
**Terms and Conditions for balancing service
providers for Frequency Containment Reserve (FCR)
("T&C BSP FCR")**

*pursuant to article 18 of Commission Regulation (EU) 2017/2195 of
23 November 2017 establishing a guideline on electricity balancing*

17/03/2020

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THE BELGIAN TRANSMISSION SYSTEM OPERATOR ELIA, TAKING INTO ACCOUNT THE FOLLOWING

Whereas

- (1) Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (hereafter referred to as the "EBGL") entered into force on 18 December 2017.
- (2) Elia Transmission Belgium SA (hereafter referred to as "ELIA") is responsible for the operation of the Belgian transmission system, for which it holds a right of ownership or at least a right of use. ELIA has been designated as Transmission System Operator pursuant to the Act of 29 April 1999 on the organization of the electricity market, and ensures the safety, reliability and efficiency of the Belgian transmission system.
- (3) This document is a proposal developed by ELIA regarding the Terms and Conditions for balancing service providers for Frequency Containment Reserve (FCR) (hereafter "T&C BSP FCR") pursuant to article 18 of the EBGL.
- (4) These T&C BSP FCR take into account the general principles, goals and other methodologies set in the EBGL by:
 - (a) fostering effective competition, non-discrimination and transparency in balancing markets pursuant to article 3(1)(a) of the EBGL;
 - (b) enhancing efficiency of balancing as well as efficiency of European and national balancing markets pursuant to article 3(1)(b) of the EBGL;
 - (c) integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security pursuant to article 3(1)(c) of the EBGL;
 - (d) contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets pursuant to article 3(1)(d) of the EBGL;
 - (e) ensuring that the procurement of balancing services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, fosters the liquidity of balancing markets while preventing undue distortions within the internal market in electricity pursuant to article 3(1)(e) of the EBGL;
 - (f) facilitating the participation of demand response including aggregation facilities and energy storage while ensuring they compete with other balancing services at a level playing field and, where necessary, act independently when serving a single demand facility pursuant to article 3(1)(f) of the EBGL;
 - (g) facilitating the participation of renewable energy sources and support the achievement of the European Union target for the penetration of renewable generation pursuant to article 3(1)(g) of the EBGL.

- (5) Pursuant to article 4(1) and article 5(4)(c) of the EBGL, ELIA shall develop the terms and conditions required by this Regulation and submit them for approval to the relevant regulatory authorities in accordance with article 59 of Directive (EU) 2019/944 within the respective deadlines set out in this Regulation.
- (6) Pursuant to article 5(5) of the EBGL, the T&C BSP FCR shall include a proposed timescale for their implementation and a description of their expected impact on the objectives of this Regulation.
- (7) Pursuant to articles 7 and 12(3)(g) of the EBGL, Elia will publish these T&C BSP FCR on its website in the reference languages Dutch and French and also in English.
- (8) Pursuant to article 18(1) of the EBGL, ELIA shall develop a proposal regarding T&C BSP FCR no later than six months after entry into force of the EBGL. A first proposal has been introduced for approval to the CREG on June 18th, 2018.
- (9) Pursuant to article 18(2) of the EBGL, the T&C BSP FCR shall also include the rules for suspension and restoration of market activities pursuant to article 36 of Regulation (EU) 2017/2196 and rules for settlement in case of market suspension pursuant to article 39 of Regulation (EU) 2017/2196 once approved in accordance with article 4 of Regulation (EU) 2017/2196.
- (10) Pursuant to article 18(3) of the EBGL, when developing these T&C BSP FCR, Elia shall:
 - (a) coordinate with the TSOs and DSOs that may be affected by those terms and conditions;
 - (b) respect the frameworks for the establishment of European platforms for the exchange of balancing energy and for the imbalance netting process pursuant to articles 19, 20, 21 and 22 of the EBGL;
 - (c) involve other DSOs and other stakeholders throughout the development of the proposal and take into account their views without prejudice to public consultation pursuant to article 10 of the EBGL.
- (11) Pursuant to article 18(4) of the EBGL, these T&C BSP FCR shall:
 - (a) define reasonable and justified requirements for the provisions of balancing services;
 - (b) allow the aggregation of demand facilities, energy storage facilities and power generating facilities in a scheduling area to offer balancing services subject to conditions referred to in article 18(5)(c) of the EBGL;
 - (c) allow demand facility owners, third parties and owners of power generating facilities from conventional and renewable energy sources as well as owners of energy storage units to become balancing service providers;
 - (d) require that each balancing energy bid from a balancing service provider is assigned to one or more balance responsible parties to enable the calculation of an imbalance adjustment pursuant to article 49 of the EBGL
- (12) Pursuant to article 18(5) of the EBGL, these T&C BSP FCR shall contain:
 - (a) the rules for the qualification process to become a balancing service provider pursuant to article 16 of the EBGL;
 - (b) the rules, requirements and timescales for the procurement and transfer of balancing capacity pursuant to articles 32, 33 and 34 of the EBGL;

- (c) the rules and conditions for the aggregation of demand facilities, energy storage facilities and power generating facilities in a scheduling area to become a balancing service provider;
 - (d) the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO during the prequalification process and operation of the balancing market;
 - (e) the rules and conditions for the assignment of each balancing energy bid from a balancing service provider to one or more balance responsible parties pursuant to article 18(4)(d) of the EBGL;
 - (f) the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO to evaluate the provisions of balancing services pursuant to article 154(1), article 154(8), article 158(1)(e), article 158(4)(b), article 161(1)(f) and article 161(4)(b) of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter 'SOGL');
 - (g) the definition of a location for each standard product and each specific product taking into account article 18(5)(c) of the EBGL;
 - (h) the rules for the determination of the volume of balancing energy to be settled with the balancing service provider pursuant to article 45 of the EBGL;
 - (i) the rules for the settlement of balancing service providers defined pursuant to Chapters 2 and 5 of Title V of the EBGL;
 - (j) a maximum period for the finalisation of the settlement of balancing energy with a balancing service provider in accordance with article 45 of the EBGL, for any given imbalance settlement period;
 - (k) the consequences in case of non-compliance with the terms and conditions applicable to balancing service providers.
- (13) Pursuant to article 18(9) of the EBGL, ELIA shall monitor the fulfilment by all parties of the requirements set out in the T&C BSP FCR within its scheduling area.
- (14) Pursuant to articles 6(4)(b) and 40(5) of the SOGL, regarding the scope of data exchanges in articles 48.1(b), 52.2(c), 53.1 and 53.2 of the SOGL, ELIA requires from the concerned significant grid users in accordance with article 2 of the SOGL or from third parties participating in demand response for the FCR service no other data exchanges than those included in the T&C BSP FCR.
- (15) Pursuant to article 200 of the Federal Grid Code, Elia submits the Market functioning rules for the compensation of quarter-hourly imbalances (also referred to as "Balancing Rules") to the CREG for approval.
- (16) Should differences and/or contradictions exist between the Balancing Rules and the T&C BSP FCR, the latter shall prevail.

SUBMIT THE FOLLOWING T&C BSP FCR TO THE CREG

Article 1 **Subject matter and scope**

- (1) These T&C BSP FCR are the proposal developed by ELIA regarding the Terms and Conditions for balancing service providers for Frequency Containment Reserve pursuant to article 18(1) of the EBGL
- (2) The Balancing service provider Contract for the FCR Service is set out in Appendix to this proposal, including the definitions, general provisions and the provisions set out in article 18(4) and 18(5) of the EBGL.
- (3) Pursuant to article 5(4)(c) of the EBGL, this proposal should be submitted to the CREG for approval.
- (4) Pursuant to article 6(3) of the EBGL, ELIA and CREG may request amendments to these T&C BSP FCR.

Article 2 **Implementation Date**

- (1) These T&C BSP FCR will enter into force 1 month after the approval by CREG and not before July 1st, 2020.
- (2) Pursuant to article 155 of the SOGL Elia shall with the concerned balancing service providers organize prequalification tests to re-assess the qualification of FCR delivery points and FCR providing groups for which no qualification assessment took place in the last 5 years, and this at the latest within 2 years after the entry into force of these T&C BSP FCR.

Article 3 **Expected impact on the objectives of this Regulation**

- (1) The expected impact of the T&C BSP FCR on the objectives of the EBGL can be described as follows:
 - (a) Since these T&C BSP FCR will be applicable to all balancing service providers for FCR, and all market players will have access to the same reliable information at the same time and in a transparent manner as set out in article 12 of the EBGL, this will promote effective competition, non-discrimination and transparency in balancing markets as set out in article 3(1)(a) of the EBGL.
 - (b) The daily procurement of FCR Capacity via the regional platform and the daily submission of FCR Energy Bids with updates possible until Balancing Energy Gate Closure Time will enhance efficiency of balancing as well as efficiency of European and national balancing markets pursuant to article 3(1)(b) of the EBGL.

- (c) As the balancing service providers must put at disposal their available flexibility in accordance with article 226§1 of the Federal Grid Code, they will contribute to operational security pursuant to article 3(1)(c) of the EBGL. The procurement of FCR Capacity contributes to the consistent functioning of balancing markets pursuant to article 3(1)(d) of the EBGL.
- (d) The daily procurement of FCR Capacity at offered, market-based price and related online publication of relevant information before and after the organization of the auction ensure that the procurement of balancing services is fair, objective, transparent and market-based, avoid undue barriers to entry for new entrants, foster the liquidity of balancing markets while preventing undue distortions within the internal market in electricity pursuant to article 3(1)(e) of the EBGL.
- (e) The possibility to aggregate Delivery Points in FCR Energy Bids facilitates the participation of demand response including aggregation facilities and energy storage as well as the participation of renewable energy sources pursuant to articles 3(1)(f) and 3(1)(g) of the EBGL.

Article 4 Language

- (1) The reference languages for the T&C BSP FCR are Dutch and French. The T&C BSP FCR will be made available to market players in English for information and consultation purposes.

Article 5 General provisions

- (1) In these T&C BSP FCR, unless the context require otherwise:
 - (a) The singular indicates the plural and vice versa;
 - (b) References to one gender include all other genders;
 - (c) The table of contents, titles and headings in these T&C BSP FCR are for convenience only and do not affect their interpretation;
 - (d) The word “including” and its variations are to be construed without limitation;
 - (e) Any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

APPENDIX : BALANCING SERVICE PROVIDER CONTRACT FOR FCR SERVICE

Balancing Service Providers Contract for the Frequency Containment Reserve (FCR) Service

“BSP Contract FCR”

Contract Reference [ContractReference]

between

[Company], a company established under **[Country]** law with registered offices at **[Address]**, company registration number **[Number]** and validly represented by **[Name1]** and **[Name2]**, in their respective capacity of **[Role1]** and **[Role2]**;

hereinafter referred to as the “**[ServiceProvider]**” or as the “**BSP**”,

and

ELIA SYSTEM OPERATOR N.V./S.A., a company established under Belgian law with registered offices at Keizerslaan 20, B-1000 Brussels, registered at the Crossroad Bank for Enterprises under number 0476.388.378 and represented by **[Name1]** and **[Name2]**, in their respective capacities of **[Role1]** and **[Role2]**;

hereinafter referred to as “Elia” or “ELIA”,

Elia and the **[ServiceProvider]** may also hereinafter be referred to individually as “the Party” and collectively as “the Parties”.

Whereas:

- Elia is responsible for the operation of the Belgian transmission system over which it has an ownership right or, at least, a right of use;
- Elia has been appointed as Transmission System Operator, in accordance with the Belgian law of 29 April 1999 concerning the organisation of the electricity market and supervises the safety, reliability and efficiency of the transmission system;
- Elia must therefore safeguard operational security, frequency quality and the efficient use of the interconnected system and resource – in particular the service of Frequency Containment Reserve – in accordance with the relevant provisions of the European Regulations, such as the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing, the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation, and the Belgian legislation (articles 223 et seq. of Federal Grid Code);
- This BSP Contract FCR defines the mutual rights and obligations of ELIA and the Service Provider relating to the provision of FCR Services;
- This BSP Contract FCR falls under the Terms and Conditions for balancing service providers for the FCR Service.

the following points have been agreed:

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PART I - GENERAL CONDITIONS

[As specified in the T&C BSP FCR, the General Conditions have been subject to a separate [public consultation](#) given that these will apply for all Terms and Conditions that are and will be proposed by Elia to the competent regulatory authority(ies). As a consequence the General conditions are not open to comments anymore, unless if the respondent believes (and upon motivation) it is necessary to deviate in Part II from one or more of the General conditions of Part I given the specific context of the contract concerned.]

TITLE 1: GENERAL CONDITIONS

ART. I.1 DEFINITIONS

Except where there is further specification aimed at application for the purposes of the present Contract, and without ignoring the stipulations of public order, the concepts defined in the Electricity Act, the electricity decrees and/or ordinances in relation to the organization of the electricity market and/or the various applicable Grid Codes and EU network codes and guidelines, as amended from time to time, are also included for the purposes of the Contract in the sense of these statutory or regulatory definitions.

In addition, the following definitions apply for the purposes of the Contract:

Annex	Any annex to the present Contract;
Article or Art.	Any article of the present Contract;
CACM	The Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
Contract	The present Contract, including its Annexes;
CREG	The Commission for Electricity and Gas Regulation, i.e. the Belgian national regulatory authority;
Direct Damage	Any damage, with the exclusion of Indirect Damage, directly and immediately resulting from any contractual breach and/or fault within the framework of or as a result of the execution of the Contract, on any grounds whatsoever (contractual or extra-contractual). The said fault being one, which under similar circumstances, an experienced, professional Service Provider or TSO, respectively, acting according to the rules and taking all reasonable precautions would in no case have committed;
EBGL	The Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing;
Electricity Act	The Belgian law of 29 April 1999 concerning the organisation of the electricity market (« Loi du 29 avril 1999 relative à l'organisation du marché de l'électricité, M.B. 11.05.1999 » / « Wet van 29 april 1999 betreffende de organisatie van de elektriciteitsmarkt, B.S. 11.05.1999 »), as amended from time to time;
E&R NC	Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration;
General Conditions	Part I to the present Contract. The General Conditions are identical in the following contracts for ancillary services to be concluded by Elia: the contracts for balancing services (BSP – “Balancing Service Provider” contracts for FCR – “Frequency Containment Reserve”, aFRR “automatic Frequency Restoration Reserve” and mFRR – “manual Frequency Restoration Reserve”), the contracts for restoration services (RSP – “Restoration Service Provider”), the contracts for voltage and reactive power control services (VSP – “Voltage Service Provider”) and the contracts for

	services related to congestion management (OPA – “Outage Planning Agent” and SA – “Scheduling Agent”);
Grid Codes	The Federal Grid Code for Transmission (adopted in the form of royal decree on the basis of article 11 of the Electricity Act – currently the “Arrêté royal du 22 avril 2019 établissant un règlement technique pour la gestion du réseau de transport de l’électricité et l’accès à celui-ci, <i>M.B. 29.04.2019</i> ” / “Koninklijk besluit van 22 april 2019 houdende een technisch reglement voor het beheer van het transmissienet van elektriciteit en de toegang ertoe, <i>B.S. 29.04.2019</i> ”), as amended from time to time, and the grid codes for local and regional transmission, as amended from time to time;
Indirect Damage	Any indirect damage or consequential damage, such as, but not limited to loss of revenue, loss of profit, loss of data, loss of business opportunities, loss of (prospective) clients, missed savings;
Law of 2 August 2002	The Law of 2 August 2002 against payment arrears in commercial transactions (“Loi du 2 août 2002 concernant la lutte contre le retard de paiement dans les transactions commerciales, <i>M.B. 7.08.2002</i> ” / “Wet betreffende de bestrijding van de betalingsachterstand bij handelstransacties, <i>B.S. 7.08.2002</i> ”), as amended from time to time;
Service(s)	The service(s) and tasks as described in the Specific Conditions of the present Contract and as provided by the Service Provider;
Service Provider	The Service Provider as identified on the first page of the present Contract;
SOGL	The Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation;
Specific Conditions	Part II of the present Contract, supplemented by any Annexes;
Terms and Conditions	The terms and conditions as required by, and developed in accordance with, the applicable European regulations. The present Contract constitutes an appendix to the Terms and Conditions as identified in the Whereas section of the present Contract;
Working Day	Any calendar day except for Saturday, Sunday and Belgian public holidays.

