R3 DOWN PRODUCT DESIGN NOTE

22/05/2018

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EXECUTIVE SUMMARY

Since 2017, ELIA's downward reserve capacity requirement is covered by non-contracted balancing energy offered by market parties via CIPU and non CIPU General Framework Agreements. So far and on the contrary to the upward capacity requirement, the non-contracted balancing energy market has always been liquid enough to cover ELIA's downward needs. However - seen the additional uncertainty brought among other things by the forecast errors on renewable production - ELIA identified **the need to develop the downward product**, ready to be used to contract downward balancing capacity from the moment non-contracted balancing energy are not enough anymore.

This document describes **the downward product characteristics related to the procurement of balancing capacity and to the activation of balancing energy**. These specifications have been elaborated keeping in mind ELIA's long term vision to dispose of **harmonized and neutral rules** already presented to market parties via the product specific roadmaps (FCR, aFRR and mFRR up). In this way, the evolutions to be implemented for the downward product as of Q1 2019 and presented in this design note will also be introduced in the coming evolutions of the upward product.

Furthermore and whenever necessary, design aspects discussed in ICAROS project and obligations coming from the European guidelines (System Operation guidelines and Electricity Balancing Guidelines) have been considered when elaborating the downward product specifications.

As one of the most important evolution to mention, the downward product will organize the allocation of the **capacity obligation via a daily procurement cycle for a delivery period of 4 hours**. There will be no specific product (as this remains the case today for upward product with "R3 flex") and therefore no specific constraint to be considered by ELIA (e.g: a limitation of the number of activations).

This capacity obligation will be tested by ELIA from times to times following the **availability test principles** already introduced in 2017 in FCR design. These tests will be triggered by ELIA following the same tools and processes than a balancing energy activation, minimizing in this way the implementation impact on both sides.

Finally, ELIA initiates in this document another step towards a complete harmonization of the balancing energy activation requirements **by aligning its performance control principles** (the monitoring of balancing energy activation) **between the balancing energy related to the capacity obligation and the additional "non-reserved" balancing energy** that can be offered by the BSP on top of its capacity obligation.

1. Introduction

1.1. Context and objective of the present design note

Since 2017, ELIA's downward reserve capacity requirement is covered by non-contracted balancing energy offered by market parties via CIPU and – recently - non-CIPU General Framework Agreements. So far, and on the contrary to the upward capacity requirement, the non-contracted balancing energy market has always been liquid enough to cover ELIA's downward needs.

However, ELIA observes that the increasing share of renewable production is leading more frequently to situations where the system is operated at smaller margins. To dispose of additional downward flexibility via a downward balancing capacity product (should there be a need to use it in the future as part of solution to cover ELIA's downward needs) and considering the time required to develop and implement such market (product design, discussions with stakeholders, implementation and contract redaction…); ELIA decided to anticipate on its elaboration and started the work in 2018.

This document describes the **downward product characteristics related to the procurement of balancing capacity and to the activation of balancing energy**. These specifications have been elaborated keeping in mind ELIA's long term vision to dispose of **harmonized and neutral rules** already presented to market parties via the product specific roadmaps (FCR, aFRR and mFRR up). In this way, the proposed design for the downward product as of Q1 2019 and presented in this design note should also be considered as reference for the upcoming evolutions of the upward product.

Disclaimer

This document exclusively focuses on the elaboration of the downward reserve product specifications. In this way:

a. The benefits to evolve from a static (as applied today by ELIA) to a dynamic dimensioning methodology are described in the following study: http://www.elia.be/~/media/files/Elia/users-group/Working-Group-Balancing/20171030_dynamic-dimension-of-the-frr-needs.pdf

b. The consequences (a.o: the implementation of a **daily procurement cycle**) of the evolution towards a dynamic dimensioning methodology are studied in the **dynamic procurement study**, to be published by ELIA for public consultation end May 2018 (communication related to this consultation will be organized the usual way).

c. The timing related to the above mentioned evolutions has already been presented to market parties in previous Working Group Balancing (30/11/2017). Furthermore, it will be reminded in the implementation plan annexed to the dynamic procurement study and will therefore not be reminded here;

d. The evolutions in the methodology followed by ELIA to allocate the needs calculated for one specific direction towards the 3 possible means (following art. 32 of Electricity Balancing guidelines) will be considered in the relevant documents, being:

   I. The "Dossier Volume" (in application to the obligation of the Federal Grid Code (art. 233);

   II. The "LFC Bloc agreement" (as required per art. 119 of System Operation Guidelines);

   III. Any other additional document related to the above mentioned ones;

1.2. Scope and structure of the present design note

The present design note is structured around 8 sections according to the current contractual structure of ELIA's other ancillary services (FCR, aFRR and mFRR up).

1. **Key assumptions considered for the elaboration of downward product design:** this section describes the assumptions considered by ELIA as starting point when elaborating the downward product design.

2. **Downward product contractual organization**: prior to the description of the rules and principles applicable to the downward reserve product (section 3 to 8), this section aims at describing how these requirements will be integrated into the current contractual organization (as of Q1 2018). To justify the related choices (a.o: possible combination with flexibility offered via the "Bidladder" contract …) taken for the entry into force of the downward reserve, a description of the long-term (post ICAROS) contractual structure is also provided, as well as the necessary intermediate steps already identified because of the interactions with other on-going projects (e.g: evolution of upward product)

3. **Portfolio organization**: this section focuses on the rules applicable to the delivery point(s) concerned by the product's prequalification process. In this way, the limitations set by ELIA on the size of a "pool prequalification", the threshold determining the obligation to follow up an individual or pool process and the possible interactions with the other existing contracts (FCR, aFRR, mFRRup, Bidladder…) are described.

4. **Prequalification process**: Each step to be followed by a supplier willing to prequalify one or several delivery points is described in this part of the document. This section covers as well the organization of the simulation test that leads to the determination of the maximal prequalified volume to be offered by the BSP to the reserve capacity auction.

5. **Procurement of downward reserve**: The bidding rules applicable to the procurement of a volume of downward reserve are covered by this section, as well as the award criteria's followed by ELIA and the timing applicable to the daily procurement process (applicable to the procurement of downward reserve)

6. **Energy bid nomination:** This section details the timing to be followed by the BSP to submit an energy bid as well as its main characteristics.

7. **Availability tests:** Seen the limited number of activations observed over the last months, some volume of reserve (depending on the activation price submitted by the BSP and their position in the merit order) may hardly ever be activated for balancing purposes. To make sure its reserves are effectively available and following the logic already introduced into FCR design in 2017; ELIA will implement the availability test mechanism.

   This section describes the test principles as well as how ELIA intends to implement them into its operational and settlement processes.

8. **Activation control:** The verifications made by ELIA on each volume of energy activated (for balancing purposes) as well as the consequences (both from a financial and prequalified volume perspectives) are described in this part of the document.

2. Key assumptions considered for R3 downward product design

Prior to the description of the characteristics of the R3 down product design (section 2 to section 9); it is important to explain the assumptions taken by ELIA when analyzing the possible design choices so these can better be understood.

This section summarizes the key assumptions with regards to the contractual evolution as well as main product characteristics.

2.1. Contractual evolution

In current contractual structure for upward flexibility, 2 different regimes applicable to the balancing of energy are implemented. In this way, depending on the GFA following which the BSP offers the flexibility to ELIA ("reserved" or "non-reserved" GFA), the settlement of activated balancing energy differs.

Even if these differences can be explained by the historical organization of upward reserve (no energy remuneration for "non-CIPU" flexibility until end 2018), it makes no sense to maintain the distinction for the downward reserve (no historical organization to consider) as there are technically no differences between both volume of balancing energy.

In this way, ELIA will propose a **contractual approach in which both volume of balancing energy resulting from the reserve capacity obligation and additional balancing energy** (currently named "non-reserved") **will follow the same rules**. The contractual structure resulting from this assumption is detailed step by step in section 3 of this document.

2.2. Technology neutral and harmonized rules

In 2016, ELIA presented for each of its balancing product (FCR, aFRR and mFRR up) a pluri-annual roadmap in which the needed design evolution were listed and prioritized. ELIA's ambition, with the implementation of these roadmaps, is to propose technology neutral products, with harmonized rules between CIPU and non CIPU contract (as long as this structure remains valid) and between products (FCR, aFRR and mFRR) whenever possible.

The downward product design respects this logic. In this way, **design characteristics detailed in this document will become applicable to the other reserve products (FCR, aFRR and mFRR up)** at moment these products are being reviewed - as detailed in their specific roadmaps - and respect the requirements of System Operation Guidelines (SOGL) and Electricity Balancing Guideline (EBGL).

Disclaimer:

Even though some of the requirements from both the SOGL and EBGL are already taken into consideration in this product design proposal, specific aspects (a.o: the product characteristics of the European standard product (e.g: the frequency activation time) are still being discussed in European workgroups and are therefore not included here. Once these characteristics have been finalized and discussed with market parties, ELIA will set up an implementation plan to integrate them into the Belgian product designs.

