs and DPs

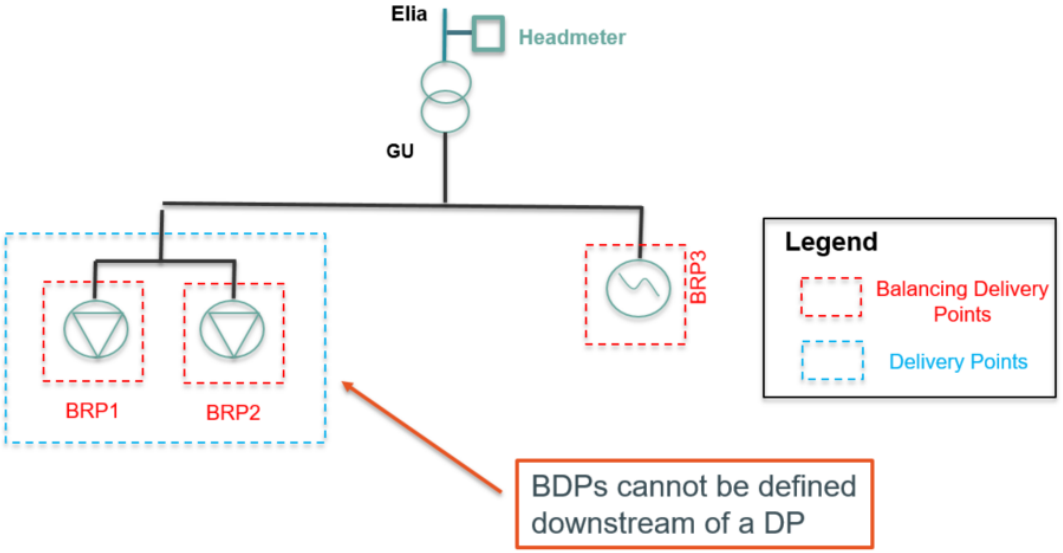


Figure 13: Example of a non-possible configuration of BDPs and DPs

Attention Point: the Grid User of a Technical Facility which is a PPM per primary energy source (as defined in section 3.5) and that is obliged to provide a schedule according to iCAROS rules needs to designate a unique SA. In case the ACH (who is the Grid User) of this Technical Facility wants to define multiple BDPs behind its Access Point, multiple DPs have also to be defined at the same level as visible in Figure 14. Schedules (as well as redispatching bids) will need to be delivered at the level of these DPs by the unique SA of this Technical Facility.

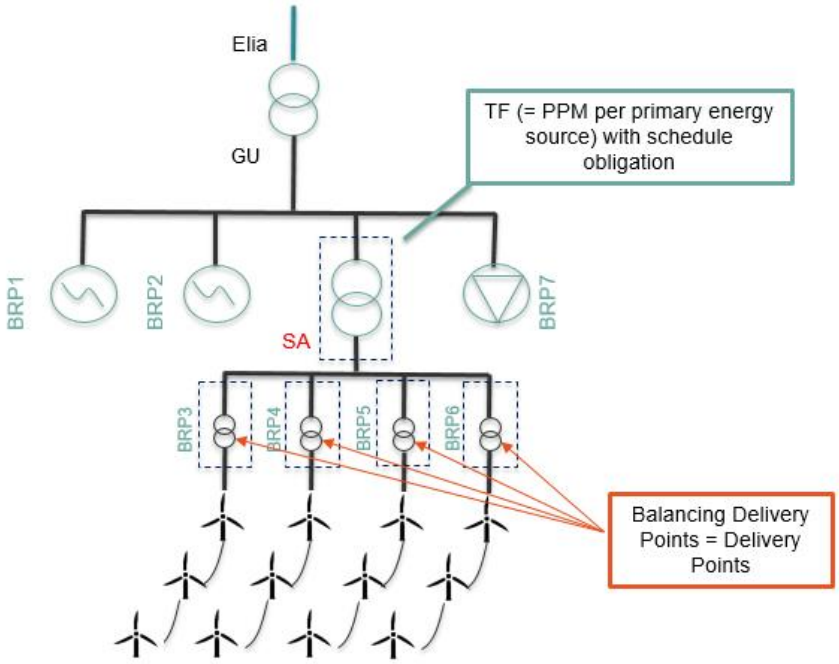


Figure 14: BDP and DP definition for a PPM per primary energy source

6.6 Suppliers

Suppliers are appointed by the ACH and are informed in the Access Contract.