ART. I.2 SCOPE OF SERVICES AND CONTRACTUAL STRUCTURE

I.2.1 Scope of Services

By the signature of the present Contract, the Service Provider undertakes to provide the Service(s) in accordance with the General and Specific Conditions as provided for in this Contract.

The present Contract between the Parties lays down their mutual rights and obligations in relation to the procurement by Elia from the Service Provider and the eventual provision by the Service Provider to Elia of the Service(s).

I.2.2 Structure of the Contract

The present Contract is composed of a first part containing the General Conditions and of a second part containing the Specific Conditions for the Services, supplemented by any Annexes.

The Parties shall ensure that the proper performance of this Contract is always based on the existence and proper performance of the requisite contractual agreements, if any, with third parties involved.

ART. I.3 ADDITIONAL RULES OF INTERPRETATION

By signing this Contract, the Service Provider explicitly renounces to apply its own general conditions, special or otherwise, regardless of the time when they were issued or the form of their issuance.

The substantiation in this Contract of a specific obligation or stipulation listed in the applicable legislation shall in no way be considered as derogating from the obligations or stipulations which, under the applicable legislation, must be applied to the relevant situation.

In this Contract, including its annexes, unless the context require otherwise:

- The singular indicates the plural and vice versa;
- References to one gender include all other genders;
- The table of contents, titles and headings in this Contract are for convenience only and do not affect their interpretation;
- The word “including” and its variations are to be construed without limitation;
- Any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

ART. I.4 ENTRY INTO FORCE AND DURATION OF THIS CONTRACT

I.4.1 Entry into force of this Contract

This Contract shall enter into force once it has been validly signed by all Parties, provided the Terms and Conditions to which this Contract relates have already entered into force. Otherwise, this Contract shall enter into force, once validly signed by all Parties, on the implementation date of such Terms and Conditions.

Once this Contract has entered into force between the Parties, the Parties shall be bound by the General Conditions as detailed under Part I and the Specific Conditions as detailed under Part II of this Contract, supplemented by any annexes. This is without prejudice to the fact that Part II might foresee a later start date for the provision of certain Services.

Part I - General Conditions

Once this Contract has entered into force between the Parties, it supersedes all previous agreements and documents exchanged between the Parties relating to the same subject matter.

I.4.2 Duration of the Contract

Without prejudice to Art. I.11 and without prejudice to the applicable legislation and regulations, the duration of this Contract is specified in Part II on the Specific Conditions.

ART. I.5 INVOICING AND PAYMENT

I.5.1 Invoicing matters – General instructions

Without prejudice to specific instructions regarding invoicing matters as may be provided for under the Specific Conditions of this Contract, each invoice sent under this Contract shall include at least the following items:

- 1) Full name and address of both the invoicing Party and the invoiced Party;
- 2) VAT number of both the invoicing Party and the invoiced Party;
- 3) Invoiced amount, valued in euro;
- 4) Bank account and bank address (including IBAN and BIC) on which the relevant payment shall be made;
- 5) Invoice number;
- 6) Invoice issue date;
- 7) Designation of the Service and the period on the invoice;
- 8) Tax rate and tax amount separately, if any;
- 9) Specific constraint for invoicing, required by article 226 of Directive 2006/112/CE, if any, e.g. indication of the reference to the applicable provision of the Directive where the supply of services is subject to the VAT reverse charge procedure;
- 10) Reference if required by the invoiced Party;
- 11) Payment term in accordance with Art. I.5.2 hereafter; and
- 12) Specific items as listed in any invoicing section provided for under the Specific Conditions of this Contract.

The absence of one of the abovementioned stipulations shall nullify the invoice and render it valueless. In such a case, the invoiced Party reserves the right to return the invoice to the invoicing Party within a period of 15 (fifteen) Working Days. Returning the invoice in this way shall constitute rejection of the invoice, without any other reaction from the invoiced Party being necessary. Failure by the invoicing Party to observe the abovementioned stipulations regarding invoicing will give rise to an incorrect invoice, which will be the subject of a credit note to invoiced Party. The invoicing Party may then send a new and corrected invoice.

Part I - General Conditions

I.5.2 Payment matters

Payments will be made within 30 calendar days following the end of the month in which the invoice is received (this is the due date of the invoice). The invoiced Party shall pay the invoicing Party by direct transfer to the stated bank account. Within the scope of this Article, an invoice will be considered received on the third Working Day following the date when the invoice was sent (postmark will serve as proof in case of a paper invoice sent by post – in case of an electronic invoice the date the invoice was submitted in the electronic system or sent by email will apply).

Any objection regarding the amount of an invoice must, in order to be admissible, be sent by registered letter to the invoicing Party before the due date of the disputed invoice as set above. The reasons for the objection shall be described as comprehensibly and in as much detail as is reasonably possible. If the value of the invoice is disputed, the undisputed part of the invoice shall still be paid. The Parties will discuss in good faith in order to reach an agreement on the disputed amount of the invoice within thirty (30) Working Days of the receipt of the registered letter, failure of which Art. I.13 will apply.

The amount subject of an objection shall be paid within 30 calendar days following the end of the month in which 1) the agreement is reached in respect of the dispute or 2) the decision has been adopted by which the dispute is definitively settled between the Parties according to Art.I.13. The Parties undertake not to invoke the exception of non-performance (“exceptio non adimpleti contractus”) in order to suspend the performance of their respective obligations during the dispute.

I.5.3 Interest for delayed payment

Late payment will automatically and without notice of default incur interest on the total amount of the invoice as specified in article 5 of the Law of 2 August 2002 from the day following the due date, up to and including the day when payment in full is made.

ART. I.6 LIABILITY

I.6.1 General principles

Without prejudice to any obligation of result provided for under this Contract (such as confidentiality and payment obligations), as the case may be, and without prejudice to the application of a penalty system as provided by the Contract, the provision of the Services by the Service Provider is an obligation of means (“middelenverbintenis – obligation de moyens”).

The Parties shall do their utmost effort, during the lifetime of the Contract, to prevent damage by one Party to the other and, as the case may be, to limit it.

I.6.2 Direct Damages

The Parties to this Contract shall be liable to one another for any Direct Damage. The Party in breach and/or at fault will indemnify the other Party and compensate it for any Direct Damage, including for claims by third parties in relation to such Direct Damage. Except in a case of deception or deliberate fault, the Parties will under no circumstances be liable to the other Party for compensating or indemnifying the other Party, including for claims by third parties, for Indirect Damage.

I.6.3 Process

As soon as one of the Parties has knowledge of any claim to pay compensation, including a claim for compensation arising from a claim by a third party, for which the latter might institute proceedings against

the other Party, that Party shall inform the other Party thereof without delay. This notification shall be made by means of a registered letter, mentioning the nature of the claim, the amount thereof (if known) and the method of calculation – all in reasonable detail and with reference to the legislative, regulatory or contractual provisions on which the claim might be based. In case of third party claim, the defaulting Party shall fully cooperate with the defending Party in such response and defense as reasonably required.

I.6.4 Caps

Any compensation due, as the case may be, by any Party is in any case limited to a maximum of twice the value of the Contract per year irrespective of the number of claims, the amount of which cannot exceed €12.5 million (twelve and a half million Euro) per year and per Party. This cap is without prejudice to the caps applicable for contractual third party claims.

ART. I.7 EMERGENCY AND FORCE MAJEURE

I.7.1 Emergency Situation

In case of an emergency situation (as defined in the applicable legislation and regulations), Elia is entitled and/or obliged to take all the measures provided for in the applicable legislation and regulations. In case of contradictions with the provisions of this Contract, such measures as foreseen in the applicable legislation and regulations shall prevail on the rights and obligations of this Contract.

I.7.2 Alert, Emergency, Black-out and Restoration state

When the system is in alert, emergency, black-out or restoration state (as defined in the applicable legislation and regulations¹), Elia is entitled and/or obliged to take all the measures provided for in the applicable legislation and regulations, including under certain circumstances the suspension of market activities as provided for in the applicable legislation and regulations. In case of contradictions with the provisions of this Contract, such measures as foreseen in the applicable legislation and regulations shall prevail on the rights and obligations of this Contract.

I.7.3 Force Majeure

Without prejudice to the rights and obligations of the Parties in the cases as referred to under Art. I.7.1 and 1.7.2, and as defined in the applicable legislation and/or regulations, and without prejudice to the application of the rescue and restoration provisions, as defined in the applicable legislation and/or regulations, the Parties will be discharged of their respective obligations under this Contract in a case of force majeure that prevents the performance of their obligations under this Contract, either partly or entirely, with the exception of the financial obligations that arose before the force majeure event. This suspension of the obligations will only last as long as the force majeure event.

The term “force majeure” shall mean, without prejudice to the definition of force majeure in applicable legislation and/or regulations, any unforeseeable or unusual event or situation beyond the reasonable control of a Party, and not due to a fault of the Party, which cannot be avoided or overcome with reasonable foresight and diligence, which cannot be solved by measures which are from a technical, financial or economic point of view reasonably possible for the Party, which has actually happened and is objectively

¹ Including article 72 of CACM; article 16.2 of the Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 and article 16.2 of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity.

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verifiable, and which makes it impossible for the Party to fulfil, temporarily or permanently, its obligations in accordance with this Contract and which occurred after conclusion of the Contract.

The application of market mechanisms, such as imbalance prices or the application of high prices in a normal market state, cannot be qualified as force majeure.

The following situations, among others, will be considered as force majeure, but only if they comply with the conditions for force majeure as provided for in the second paragraph of Art. 1.7.3:

- natural disasters arising from earthquakes, floods, storms, cyclones or other climatologically exceptional situations recognized as such by a public authority habilitated for this;
- a nuclear or chemical explosion and its consequences;
- exceptional hazards (or "hors catégorie" hazards) during which the sudden unavailability of elements of the grid or of an electricity production unit is caused by reasons other than aging, lack of maintenance or qualification of the operators; including the unavailability of the IT system, whether or not caused by a virus, when all preventive measures have been taken considering the state of the art ;
- the temporary or continuing technical impossibility for the grid to exchange electricity because of disruptions within the control area caused by electrical currents resulting from energy exchanges within another control area or between two or more other control areas and of which the identity of the market participants involved in those energy exchanges is unknown by Elia and which Elia could not reasonably be expected to know;
- the impossibility to operate the grid, installations that from a functional point of view are part of it, or installations of the Service Provider, due to a collective dispute that gives rise to a unilateral measure by employees (or groups of employees) or any other labour dispute;
- fire, explosion, sabotage, acts of terrorism, acts of vandalism, damage caused by criminal acts, criminal coercion and threats of a similar nature or acts having the same consequences;
- state of war (declared or not), threat of war, invasion, armed conflict, blockade, revolution or uprising; and
- The situation in which a competent authority invokes urgency and imposes exceptional and temporary measures on the system operators and/or grid users, such as measures needed in order to maintain or restore the safe and efficient operation of the grids, including the order to shed load in case of a shortage.

The Party that invokes a situation of force majeure shall inform the other Party as soon as possible, by phone and/or by mail, of the circumstances following which it cannot fulfil its obligations, either wholly or in part, how long such non-fulfilment might reasonably be expected to last, and of the measures it has taken to counteract the situation.

Nevertheless, the Party that invokes a situation of force majeure shall do everything possible to limit the consequences of the non-fulfilment of its obligations towards the other Party, the transmission system and third parties and to once again fulfil its obligations.

If the period of force majeure persists for 30 (thirty) successive days or more, and a Party, as a result of the force majeure situation acknowledged by both Parties, is unable to fulfil its essential obligations of the Contract, the other Party may terminate the Contract with immediate effect by a reasoned registered letter.

ART. I.8 CONFIDENTIALITY

I.8.1 No divulgence of confidential information

The Parties and/or their employees shall treat any information that they exchange with one another within the framework or in relation to the Contract in the strictest confidence and not divulge it to third parties unless at least one of the following conditions is met:

- if one of the Parties is called to give evidence in court or in their relations with the competent regulatory, administrative and judicial authorities. The Parties shall, as far as possible, inform each other of the situation in advance, and will reach an agreement concerning the form and content of the communication of this information;
- if a prior written agreement has been obtained from the Party issuing the confidential information;
- with regard to Elia, in consultation with operators of other grids or within the framework of contracts and/or rules with the foreign grid operators or regional security coordinators/regional coordination centers, insofar as necessary and where anonymization is not possible and insofar as the addressee of that information undertakes to accord the same degree of confidentiality to that information as that accorded by Elia;
- if such information is easily and normally accessible or available to the public;
- if the divulgence of such information by a Party to persons such as subcontractors and/or their employees and/or their representatives and/or regional security coordinators/regional coordination centers is essential for technical or safety reasons, insofar as those addressees are bound by rules of confidentiality that appropriately guarantee the protection of confidentiality;
- if the information is already legally known by a Party and/or their employees and work agents at the time of transmission, and which has not been communicated by the notifying Party, prior to the transmission, directly, indirectly, or by a third party by breaching an obligation of confidentiality;
- the information which, after transmission, has been brought to the attention of the recipient Party and/or its staff and work agents via a third party, without breaching an obligation of confidentiality with regard to the notifying Party;
- the divulgence of the information is foreseen by applicable legislation and/or regulation;
- the divulgence of aggregated and anonymized information and data.

This Article is without prejudice to the specific provisions on confidentiality obligations regarding the operator of the Belgian electricity transport network (at both federal and regional levels) imposed by the applicable legislation and regulation.

A Party must not, for reasons of confidentiality, refuse to divulge information that is essential and pertinent to the implementation of the Contract. The other Party to whom such information is communicated guarantees that it will maintain the confidential nature thereof.

The Service Provider declares and guarantees that the confidential information will only be used for the purposes of establishing the bid/performance of the Services and not for other purposes.

Both Parties shall take the requisite measures to ensure that this confidentiality obligation shall also be strictly observed by their employees, as well as any person who, without being an employee of one of the Parties but for whom that Party is nonetheless responsible, might properly receive such confidential information. In addition, confidential information shall only be divulged on a "need-to-know" basis, and reference will always be made thereby to the confidential nature of the information.