2.3. Key product characteristics

The following 4 assumptions are considered by ELIA when elaborating the downward product design:

1. The downward product consists in **one standard product with 15 minutes activation time**. This signifies that – on the contrary to the upward product – **no specific constraints will be considered by ELIA** (such as a minimum time between 2 activations);
2. The downward product will be contracted following a **daily procurement cycle** with **delivery periods of 4 hours**;
3. The **Transfer of Energy** rules applies following same rules than for the upward reserve;
4. Both the capacity and the energy are remunerated following the **pay as bid** principle. The possible evolution towards a pay-as-cleared methodology has already been analysed by ELIA and presented to market parties' end 2017[1].

[1] http://www.elia.be/en/users-group/Working-Group_Balancing/Projects-and-Publications/Study-Evolution-to-paid-as-cleared-for-the-settlement-of-activated-balancing-energy

3. Downward product contractual organization

As introduced in this document, ELIA's ambition is to propose harmonized (CIPU/non-CIPU and upward/downward) design rules, technology neutral and aligned with relevant European guidelines (System Operation Guideline and Electricity Balancing Guideline).

To reach this objective, ELIA already identified the needs for 3 major contractual evolutions. Each one of them is related to the implementation of specific projects:

1. The development of the **downward reserve product** as of Q1 2019;
2. The evolution of **upward reserve product** (expected early 2020);
3. **The implementation of "ICAROS project"** (~2021)

This section presents the contractual structure to offer flexibility (upward and downward, "reserved" and "non-reserved") applicable to each evolution above mentioned. Even though this document only focuses on the description of downward reserve product (1st evolution), the long-term contractual organization is presented here as it should help the reader to better understand specific design choices.

3.1. Current (2018) contractual structure

3.1.1. Procurement of balancing capacity via CIPU and non-CIPU contracts

Historically, the delivery of ancillary services was conditioned to the signature of a **CIPU[2] contract** by the BRP's of concerned units. To develop market liquidity and competition, ELIA elaborated - from 2012 and in close cooperation with its stakeholders - an additional contractual framework accessible to new technologies (e.g: batteries for FCR) and to Balancing Service Providers (hereafter "BSP"). This framework is named "**non-CIPU**" and exists for Frequency Containment Reserve (hereafter "FCR" or "R1") and manual Frequency Restoration Reserve (hereafter "mFRR" or "R3") in **upward** direction.

3.1.2. Non contracted balancing energy

In contrast to the "CIPU" contract – in which the obligation to deliver all available flexibility (i.o.w the non-contracted balancing energy) to ELIA is included and applicable to all CIPU units - ELIA had to develop a specific platform where market players could bid their available flexibility not concerned by an obligation of reserve. The rules applicable to this platform are described in the "**Tertiary control Non-reserved Service**" or "**R3 NR non CIPU**" General Framework Agreement (hereafter "GFA").

Both the "CIPU" contract and the "R3 NR non CIPU" GFA allow the participation of upward and downward non-contracted balancing capacity.

[2] Coordination for the Injection of Production Units

The current (2018) contractual structure applicable to the procurement of balancing capacity and delivery of non-contracted balancing energy is summarized in the Figure 1 below:

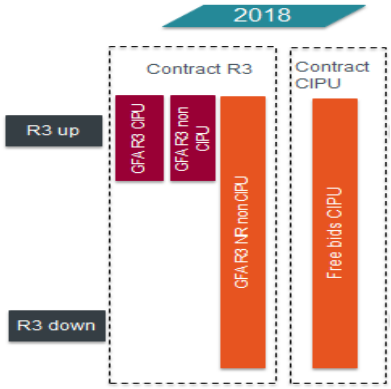


Figure 1 : contractual structure for delivering the tertiary control (procurement of capacity and balancing energy) to ELIA in 2018.

3.1.3. Terms & Conditions BSP R3

Six months after its entry into force, the European Electricity Balancing Guideline (hereafter "EBGL") requires ELIA to submit to the national regulator the "Terms & Conditions for BSP". When approved by the national regulator, this new structure will replace current GFAs and Balancing Rules.

The structure presented in the Figure 2 below has just been consulted by ELIA and will be submitted to the CREG after integration of consultation comments in June 2018. In ELIA's proposal, the current 4 GFAs organizing the delivery of flexibility and illustrated in Figure 1 above are gathered into a single "R3 Contract".

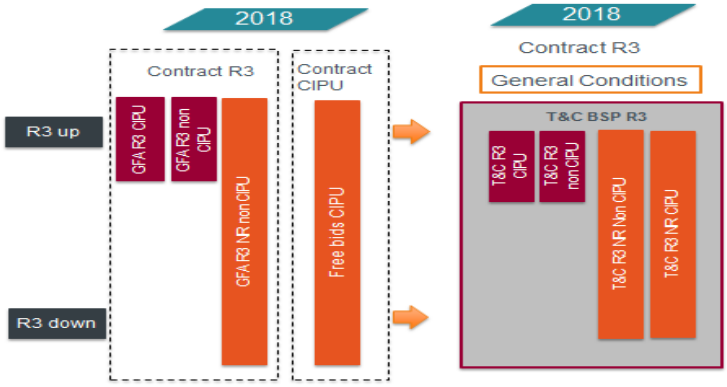


Figure 2 : contractual structure for delivering tertiary control to ELIA as of entry into force of Terms & conditions BSP

3.2. Long term contractual organization (post ICAROS, ~ 2021)

3.2.1. Difference between "CIPU" and "non CIPU"

As already presented by ELIA in ICAROS Task Force and related design documents published on ELIA's website[3], the historical organization of all key tasks regarding system operation and market procedures via the CIPU contract is being reviewed as the definition of new roles is required by the European Guideline on Electricity Transmission System Operation.

As a consequence, the current contractual organization must be reviewed as **the historical classification in "CIPU" and "non-CIPU" will no longer be applicable**.

3.2.2. Difference between "contracted" and "non-contracted" balancing energy

The current contractual organization where the split between "contracted" and "non-contracted" balancing energy is clearly organized must evolve towards **a single contract** in which delivery rules are applicable to both without distinction neither in the activation process neither in its settlement.

3.2.3. Long term contractual organization

Once the ICAROS design is implemented and considering the evolutions described in 3.2.1 and 3.2.2 it can be concluded that **there will only be one R3 contract applicable.** This document will propose **identical rules related to the procurement of balancing capacity** for both upward and downward directions **as well as for the activation of balancing energy** of both "contracted" and "non-contracted" tertiary control.

3.3. Development of downward capacity product (2019)

In 2019 ELIA needs to **create a contractual framework dedicated to the downward reserve product** as it might be needed to guarantee that ELIA disposes of enough means to cover its downward dimensioned needs.

The present document describes the R3 down product design that will be applicable from 2019 on. From a contractual perspective, it will be translated into **two separate GFAs** as the contractual structure will respect the same specificities than the one existing for upward reserve: **one "CIPU" GFA** and **one "non-CIPU" GFA**. Portfolios will be – as for upward reserve – exclusive between those two contracts.

The Figure 3 below illustrates how these 2 new contracts (in blue) will fit in the current set of contracts:

[3] http://www.elia.be/en/about-elia/publications/Public-Consultation/New-eu-guideline-compliant-approach-for-the-coordination

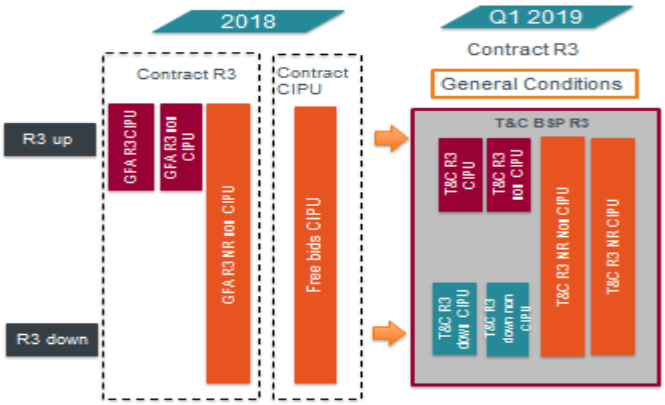


Figure 3 : Integration of R3 down CIPU and non CIPU GFA into the contractual structure valid as of begin 2019

3.4. Evolution of upward capacity product

As already introduced in ELIA's dynamic procurement study, ELIA will propose to move to **daily procurement and to implement a dynamic dimensioning methodology step by step and product per product**. This makes sense when considering the impacts such evolutions will have on both ELIA and market parties' operational tools and processes.

In line with ELIA's long term vision to dispose of fully harmonized products, **no differences** (neither in the procurement of balancing capacity neither in the activation of balancing energy) **will remain once both upward and downward products have evolved to daily tendering cycles**.

Contractually speaking, this means:

1) **The contract R3 CIPU will become applicable for both upward and downward reserve** – under the condition the R3 upward product evolves towards one standard product (end of "R3 flex") as detailed in ELIA's dynamic procurement study;
2) **The contract R3 non CIPU will become applicable for both upward and downward reserve** and **will include "non-contracted" balancing of energy** currently offered via the GFA for tertiary control non-reserved service by non CIPU technical units ("Bidladder").