The Supplier's role is closely linked to the role of BRP and very often entities assume both roles for a certain Access Point.

In a BDP configuration, Suppliers should follow the same anchor point as BRPs.

6.7 Transfer of Energy implications

Reminder: According to Art. 19bis of Electricity Law Transfer of Energy (ToE) configuration only concerns demand assets that provide demand response services.

ToE is affected by the transfer of the BRPs "anchor point" from the Access Point to a Balancing Delivery Point as follows:

1) The perimeter corrections of the BRP_{source} and the BRP_{FSP} will be performed at the level of the BDP located above (or at the level of) the DP.
2) The financial compensation between the FSP and the Supplier will concern the Supplier of the Balancing Delivery Point located above (or at the level of) the DP and the FSP of the Delivery Point.
3) The opt—out regime will apply for a Delivery Point behind (or at the level of) a BDP for which an agreement has been signed between the BRP_{source} and the Supplier of the BDP, the FSP of the DP and the BRP_{FSP} associated to that FSP.
4) The pass-through regime will apply for Delivery Points behind (or at the level of) a BDP for which a pass-through contract has been declared by the Supplier at the level of the BDP. If a pass-through contract has been declared at the level of the Access Point, the pass-through regime will be applicable for all DPs located behind this Access Point.

This means concretely that the same procedures will continue to apply, except that the relationship of BSP's, Suppliers and BRPs will be anchored on BDPs instead of Access Points.

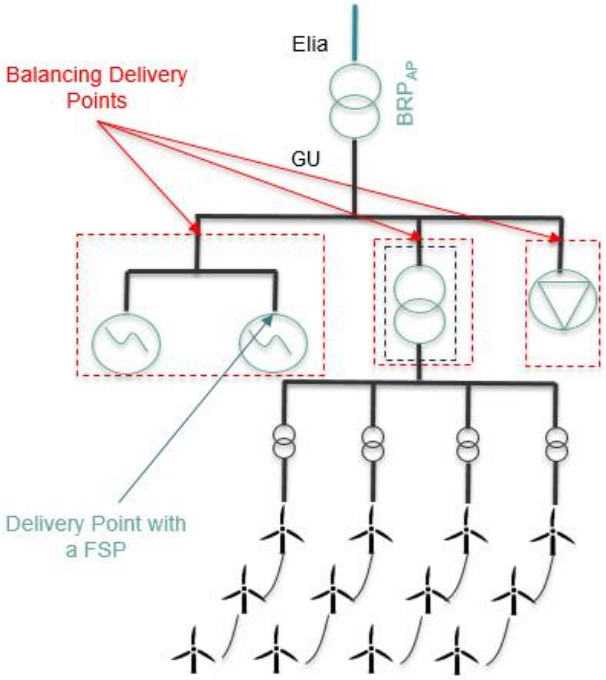


Figure 15: Relation between the BDP and the FSP of the DP

6.8 Impact on Voltage Service Provider (VSP) obligations

Voltage Service Providers (VSP's) are by definition responsible to manage voltage and reactive power for an entire Access Point vis-à-vis Elia. This stands even for cases in which assets can be managed by different market parties, since the effect on voltage can only be managed centrally.

VSP's roles and responsibilities are not affected by a multi-BRP configuration. The different obligations of VSP's and BRPs are reminded in this section for clarification purposes.

VSP's are appointed by Grid Users to undertake their responsibility for managing voltage and reactive power.

As mentioned also in previous sections, the multiple BRP configuration is only possible when the Grid User is also the ACH.