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I.8.2 Infringements to confidentiality obligations

Any infringement to this confidentiality obligation shall be considered as serious misconduct by the Party that violates that obligation. Such infringement shall give rise to the payment of compensation for any Direct and Indirect, material and immaterial damage (in deviation from Art. I.6.2) that the other Party can reasonably demonstrate, subject to the caps of Art. I.6.4.

I.8.3 Ownership

Each of the Parties shall maintain full ownership of that confidential information, even when it has been divulged to other Parties. The transmission of the confidential information does not entail any transfer of property nor of any other right other than those mentioned in the Contract.

I.8.4 Duration

Without prejudice to the applicable legislation and regulations, the aforementioned confidentiality obligations remain in force for a period of 5 (five) years after termination of the Contract.

I.8.5 Phone recordings

The Parties agree that real-time telephone communications will be recorded at their respective dispatching centers. The Parties accept the need for this communication to be recorded and the principle underpinning it. As regards probative value, the Parties acknowledge that the recordings of these communications shall be admissible as proof in the event of a dispute settlement relating to this Contract. Both Parties shall notify their respective staff about the existence and/or possibility of recordings as well as about the existence and/or possibility of recordings by the other Party.

ART. I.9 OBLIGATION OF INFORMATION

The Parties undertake, for the duration of this Contract, to inform one another as soon as possible of any event or information that the Party who has knowledge thereof must reasonably consider as an event or information that might have a detrimental effect on the Contract or on the fulfilment of the obligations specified in the Contract towards the other Party.

ART. I.10 REVIEW

I.10.1 Amendments to the main body of this Contract (General and Specific Conditions) and generally applicable Annexes

This Contract can only be modified in the course of the process for amendments to the Terms and Conditions to which it relates and following the processes foreseen therefor in the applicable regulations and legislations.

After approval by the CREG of the amendments to the Contract, including the proposed date of entry into force, these amendments shall enter into force, as will be indicated in the implementation plan of the amended Terms and Conditions and as confirmed in the notification via registered mail with acknowledgement of receipt, sent by Elia to the Service Provider in case the amendments would apply to existing contractual relationships for the subject matter which is ruled by this Contract, but however not earlier than 14 days after such notification.

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Without prejudice to the competences of the competent authorities and without prejudice to the applicable legislation and regulations, in case the Service Provider does not agree with the amendments that would be applicable to the Contract currently in force, the Service Provider may terminate the Contract.

I.10.2 Amendments to party-specific Annexes

Without prejudice to obligations imposed by the applicable legislation and regulations, any Annex containing party-specific information can be modified in writing after agreement by both Parties (but only for the party-specific information itself).

Any modification to the contact information taken up under the relevant Annex to this Contract (i.e. contact person, address, e-mail, phone and fax numbers) must be communicated to the other Party no later than 7 (seven) Working Days before the date on which that modification comes into effect. Both Parties shall keep the contact details as provided for under that Annex up to date throughout the validity of the Contract. These exchanges and updates can be done via e-mail and do not require a formal written amendment process of the Contract.

ART. I.11 PREMATURE DISSOLUTION IN CASE OF SERIOUS DEFAULT

The Contract may be suspended or terminated unilaterally by one of the Parties (the 'impacted Party') without judicial intervention if the other Party (the 'defaulting Party') does not rectify a serious breach or fault within 15 (fifteen) Working Days after the defaulting Party has received a registered letter with proof of receipt in which the serious breach or fault is mentioned and in which that Party was notified that the Contract would be suspended or terminated without any further notice if the aforementioned serious breach or fault is not fully rectified within the stated deadline. The deadline of 15 (fifteen) Working Days can be extended by the impacted Party. The Contract will be suspended or terminated subject to the reserve of any legal action available to the Party not in default against the defaulting Party, including a claim for damages.

ART. I.12 MISCELLANEOUS CLAUSES

I.12.1 Waiver

The fact that one of the Parties renounces permanently or temporarily to the application of one or more clauses of the Contract may under no circumstances be considered as a renunciation of the rights of that Party arising from that particular clause or those clauses.

I.12.2 Entire agreement

Without prejudice to the application of the relevant legislation and regulations, the Contract comprises the entire agreement concluded between the Parties and includes all the agreements made by the Parties regarding the subject matter thereof.

I.12.3 Notices

Any notification, as required under the Contract, will be made in writing (including e-mail) except if otherwise provided for in accordance with the provisions of this Contract.

The exchange of information for the performance of the Contract shall be directed to the respective contact persons of the Parties as provided for under the relevant Annex.

I.12.4 Transfer of rights

The rights and obligations specified in the Contract may under no circumstances be transferred, either wholly or in part, without the prior written permission of the other Party (except for transfers to undertakings affiliated to Elia in the sense of article 1:20 of the Belgian Code of Companies and Associations for which no such permission shall be required). That permission shall not be refused or postponed unreasonably.

I.12.5 Severability

On condition that this has no effect on the subject of the Contract itself, the invalidity of one or more clauses in the Contract shall not affect the validity, interpretation and/or implementation of the other clauses of the Contract.

If one or more clauses of the Contract have to be declared invalid or impossible to implement, the review process foreseen under Art. I.10 shall be followed.

ART. I.13 APPLICABLE LAW – RULES REGARDING DISPUTES

The Contract is governed by and interpreted according to Belgian law.

Any dispute relating to the conclusion, validity, interpretation or execution of the Contract or of any subsequent contracts or operations that may arise therefrom, as well as any other dispute concerning or in relation to the Contract shall, at the discretion of the more diligent Party, be presented to:

- the jurisdiction of the Brussels Enterprise Court; or
- the mediation/conciliation and arbitration service organized by the regulator concerned in accordance with the applicable legislation and regulations; or
- an ad hoc arbitration in accordance with the provisions of the Belgian Judicial Code.

In view of the complex relationships, the Parties hereby agree, in order to facilitate the application of the rules regarding coherence or intervention, either – in the case of related disputes – to renounce any arbitration proceedings for the purpose of intervening in another judicial procedure, or – conversely – to renounce a judicial procedure for the purpose of taking part in multi-party arbitration. In the case of dissension, preference will be given to the procedure introduced first.

PART II - SPECIFIC CONDITIONS

TITLE 1: DEFINITIONS

ART. II.1 DEFINITIONS

Except where there is further specification aimed at application for the purposes of the BSP Contract FCR, and without ignoring the stipulations of public order, the concepts defined in the General Conditions, the Electricity Act, the electricity decrees and/or ordinances in relation to the organization of the electricity market and/or the various applicable Grid Codes and EU network codes and guidelines, as amended from time to time, are also included for the purposes of the BSP Contract FCR in the sense of these statutory or regulatory definitions.

In addition, the following definitions apply for the purposes of the BSP Contract FCR:

Access Contract	As defined in article 2 §1 8° of the Federal Grid Code;
Access Point(s)	As defined in article 2 §1 29° of the Federal Grid Code for an access to the transmission grid of ELIA. For an access to the ELIA Grid other than transmission grid, or to a Public Distribution Grid, or to a CDS: a point, defined by physical location and voltage level, at which access to the ELIA Grid other than transmission grid, or to a Public Distribution Grid, or to a CDS is granted, with a goal to injecting or taking off power, from an electricity generation unit, a consumption facility, a non-synchronous storage facility, connected to this grid;
Alert State	As define in article 3(17) of the SOGL;
Automatic Frequency Restoration Reserve or "aFRR"	As defined in article 3(99) of the SOGL;
Balance Responsible Party or "BRP"	As defined in article 2(7) of the EBGL and listed in the register of Balance Responsible Parties;
Balancing Rules	A document, approved by the CREG, describing the market operation rules for the compensation of quarter-hourly imbalances, pursuant to article 200 §1 of the Federal Grid Code;
Balancing Services	As defined in article 2(3) of the EBGL;
Balancing Service Provider or "BSP"	The Balancing Service Provider, as defined in article 2(6) of the EBGL, and identified on the first page of the BSP Contract FCR;
Bidding Obligations for FCR Capacity Bids	The obligations to be respected by the BSP when submitting FCR Capacity Bids;
BRP Contract	The contract concluded between ELIA and the BRP pursuant to articles 219 and 220 of the Federal Grid Code;

Part II - Specific Conditions

BRP _{source}	The Balance Responsible Party of the Access Point of the Grid User;
BSP Contract FCR	Balancing service provider contract for the Frequency Containment Reserve;
BSP-DSO Contract	An agreement between the BSP and DSO allowing the BSP to provide the FCR Service to ELIA with the Delivery Points listed in the corresponding BSP-DSO Contract;
Capacity Contracting Time Unit or "CCTU"	A period of 4 hours for which the FCR Capacity Bids offered by the BSP to ELIA can be activated. A single capacity auction is performed per CCTU;
CDS	As defined in article 2 §1 3° of the Federal Grid Code. For the purpose of these Specific Conditions, CDS refers to CDS connected to the ELIA Grid;
CDS Operator or "CDSO"	A natural or legal person appointed by the relevant authority as the operator of the CDS;
CIPU Contract	The contract for the Coordination of Injection of Production Units concluded with ELIA, or any other regulated contract(s) that will replace the CIPU Contract, in accordance with the dispositions in article 377 of the Federal Grid Code;
Core Share	The part of FCR Obligation that TSO must procure from Technical Units physically inside their LFC Block as defined in Annex VI of SOGL.
Counterpart BSP	The party, holding a valid BSP Contract FCR, with whom the BSP concludes a Transfer of Obligation;
Daily Schedule	The program of production of a Technical Unit (in MW), given on a quarter-hourly basis ² , provided to ELIA in day-ahead and updated in accordance with the rules of the CIPU Contract;
Day	Period of one Day starting at 00:00 CET morning until 24:00 CET;
Delivery Point	A point on an electricity grid or within the electrical facilities of a Grid User, where a Balancing Service or strategic reserve service is delivered. This point is associated with one or several metering(s) and/or measurements, according to dispositions of the BSP Contract FCR, that enable(s) ELIA to control and assess the delivery of the FCR Service;

² As described in the procedure "nomination" and "exploitation" in the CIPU Contract

Delivery Point with Limited Energy Reservoir	A Delivery Point for which the FCR full activation for the time frame contracted by ELIA might, even in case of an active energy reservoir management, lead to a limitation of its capability to provide the full FCR activation due to the depletion of its energy reservoir(s) taking into account the effective energy reservoir(s) available at the beginning of that time frame.
Delivery Point DP_{PG} or “ DP_{PG} ”	Delivery Point for which ELIA does not receive Daily Schedules;
Delivery Point DP_{SU} or “ DP_{SU} ”	Delivery Point for which ELIA receives Daily Schedules (in MW), in accordance with the CIPU Contract;
DP_{AV} Margin	The available margin (in MWh) of a Delivery Point with Energy Limited Reservoir that indicates the remaining energy available for provision of the FCR Requested;
$DP_{ch/dch}$	The power used for charging/discharging (in MW) of a Delivery Point with Energy Limited Reservoir. This value is positive (respectively negative) for charging (respectively discharging) and sent for each Time Step;
DP_{FCR}	Binary value indicating whether a Delivery Point DP_{SU} is participating to the provision of the FCR Requested. The value is set to 1 if the Delivery Point participates to the provision of the FCR Requested and 0 otherwise;
$DP_{FCR,cb}$	For each Frequency Band, 8 in total, the contribution (in MW) of a Delivery Point to the Pool supplying FCR Capacity. This value is positive or zero and may differ amongst Frequency Bands;
$DP_{FCR,max,down}$	The minimum FCR Power (in MW) that can be supplied by a Delivery Point downwards. This value is negative;
$DP_{FCR,max,up}$	The maximum FCR Power (in MW) that can be supplied by a Delivery Point upwards;
$DP_{measured}$	The net active power, i.e. the difference between gross offtake and gross injection measured at a Delivery Point per Time Step. Net offtake from the Elia Grid is considered as a positive value, net injection into the Elia Grid is considered as a negative value;
ELIA Grid	The electricity grid to which ELIA holds the property right or at least the right of using and operating it, and for which ELIA has been appointed as system operator;
Energy Management Strategy	The strategy declared by the BSP with which proof is provided on the ability of the Pool to deliver the FCR Obligation, in accordance with Article 156 of the SOGL;

ENTSO-E	European Network of Transmission System Operators for Electricity;
FCR Awarded	The quantity of the FCR Capacity (in MW) awarded to the BSP in capacity auctions for a certain CCTU;
FCR Balancing Energy Gate Closure Time or "FCR Balancing GCT"	The Balancing Energy Gate Closure Time, as defined in article 2(27) of the EBGL, for the FCR Service. The FCR Balancing GCT is 45 minutes before the beginning of the concerned quarter-hour;
FCR Capacity	A volume of balancing capacity, as defined in article 2(5) of the EBGL, in the framework of the FCR Service;
FCR Capacity Bid	A combination of an offered volume (in MW) and a price (in €/MW), allowing ELIA to procure the FCR Capacity for a defined CCTU;
FCR Capacity Gate Closure Time or "FCR Capacity GCT"	The point in time as of which submission (or update) of an FCR Capacity Bid is no longer permitted;
FCR Capacity Gate Opening Time or "FCR Capacity GOT"	The point in time as of which submission (or update) of a FCR Capacity Bid can start;
FCR Energy Bid	A volume (in MW), submitted by the BSP to ELIA for activation;
FCR _{max}	The maximal volume (in MW) of FCR that can be offered by the BSP in capacity auctions;
FCR Made Available	The quantity of FCR Capacity (in MW) made available to ELIA by the BSP through submission of FCR Energy Bid(s);
FCR Missing MW	The difference (in MW) between FCR Capacity Requested for a capacity availability test and the FCR Supplied by the BSP;
FCR Missing Time	The failure time (in seconds) of an energy availability test;
FCR Obligation	The sum of FCR Awarded and accepted Transfers of Obligation of the FCR Service;
FCR Power	A quantity of FCR Service expressed in MW;
FCR Capacity Requested	The FCR Power requested (in MW) by Elia to a BSP during an availability test. This value is positive;

FCR Requested	The FCR Power (in MW) requested for activation at a certain Time Step in function of the Frequency Deviation. This value is positive when the Frequency is lower than 50 Hz and negative when the Frequency is higher than 50 Hz
FCR Service	The Balancing Service that is governed by the BSP Contract FCR, comprising the provision of FCR Capacity and FCR Energy Bids;
FCR Supplied	The quantity of FCR Power (in MW) physically supplied by the BSP to ELIA. This value is positive;
Forced Outage	An unplanned removal (full or partial) of a Technical Unit providing the FCR Service for any urgent reason that is not under the operational control of the BSP;
Frequency or "F"	The frequency of the transmission grid in Hz;
Frequency Containment Reserve or "FCR"	As defined in article 3 (6) of the SOGL;
Frequency Band	A Frequency Band of 50mHz over which the FCR Service is provided. There are 8 frequency bands ranging from 49,80Hz to 50,20Hz.
Frequency Deviation	A deviation in the Frequency, compared to 50,000Hz. It is considered positive in case the Frequency is larger than 50Hz and negative in case the Frequency is smaller than 50Hz.
Frequency Variation	A change of Frequency larger or equal to 40 mHz;
Grid User	As defined in article 2 §1 57° of the Federal Grid Code for a Grid User connected to the ELIA Grid or to a Public Distribution Grid; or as defined in article 2 §1 58° of the Federal Grid Code for a Grid User connected to a CDS;
Grid User Declaration	The official declaration of the Grid User provided to ELIA, containing proof of the agreement between the BSP and the Grid User to provide the FCR Service at one (or more) specific Delivery Point(s);
Injection	The injection of active power as measured at the Delivery Point. The term injection is used to designate a certain sense of energy flow and does not exclusively refer to the technical means with which FCR Service is provided;
Load –Frequency Control Block or "LFC Block"	As defined in article 3 (18) of the SOGL;