The Figure 4 below illustrates the contractual organization relevant for these 2 intermediate steps (begin 2019 for R3 down product and begin 2020 for evolution of R3 upward product)

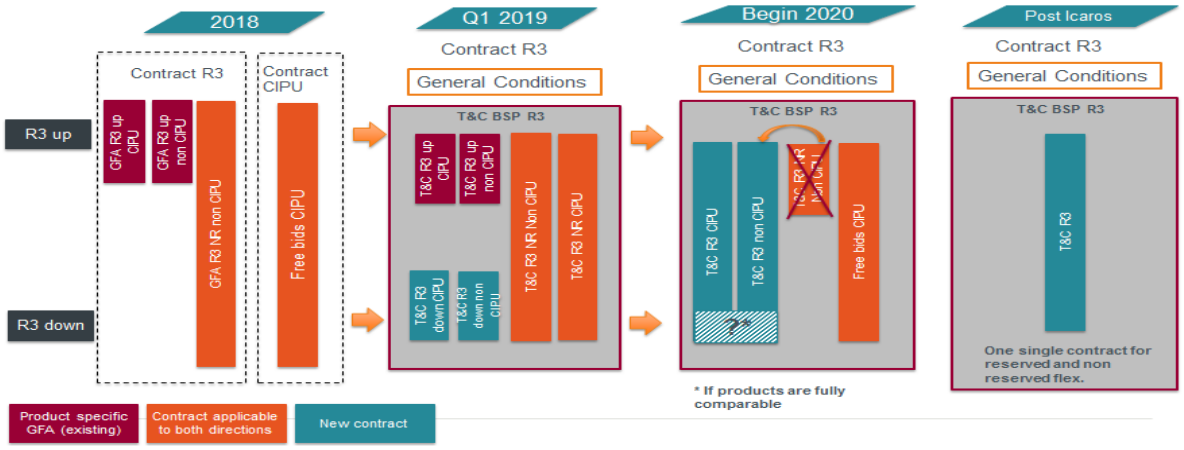


Figure 4 : Expected evolution of contractual structure applicable to offer tertiary control to ELIA

Disclaimer

The future contractual organization and exact timing for entry into force of each step may be subject to change because of on-going discussions with market parties organized via:

- The ICAROS project;
- The current consultation ELIA's structure proposal for the T&C BSP and BRP;
- The dynamic procurement study, published by ELIA end may 2018 for public consultation;

3.5. Intermediate conclusion

Now that the reader understands the key assumptions from which ELIA started the elaboration of downward product design (section 2), how it will be integrated in the current contractual structure (section 3) and the possible design impacts (section 4.3.2), the product characteristics can be further elaborated. The next sections (from chapter 4 to chapter 9) detail the rules applicable to the downward product following a structure similar to the one presented in the upward reserve General Framework Agreement to facilitate the reading of this document.

4. Portfolio organization

In this section, the principles ruling the organization of the BSP's portfolio are detailed. In this way, the limitations set by ELIA on the size of a "pool prequalification" (prequalification of several delivery points to benefit from portfolio effect) are described. Furthermore, the possible combinations with the other ancillary services contracts (FCR, aFRR, mFRR up, R3 non reserved non CIPU) are detailed. At last, the requirement to follow an individual process (prequalification, nomination, activation) under certain conditions is explained.

4.1. mFRR (R3) providing groups

To benefit from his portfolio effect when adding a new delivery point to its portfolio, BSPs often ask to ELIA the authorization to perform a prequalification test on a group of delivery points. This is acceptable for ELIA as long as:

- The **operational impact** on ELIA's grid remains limited and;
- **The financial impact** (because of the compensation bid that might be required to avoid causing imbalances during the prequalification test) is minimized.

In this way, ELIA applies the notion of "providing group" (System Operation Guidelines) and authorizes the BSP to gather delivery points up to a mFRR prequalified volume of **100 MW,** a threshold set by ELIA to limit their operational impacts.

The example below illustrate a concrete case of a BSP with a flexibility potential of 150 MW in his portfolio: to comply with ELIA's requirement, the BSP will organize his portfolio in two providing groups.

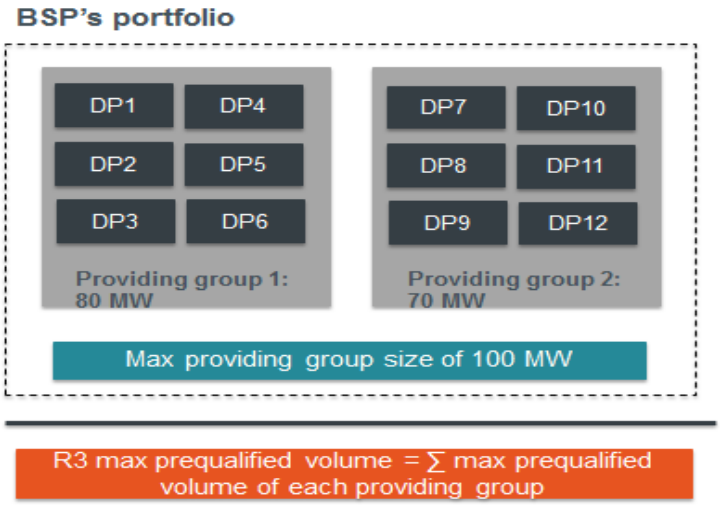


Figure 5 : example of the use of providing groups in the prequalification process

The notion of providing group is only used for the prequalification test and the determination of the maximal R3 downward prequalified volume and will not be used anywhere else. The BSP will not be limited because of the providing group in its energy nomination nor in its bidding behaviour for ELIA's capacity auction.

Once the providing group reaches 100 MW of prequalified R3 volume, ELIA will only authorize the BSP to add delivery points to this group **to increase its redundancy** (e.g :

back up of existing delivery points). These delivery points will not contribute to increase the max prequalified R3 volume and to do so no simulation test is required by ELIA.

In case the BSP wants to re-prequalify the providing group to increase the R3 max volume, it must be split in 2 separate groups and both parts will have to re-pass the prequalification's simulation test non-simultaneously.

4.2. Individual vs portfolio processes

The rules related to the obligation to individually follow the entire product process from the prequalification to the settlement for each prequalified delivery point currently differ in CIPU and non-CIPU contracts (upward reserve). In the current R3 CIPU upward contract, all delivery points above 25 MW must individually follow the product process while in the R3 non-CIPU contract pools can be organized without limitations.

In the future, this organization will have to **evolve to match the notion of individual MW scheduling obligation developed in ICAROS design** in replacement of current 25 MW CIPU rule.

As long as the CIPU contract remains, technical units subject to the obligation to submit daily program via the CIPU nomination procedure have the obligation to individually follow the entire product process described in this document. From the moment the ICAROS design is implemented, each delivery point subject to the obligation to introduce individual MW schedule will be forced to respect the individual product process.

4.3. Interactions with other ancillary services contracts

As long as the reference to CIPU contract exists (i.o.w while the ICAROS design has not been implemented), **CIPU and non CIPU portfolios are exclusive and cannot be combined**.

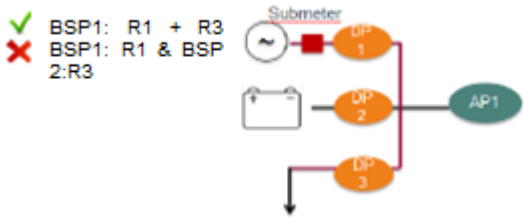
Starting from this assumption, ELIA determines in this section the possible interactions with the other reserves (R1 or "FCR", R2 or "aFRR" and "R3 up" or "mFRR up") as well as with the R3 non-reserved non CIPU contract ("bidladder").

It is reminded that the rules described in this section concern both the capacity reservation and the balancing of energy and reflect the current mix of possible combinations (as of Q2 2018). Supplementary conditions might be added to be in line with future product evolutions (a.o: on baselining).

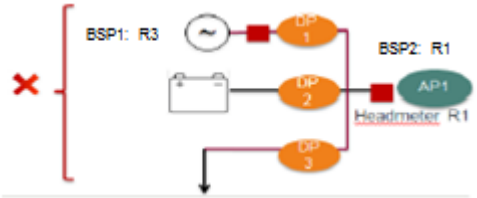
4.3.1. Combination with other reserves (FCR, aFRR, mFRR up CIPU and mFRR up non CIPU)

Elia will authorize the combination of R3 down with its other reserves (being FCR, aFRR and mFRR up) under the condition it respects the usual rules (on the level of the delivery point), reminded hereunder:

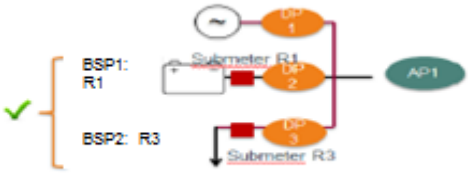
1) There can only be one BSP per delivery point:



2) No combination possible between headmeter (example: R1) and submeter behind (ex: R3 on a delivery point) or with 2 submeters with hierarchy (1 delivery point above another one)



3) 2 different BSPs can deliver distinct ancillary services behind an access point only if it concerns 2 independent Delivery point (proven by electrical scheme)



Furthermore, to make sure the volume of reserves (FCR, aFRR and mFRR) offered to ELIA and nominated on one or several delivery points can effectively be delivered, ELIA will develop **combined availability test profiles**.

Important remark

The combined availability test profiles are not detailed in this document. They will be discussed with market parties in a second phase, once the expected design evolution on the availability test principles for each concerned product in 2018 (FCR, aFRR, mFRR down, mFRR up) have been presented and validated with stakeholders.