Hence, there is a continuity on responsibility, meaning that it is the same party that appoints the VSP and that appoints the BRP(s) downstream from the Access Point.

ACH's must ensure that there is a coordination between these parties to ensure the management of voltage and reactive power by the VSP, who will bear this responsibility.

7 Impact on calculation of federal losses

Currently, Elia requests BRPs that have a net offtake position to provision an extra amount of energy to provision for losses that occur in the part of the transport grid 150kV and above (commonly referred to as *federal grid losses*).

The additional percentage to be provisioned is calculated by Elia and currently amounts to 1,35% (off-peak hours) and 1,45% (peak hours).

Elia applies this percentage over the net offtake position of BRPs per Access Point. This means for example that in cases where there is production and offtake behind a certain Access Point, the calculation is performed as follows:

Provision for federal losses = Losses coeff. x max(0;Offtake-Production)

Losses coef.= 1,35% (off-peak hours) or 1,45% (peak hours)

In cases where several BRPs are allowed behind a certain Access Point (such as in Annexes 3bis or 14 in the Access Contract), this calculation implies that there is no netting of the energy between different BRPs. For CDS's for example, the calculation is performed as follows:

Losses coef.*[∑max(0;(Offtake-Injection))+ ∑CDS Loop Losses]

Where:

- Offtake and Injection refer to metering data and allocations from all Market Access Points within the CDS
- CDS Loop Losses only exist if the BRP has this responsibility[20]
- The calculation of the difference between offtake and injection is done per CDS network.

For example:

In a CDS in a certain quarter-hour in peak hours, there are 2 points offtaking and 1 injecting:

- MAP_1: Offtake 200MWh
- MAP_2: Offtake 500MWh
- MAP_3: Injection 250MWh
- CDS Loop Losses: 10MWh

MAP_1 and MAP_3 are within the perimeter of BRP1, whereas MAP_2 is within the perimeter of BRP2. BRP_1 is burdened with provisioning the CDS Loop Losses.

[20] Not all BRPs active in a CDS need to take the losses in their perimeters. It is up to the ACH to determine which BRP shall undertake grid losses in his perimeter.

Each BRP will have to provision the following amounts of losses:

- **BRP1**: 1,45%*[(max(0;200-250)+10]=1,45%*10=**0,145MWh**
- **BRP2**: 1,45%*[(max(0;500-0)+ 0]=1,45%*500=**7,25MWh**

The concept of Balancing Delivery Points falls into the same category as annexes 3bis and 14, since there will be different BRPs behind an Access Point, managing production and offtake simultaneously.

Market parties have argued that the non-netting of offtake and production between different BRPs deters Grid Users from opting for multi-BRP solutions, since it induces an extra charge in terms of losses.

Elia analyzed this principle proposal to analyze the possibilities in order to count the grid losses based on the netto offtake at the level of the Access Point and this for all existing and new configurations (the new one proposed in this study as well as 3bis and 14).

Elia will analyze more in detail the practical implementation needs to apply this rule (and more particularly the way to split the netto losses among all the BRPs of all the BDPs located behind the Access Point); considering the implementation feasibility/complexity Elia will propose a timing for implementation of this proposal in the framework of the implementation plan to be drafted following up the present study.

In any case, it is worth noticing that the implementation of the above mentioned evolution regarding the federal grid losses and the implementation of the solution allowing multiple BRPs behind an Access Point are not interdependent and can be performed following their own implementation tracks.

8 Next steps & Implementation Plan

The objective of the present note is to describe Elia's proposed solution in order to receive the market parties' feedback. After the public consultation Elia will reply to receive comments and will adapt the proposed design if necessary.

Elia will propose an implementation plan on the basis of the final design.

For the better understanding of market parties certain questions related to implementation in the legal and contractual framework are recited in this section.

Besides one should notice that the proposed solution allowing the designation of multiple BRPs (and hence Suppliers) behind an Access Point has some similarities with the Consumer Centric Market Design (CCMD) vision published in June 2021[21]. The CCMD visions aims to unlock competition behind the (Head)meter by allowing Grid Users to contract services (such as the supply of electricity) with other parties than their main Supplier.