Part II - Specific Conditions

Manual Frequency Restoration Reserve or “mFRR”	Frequency Restoration Reserve (FRR), as defined in article 3 (7) of the SOGL, that can be activated manually;
Measurement Device	As defined in Art. 2 §1 (16) of the Federal Grid Code;
Month	Period starting at 00:00 CET the 1 st Day of the month until 24:00 CET the last Day of the month;
Normal State	As defined in Art. 3(5) of the SOGL;
Offtake	Value indicating the offtake of active power at a Delivery Point. The term offtake is used to designate a certain sense of energy flow and does not exclusively refer to the technical means with which FCR Service is provided;
Open Qualification Procedure	A qualification procedure in accordance with public procurement rules in which candidates for provision of the FCR Service are screened based on criteria set by ELIA in a publication on ted.europe.eu ;
Participating TSO	Any TSO having signed an agreement for participation in the Regional Procurement Platform;
Pool	The complete list of Delivery Points included by the BSP in the BSP Contract FCR or in the BSP-DSO Contract;
Private Measurement	The recording of measurements, as defined in Art. 2 §1 (13) of the Federal Grid Code, by means of a Private Measurement Device;
Private Measurement Device	Measurement Device not owned by ELIA;
Private Measurement Technical Info Checklist	Report demonstrating that the minimum technical requirements established by ELIA for the Private Measurement Devices are fulfilled;
Procedure For BSP Acceptance	Procedure to ensure the compliance of the BSP to all conditions required to participate in the FCR Service;
Procedure For Delivery Point Acceptance	Procedure to ensure the compliance of the Delivery Point to all conditions required to participate in the FCR Service;
Providing Group	Any subset of Delivery Points part of the Pool of the BSP;
Public Distribution Grid	As defined in article 2 §1 49° of the Federal Grid Code;

Public Distribution System Operator or “DSO”	A natural personal or legal entity appointed by the designated regional regulator or regional authority, who is responsible for the exploitation, the maintenance and, if necessary, the development of the Public Distribution Grid in a certain zone and, where applicable, for its interconnectors with other systems and who is responsible of guaranteeing the long-term ability of the Public Distribution Grid to meet reasonable demands for electricity distribution;
Regional Procurement Platform or Regional Platform	Procurement platform from which Participating TSO’s can procure necessary FCR volumes from balancing service providers coming from the LFC Blocks of Participating TSO’s. ELIA participates in this platform through Regelleistung;
SAFA	The Synchronous Area Framework Agreement (SAFA) develops the Synchronous Area Operation Agreement according to Article 118 of the SOGL;
Strategic Reserve Contract	A contract for strategic generation reserve or a contract for strategic demand reserve;
Supplier	As defined in article 2 15°bis of the Electricity Act;
Technical Pmax	A data that indicates the installed capacity (in MW) of a DP _{SU} , in line with articles 45 and 48 of the SOGL, as mentioned in the CIPU Contract;
Technical Unit	A facility connected within the LFC Block of ELIA;
Time Step or “ts”	A period of 1 second corresponding to the granularity of data exchange (e.g. DP _{measured});
Transfer of Obligation	Part or all of the quantity of FCR Awarded, that the BSP (respectively a Counterpart BSP) transfers to a Counterpart BSP (respectively the BSP);
Validity Period	As defined in article 2(33) of the EBGL;
Virtual Delivery Point	A Delivery Point, that is an aggregation of Technical Units, which has a FCR _{cb} inferior to 1,5MW;

TITLE 2: CONDITIONS FOR PARTICIPATION TO THE SERVICE

ART. II.2 CONDITIONS FOR BSP

- II.2.1 The BSP complies with conditions set forth in the Open Qualification Procedure as explained in Annex 1.A
- II.2.2 ELIA is entitled to evaluate, at any time during the validity period of the BSP Contract FCR, whether the BSP complies with the conditions mentioned in Art. II.2.1. For the avoidance of doubt, this does not entail any right for ELIA to physically access BSP assets but without prejudice to any other regulation, i.e. the Federal Grid Code, regarding access to the Grid User connection installations.
- II.2.3 If the BSP no longer complies with conditions in Art. II.2.1, ELIA will notify the BSP by registered letter. If the BSP remains uncompliant to these conditions 15 Working Days after reception of notification, the BSP Contract FCR will be terminated in accordance with Art. I.11 of the General Conditions. As a consequence, after termination of the BSP Contract FCR, the BSP must apply again to the Open Qualification Procedure and comply with requirements of Art. II.2.1 if he wishes to sign a new BSP Contract FCR with ELIA to renew his participation to the Service.
- II.2.4 The Parties shall ensure that the proper performance of the BSP Contract FCR is always based on the existence and proper performance of the requisite contractual agreements with third parties involved.

ART. II.3 CONDITIONS FOR DELIVERY POINTS

- II.3.1 A Delivery Point may be any Technical Unit or a group of Technical Units identified by a Measurement Device:
- at an Access Point connected to the ELIA Grid or to a CDS;
 - at an Access Point connected to the Public Distribution Grid;
 - within the electrical facilities of a Grid User downstream of an Access Point connected to the ELIA Grid or to a CDS;
 - within the electrical facilities of a Grid User downstream of an Access Point connected to the Public Distribution Grid.
- II.3.2 All Delivery Points must comply with the measurement requirements set forth in Annex 3.
- II.3.3 All Delivery Points must comply with the communication requirements set forth in Annex 3 10.C.
- II.3.4 All Delivery Points, as mentioned in Art. II.3.1 are related to Access Point(s) included in valid Access Contract(s) and are in the Perimeter of a BRP_{source} having a valid BRP Contract.
- II.3.5 Delivery Points DP_{SU} can only be part of the Pool of the BSP at the condition that the BRP_{source} holds a valid CIPU Contract for the concerned Delivery Points DP_{SU}³.

³ During the transition period in which the party that is appointed as BRP_{source} takes the role of outage planning agent and scheduling agent for the concerned Delivery Point DP_{SU} in compliance with article 377 of the Federal Grid Code, the same party undertakes the roles of the BSP and the BRP_{source}.

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- II.3.6 All Delivery Points, connected to the ELIA Grid or to a CDS, must have successfully completed the following elements of the Procedure For Delivery Point Acceptance:
- In case of Private Measurement: a Measurement Device Commissioning Test is completed, as specified in Annex 2.C.
 - In case the BSP is not the Grid User of concerned Delivery Point DP_{PG} : a Grid User Declaration is provided to ELIA, as specified in template of Annex 2.A;
- II.3.7 A Delivery Point must be capable of providing FCR Power in one or more Frequency Band(s).
- II.3.8 Each Delivery Point with Limited Energy Reservoirs should be included in the documented Energy Management Strategy (as described in Annex 2.D).
- II.3.9 The BSP and ELIA agree on the list of Delivery Points connected to the ELIA Grid or to a CDS in accordance with template provided in Annex 4. The BSP declares that all listed Delivery Points connected to the ELIA Grid or to a CDS are compliant with all applicable conditions, as per Art. II.3, and technically capable to provide the FCR Service.
- II.3.10 The agreed list of Delivery Points connected to the ELIA Grid or to a CDS, based on template in Annex 4, should at all times be kept up to date by the BSP.
- II.3.11 The agreed list of Delivery Points connected to the ELIA Grid or to a CDS may be modified by submitting an updated list, based on template in Annex 4, via e-mail to the contractual responsible as mentioned in Annex 15, under the following conditions:
- At the moment of the notification by the BSP, the Delivery Point(s) to be added must be in respect of all applicable conditions, pursuant to Art. II.3.
 - Following the request by the BSP of an update of Annex 4, ELIA disposes of 5 Working Days to approve the modifications and notify the approval (or reasons for rejection) to the BSP by e-mail to the contractual responsible, as per Annex 15.
 - The addition of a Delivery Point does not modify the FCR_{max} that can be offered by the BSP in capacity auctions. In order to increase the FCR_{max} , the BSP asks a prequalification test in accordance with Art. II.6.
 - The updated list of Delivery Points becomes effective no later than 5 Working Days following the notification of acceptance by ELIA. The exact date of entry into force is agreed between ELIA and the BSP.
 - In case of removal of a Delivery Point participating to FCR Service, ELIA will update the FCR_{max} that can be offered by the BSP in capacity auctions in accordance with dispositions of Annex 6.D.
 - The BSP is responsible to take, in due time, all actions necessary for technical integration, and ensures that the Delivery Point is operational at the agreed moment.
- II.3.12 For each Delivery Point, including Virtual Delivery Points, connected to the ELIA Grid or to a CDS, the following value in Annex 4 is determined as follows:
- the $DP_{FCR,cb}$ – relevant for participation to provision of the FCR Capacity bid and FCR Energy Bid – is determined by the prequalification test, pursuant to Art. II.6;
- In case a Delivery Point does not deliver any FCR Power for a certain Frequency Band, the BSP should indicate “N/A” for this Frequency Band in Annex 4.

Part II - Specific Conditions

II.3.13 A Delivery Point may be disqualified if the participation of the Delivery Point in the FCR Service jeopardizes the security of the ELIA Grid, the Public Distribution Grid or the CDS. In such a case, a sound justification is provided to the BSP and to the CREG.

ART. II.4 COMBINABILITY CONDITIONS

- II.4.1 A Delivery Point providing FCR Service cannot be a part of any Strategic Reserve Contract;
- II.4.2 A Delivery Point providing FCR Service may participate to a contract for aFRR and/or a contract for mFRR at the condition that the BSP is the same party;
- II.4.3 Any other Delivery Point, upstream or downstream of the Delivery Point supplying FCR Service, cannot be part of any other Balancing Service, including FCR Service itself, or Strategic Reserve Contract with ELIA, independently from the fact that the BSP is the same party. However, if the BSP of both Delivery Points is the same party, ELIA will tolerate the situation, for mFRR, at the condition that the BSP renounces to invoke any influence of the Balancing Service supplied downstream on the Balancing Service supplied upstream.

TITLE 3: COMMUNICATION TEST AND PREQUALIFICATION TEST

ART. II.5 COMMUNICATION TEST

- II.5.1 After signature of the BSP Contract FCR and before submission of any FCR Capacity Bid, the BSP must successfully complete the communication test as specified in Annex 5.
- II.5.2 The BSP must respect the requirements of the communication test at all times during the validity of the BSP Contract FCR. If the BSP no longer complies with these requirements, the BSP is temporarily excluded from the FCR Service starting from the moment of notification by ELIA. The BSP has to succeed a new communication test in order to be considered again by ELIA for the provision of the FCR Service by ELIA. If the non-compliance is observed for a period for which the BSP has an FCR Obligation, penalties described in Art. II.15.1, II.15.4 and II.15.6 apply.
- II.5.3 In case of non-respect of Art. II.5.1, the BSP is not allowed to participate in capacity auctions.
- II.5.4 The general liability regime organized by Art. I.6 of the General Conditions is applicable during the communication test.
- II.5.5 Both Parties can request regular communication tests to check whether the communication channels are operational.
- II.5.6 ELIA will not remunerate costs linked to communication tests.

ART. II.6 PREQUALIFICATION TEST

- II.6.1 Pursuant to article 159 of the SOGL, the BSP must perform the prequalification test as specified in Annex 6, prior to first participation in capacity auctions.
- II.6.2 Signature of the BSP Contract FCR and achievement of the communication test, as described in Art. II.5, are required before performance of a prequalification test.
- II.6.3 The outcome of the prequalification test(s), as provided by Annex 6, determines the FCR_{max} that can be offered to ELIA by the BSP in capacity auctions.
- II.6.4 Subject to conditions of Art. II.6.2, the BSP can request to perform a prequalification at any moment following provisions of Annex 6.
- II.6.5 The BSP may chose whether he wants to perform the prequalification test on its Pool or on a Providing Group, in accordance with the rules set forth in Annex 6, and taking into account that a Delivery Point can only be included in one prequalification test at the same time.
- II.6.6 A Delivery Point is not allowed to participate to provision of FCR Service while performing a prequalification test.
- II.6.7 All Delivery Points participating to provision of FCR Capacity must complete the prequalification test at least every 5 years, as foreseen in article 159(6) of the SOGL.
- II.6.8 The prequalification test will not be considered as an activation as described in Art. II.10
- II.6.9 The BSP is not remunerated for the prequalification test.
- II.6.10 The parties have the right to abort the prequalification test at any moment for security reasons. The party who takes the decision immediately informs the other party by phone call to the real-time contact, as per Annex 15 and by e-mail to the contractual responsible as per Annex 15. The e-mail should include the justification for suspension of the prequalification test.
- II.6.11 The general liability regime organized by Art. I.6 of the General Conditions is also applicable during the prequalification test.