4.3.2. Exclusivity between R3 down and "R3 non reserved non CIPU" ("Bidladder") pools

As introduced in the section 3 of this document, the long term contractual structure (post-ICAROS) will consist in one single Terms and Conditions R3 organizing the procurement of balancing capacity as well as the activation of balancing energy in both upward and downward direction.

From an operational point of view, there are no reasons to differentiate the activation of "non-contracted" balancing energy from the activation of "contracted" energy (the balancing energy that must be offered by the BSP to ELIA to comply with its balancing capacity obligation) as the technical requirements are identical. In this way:

1) The contract for R3 NR by non CIPU technical units will be merged with the contract for R3 by non-CIPU technical units as of begin 2020 (once evolutions related to upward product have been implemented);

2) As of Q1 2019, a supplier willing to offer "non-contracted" downward flexibility to ELIA will have to follow one of the two options, depending on its wish to offer R3 down capacity and/or R3 down balancing energy:

    a. In case the BSP wishes to offer both R3 down capacity and balancing energy, he will have to sign the GFA for R3 down by non-CIPU technical units and include all delivery points concerned in this contract;

    b. In case the BSP only wishes to offer balancing energy, he can keep the delivery points concerned (i.o.w. delivery points not listed in the GFA R3 Down) in the GFA R3 NR by non CIPU technical units.

3) As of Q1 2019, a supplier will be authorized to have the same delivery point in the GFA NR Non CIPU for the upward flexibility and in the GFA R3 down non CIPU for the downward flexibility.

Finally, a BSP will not be obliged to have a downward capacity obligation to offer "non-contracted" balancing energy via the R3 down non CIPU GFA.

5. Prequalification process

A prequalification process similar to the one presented in the current R3 General Framework Agreement ("CIPU" and "non-CIPU") will be applied to R3 down GFAs. The main difference concerns the **simulation test that will be harmonized between both contracts**.

This prequalification process consists in 5 steps as summarized below:

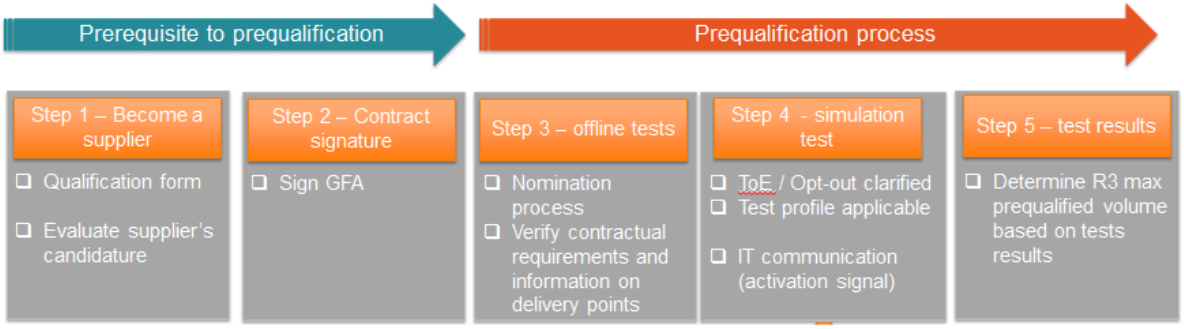


Figure 6 : overview of the prequalification process applicable to both R3 down CIPU and R3 down non CIPU contracts

5.1. Step 1 – Become a supplier

A candidate Supplier can apply by submitting a completed application form and the required documents to the applicable service to ELIA. The application form can be found on the ELIA website or requested via email to contracting_AS@elia.be.

After submitting an application form, Elia will reply to the Supplier's request at latest 15 days after reception.

5.2. Step 2 – Contract signature

The signature of the GFA is a pre-condition for the next steps of the prequalification.

5.3. Step 3 – Offline tests

In this step, ELIA makes sure the BSP respects the product requirements on:

- The day ahead and intraday nomination process;
- The specified **metering requirements**; (The rules applicable to upward product remains valid for downward product and will therefore not be reminded here);
- The information required for the concerned delivery points (localisation; inclusion in a valid access contract, **max mFRR values** …)

Remark: as currently implemented for contracted and non-contracted (non-CIPU) upward flexibility, **the mFRR max value** is an indication on the maximal flexibility potential of a concerned delivery points. In other words, it corresponds to the maximal flexibility (contracted and "non-contracted" together) ELIA could activate on this delivery point. This information is not calculated by ELIA as outcome of the prequalification test but communicated by the supplier during the prequalification.

- In case of Delivery Points in CDS, the CDSO declaration;
- In case of submetering Delivery Points: Submeter Commissioning Test
- The grid user declaration ;
- The document and information related to the transfer of energy rules – applicable to R3 down under the same conditions than for R3 upward reserve.
- …

5.4. Step 4 – IT communication and simulation tests

5.4.1. IT communication

During this step, the BSP and ELIA will check together before the start of the delivery the functioning of the IT communication; with a specific focus on the exchange of signals needed for the realization of an activation (for balancing or for availability test reasons).

5.4.2. Simulation test profile

The simulation test is realized upon supplier's request and will be organized within a 48 h time window during which ELIA will trigger the activation by surprise. ELIA will **not remunerate the simulation test**. To avoid negative influence on ELIA's balancing position; ELIA **will neutralize the effect of the prequalification simulation test with a compensation bid and will neutralize the activation from the imbalance price calculation.**

The compensation bid will be selected based on the price and without consideration of the market party concerned by the prequalification test. In other words, the compensation bid will not necessarily come from the BRP concerned by the test.

The objective of the simulation test is to measure the supplier's aptitude to respect the product's technical and operational constraints, the most important being:

- An activation time of 15 minutes;
- The possibility for ELIA to activate more than one time during the same delivery period (4 hours block);
- The energy requested by ELIA can remain activated for several quarter-hours;

In this way, a test profile similar to the one applicable for R3 standard non CIPU is determined as illustrated below. **This test profile is applicable to both R3 down CIPU and R3 down non CIPU GFAs**.

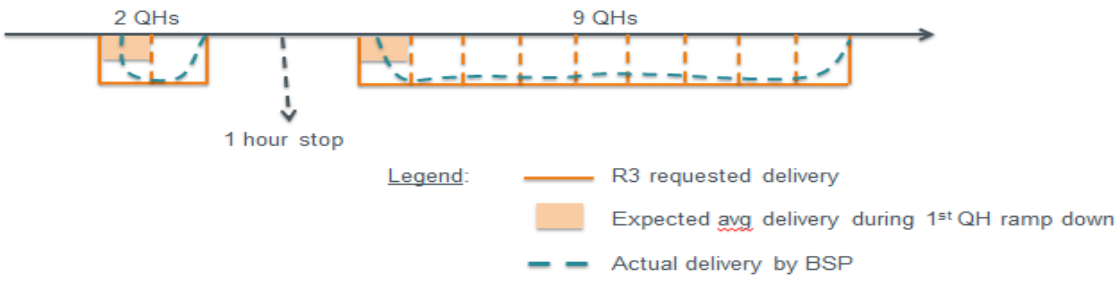


Figure 7 : simulation test profile applicable to R3 down CIPU and non CIPU

Remark: as explained in the section 4.3.1 of this document, the BSP has the opportunity to prequalify and offer the same delivery point for several ancillary services (FCR, aFRR and mFRR up). ELIA will verify the BSP's ability to offer these combinations of services by **triggering combined availability tests**. The exact test profile applicable to these combined tests will be elaborated and discussed with market parties in a later stage, **once the availability test principles are validated with stakeholders for each ancillary service product.**

ELIA will not organize a combined prequalification test.

5.5. Test results

ELIA analyses the BSP actual response to the simulation test triggered by surprise to calculate the R3 prequalified power for the concerned delivery point(s).

To determine the max prequalified power, ELIA follows the following principles:

1. The minimum power of R3 down delivered during all QHs (except the 2 ramp-down QHs) is calculated ;
2. For each ramp-down QH, the double of the average power delivered is considered;
3. The R3 down max prequalified power for the concerned delivery points corresponds to the minimum between the 2 values calculated in steps 1 and 2.

Furthermore, it is important to remind that the Transfer of Energy rules (as currently described for the R3 upward reserve) will be applied to R3 downward product, **including at the moment of the prequalification simulation test**.

Finally, ELIA considers as default **baseline** for the determination of the max R3 prequalified volume the **last quarter hour.** This baseline is also of application for the availability tests and activation control (see sections 8 and 9 of this document). If deemed necessary, the BSP can also ask ELIA to apply the X out of Y baseline.

6. Procurement of downward balancing capacity

To be able to find a valid combination of capacity bids, complying with the volume to be procured and in order to guarantee an optimal solution which minimizes overall reservation procurement costs, ELIA has established a set of bidding instructions applicable to mFRR downward product, also taking into consideration for the elaboration of these rules the following elements:

- The **implementation impact of daily procurement cycle** on both the BSP's and ELIA's procurement processes and tools;
- **The consistency with bidding instructions applicable to related ancillary services (upward tertiary reserve)**;
- **The specificities of downwards capacity market**, being among other of limited liquidity (new product being developed);
- The insurance of a level playing field for all suppliers;
- The expected EU future evolutions with the development of regional platforms for exchange of mFRR reserves.