The implementation plan of the solution proposed in this study will take into account the eventual synergies and interactions with the CCMD vision.

8.1 Legal & contractual impact analysis

Change of the Federal Grid Code

As seen in section 3.1, Articles 204 and 205 foresee rules regarding the BRP responsibility at the Access Point. Although these articles do not explicitly exclude the use of multiple BRPs behind the Access Point and the design proposed in the present note, a more detailed legal analysis will be necessary. The analysis must determine whether an adaptation of the FGC is suitable or even necessary to allow for the proposed design to be implemented.

Change of Elia's contractual framework

The main impact of the proposed design is concentrated at the Access Contract and the BRP Terms & Conditions (T&C).

Namely, changes will need to be foreseen in the Access Contract and the BRP Terms and Conditions, in order to include aspects such as (among others) the notion of the Balancing Delivery Points, the notification of BRPs within an Access Point, the obligation of the Grid User to become also his own ACH, the role & responsibilities of the BRP_{AP}, the allocation procedure.

The listing of these changes to be brought will be included in the implementation plan that is to follow this study.

[21] Available here: https://www.elia.be/-/media/project/elia/shared/documents/elia-group/publications/studies-and-reports/20210618_elia_ccmd-white-paper_en.pdf

8.2 Timing

The next steps and associated timing relative to the current study are listed hereunder (subject to modifications after alignment with the CREG):

- Public consultation of the design note: From 15/07/2021 to 06/09/2021
- Drafting of the implementation plan: Aug 2021-Dec 2021
- Submission of design note to the CREG: 31 October 2021
- Submission of implementation plan to the CREG: 23 December 2021

9 Conclusions

In the present study, the existing schemes to designate multiple BRPs on an Access Point were analyzed and their limitations were highlighted. The reasons why improvements of these schemes are necessary were also described in sections 2 and 3 of this study i.e. the need of flexibility for an ACH to designate BRPs on asset level and the facilitation of the provision of flexibility by a FSP with an asset behind the Access Point. Based on feedback received from stakeholders (described in section 4), some design requirements were defined for a more flexible scheme for the designation of multiple BRPs on an Access Point (in section 5). In section 6, the study comes up with a proposal that allows to take into account the market's request and analyzes its positioning in regards to the evolutions coming from iCAROS. The proposed design introduces the possibility for BRPs to take within their perimeter specific assets instead of entire Access Points via the definition of Balancing Delivery Point, giving them the capacity to manage them according to their needs. Besides, this solution draws inspiration from existing schemes in regards to communication and invoicing, does not introduce any additional complexity and takes into account the splitting of roles in line with the iCAROS design. Furthermore, the new role of the BRP_{AP} ensures that accountability is kept since all energy going to and from the Access Point is accounted for.

The proposed solution matches the requirements as were presented in section 5:

1) It considers the future roles to come after iCAROS implementation and is adapted to them;
2) It considers the roles and responsibilities of parties offering flexibility, also from the point of view of ToE;
3) Accountability for all energy exchanged to and from the Access Point is ensured;
4) It is technology-agnostic and allows for flexibility to all market parties;
5) It secures a maximum of flexibility for allocations and metering for market parties.

Section 7 gave some information about the impact on the calculation of federal losses following stakeholder's remark about the netting of the losses. Finally, the section 8 introduced the next steps towards the proposal of an implementation plan taking into account the synergies with the Customer Centric Market Design.

With this study Elia proposes a coherent framework and pragmatic solution for providing additional flexibility to market parties. Market parties were thoroughly consulted and their opinions were taken into consideration for the final design.

Finally, Elia strived to propose a realistic and pragmatic proposal which does not induce additional burden to operational aspects, since the solution is partially based on existing practices (such as iCAROS rules or data exchanges existing for CDS) that have already been tried and optimized between Elia and market parties.

In the elaboration of the implementation plan, Elia will strive so that this solution remains pragmatic and useful for market parties, allowing for more market liquidity and quality of service.