TITLE 4: CAPACITY PROCUREMENT

ART. II.7 PROCUREMENT OF FCR CAPACITY

- II.7.1 During the validity period of the collaboration agreement between Participating TSO's, ELIA will procure the FCR Service per CCTU, including its Core Share on its LFC Block, from a Regional Procurement Platform together with other Participating TSO's.
- II.7.2 The BSP can participate to capacity auctions at the condition that:
- The BSP holds a valid BSP Contract FCR;
 - The BSP disposes of a non-zero FCR_{max}, pursuant to Art. II.6;
- II.7.3 The process, Bidding Obligations for FCR Capacity Bids, consequences of non-respect, rights and rules for capacity auctions, and awarding criteria for BSPs within ELIA's LFC Block are described in Annex 7.
- II.7.4 The FCR Capacity required for the synchronous area and the total volume of FCR Capacity to be procured by ELIA is determined according to section A-1 of SAFA.
- II.7.5 The Core Share, as well as other limits and requirements for the exchange of FCR within Continental Europe, are specified in Annex VI of the SOGL.
- II.7.6 The FCR Awarded is part of the FCR Obligation and consequently the BSP undertakes all necessary actions to provide the FCR Service for the applicable CCTU (without further action by ELIA).
- II.7.7 In case of observation of a bidding behavior that might prejudice market rules and/or fair competition, ELIA will request a sound justification to the BSP by e-mail to the contractual responsible, as per Annex 15. The BSP disposes of 10 Working Days to provide an answer to ELIA. If the provided justification is not satisfying, ELIA informs the BSP by registered letter to the contractual responsible and notifies the CREG. After discussion with the BSP and without satisfying justification of the bidding behavior, ELIA may decide, following consultation of the CREG, to exclude the BSP from capacity auctions for a certain period of time agreed between ELIA and the CREG;

ART. II.8 TRANSFER OF OBLIGATION

- II.8.1 The BSP can transfer in day-ahead or in intraday for a certain quarter-hour part or all of his FCR Obligation to one or several Counterpart BSP(s) holding a valid BSP Contract FCR to the date of the performance of the FCR Obligation.
- II.8.2 Similarly, the BSP may agree to make an additional quantity of FCR Capacity available to ELIA as a result of a Transfer of Obligation from a Counterpart BSP to the BSP.
- II.8.3 The BSP should at any time maintain his FCR Obligation available to ELIA either by providing its FCR Obligation by himself or by transferring part or all of its FCR Obligation in accordance with Art. II.8.1.
- II.8.4 The requestor party (being either the BSP or the Counterpart BSP) initiates the Transfer of Obligation. Once the other party (being either the Counterpart BSP or the BSP) has accepted the Transfer of Obligation, the status of concerned Transfer of Obligation becomes accepted. The procedure to be followed by the BSP and the Counterpart BSP in case of a Transfer of Obligation is described in Annex 8.
- II.8.5 When the Transfer of Obligation presents a status accepted, as per Art. II.8.4, ELIA adapts the FCR Obligation of the BSP and the Counterpart BSP for the applicable quarter-hours by:
- adding the volume transferred to the FCR Obligation of the party taking over the FCR Obligation;
 - reducing by the volume transferred the FCR Obligation of the party ceding the FCR Obligation.
- The BSP and the counterpart BSP undertake the necessary actions to provide the FCR Service for the applicable quarter-hours (without any action by ELIA).
- II.8.6 Consequently, the availability control, as per Art. II.12, and the activation control as per Art. II.13, the resulting penalties for non-compliance, as per Art. II.15, among other provisions, will be based on the amended FCR Obligation of the BSP and the Counterpart BSP, resulting from the Transfer(s) of Obligation.
- II.8.7 The remuneration for the FCR Awarded remains fixed, as per Art. II.14, irrespective of any Transfers of Obligation that the BSP has agreed with Counterpart BSP(s).
- II.8.8 ELIA will not grant any remuneration under Art. II.14 to the Counterpart BSP with whom the BSP has agreed a Transfer of Obligation.
- II.8.9 Without prejudice to Art.II.8.6, the conditions, financial or otherwise, of the Transfer of Obligation between the BSP and the Counterpart BSP are to be arranged between them. ELIA does not have to be informed nor involved in any decision in this respect beyond the observance of the rules laid down in Annex 8.
- II.8.10 Any dispute arising from a failure on the part of the BSP or the Counterpart BSP to comply with his commitments in the framework of the agreement under which they are bound to one another for the Transfer of Obligation will not be reported to ELIA nor arbitrated by ELIA.

ART. II.9 SUBMISSION OF FCR ENERGY BIDS

- II.9.1 The FCR Energy Bids for activation on Day D have to be submitted by the BSP to ELIA, taking into account Art. II.9.10, at the latest in day-ahead (Day D-1) at 15h, according to the rules set out in Annex 9.
- II.9.2 The duration of a FCR Energy Bid is defined by a multiple of quarter-hours, while its minimal duration is a single quarter-hour.
- II.9.3 A FCR Energy Bid can be updated until FCR Balancing GCT in accordance with the rules set forth in Annex 9.
- II.9.4 At FCR Balancing GCT, a FCR Energy Bid is a firm commitment by the BSP to supply the FCR Power.
- II.9.5 For each quarter-hour, the BSP may choose which Delivery Point(s), listed in Annex 4 or listed in the BSP-DSO Contract are included in the FCR Energy Bid, while complying with conditions set forth in Annex 9.
- II.9.6 A validation procedure for FCR Energy Bid, as described in Annex 9, is performed each time a (update of a) FCR Energy Bid is submitted to ELIA. In case of non-compliance with the validation procedure, the concerned FCR Energy Bid is automatically rejected by ELIA and the BSP is directly notified of FCR Energy Bid rejection as well as reason for the rejection.
- II.9.7 The BSP is responsible for the correctness and accuracy of his FCR Energy Bids. ELIA cannot be held responsible for any potential mistakes or errors in FCR Energy Bid submission.
- II.9.8 In case a Forced Outage occurs leading to a decrease of the volume offered in a FCR Energy Bid:
- the BSP makes best effort to inform ELIA of the impacted volume and corresponding estimated duration of the unavailability. The communication is performed by e-mail, according to the template of Annex 9, to ELIA real-time contact and copy to the contractual responsible, as per Annex 15, as soon as the BSP notices the Forced Outage;
 - the BSP immediately updates the impacted FCR Energy Bid, in accordance with Art. II.9.3.
- II.9.9 All requirements for the submission of a FCR Energy Bid are described in Annex 9.A and 9.B.
- II.9.10 For each quarter-hour, the sum of FCR Energy Bids should be equal to the FCR Obligation of the BSP.
- II.9.11 In case the total volume offered in the FCR Energy Bid submitted for a quarter-hour is not equal to the corresponding FCR Obligation for the concerned quarter-hour, following rules will apply:
- If the total volume submitted is lower than the FCR Obligation, FCR Made Available is equal to the volume submitted for the concerned quarter-hour.
 - If the BSP has not submitted any FCR Energy Bid, the FCR Made Available is zero for the concerned quarter-hour.
 - If the total volume submitted is higher than the FCR Obligation, the FCR Energy Bid will not be validated, leading to a situation similar to the case of no submission of FCR Energy Bid for the concerned quarter-hour.

Part II - Specific Conditions

- II.9.12 If, for one quarter-hour, the FCR Made Available is lower than the corresponding FCR Obligation for the concerned quarter-hour, ELIA will apply penalties as foreseen in Art.II.15.1
- II.9.13 In case a FCR Energy Bid is impacted by a Forced Outage, and pursuant to Art. II.9.8, after notification to ELIA of the Forced Outage, the BSP disposes of 4 hours to reconstruct the impacted FCR Obligation. Beyond this delay, ELIA applies penalties in accordance with Art.II.15.1.

TITLE 5: ACTIVATION**ART. II.10 ACTIVATION**

- II.10.1 In case of a Frequency Deviation during a CCTU for which a BSP has an FCR Obligation, the BSP will automatically activate the FCR Requested as defined in Annex 10.
- II.10.2 In accordance with Art. 154(7) of the SOGL, the activation of FCR Power cannot be artificially delayed and must begin as soon as possible after a Frequency Deviation. Until the entry into force of a common maximum duration before the activation of FCR Power⁴, a maximum duration of 2 seconds applies.
- II.10.3 In accordance with Art. 154 of the SOGL, the FCR Power to be activated in reaction to a Frequency Deviation rises linearly to reach 50 % of FCR Requested after 15 seconds and 100 % after 30 seconds, measured from the start of the Frequency Deviation.
- II.10.4 During Normal State, if the BSP holds a FCR Obligation for a certain CCTU, the BSP provides continuously the FCR Requested, as long as the Frequency Deviation persists, in accordance with Art. 156(9) of the SOGL.
- II.10.5 If a continuous Frequency Deviation above +/- 50 mHz includes the triggering of Alert State, a minimum activation period of 25 minutes applies until the entry into force of the common minimum activation period⁵, in accordance with Art. 156(10) of the SOGL. For the avoidance of doubt, a minimum activation period of 25 minutes corresponds to the obligation for the BSP to ensure the availability of an energy content of the reservoir equivalent to a full activation of the FCR Obligation during a period of 25 minutes when the Frequency Deviation first exceeds the +/-50 mHz limit..
- II.10.6 In accordance with Art. 156(13)(b) of SOGL, the BSP ensures the recovery of the energy reservoirs as soon as possible, within 2 hours after the end of the alert state for any Delivery Point with Limited Energy Reservoir participating to the provision of the FCR Service.

ART. II.11 -EXCHANGE OF INFORMATION

- II.11.1 The exchange of information for the performance of the BSP Contract FCR is performed through real-time communication and online communication, as described in Annex 10.C and Annex 11.G.
- II.11.2 The BSP agrees that measurement data from ELIA constitute the basis for the availability control, in accordance with Art. II.12, and for the activation control, in accordance with Art. II.13.
- II.11.3 For Delivery Points for which ELIA does not have its own measurements, delivery of the Service may be monitored based on Private Measurements that respects the measurement requirements as described in Annex 3.
- II.11.4 In case a dispute arises over the measurements taken by ELIA these may be compared with those made by the BSP provided both measurements have comparable time stamps. If the BSP observes a significant error or difference between both series of measurements, he must inform ELIA hereof within the deadline specified in Art. II.16.2. In case of discrepancies

⁴ A common maximum duration before the activation of FCR Power may, if relevant, be defined in the all CE TSOs' proposal for additional properties of FCR, in accordance with Article 154(2) of the SOGL, and after its approval by the relevant regulatory authorities.

⁵ A minimum time of FCR full activation may, if relevant, be defined in the all CE TSOs' proposal for additional properties of FCR, in accordance with Article 154(2) of the SOGL, and after its approval by the relevant regulatory authorities.

Part II - Specific Conditions

between data of ELIA and the BSP, the ELIA data prevail unless the BSP can prove that his data are correct.

- II.11.5 ELIA requires individual power measurements of all Delivery Points with the exception of Virtual Delivery points. For Virtual Delivery Points, the BSP can send to ELIA aggregated measurements. Nevertheless ELIA always has the right to request ex-post the individual Delivery Point data from the BSP to verify the consistency of the aggregation done by the BSP.
- II.11.6 For Delivery Points with Limited Energy Reservoirs the BSP communicates to ELIA the available margin (in MWh) via his real-time connection as described in Annex 10.C.

TITLE 6: AVAILABILITY AND ACTIVATION CONTROL

ART. II.12 AVAILABILITY CONTROL

- II.12.1 The availability of the FCR Capacity will be monitored by ELIA on the basis of two different tests being a capacity availability test and an energy availability test. Both availability tests are described in Annex 11.B.
- II.12.2 Capacity availability tests focus on testing the FCR Capacity Requested. In other words, the goal is not to test the ramping behaviour or the follow-up of the Frequency. Energy availability tests focus on testing energy requirements, in accordance with Art. II.10.5.
- II.12.3 An availability test is performed on one or more FCR Energy Bid(s). Elia is not obliged to test a complete FCR Energy Bid but may decide to test only part of it.
- II.12.4 After the performance of an energy availability test on an Energy Bid which contains a Delivery Point with Limited Energy Reservoirs, the BSP has the right to reconstitute its energy reservoir over a maximal duration of 2 hours after the end of the energy availability test. ELIA will not consider this interval of 2 hours for its activation or availability controls.
- II.12.5 An availability test can be triggered at any moment by ELIA in accordance with the rules set forth in Annex 11.C.
- II.12.6 Availability tests are not remunerated by ELIA.
- II.12.7 ELIA considers an availability test as failed if at least one of the following conditions is satisfied:
- The FCR Supplied, as calculated in Annex 11.D, is inferior to the FCR Capacity Requested for more than 15% of the duration of the test;
 - The BSP has failed to execute the communications foreseen in Annex 11.G (without fault by ELIA);
- II.12.8 ELIA checks every Month M the availability test(s) performed during Month M-2, as described in Annex 11.B and informs the BSP via a report as foreseen in Art. II.16.1.
- II.12.9 In case of non-compliance of an availability test, in accordance with Art.II.12.7, penalties apply as foreseen in Art.II.15.4

ART. II.13 ACTIVATION CONTROL

- II.13.1 ELIA checks every Month M that the FCR Supplied by the BSP, during Month M-2, is compliant in accordance with Art. II.13.3;
- II.13.2 The activation control is performed by calculating the difference between the FCR Requested and the FCR Supplied for a maximum of 6 Frequency Variations for the month, and in the same way a maximum of 2 Frequency Variations per CCTU.
- II.13.3 For one Frequency Variation, ELIA considers an activation as non-compliant if the FCR Supplied, determined in accordance with Annex 12.A, is inferior to the FCR Requested for the analyzed Frequency Variation, as determined in Annex 12.B.
- II.13.4 ELIA informs the BSP via a report as foreseen in II.16.1. This report includes, for each analyzed Frequency Variation, the technical characteristics⁶ of the Frequency Variation.
- II.13.5 If an activation is deemed as non-compliant, in accordance with Art. II.13.1, penalties apply as foreseen in Art. II.15.6

⁶ i.e. start time of the Frequency Variation, frequency time diagram during the minutes before the Frequency Variation, and frequency time diagram during the minutes after the Frequency Variation.

TITLE 7: REMUNERATION AND PENALTIES

ART. II.14 REMUNERATION

- II.14.1 The remuneration of the FCR Service consists only of remuneration for the FCR Awarded.
- II.14.2 The remuneration for the FCR Awarded for a given Month is the sum of the individual remuneration of each awarded FCR Capacity Bid. The remuneration for one FCR Capacity Bid is described in Annex 7.F

ART. II.15 PENALTIES

Availability control penalties

- II.15.1 If ELIA observes, in accordance with Art. II.9.10 and II.9.11, that the FCR Made Available is lower than the FCR Obligation for a quarter-hour, ELIA applies penalties, determined in accordance with Annex 13.A.
- II.15.2 If ELIA observes, in accordance with Art.II.12.7, that an availability test has failed, ELIA applies penalties as foreseen in Art. II.15.4 and II.15.5.
- II.15.3 If ELIA performs more than one capacity availability test within the same Month, ELIA will not apply the financial penalty twice but only consider the highest calculated penalty.
- II.15.4 A financial penalty applies on any FCR Missing MW or FCR Missing Time of the considered Month. ELIA establishes, for each capacity availability test of the Month, the number of FCR Missing MW based on method described in Annex 11.E. For each energy availability test the FCR Missing Time is calculated based on the method described in Annex 11.F. The calculation of the penalty is detailed in Annex 13.B and 13.C.
- II.15.5 In case of 2 consecutive failed capacity availability test, ELIA adapts the FCR_{max} as defined in Annex 13.D. Elia notifies the modification to the BSP by e-mail to the contractual responsible listed in Annex 15. The date of entry into force (no later than 5 Working Days after the notification by ELIA) for the updated FCR_{max} is communicated altogether with the updated value(s). A new prequalification test, pursuant to Art. II.6, has to be performed to increase again the FCR_{max}.

Activation control penalties

- II.15.6 In case ELIA establishes that the BSP has failed to deliver the FCR Requested, pursuant to Art II.13.3, a financial penalty is applied as defined in Annex 13.D.
- II.15.7 All Delivery Points common to at least 3 non-compliant Frequency Variations, as per Art.II.13.1, over the last 6 months (i.e. from M-8 to M-2), will be suspended from the FCR Service for 30 calendar Days. The list of Delivery Points concerned will be notified to the BSP by e-mail addressed to the contractual responsible designated in Annex 15. The suspension will enter into force 5 Working Days after notification by ELIA. At the end of the suspension period, the concerned Delivery Points are automatically included again in the FCR Service.

Forced Outage

II.15.8 In case a Forced Outage of one or more Delivery Points occur, impacting the FCR Made Available, ELIA applies penalties foreseen under Art. II.15.1 as of expiry of a 4 hour reconstitution time.

Cap on financial penalties

II.15.9 The sum of financial penalties under Art. II.15.1, II.15.4 and II.15.6 will be subject to a monthly cap, without prejudice to any liability on the part of the BSP for non-fulfillment of his obligations in accordance with Art. I.6 of the General Conditions. The penalty cap is determined as per method detailed in Annex 13.F.