Remark: The intraday secondary market recently set up by ELIA allows the exchange of capacity obligation between suppliers or between CIPU and non CIPU portfolios of the same supplier. The rules applicable for the downward product will be similar to those already implemented for the upward product and are therefore not detailed in this document.

6.1. Procurement of downward balancing capacity – timing of daily procurement process

As already referred to in this document, ELIA will determine the volume of R3 down to be reserved based on a **dynamic determination** of the downward need. This signifies that:

- This volume of reserve may evolve for each delivery period (4 hours block);
- This volume will only be known at the moment of the dynamic need calculation, **in day ahead** around 8:00 a.m (to benefit from the most recent forecasts possible).

Remark: The decision to start with the procurement of R3 down capacity and the methodology related to the downward reserve calculation will be determined in the "dossier volume 2019". This document is proposed by ELIA and subject to the regulator's approval.

Taking these elements into consideration, ELIA established the following process for the daily procurement of its reserves:

A. Independent of the volume of reserve to be purchased by ELIA (determined in day-ahead around 8:00 a.m.), BSPs will have the **opportunity to submit their bids 4 weeks in advance** (gate opening time of the auction).

B. ELIA determines and publishes the volume of reserve to be purchased around 8:00 in day-ahead (no differences are made for weekends and public holidays);

C. ELIA selects the most optimal set of capacity bids – respecting the bidding rules detailed in section 6.2 around 10:00 am ;

D. ELIA communicates the auction's results to the BSP's around 11:00 am;

ELIA's objective is to finalize the procurement of the needed volume of reserve before gate closure time of the energy market (12:00 in day-ahead) to give non-selected BSP an alternative for their remaining capacity.

The daily procurement cycle is illustrated in the Figure 8 below:

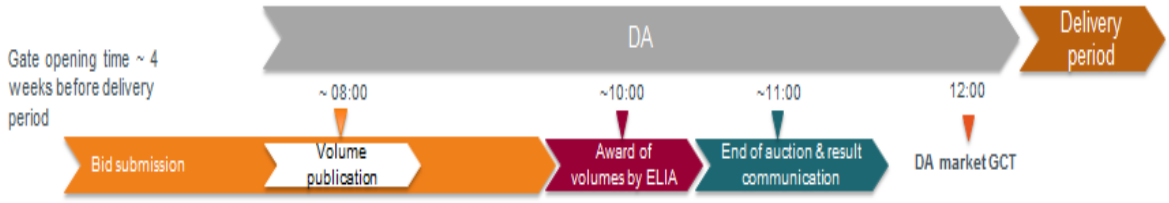


Figure 8 : daily procurement cycle for the reservation of R3 down capacity

6.2. Bidding rules

6.2.1. Base / Peak / Long-off peak capacity bids

As ELIA establishes a daily procurement cycle with 6 delivery periods of 4 hours each; the difference between base / peak / Long off peak bids is not relevant anymore and therefore withdrawn from the bidding instructions.

6.2.2. Combinability of capacity bids

All capacity bids are considered as **not combinable** with other capacity bids.

6.2.3. Obligations regarding the volumes to be offered

6.2.3.1. Smallest offered volume

For CIPU delivery points, the smallest offered volume shall not exceed the maximal installed capacity of the second smallest unit of the BSP's portfolio while for non-CIPU delivery points; it shall not exceed 10 MW.

6.2.3.2. Maximal step between two bids and granularity

When sorting the capacity bids in terms of volume, the difference between 2 capacity bids can be maximum (maximum delta between 2 capacity bids) 10 MW. The bid's granularity is 1 MW, with a minimal bid size of 1 MW.

6.2.3.3. Total cost check

The total cost (unit price * volume) of the smallest volume that can be retained resulting from a capacity bid should never exceed the total cost of the smallest volume that can be retained from a capacity bid with a larger volume.

Remark: In case of non-respect of one (or several) obligation regarding the volume offered, the capacity bid will be rejected by ELIA.

6.2.4. Divisibility of capacity bids

All capacity bids are considered to be d**ivisible between the offered volume and the capacity bid with the next smaller volume at the same unit price**. In case there is no smaller capacity bid, the capacity bid is not considered divisible. An example is provided in the table below:

#	Capacity bid	Volume selectable*
1	10 MW @ 3 €/MW/h	10 MW @ 3 €/MW/h
2	18 MW @ 2,98 €/MW/h	|11 MW – 18 MW| @ 2,98 €/MW/h
3	28 MW @ 2,07 €/MW/h	|19 MW – 28 MW| @ 2,07 €/MW/h

**between brackets: the minimum and maximum volume that can be retained at the considered unit price.*

6.2.5. Award criteria

When retaining capacity bids, ELIA will retain the combination of capacity bids that lead to a **minimal total reservation procurement costs** while;

- Retaining at least the required downward volume;
- Respecting the auction rules set forth here above;
- Respecting constraints set by the supplier in terms of combinability and divisibility.

In case an alternative optimum exists; the following criteria will successively be applied to determine the solution:

1) Maximizing the retained volume;
2) Maximizing the number of retained bidders;
3) Maximizing the equal distribution of the volume amongst all retained bidders.

7. Nomination of balancing energy

This section details the timing a BSP must respect when submitting its balancing energy bids ("contracted" and / or "non-contracted") as well as the balancing energy bid's main characteristics. As described in section 4.2 and as long as the ICAROS project is not implemented - CIPU technical units subject to the obligation to submit daily production program ("nomination" process) will follow the nomination process described hereunder individually.

7.1. Timing of balancing energy bid nomination process for mFRR downward product

The balancing energy bid nomination process will be similar for both CIPU and non CIPU delivery points and will occur via the same bidding platform (BMAP). In this way, the following 2 deadlines are relevant for concerned BSPs:

1) Once the BSP is awarded a downward capacity obligation (in DA around 11:00 am), he has until 15:00 the same day to submit its balancing energy bid nomination for a volume corresponding to its capacity obligation (also called "reserve nomination");

2) In case of changes in intraday, the BSP will respect the current 45 minutes of neutralization time.

   A renomination in intraday is only accepted by ELIA if this concerns delivery point(s) (bigger than 25 MW) not located in a congested area. The congested areas (red zones while the CIPU contract is still valid and the "Congestion Risk Indicator" once the ICAROS project is implemented) are communicated to market parties by ELIA as soon as they are identified.

An example is given in the illustration below for the 6 delivery period of one specific day, from the moment ELIA communicates on the volumes to be procured during capacity auction.

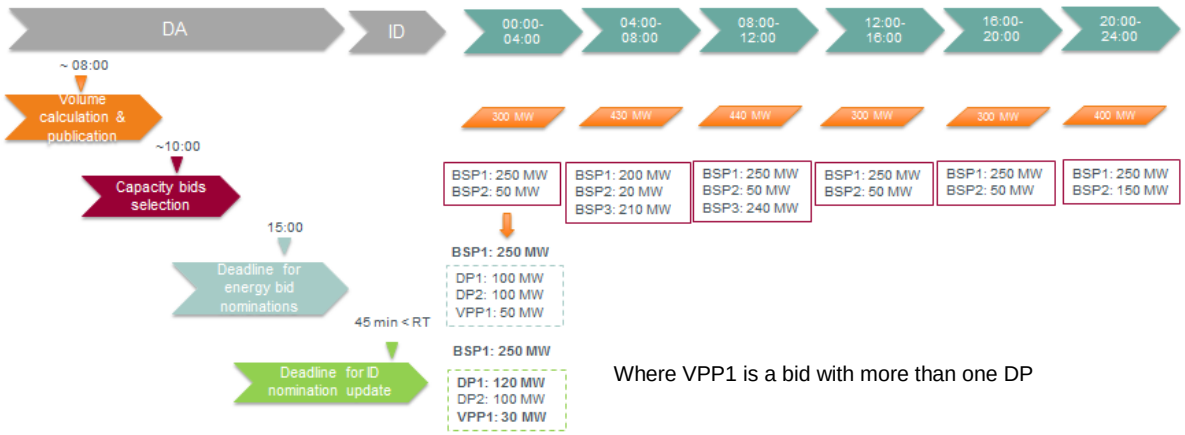


Figure 9 : Timing related to balancing energy bid nomination process from day ahead

7.2. Bid characteristics

7.2.1. Max bid size

If an energy bid flagged as “reserved” (see section 7.2.5.2) consists of several delivery points, a **maximal bid size is fixed at 100 MW** by ELIA. This requirement is valid for “reserved” bids of both “CIPU” & “non CIPU” GFAs. This threshold is determined considering on one hand ELIA’s objective to give BSPs the highest possible flexibility for their portfolio optimization and on the other hand the operational and financial aspects related to the availability tests.

In this way, a portfolio bid without maximal bid size could be difficult to activate for test purposes and may generate significant costs as ELIA needs to compensate (and remunerate) the volume tested to avoid negative impact in terms of imbalances on Belgian area.

An energy bid related to a single delivery point as well as a “non-reserved” portfolio bid is not limited in size.