TITLE 8: INVOICING

ART. II.16 INVOICING AND PAYMENT

- II.16.1 At the latest by the end of each calendar Month, ELIA presents to the BSP, in a joint validation platform or other channel⁷:
- a report related to the availability control of the FCR Service provided by the BSP in Month M-2, as foreseen in Art.II.12.8. This report indicates, amongst others, all penalties for Month M-2 as calculated by ELIA in accordance with Art. II.15.1 and II.15.4, showing the method of calculation and all data on which the calculation is based.
 - a report related to the activation control of the FCR Service provided by the BSP in Month M-2, as foreseen in Art. II.13.4. This report indicates, amongst others, all penalties for Month M-2 as calculated by ELIA in accordance with Art.II.15.6, showing the method of calculation and all data on which the calculation is based.
- II.16.2 Disputes from the BSP regarding the report and penalties stipulated in Art. II.16.1 must be reported within 25 calendar Days starting from the Day following ELIA provision of the respective report. In such a case, the Parties shall enter into negotiations with each other with a view to reach an agreement, in accordance with Art. I.13 of the General Conditions.
- II.16.3 If no agreement can be reached:
- the BSP, when drawing up his pro-forma invoice for Month M as specified in Art. II.16.4, shall take into account of the penalties calculated by ELIA;
 - the Parties shall continue their negotiations with a view to reaching an amicable arrangement and, after concluding their agreement, settle this invoice ex-post;
 - if no amicable arrangement is reached, the dispute settlement procedure set out in Art. I.13.2 of the General Conditions shall apply.
- II.16.4 Without prejudice to Art. I.5 of the General Conditions, the BSP shall send ELIA Settlement department, in accordance with list of contact persons in Annex 15, his monthly pro-forma invoice no later than on the 25th of each calendar Month M. The pro-forma invoice will include, among other things:
- the remuneration for the FCR Awarded for the Month M-1, calculated as described in Art. II.14.2;
 - As the case may be, the availability control penalties Month M-3, as calculated by ELIA under Art. II.15.1 and II.15.4 and reported in accordance with Art. II.16.1;
 - As the case may be, the activation control penalties Month M-3, as calculated by ELIA under Art. II.15.6 and reported in accordance with Art. II.16.1;
- II.16.5 ELIA shall either approve or reject the pro-forma invoice within 5 Working Days after reception. After approval by ELIA of the pro-forma invoice, the invoice or credit note (in accordance with the pro-forma invoice) may be sent to the Invoicing & Payment department, as per list of contact persons in Annex 15.
- II.16.6 Annex 14 includes the appropriation structure to be mentioned by the BSP.

⁷ In that case, ELIA will send to the settlement contact, as listed in Annex 16, an e-mail containing at least the minimal set of data enabling the BSP to check proposal of ELIA.

TITLE 9: OTHER DISPOSITIONS

ART. II.17 CONTACT PERSONS

II.17.1 In accordance with Art. I.12.7 of the General Conditions, both parties keep the contact details up to date throughout the validity of the BSP Contract FCR, by exchanging the filled out template in Annex 15. These exchanges and updates can be done via e-mail.

ART. II.18 DURATION

This BSP Contract FCR is concluded for a fixed duration and will terminate on 31/12/2021.

Part II - Specific Conditions

Drawn up in Brussels in two originals, of which each Party concerned acknowledges having received one. The official version has been drawn up in Dutch and French, without one version taking precedence over the other; the English version is solely for information purposes.

ELIA SYSTEM OPERATOR N.V./S.A., represented by:

[•]

[•]

[•]

[•]

Date:

Date:

[ServiceProvider], represented by:

[•]

[•]

[•]

[•]

Date:

Date:

PART III - ANNEXES

ANNEX 1. PROCEDURE FOR BSP ACCEPTANCE

This annex describes all the conditions to be fulfilled by the BSP in order to participate in FCR Service.

1.A OPEN QUALIFICATION PROCEDURE

Prior to signature of the BSP Contract FCR, a candidate should apply to become a qualified provider. The conditions to become a qualified provider are listed hereunder:

- Provision of a declaration (referred to as “sworn statement”) in which the candidate declares the fulfilment of the obligations related to payment of social security contributions in accordance with the legal provisions, fulfilment of the obligations related to payment of taxes in accordance with the legal provisions, and situation of non-bankruptcy.
- Proof of a sound financial and economic situation of the candidate.

A candidate can apply by submitting a completed application form and the required documents, for the applicable service to ELIA. The application form and the template for the sworn statement can be downloaded on ELIA website or requested by e-mail to contracting_AS@elia.be.

The application has to be submitted to ELIA at least one month before the date of signature of the BSP Contract FCR.

ANNEX 2. PROCEDURE FOR DELIVERY POINT ACCEPTANCE

This annex describes all the conditions to be fulfilled by a Delivery Point in order to participate in FCR Service.

2.A GRID USER DECLARATION

In accordance with Art II.3.6, ELIA must receive the proof that the Grid User has signed without reserve the Grid User Declaration. A single Grid User Declaration can include one or a list of Delivery Points related to the concerned Grid User. The Grid User Declaration has to contain at least the following clauses:

- The present Grid User Declaration only applies for the Delivery Points listed in table 1.
- The Grid User hereby acknowledges that all given information in this Grid User Declaration is true and accurate.
- The Grid User hereby acknowledges that he will participate to the FCR Service only with one party (being the BSP) at the same time and that the list of Delivery Point(s) in table 1 is submitted for only one party (being the BSP) at the same time.
- The Grid User confirms to Elia that his commitment to provide FCR Service as stipulated in the BSP Contract FCR does not breach existing contracts with third parties (with whom the Grid User has a contractual or regulated relationship, such as, but not limited to, the Supplier of the Grid User).
- The Grid User hereby gives permission to the BSP to offer the FCR Service to ELIA as described in the BSP Contract FCR, from DD/MM/YYYY to DD/MM/YYYY.
- The Grid User acknowledges that the present document is valid for each Delivery Point listed in table 1 until either respective expiry date of the Grid User Declaration or the submission by another party of a new Grid User declaration, for one (or more) of the Delivery Point(s) listed in table 1, signed and validated by the Grid User. The present Grid User Declaration remains valid until its expiry date for all Delivery Points listed in table 1 not concerned by the aforementioned new Grid User Declaration.
- The Grid User hereby gives explicit permission to send to ELIA the measurement data of the Delivery Points.
- If the concerned Delivery Points are connected to a CDS, the Grid User confirms that he has informed the concerned CDSO of his participation to the FCR Service.
- Details of the concerned Delivery Point(s):

Delivery Point name	Delivery Point identification (EAN)	DP _{FCR,ref} [MW]

Table 1: List of Delivery Point(s) concerned.

2.B PRIVATE MEASUREMENT TECHNICAL INFO CHECKLIST

All Delivery Points using Private Measurement must be able to provide a valid Private Measurement Technical Info Checklist.

The aim of this Private Measurement Technical Info Checklist is to prove that the Private Measurement Device meet the measurement requirements imposed by ELIA in Annex 3, and give necessary information to ELIA to perform its verifications on measurement requirements.

The Private Measurement Technical Info Checklist can be found on ELIA website or can be requested via email to contracting_AS@elia.be.

Provided information must comprise at least:

- Single-line diagram on which the Private Measurement Devices are located
- Technical information of the Private Measurement Devices(s) (accuracy class, etc.)

ELIA must receive a proof of Private Measurement Devices compliance per new Private Measurement Device at least 10 Working Days before the Private Measurement Device commissioning test as foreseen in Annex 2.C.

ELIA reserves the right to physically access the Grid User installations for verification of the measurement installation only in case of explicit authorization given by the Grid User as stipulated in Annex 2.C.

2.C PRIVATE MEASUREMENT COMMISSIONING TEST

The BSP and Elia will verify the Private Measurement data by comparing one day of measurement data received by the Elia via the real time communication in accordance to Annex 10.C with the measurement data of the BSP. In case of deviations between both data sets the test is considered as failed and the Private Measurement is not accepted.

ELIA and the BSP will agree on a date for the Private Measurement commissioning test to be performed.

The Private Measurement Technical Info Checklist document as foreseen in Annex 2.B must be provided to ELIA 10 Working Days before the commissioning test.

The general liability regime organized by Art. 1.6 of the General Conditions is applicable during the test.

2.D ENERGY MANAGEMENT STRATEGY

A BSP needs to present a documented Energy Management Strategy with which he aims to prove the ability of each Delivery Point with Limited Energy Reservoirs to comply with requirements for provision of the Service as these are stipulated in Art. II.10.

In this account, the BSP needs to demonstrate that his proposed Energy Management Strategy has no impact on a third party (e.g. on another BRP) and does not use the Imbalance market as a Charging Strategy.

A Delivery Point with Limited Energy Reservoirs can only be included in the BSP's Annex 4 after being included in the Energy Management Strategy.



Annex 2 Procedure for Delivery Point Acceptance

The information Elia requires from the BSP in the Energy Management Strategy is described in document "FCR Energy Management Strategy Requirements" which is published on the ELIA website and is available on demand by e-mail to contracting_AS@elia.be.

ANNEX 3. MEASUREMENT REQUIREMENTS

All Delivery Points must have one or several Measurement Device(s) installed that meets the following minimum requirements.

3.A GENERAL MEASUREMENT REQUIREMENTS FOR ALL DELIVERY POINTS

A Measurement Device that can provide 2 seconds measurement data to measure Injection or Offtake of the Delivery Point concerned.

The Measurement Device needs to have a precision of 1% or better for the whole metering chain (current transformers, energy meter), or a maximum precision margin of 100kW.

In case the Measurement Device for a Delivery Point does not correspond to the requested precision, ELIA will calculate an E_{max} factor for the Delivery Point by calculating the difference between the measurement precision and 1% (requirement by ELIA).

During the prequalification ELIA will reduce the calculated FCR_{max} with the highest E_{max} amongst the concerned Delivery Point(s) as calculated in Annex 6.

A minimal measurement availability of 95% is required.

3.B SPECIFIC MEASUREMENT REQUIREMENTS FOR DELIVERY POINTS ON THE PUBLIC DISTRIBUTION GRID

For Delivery Points on the Public Distribution Grid the BSP should refer to the BSP-DSO Contract. All communications and agreements regarding the measurement requirements should be discussed with the applicable DSO.

3.C FREQUENCY MEASUREMENTS

The frequency measurements must be local, meaning that a frequency meter must be installed at the site of each Delivery Point. This rule is not applicable in case of Virtual Delivery Points and Technical Units used as part of the Energy Management Strategy which are not performing the FCR Service.

In case of Virtual Delivery Points, one frequency meter for all Technical Units part of the Virtual Delivery point suffices. The BSP may decide on where to install the frequency meter of the Virtual Delivery Point. If a BSP provides the Service with several Virtual Delivery Points, a different frequency meter must be used for each concerned Virtual Delivery Point for redundancy reasons.

The frequency meter has a set point of 50,000 Hz and must be aligned with the local controller. It's accuracy must be at least 10 mHz.

3.D REQUEST FOR POWER MEASUREMENT

The BSP may also request to receive from ELIA power measurements through its real-time connection (in case these are measured by ELIA) for Delivery Points validly contained in Annex 4. The BSP and ELIA will sign an addendum concerning this communication.

ANNEX 4. LIST OF DELIVERY POINTS

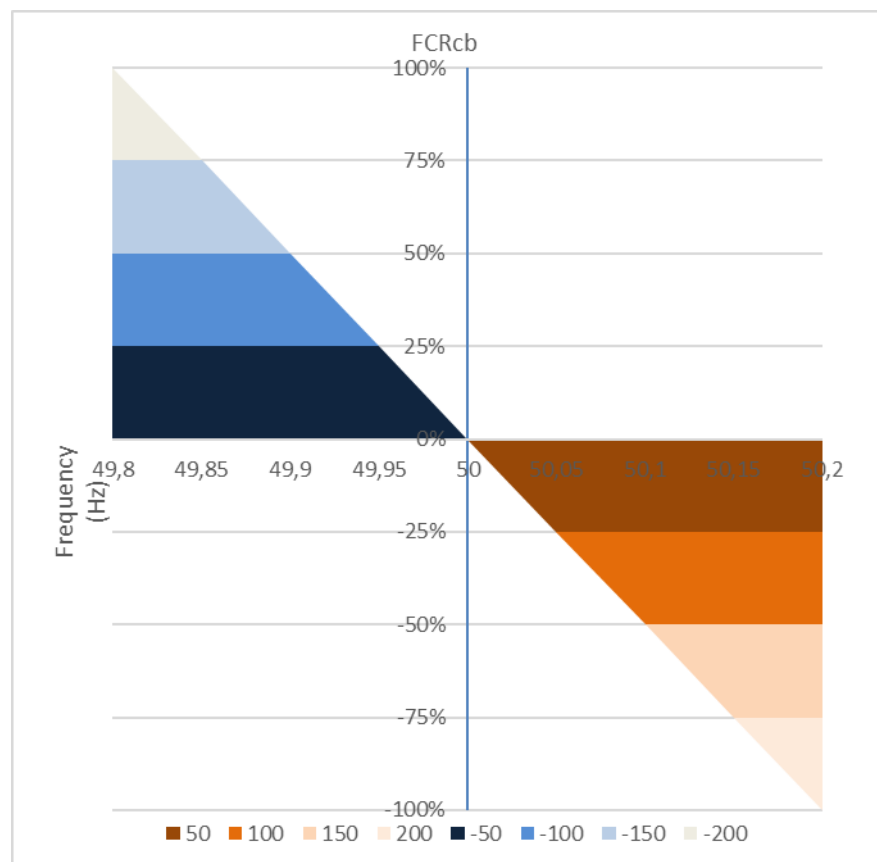
In accordance with Art. II.3.9, II.3.10 and II.3.11, the list of Delivery Points connected to the ELIA Grid or to a CDS is defined based on the following templates. The list is exchanged by e-mail between ELIA and the BSP through the form of an excel file.

4.A PRINCIPLES FOR PORTFOLIO MANAGEMENT

As described in Art.II.3.12 a BSP has to declare the $DP_{FCR,cb}$ per frequency band for each Delivery Point. The declaration has to be submitted in the template as per Annex 4.C and 4.D and has to take into account the following set of principles:

- The $DP_{FCR,cb}$ declared by the BSP for a frequency band is the FCR Power the Delivery Point will provide at the upper limit of the Frequency Band. This corresponds to the maximal FCR Power of the Delivery Point in that frequency band.
- The declared FCR Power remains constant in case the measured frequency is lower (higher) than or equal to the upper limit for an upward (downward) activation.
- The FCR Power is zero in case the measured frequency is higher (lower) than the lower limit for an upward (downward) activation.
- In case a Delivery point does not participate to the FCR Service for a certain Frequency Band the BSP should declare it by writing N/A for the concerned Delivery Point and Frequency Band.

The above principles are displayed in the figure below:



Annex 4 List of Delivery Points

The upper and lower limit of each Frequency Band is given in the table below:

Frequency Band	Lower limit (Hz)	Upper limit (Hz)
-200	]49,85	49,80]
-150	]49,90	49,85]
-100	]49,95	49,90]
-50	]50,00	49,95]
50	]50,00	50,05]
100	]50,05	50,10]
150	]50,10	50,15]
200	]50,15	50,20]

The FCR_{cb} of a Delivery Point or a Providing Group used for the prequalification proces as described in Annex 6.B and 6.D and the Energy Bid submission described in Annex 9.B, is calculated according to the following formula:

$$FCR_{cb} = 4 \times \min (\sum DP_{FCR_{cb}, -200}; \sum DP_{FCR_{cb}, -150}; \sum DP_{FCR_{cb}, -100}; \sum DP_{FCR_{cb}, -50}; \sum DP_{FCR_{cb}, 50}; \sum DP_{FCR_{cb}, 100}; \sum DP_{FCR_{cb}, 150}; \sum DP_{FCR_{cb}, 200})$$

4.B BSP POOL ATTRIBUTES

4.A BSP Pool attributes	
BSP name	
Contract reference	
Request for update (dd/mm/yyyy)	
Go Live of the update (dd/mm/yyyy)	
FCR_max [MW]	

Annex 4 List of Delivery Points

4.C LIST OF DELIVERY POINTS DP_{SU}

4.B List of delivery points DP_{SU}

Delivery Point name	Delivery point EAN	Access Point EAN (if different)	DP_FCR,max,up	DP_FCR,max,down	DP_FCR,cb,-200	DP_FCR,cb,-150	DP_FCR,cb,-100	DP_FCR,cb,-50	DP_FCR,cb,50	DP_FCR,cb,100	DP_FCR,cb,150	DP_FCR,cb,200	Last prequalification test (dd/mm/yyyy)

4.D LIST OFF DELIVERY Points DP_{PG}

4.C List of delivery points DP_{PG}

Delivery Point name	Delivery point EAN	Access Point EAN (if different)	DP_FCR,cb,-200	DP_FCR,cb,-150	DP_FCR,cb,-100	DP_FCR,cb,-50	DP_FCR,cb,50	DP_FCR,cb,100	DP_FCR,cb,150	DP_FCR,cb,200	Precision Class (expressed in % precision)	Last prequalification test (dd/mm/yyyy)

4.E EXAMPLES

FCR_{cb} of a Pool

A BSP has a Pool which contains a battery that can supply 4 MW of FCR Power in both upward and downward direction. In addition he has three other Delivery Points participating to the Service. The BSP wishes to use the battery in the Frequency Bands -50 and 50, while the other Delivery Points will be used in the remaining Frequency Bands. The BSP could fill in the Annex as described below:

	-200	-150	-100	-50	50	100	150	200
DP battery (MW)	0	0	0	4	4	0	0	0
DP X (MW)	1	1	1	0	0	1	1	1
DP Y (MW)	1	1	1	0	0	0	0	0
DP Z (MW)	0	0	0	0	0	2	2	1
∑ DP_{FCRcb} (MW)	2	2	2	4	4	3	3	2

Annex 4 List of Delivery Points

The FCR_{cb} of this Pool of Delivery Points is calculated according the formula in Annex 4.A:

	-200	-150	-100	-50	50	100	150	200
$\sum DP_{FCR_{cb}} \text{ (MW)}$	<u>2</u>	<u>2</u>	<u>2</u>	4	4	3	3	<u>2</u>

$$FCR_{cb} = 4 \times 2MW = 8MW$$

Removal of a Delivery Point from a portfolio

If in the above example Delivery Point Z would be removed from the portfolio, the new FCR_{cb} of the portfolio would be:

	-200	-150	-100	-50	50	100	150	200
$\sum DP_{FCR_{cb}} \text{ (MW)}$	2	2	2	4	4	2	2	<u>1</u>

$$FCR_{cb} = 4 \times 1MW = 4MW$$

ANNEX 5. COMMUNICATION TEST

- In accordance with dispositions of Art. II.5, ELIA will check the communication channels of the BSP.
- The BSP should comply with the real-time communication requirements as described in Annex 10.C.
- The BSP must be able to receive and interpret the signals, as defined in Annex 11.G, for the activation of the availability test of the FCR Service.
- In case that the requirements are not fulfilled, ELIA and the BSP will make their best effort to identify the source of the failure and the BSP is expected to solve the source of the failure.

ANNEX 6. PREQUALIFICATION TEST

The outcome of the prequalification test, in accordance with Art. II.6, determines the FCR_{max} that can be offered by the BSP in capacity auctions.

The prequalification test is mandatory:

- before first participation of the BSP to capacity auctions;
- to update the FCR_{max} ;

The FCR_{max} is determined by summing the results of all prequalification tests.

6.A ORGANIZATION

The prequalification test is scheduled with ELIA upon request of the BSP. The BSP sends the request by e-mail to the contractual responsible, as provided in Annex 15. The request is performed by the BSP based on the request form for prequalification test published on the ELIA website or available on demand by e-mail to contracting_AS@elia.be and the contractual responsible, as per Annex 15.

The BSP and ELIA agree on a time window of 24 hours during which the prequalification test can be organized. ELIA will proceed to the prequalification test no later than 10 Working Days after the reception of the BSP request. The BSP and ELIA also agree on an approximative start time to launch the prequalification test. After performance of the prequalification test, the BSP communicates to ELIA, by e-mail to contracting_AS@elia.be and the contractual responsible, as per Annex 15, the exact start time of the prequalification test.

A prequalification test can only be requested by the BSP when the Delivery Point(s) concerned has(have) been duly added to the Pool of the BSP, pursuant to Art.II.3.11 and the communication test, as per Art. II.5, is succeeded.

At the latest 10 Working Days after the prequalification test has taken place, ELIA will provide the results of the prequalification test by e-mail to the contractual responsible of the BSP, as per Annex 15.

In order to update the FCR_{max} for the next auction, the result of prequalification test should be known and Annex 4 should be updated accordingly, as per Art.II.3.11, at least 5 Working Days before the first capacity auction for which the new values apply.

6.B SPECIFICATIONS OF A PREQUALIFICATION TEST

The Providing Group for prequalification test is determined by the BSP in accordance with Art. II.6.5.

The prequalification test is comprises two consecutive phases, as shown in figure 1:

- a follow-up of a synthetic frequency profile, which contains 4 consecutive Frequency Deviations of 50 mHz first in the upward direction and then in the downward direction.
- a 4-hour real-time follow-up of the Frequency.

The specifications of these 2 phases are detailed hereunder:

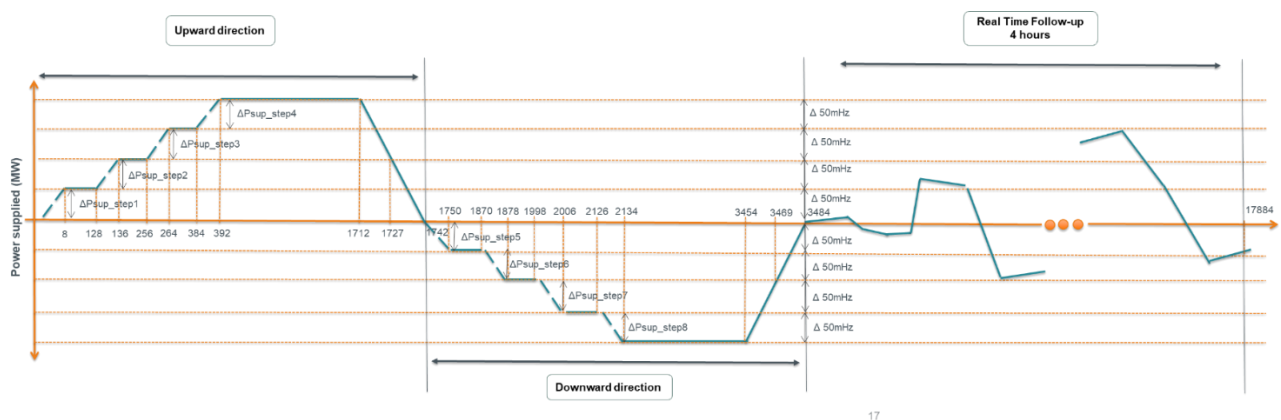
Annex 6 Prequalification test

Phase 1: the synthetic profile in the upward (respectively downward) direction is composed of 4 steps of a 50mHz frequency deviation upward (respectively downward).

- For each frequency step of 50mHz, the corresponding FCR Power to be delivered must be reach in 12,5 seconds (7,5 seconds of required activation time as per Art. II.10.3 and 5 seconds of tolerance). This FCR Power should then be maintained for 2 minutes.
- After the fourth frequency step, the FCR Power must be maintained for 22 minutes.
- Right after this period of 22 minutes, the BSP disposes of 30 seconds to ramp down until the FCR Power delivered equals zero.

Phase 2: follow-up of the Frequency for 4 consecutive hours, which starts directly after phase 1.

- The 4-hour follow-up of the Frequency starts right after phase 1.
- The FCR Power that must be supplied is equal to the FCR Requested, as described in Annex 10.A.



6.C DETERMINATION OF THE FCR_{MAX} OF A PREQUALIFICATION TEST

Result of synthetic frequency profile

For the purposes of the test, ELIA will sum the $DP_{measured}(ts)$ of all Delivery Points in the Providing Group:

$$P_{meas}(ts) = \sum_{All\ DP \in\ Providing\ Group} DP_{measured}(ts)$$

The baseline for the prequalification test is defined by taking the average $P_{meas}(ts)$ over the 20 seconds preceding the beginning of the test (TS_{0-19} to TS_0):

$$baseline = \frac{1}{20} * \sum_{ts=TS_{0-19}}^{ts=TS_0} P_{meas}(ts)$$

Annex 6 Prequalification test

For each frequency step of 50 mHz, ELIA calculates the FCR Power supplied (ts), based on a 10 second average value, as follows:

In the upward direction,

$$FCR \text{ Power supplied (10s window)} = \max \left\{ \begin{array}{l} \text{baseline} - AV_{P_{meas}}(10s \text{ window}); \\ 0 \end{array} \right\}$$

In the downward direction,

$$FCR \text{ Power supplied (10s window)} = \max \left\{ \begin{array}{l} AV_{P_{meas}}(10s \text{ window}) - \text{baseline}; \\ 0 \end{array} \right\}$$

$$AV_{P_{meas}}(10s \text{ window}) = \frac{1}{10} * \sum_{ts-9}^{ts} P_{meas}(ts)$$

taking into account that:

- the 5 first Time Steps of each frequency step are not considered to calculate FCR_{max} ;
- the first $AV_{P_{meas}}$ of each frequency step is calculated as follows:

$$First \text{ } AV_{P_{meas}} = \frac{1}{15} * \sum_{5th \text{ Time Step}}^{20th \text{ Time Step}} P_{meas}(ts)$$

- “ts-9” to “ts” are the 10 Time Steps included in the 10 second window over which the average is computed.

For each frequency step, ELIA calculates $\Delta FCR \text{ Power supplied}$ as follows

$$\begin{aligned} \Delta FCR \text{ Power supplied} &= \min_{\text{concerned frequency step}} [FCR \text{ Power supplied (10s window)}] \\ &- \min_{\text{previous frequency step}} [FCR \text{ Power supplied (10s window)}] \end{aligned}$$

taking into account that

- for the first frequency step in the upward and downward direction:

$$\Delta FCR \text{ Power supplied} = \min_{\text{concerned frequency step}} [FCR \text{ Power supplied (10s window)}]$$

ELIA determines $MIN \Delta FCR \text{ Power supplied}$, which is the minimal $\Delta FCR \text{ Power supplied}$ over all frequency steps.

$$MIN \Delta FCR \text{ Power supplied} = \max \left\{ \begin{array}{l} \min (\text{all } \Delta FCR \text{ Power supplied}); \\ 0 \end{array} \right\}$$

Finally, ELIA determines the maximal FCR Power supplied in each direction, upwards and downwards. To this purpose, ELIA considers the 4th frequency step (respectively the 8th frequency step) for the upward direction (respectively downward):

- *in the upward direction,*

Annex 6 Prequalification test

$$Max\ FCR\ Power\ supplied\ Up = \min_{frequency\ step\ 4} \{FCR\ Power\ supplied\ (10s\ window)\}$$

- in the downward direction,

$$Max\ FCR\ Power\ supplied\ Down = \min_{frequency\ step\ 8} \{FCR\ Power\ supplied\ (10s\ window)\}$$

If

$$MIN\ \Delta\ FCR\ Power\ supplied \geq 0,9 * \min \left\{ \begin{array}{l} Max\ FCR\ Power\ supplied\ Up; \\ Max\ FCR\ Power\ supplied\ Down \end{array} \right\}$$

Then

$$FCR_{max, synthetic\ profile} = \min \left\{ \begin{array}{l} Max\ FCR\ Power\ supplied\ Up; \\ Max\ FCR\ Power\ supplied\ Down \end{array} \right\}$$

Otherwise

$$FCR_{max, synthetic\ profile} = 4 * MIN\ \Delta\ FCR\ Power\ supplied$$

Result of real time follow-up

If during the real-time follow-up of the Frequency one or several Frequency Variations occur, ELIA will check the largest one and calculate the $\Delta FCR_{max, follow-up}$ as follows:

$$\Delta FCR_{max, follow-up} = \min \left\{ \frac{FCR\ Supplied}{FCR\ Requested_{Frequency\ Variation}} ; 1 \right\}$$

Where:

- FCR Supplied is computed in accordance with Annex 12.A;
- FCR Requested_{Frequency Variation} is computed in accordance with Annex 12.B;

Calculation of FCR_{max}

The FCR_{max} value is calculated as follows:

$$FCR_{max} = \min \left\{ FCR_{cb}; FCR_{max, synthetic\ profile} * \Delta FCR_{max, follow-up} \right\} * E_{max}$$

Where:

- FCR_{cb}: as calculated in Annex 4 for the Providing Group on which the prequalification test is performed;
- E_{max}: value calculated based on Private Measurement precision, as declared by the BSP in Annex 4, for each Delivery Point non-compliant with measurement requirements in Annex 3. E_{max} is based on the worst accuracy over all Delivery Points included in the prequalification test as follows

$$E_{max} = 1 - worst\ accuracy$$

6.D MODALITIES IN CASE OF A POOL MODIFICATION

Addition of new Delivery Point(s)

In order to add new Delivery Point(s) to an existing Pool, a prequalification test has to be performed to increase the FCR_{max} . No test is required if Delivery Point(s) is (are) added without impact on FCR_{max} .

The BSP may choose one of the two following solutions:

- a new prequalification test, as provided by section 6.B, on a Providing Group consisting only of the new Delivery Points DP that have not yet been prequalified.
- a prequalification test, as provided by section 6.B, on the complete Pool of the BSP

If the first solution is chosen then the resulting FCR_{max} of the prequalification test are added to the previous FCR_{max} .

Removal of Delivery Point(s)

A prequalification test is not mandatory to remove a Delivery Point participating to the Service. The FCR_{cb} and consequently FCR_{max} of the BSP will be adapted according to the principles explained in Annex 4 and Annex 6 respectively.

However, the BSP has the possibility to perform a new prequalification test on the Pool, as provided by section 6.B, if preferred.