7.2.2. Divisibility

As implemented today for current upward reserve contracts (CIPU and non CIPU), the energy bids for downward reserve are considered **fully divisible** by ELIA**.**

7.2.3. Price

CIPU contract currently organizes the information exchange related to price of incremental and decremental bids between BRP and ELIA, which is also used by ELIA as input to remunerate the mFRR activated energy as stated in the mFRR upward CIPU GFA.

To facilitate the settlement processes and limit the implementation impact for both BSPs and ELIA, ELIA will base the remuneration of the activated energy for mFRR downward reserve (offered via the R3 down CIPU GFA) on the prices submitted by the BRP to ELIA following the CIPU procedures currently applicable.

Once the review of historical organization of key tasks regarding system operation and market procedures is finalized via the ICAROS project, BSP will introduce the energy activation price via the BMAP platform the same way BSPs with non CIPU contracts.

For non-CIPU contract, as no process is implemented yet, the BSP will introduce its activation price in the BMAP platform, in € /MWh.

There is only one price per energy bid.

7.2.4. Granularity

The granularity of energy balancing bid is 1 MW, with minimal bid size of 1 MW.

7.2.5. Additional information required

7.2.5.1. EAN of concerned delivery points

The BSP must always indicate to ELIA for each bid which delivery points are concerned by the offered volume by indicating each delivery point's EAN in the bidding's platform (BMAP).

7.2.5.2. Contracted and non-contracted balancing energy

For transparency, operational and settlement reasons (a.o: congestion management, organization of availability tests…), ELIA must always know with witch delivery point(s) the supplier intends to respect its capacity obligation.

In this way, the supplier will – via the nomination tool – select its contractual obligation and flag as "**reserve**" each balancing energy bid nominated for that purpose. Two additional requirements apply here:

1) The supplier can only nominate as "reserve" a volume equivalent to its contractual obligation (taking into consideration possible deals on secondary market). ELIA will only authorize a reserve nomination lower than the supplier's contractual obligation in exceptional circumstances (see section 7.2.7) ;
2) At level of the energy bid, a supplier can nominate as "reserve" a volume up to the sum of the max mFRR value of the concerned delivery point(s). In other words, the R3 max prequalified volume determined following the prequalification process described in section 5 is only used by ELIA to verify the consistency with the BSP's capacity bids and is not used as a cap to the balancing energy nomination process.

Furthermore, and as introduced in section 4.3.2 of this document, **ELIA authorizes the BSP to offer non-contracted balancing energy with the R3 down prequalified pool of delivery points.** To do so, he will flag the bid as "**non-reserved**" in the bidding platform.

Reminder:

As mentioned in this document, the notion of FRR providing group detailed in section 4.1 is not used by ELIA for the nomination of balancing energy.

Finally, there is a possibility for which – after having flagged as "reserve" energy bids up to a volume corresponding to its reserve obligation - additional flexibility can be offered by the BSP on the last flagged bid. In this case, the supplier is authorized to nominate this additional volume of flexibility **on the same bid** as "non-reserved".

This exception is only **valid for one bid per quarter-hour and per BSP**. To illustrate and give more explanation on these nomination requirements, two examples are proposed in Figure 10 and Figure 11 below. The first example illustrates the energy nomination possibilities according to the rules described above while the second example clarifies why ELIA only authorizes the combination of "reserved" and non-reserved" balancing energy on one bid per BSP and per quarter-hour.

Example 1:

In this example, the BSP has:

- Prequalified a volume of 75 MW on its portfolio;
- Indicated to ELIA the mFRR max of each delivery point which corresponds to the maximal volume of flexibility that can be delivered on this delivery point. This volume has not been prequalified by ELIA and is provided by the BSP during the prequalification process. The total potential of BSP's portfolio is 100 MW.

This concretely means that:

- The BSP can only offer up to 75 MW to the auction for the procurement of capacity;
- The BSP can offer up to 100 MW of flexibility for one quarter-hour; with minimum 25 MW of "non-contracted" balancing energy.

Taking the assumption that for the concerned delivery period, the BSP won a downward reserve obligation of 45 MW, its nomination for one quarter hour of this delivery period will consist in:

- Bids flagged as "reserved" (bid 1 and bid 2);
- One bid with both "reserved" and "non-reserved" flexibility (bid 3);
- One remaining bid of "non-reserved" flexibility (bid 4).

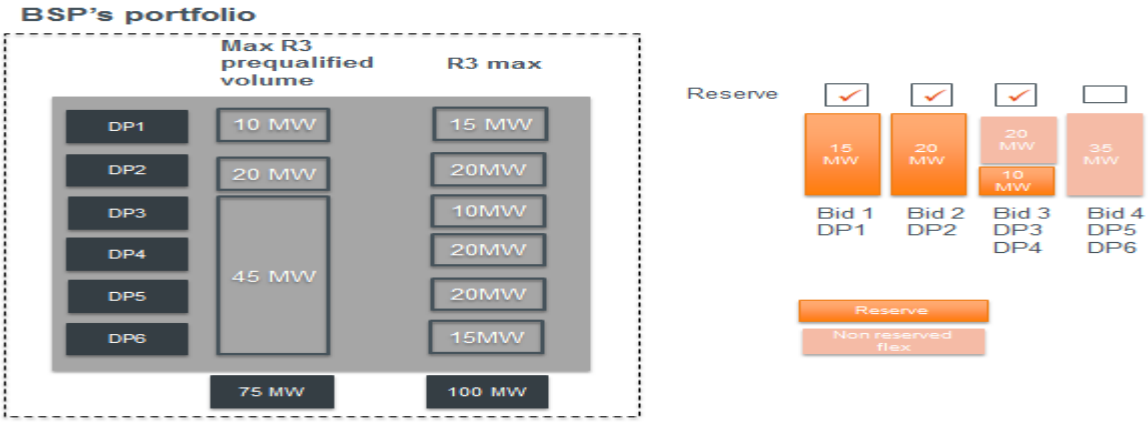


Figure 10 : Example of expected bidding behaviour

Example 2:

In this example, the BSP has a reserve obligation of 17 MW and decides to offer to ELIA – on top of these 17 MW – 73 MW as "non-reserved" balancing energy.

To do so, the supplier decides to nominate a limited volume of reserve on each submitted bid for a specific quarter hour. This is illustrated in the Figure 11 below :

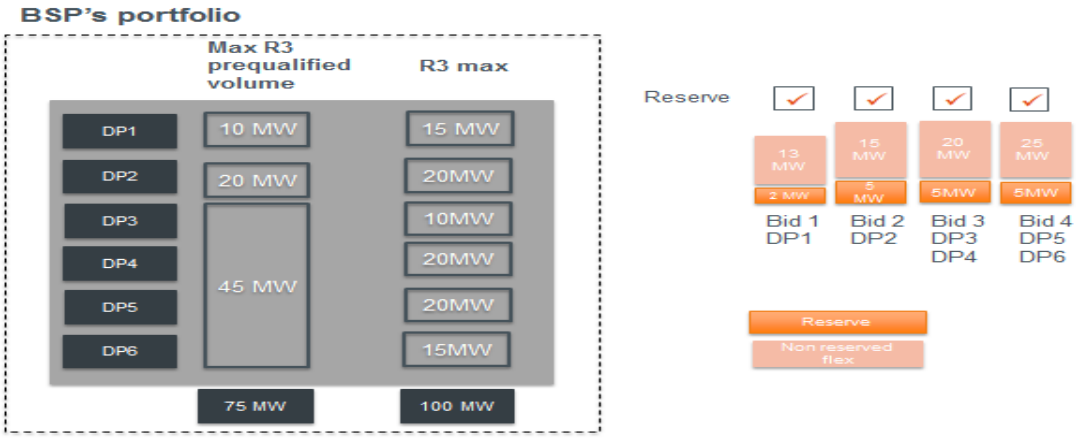


Figure 11 : Example of non-authorized bidding behaviour

This bidding strategy is not accepted by ELIA for the following three reasons:

1) The added value of an availability test on portfolio bid which only concerns a fraction of the nominated volume is limited for ELIA as this does not reflect the effective availability of the offered energy on the **concerned delivery points**.

2) Following the availability test principles described in the next section; ELIA has the right to verify – from time to time – the effective availability of its downward reserve by activating specific energy bids on which a volume of reserve is nominated. In the example above, from the moment ELIA decides to test the 17 MW obligations, this signifies bids 1 to 4 are activated.

   As a consequence, the volume of "non-reserved" flexibility nominated on those same bids will not be available for ELIA's dispatching – should there be a need to activate it for balancing purposes – for the entire test duration (30 minutes). From an operational perspective, this is not acceptable.

3) The scenario illustrated in the Figure 11 above may significantly increase the number of bids to be activated for availability test purposes. This uselessly makes the operational process more complex for both the BSP's and ELIA.

For all these reasons, ELIA only authorizes one bid per BSP and per quarter hour on which both volumes (reserved and non-reserved) can be nominated.

7.2.6. Business checks

The following business checks will be implemented by ELIA on the bidding platform:

- ELIA will make sure at least the volume corresponding to the BSP capacity obligation is nominated for each QH of the delivery period concerned by this obligation;

- ELIA will verify that the delivery points indicated by the BSP in one bid nomination can effectively deliver the volume nominated on the bid. To do so, ELIA will use the mFRR max value indicated by the BSP to ELIA for each delivery point during the prequalification process (see section 3 of this document).

7.2.7. Consideration of a "Forced Outage" in the nominations

Immediately after the occurrence of a forced outage that impacts the supplier's contractual obligation, the supplier quantifies the loss of reserve obligation and communicates it to ELIA.

In parallel, the supplier adapts its intraday nomination for the first possible quarter-hour, considering the nomination process neutralization time. This nomination update is essential for ELIA as it will be used as input for an activation or to the trigger of an availability test (see section XX for more information on the availability test principles and related process).

ELIA authorize a reconstitution time of **4 hours** – starting from the notification to ELIA of the occurrence of FO– to give the supplier time to **find a back-up solution**, using the intraday secondary market implemented by ELIA in 2017 or within its own portfolio.

Remark:

ELIA will only confirm an exchange of reserve obligation through the secondary market intraday if both BSP are technically able to fulfil the obligation, taking also into consideration their initial reserve obligation for the concerned delivery period(s). ELIA will use the max mFRR prequalified volume of each BSP as reference for this control.

Once the solution is found and before the end of the 4 hours reconstitution time, the BSP update its nominations.

If, by the end of these 4 hours, no solution has been found and part of the obligation cannot be fulfilled by the supplier, ELIA will automatically apply the following penalty on the missing volume:

*Penalty = (Missing volume / reserve obligation) * 1.3 * remuneration of the concerned delivery period(s)*

Remark: Occurrence of FO is rare. The use of this 3 hours reconstitution time must therefore remain exceptional. If ELIA observes the occurrence of several FOs on same delivery points over a limited period of time or if the BSP fails to explain their reason, ELIA will exclude these delivery points from the supplier's prequalified pool until the supplier proves that a durable solution has been found and implemented to avoid such event in future delivery periods (by re-prequalifying the delivery point).

7.3. Energy nomination on delivery point(s) located in congested areas

As presented in section 7.1, the BSP's deadline to nominate its capacity obligation won at the day-ahead auction is 15:00 in day-ahead. At that time, ELIA cannot determine whether specific geographical areas will be subject to congestion problem.

Operationally, once a congested area is identified by ELIA, it is communicated to the BSP's and:

- The schedules and nominations of the concerned delivery point(s) (with max FRR value > than 25 MW) cannot only be adapted to reduce (or delete) the nominated volume;
- The energy bids with one or several delivery point(s) (with max FRR value > than 25 MW) located in the congested area are excluded from the merit order.

In case of portfolio bid, this signifies that the **entire volume nominated by the BSP will not be activated by ELIA while only a fraction of the offered flexibility comes from delivery point(s) located in the congested area.** To solve this suboptimal situation, ELIA will – from the moment a congested area is identified and communicated to the BSP – reduces the nominated volume of flexibility by the max FRR value indicated by the BSP during the prequalification on each **concerned delivery point with max FRR value above 25 MW.**

The remaining volume on the bid – coming from delivery points not concerned by the congestion – may still be activated by ELIA. In those circumstances, the removed delivery points can obviously not be used by the BSP in answer to ELIA's activation request.

It is to be reminded that the BSP has still the possibility to re-nominate himself to reallocate its flexibility and therefore not automatically lose the volume of flexibility equivalent to the max mFRR value.

7.4. Energy bid settlement with Transfer of Energy

As introduced in the R3 2018 design note, the transfer of energy is a pre-requisite for the implementation of an activation price for R3 upward non-CIPU. Without such a mechanism, no activation price can be paid out for R3 non CIPU as no imbalance correction of the impacted BRP_{source} is possible.

The Transfer of Energy rules described for R3 upward reserve will be applied in a similar way for the R3 downward reserve.

8. Availability control

Reserves are one of ELIA's regulation means to cover imbalances caused by unforeseen events such as forecasts errors on renewable generation or outage of production unit and by doing so to maintain grid's stability. It is therefore essential for ELIA to have the guarantee that the contracted volumes can be delivered at any time, upon ELIA's activation request.

Over the course of 2018 (exact timing depends on – among other things – the entry into force of Transfer of Energy rules) the remuneration of activated energy and the merit order principle will be implemented for R3 upward. This logic will also become applicable for R3 down. This signifies that ELIA's activation criteria for both "non-reserved" and "reserved" flexibility will be the energy activation price. As a consequence, it becomes very likely that some volume of reserves (if at the end of the merit order) will almost never be activated for balancing reasons. Furthermore, the observed number of R3 upward activation over the last months remains limited.

In this way, ELIA will implement – following logic similar to the one presented to market parties in 2016 at the occasion of FCR design review – **availability tests**. These tests will be applicable to both CIPU and non CIPU reserve and aim at **verifying the effective availability and delivery of the nominated reserves.**

This section describes the availability tests principles as well as how ELIA intends to implement them into its operational and settlement processes.

8.1. Availability tests principles

8.1.1. Test profile and characteristics

When triggering an availability test, ELIA has 2 objectives:

1) To make sure the offered energy is effectively available and;
2) To verify it can be delivered within the 15 minutes; as per product definition.

To achieve those 2 objectives, ELIA determines the following parameters:

1. The test **lasts 2 successive QH**. The first one being used by the BSP to ramp down to the required volume and the second one to maintain the delivered energy to the required level;
2. Each activation test will be **neutralized by ELIA with a compensation bid.** These activated bids (both for test and compensation) will not be considered in the calculation of imbalance prices. Indeed as the decision for the activation of nominated energy will be taken based on other considerations than the usual balancing-related processes, it may negatively influence ELIA's balancing position if not properly compensated. By doing so, an availability test will have **no impact on the BRP's perimeter position and in the imbalance price calculation.**

   For transparency reasons, the compensation bids activated in the context of an availability test will be isolated from their usual activation for redispatching.

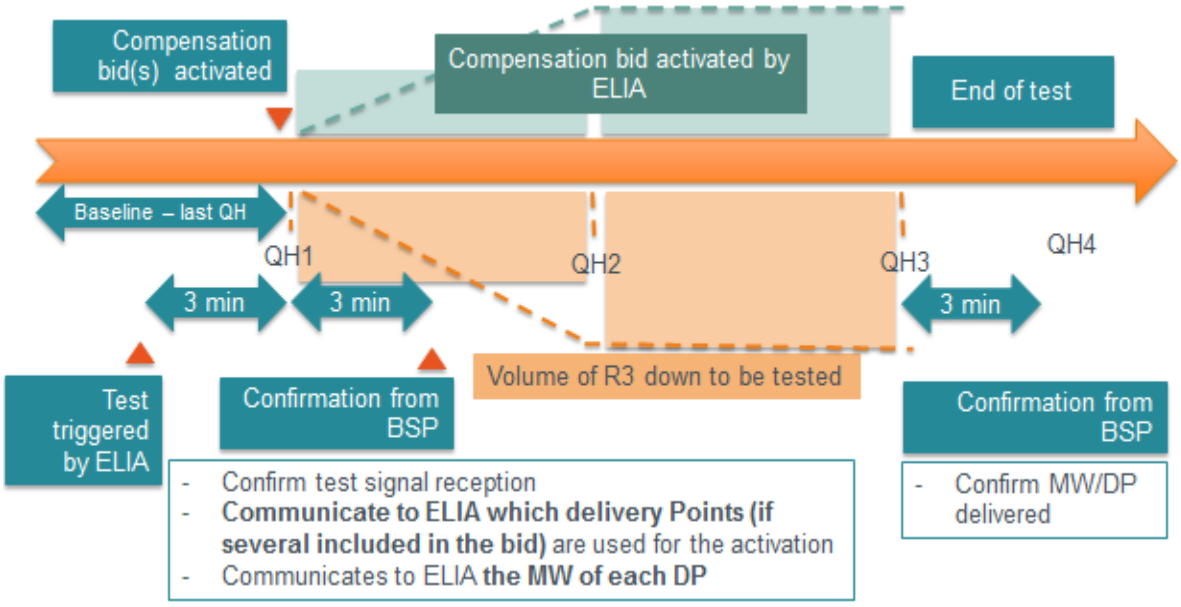
The test will follow the same protocols than those applicable for activation:

3. It can be triggered up to 3 minutes before the beginning of a quarter hour;
4. The supplier will acknowledge the good reception of the test request at last 3 minutes after the start of the activation;
5. For both individual and portfolio bids, the response message that the Supplier sends to ELIA must contain at least the information of which delivery points concerned will be activated by the supplier and for how many MWs, per QH;
6. Within 3 minutes after the end of the activation, the supplier sends to ELIA at least the information on volume (MW) effectively delivered by each concerned delivery point, per QH.

As for the simulation test performed during the prequalification process (see section 5), **the default baseline** used by ELIA to verify the supplier's reaction to the activation test **is the last quarter-hour**. If deemed necessary, the BSP can also ask ELIA to apply the X out of Y baseline

7. **The "Transfer of Energy" rules are applicable**.

The schema below summarizes the presented test profile and key characteristics:



Disclaimer

The exact timing and the level of details required from the BSP at each step of the communication exchanges with ELIA are related to on-going evolutions (R3 upward design; Transfer of Energy rules…) still under discussions at the moment of redaction of this document.

Any evolution regarding the timing or the information to be exchanged decided in those projects will be included in the R3 down product design to maintain consistency.

8.1.2. Test volume

ELIA will only test its contracted reserves. As one energy bid can contain for a specific quarter-hour a volume of reserve and of "non-reserved" flexibility (see section 7.2.5.2), this signifies that ELIA can partially trigger an energy bid by specifying the volume (in MW) concerned by the test (in this case, only the "reserved part").

Furthermore, ELIA will determine the maximal volume to be tested based on the operational conditions (system imbalance, volume of non-reserved flexibility that can be activated as compensation bid …). This means that ELIA can – for an availability test – activate more than one energy bid flagged as "reserved" at a time.

8.1.3. Trigger criteria and test frequency

To limit the operational and financial impact of an availability test on the supplier, ELIA will adapt its test frequency based on analysis of all available and relevant information (previous tests results, measurements, consistency with individual schedules (if any)…).

This "**smart testing logic**" is a transversal principle that will be applied by ELIA on all the reserved products concerned by availability tests (e.g: FCR). Obviously, this logic takes time to be implemented as it considers as input – among other parameters – the results of previous tests. As long as this smart testing logic is not developed, ELIA will aim for an **average test frequency of one test per BSP and per month – depending on the contracted volumes.**

Remark: This is an **average** test frequency for each BSP. In case of negative test results, ELIA has the right to perform **an additional test** on the same BSP on top of the one already done and without being considered in the average test frequency calculation.

Contractually, as the product delivery period is a 4 hour block, ELIA will have the right to perform one test per delivery period.

8.1.4. Test remuneration

The availability tests are part of the mFRR downward contract and no additional compensation is foreseen by ELIA for these tests. Suppliers should consider this when offering mFRR downward capacity to ELIA at the reserve auction.

8.2. Availability test settlement

For each triggered availability test, ELIA will verify the delivery point(s) reaction to compare it with the requested one. The difference between both corresponds to the "Missing MW". In case of positive "Missing MW", ELIA applies a penalty on both the prequalified volume and the BSP's monthly remuneration.

8.2.1. Volume

In case two availability tests lead to a positive “missing MW” (i.o.w in case the requested volume is not delivered) for the same delivery point(s), ELIA **will reduce the BSP’s max mFRR prequalified values by the volume corresponding to the minimal “missing MW” of these two tests**.

The BSP will then have to follow the prequalification process described in section 5 to re-assess its max mFRR prequalified volume.

8.2.2. Financial penalty

On top of the reduction of the max mFRR prequalified volume, ELIA will financially penalize the BSP for the undelivered volume. To do so, ELIA will consider the following parameters:

- The **missing MW** calculated as described above;
- The **average monthly remuneration** for the downward reserve (€ / MW / h);
- A **multiplication factor** equal to 1.3;
- The **number of hours** in delivery periods for which a volume is reserved, per concerned month.

The penalty is determined based on the following formula:

Penalty = Missing MW * average monthly remuneration * 1.3 * number of hours in delivery periods for which a volume is reserved, per concerned month.

An example is provided below:

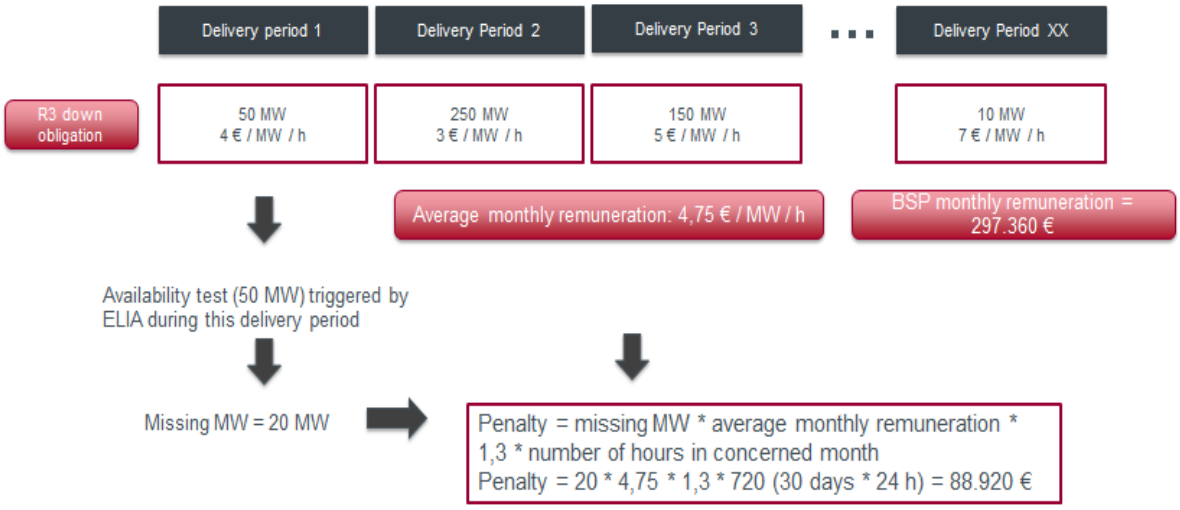


Figure 12 : Example of how the financial penalty is calculated in case of failed availability test

9. Activation of downward energy

In parallel to the availability test initiated from time to time by ELIA to make sure its volume of reserve are effectively accessible – should there be a need to activate them for balancing reasons – ELIA specifically monitors each activation of downward energy.

This section describes the principles according to which the monitoring of these activations is performed, for both the “reserved” and “non-reserved” energy activations.

Remark: The availability test characteristics described in section 8.1.1 are also applicable in case of activation for balancing or congestion reasons. On top of these characteristics, it is important to remind that an activation ends if and only if the activation period reaches the end time specified in the electronic message sent by ELIA without any prolongation having been asked for by ELIA (by XML message)

9.1. Current activation monitoring implemented for activations of upward energy

9.1.1. Begin 2018

There are currently **3 types of penalties** related to the activation of upward balancing energy; depending on the type of contract (CIPU / non CIPU / non reserved non CIPU) and product (R3 standard / R3 flex) concerned:

1. Exposure to the imbalance
    a. CIPU delivery points: the perimeter of the BSP (who is also the BRP) is corrected with the volume requested hence the BSP is subject to the imbalance in case of incorrect delivery.
    b. Non CIPU delivery points: no exposure to imbalance in absence of Transfer of Energy.
    c. Non CIPU non reserved delivery points (“bidladder”): no exposure to imbalance in absence of Transfer of Energy;

2. Financial penalties
    a. CIPU delivery points: no financial penalties on top of the imbalance in case of incorrect delivery;
    b. Non CIPU delivery points: proportional to the reservation price. This penalty is only applicable to the non CIPU delivery points as they are not (yet) exposed to the imbalance.
    c. Non CIPU non reserved delivery points (“bidladder”): no financial penalties on top of absence of remuneration for the non-delivered energy;

3. Need for new prequalification

a. CIPU delivery points: in case of two consecutive failed activations, a new prequalification is required.

b. Non CIPU delivery points: in case of two consecutive failed activations, the "R3 max std/flex" values of the portfolio are lowered. A new prequalification is required if the BSP wants to increase the value of those parameters.

c. Non CIPU non-reserved delivery points ("bidladder"): in case of 3 consecutive failures, ELIA has the right to suspend the BSP from the bidding procedure for a period of 30 calendar days.

9.1.2. As of 1/12/2018

With the implementation of the Transfer of Energy for tertiary control offered by non-CIPU units, the corresponding BRP_{BSP}'s will be exposed to the imbalance in case of incorrect delivery. As a result, the financial penalty in case of incorrect delivery mentioned in section 9.1.1 is not relevant anymore.

From 1/12/2018, **both reserved (CIPU & non CIPU) and non-reserved (non CIPU) balancing energy activations will be exposed to imbalance**. Therefore, the need to develop additional financial penalty disappear.

9.2. Activation monitoring applicable to downward reserve

As already mentioned in this document, ELIA's long term vision is to dispose of identical rules on both:

- The capacity reservation (upward and downward) process and;
- The activation of energy ("contracted" and "non-contracted flexibility").

In this way, ELIA will harmonize its financial and volume related penalties when monitoring the balancing energy activations.

9.2.1. Financial penalty

ELIA will implement the same logic for R3 downward product than the financial penalty proposed for R3 upward product (entry into force of 1/12/2018), being a **penalty resulting from the exposure to the imbalance in case of incorrect delivery.**

Disclaimer: The financial penalty resulting from the exposure to the imbalance is an incentive strong enough as long as only the Belgian area is concerned. From the moment the European cooperation projects for the exchange of balancing energy (e.g : MARI project) go live, ELIA will need to review the proposed mechanism to determine whether it requires adaptations.

9.2.2. Penalty related to volumes

ELIA's current mechanism implemented for upward energy makes the difference between the activation of the "contracted" energy (via the GFA CIPU and non CIPU up) from the activation of the "non-contracted" energy (via the GFA non reserved non CIPU).

As ELIA wants to harmonize both principles and considering the fact that the "non-reserved" energy does not prequalify a maximal volume; **the volume related penalty for incorrect balancing energy activation will be a suspension of the delivery point(s) concerned from the bidding procedures for 30 days as of 2 incorrect deliveries for these delivery points over the last 12 months.**