ANNEX 7. CAPACITY AUCTIONS

7.A PRINCIPLES

As described in Art. II.7.1 ELIA participates in an international cooperation with other Participating TSO's in order to procure its required FCR Power through a Regional Procurement Platform.

Rules and processes governing the Regional Procurement Platform are described in the "Proposal of the establishment of common and harmonised rules and processes for the exchange and procurement of Balancing Capacity for Frequency Containment Reserves (FCR)" dated 18 October 2018 (hereinafter referred to as "RPP rules and processes for FCR") and published on the ELIA website.

This international cooperation is, at the moment of drawing this contract and due to constraints set by local legislations, organized around two Central Clearing Systems, coupled together.

Elia and BSPs from its LFC Block participate in the Regional Procurement Platform through the bidding platform www.regelleistung.net.

BSPs whose Delivery Points are located within ELIA's LFC Block need to have concluded a valid BSP Contract FCR with ELIA to be allowed to participate in the Regional Procurement Platform. Once the BSP contract FCR is concluded with ELIA, ELIA will provide the required access rights to the Regional Procurement Platform to the BSP. The BSP has to sign the BSP Contract FCR at least 5 Working Days before participation to his first auction.

Through the Regional Procurement Platform the BSP will be able to offer volumes of FCR Power to all TSO's who have signed an agreement at the moment of the auction. Offers will be selected so as to respect the Core Share obligation and minimize the total cost of the overall remaining volume to be procured through the platform and considering constraints set in local legislation.

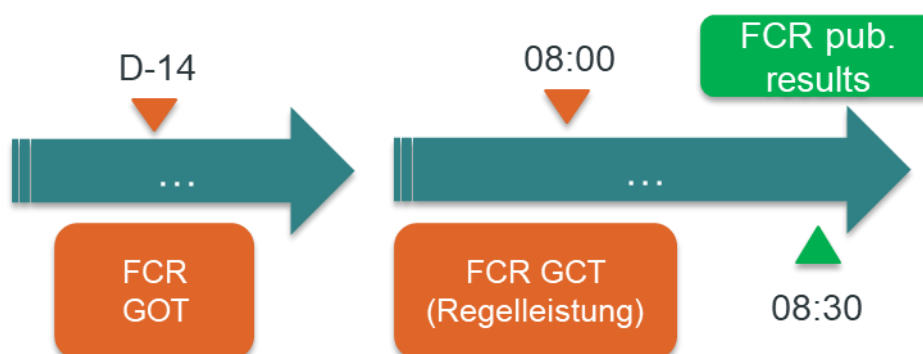
Once a Capacity Bid is awarded in the Regional Procurement Platform the FCR Awarded becomes part of the BSP's FCR Power Obligation as mentioned in Art. II.7.6.

7.B CAPACITY AUCTION PROCESS

Organization

The auction calendar is described in Article 4 – Auction frequency and auction timing' of the RPP rules and processes for FCR.

Overall, the procurement timeline will be the following:



Annex 7 Capacity auctions

AUCTION PROCEDURE

The auction procedure is detailed in Article 4 – Auction frequency and auction timing’ of the RPP rules and processes for FCR.

MARKET DECOUPLING

For technical and/or regulatory reasons, it might be necessary to decouple the common market. It will then be split up into sub-markets. Relevant common sub-markets will be identified on www.regelleistung.net.

If the markets are decoupled, the two relevant auctions are clearly identified on the bidding platform.

7.C BIDDING OBLIGATIONS FOR FCR CAPACITY BIDS

The bidding obligations applicable to capacity bids are described in Article 6 – Bid design possibilities’ of the RPP rules and processes for FCR

The maximal volume offered by the BSP must always be equal to or lower than its total pre-qualified FCR_{max}. The BSP takes this into account when submitting multiple offers, which are always combinable as well as all specific conditions related to his portfolio (congestions, availability,...).

The Capacity Bid price on Regional Procurement Platform is expressed in €/MW/CCTU.

7.D AWARDING PROCEDURE AND CRITERIA

Selection and award are described in Article 7 – Auction Allocation Algorithm of the RPP rules and processes.

7.E PUBLICATIONS & TRANSPARENCY

Auction results will be published at latest 24 hours after Gate Closure Time on www.regelleistung.net. For reasons of transparency, anonymized retained bids will also be published in the same delay on the Regelleistung website.

7.F SETTLEMENT & INVOICING

Settlement of the Capacity Bids awarded in the Regional Procurement Platform is described in Article 8 – TSO-BSP settlement’ of the RPP rules and processes for FCR.

Further to that, as mentioned in section 7.A of the present Annex, Capacity Bids awarded in the Regional Procurement Platform become part of the BSP’s FCR Power Obligation. In this sense, the rules as described in Art. II.16 apply.

ANNEX 8. TRANSFER OF OBLIGATION

In accordance with Art. II.8, ELIA allows the BSP to transfer part or all of his FCR Obligation to one or several Counterpart BSP(s). Similarly, the BSP may agree to make an additional FCR Capacity available to ELIA as a result of a Transfer of Obligation from a Counterpart BSP to the BSP.

This annex lays down the conditions under which the Transfer of Obligation may apply and defines the rules and procedure that ELIA, the BSP and the Counterpart BSP must respect in order to notify and validate said transfers.

8.A RULES FOR THE TRANSFER OF OBLIGATION

- The BSP and the Counterpart BSP hold a valid BSP Contract FCR to the date of the performance of the concerned FCR Obligation.
- FCR Obligation can be taken over by a Counterpart BSP even if his quantity of FCR Awarded is 0 (zero) for the concerned CCTU.
- Transfer of Obligation is applicable in day-ahead or in intraday.
- The BSP can have multiple exchanges with different Counterparts BSP, and vice-versa.
- The BSP and the Counterpart BSP arrange between themselves how, when and at what price the FCR Obligation is taken over.

8.B PROCEDURE FOR TRANSFER OF OBLIGATION

- Transfer of Obligation requests are automatically checked by ELIA. ELIA only considers as valid the Transfers of Obligation with status “Accepted”.
- The Transfer of Obligation can take place as of the award of capacity from the capacity auction until one hour before beginning of the first quarter-hour for which the Transfer of Obligation applies.
- The BSP (respectively the Counterpart BSP) initiates the request for Transfer of Obligation. The Counterpart BSP (respectively the BSP) must accept the Transfer of Obligation until 1 hour before the first quarter-hour for which the Transfer of Obligation applies. If the Counterpart BSP (respectively the BSP) has not accepted by this time, the Transfer of Obligation is not taken into account by ELIA.
- The updated FCR Obligation (i.e. after Transfer of Obligation) must be in respect of FCR_{max} .
- The Counterpart BSP (respectively the BSP) undertaking FCR Obligation should update its submission of FCR Energy Bid(s), at the latest at FCR Balancing GCT for the first quarter-hour for which the Transfer of Obligation applies, in order to reflect the agreed Transfer of Obligation.

The detailed procedures to be followed for the Transfer of Obligation and the manual for the tools are published on ELIA website.

ANNEX 9. FCR ENERGY BID

As provided by Art. II.9, the BSP submits FCR Energy Bids through a dedicated web-based platform put at disposal by ELIA. The user manual for this platform is available on ELIA website or can be requested by e-mail to contracting_AS@elia.be.

9.A SPECIFICATIONS FOR FCR ENERGY BID

A FCR Energy Bid related to Delivery Points DP_{SU} and DP_{PG} comprises the following information:

- The Delivery Point DP_{SU} and DP_{PG} corresponding to the FCR Energy Bid.
- For Delivery Points DP_{SU} the FCR Power the DP_{SU} will provide in upward and downward reaction
- The start time and the end time of the concerned FCR Energy Bid
- The offered volume, expressed in MW, for each quarter-hour taking into account that:
 - ✓ Minimum offered volume is 1 MW;
 - ✓ Volume granularity is 0,1 MW;

9.B CHECKS PERFORMED ON A FCR ENERGY BID

ELIA performs the following checks at any submission or update of a FCR Energy Bid:

- The BSP holds a valid BSP Contract FCR with ELIA;
- Delivery Points mentioned in the FCR Energy Bid must be valid (i.e. included in Annex 4 or in the BSP-DSO Contract);
- For each quarter-hour, the sum of the offered volume of each FCR Energy Bid is inferior or equal to the corresponding FCR Obligation;
- The FCR_{cb} as calculated in Annex 4.A for all delivery points participating in the FCR Energy Bid must be superior or equal to the offered volume of the FCR Energy Bid.

A FCR Energy Bid is automatically rejected if one of the above mentioned checks is not satisfied. The BSP is notified of rejection and reason for rejection.

9.C TEMPLATE FOR FORCED OUTAGE COMMUNICATION

The BSP notifies a Forced Outage as follows:

From	BSP	
To	ELIA: Real-time contact and contractual responsible (as listed in Annex 16)	
Subject	FCR Service – Forced Outage Notification	
Body	BSP would like to notify ELIA of the following Forced Outage:	
	FCR Energy Bid Reference	
	Updated Volume after FO [MW]	
	Justification of FO	
	Estimated duration of FO	

ANNEX 10. ACTIVATION

In accordance with Art II.10.1, in case of a Frequency Deviation, the BSP must activate automatically (without intervention) the FCR Requested as defined in this Annex.

ELIA authorizes a deadband of 10mHz around 50Hz in which a BSP may not react as stated in Annex V of SOGL.

10.A DETERMINATION OF THE FCR REQUESTED

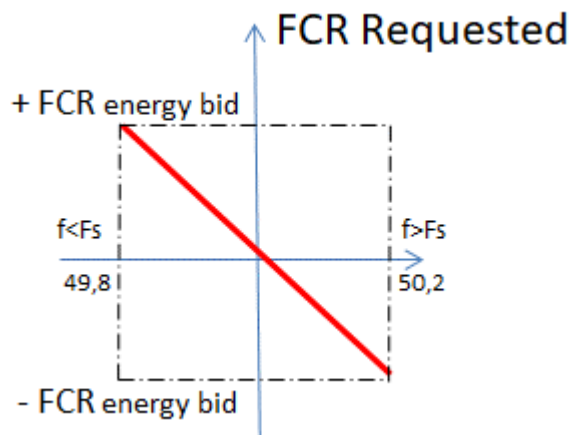
The FCR Requested per Energy Bid is based on the power/frequency ratio λ_0 and on the Frequency Deviation as follows:

$$FCR_{Requested} = -\lambda_0 * FCR_{energy\ bid} * \Delta f$$

With:

- λ_0 : the power/frequency ratio, as defined by ENTSO-E Regional Group Continental Europe, equal to $\frac{1500 [MW/Hz]}{3000 [MW]} = 5 Hz^{-1}$;
- $FCR_{energy\ bid}$: is the total volume offered by the BSP in the concerned FCR Energy Bid for the concerned quarter-hour;
- Δf is equal to $F - 50 Hz$. Δf is determined with 3 decimals ;

Graphically, FCR Requested can be represented as follows:



10.B FORCED OUTAGE

In case a Forced Outage occurs during an activation of the FCR Service, the BSP makes best effort to communicate the information by e-mail to ELIA real-time contact and to the contractual responsible, as listed in Annex 15, in accordance with the template hereunder.

From	BSP
To	ELIA: Real-time contact and contractual responsible (as listed in Annex 15)
Subject	FCR Service – Forced Outage Notification
Body	BSP would like to notify ELIA of the following Forced Outage:
	List of FCR Energy Bid(s)
	[Bid reference]
	[Bid reference]
	[Bid reference]

10.C REAL-TIME COMMUNICATION

The following data is communicated, per Time Step "ts", from the BSP to ELIA:

- $DP_{measured}(ts)$, in MW, is transmitted at Time Step "ts" for Time Step "ts". In other words, $DP_{measured}$ is sent in real-time.
- $DP_{CH-DCH}(ts)$, in MW, is transmitted at Time Step "ts" for Time Step "ts". In other words, DP_{CH-DCH} is sent in real-time, in accordance with Art. II.11.6;
- $DP_{AV\ Margin}(ts)$, in MWh, is transmitted at Time Step "ts" for Time Step "ts". In other words, $DP_{AV\ Margin}$ is sent in real-time, in accordance with Art. II.11.6;
- $DP_{FCR}(ts)$, being either 0 or 1, is transmitted at Time Step "ts" for Time Step "ts". In other words, DP_{FCR} is sent in real-time;

The requirements for the real-time communication is specified in the document "FCR real-time data exchange" published on the ELIA website and available on demand by e-mail to contracting_AS@elia.be.

ANNEX 11. AVAILABILITY TEST

In accordance with Art. II.12, ELIA controls the availability of the FCR Capacity by performing two kinds of tests: the capacity availability test and the energy availability test.

11.A ORGANIZATION OF AVAILABILITY TESTS

In accordance with Art.II.12.2, ELIA can request an availability test on a FCR Energy Bid submitted by the BSP, at any moment, while respecting the rules described in this annex.

11.B SPECIFICATIONS OF THE AVAILABILITY TESTS

Capacity Availability test

A capacity availability test is triggered by sending a test signal to the BSP, in accordance with Annex 11.G, when the Frequency passes by 50Hz.

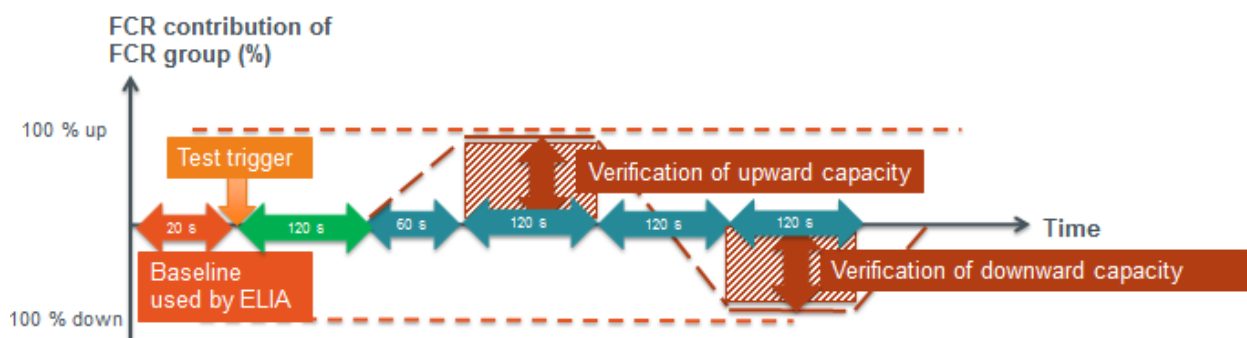
The capacity availability test consists of several steps, as shown on the illustration hereunder:

- i. A ramping phase to the FCR Capacity Requested in the upward direction of 60 seconds;
- ii. A provision of the FCR Capacity Requested in the upward direction for 120 seconds;
- iii. A phase of 60 seconds to come back to the baseline;
- iv. A ramping phase to the FCR Capacity Requested in the downward direction of 60 seconds;
- v. A provision of the FCR Capacity Requested in the downward direction for 120 seconds.

The baseline for the capacity availability test is computed over the 20 seconds preceding the moment at which the test signal is sent by ELIA., in accordance with annex 11.D.

The charging/discharging of Delivery Points with Energy Limited Reservoir should be stopped as of start time of the capacity availability test and during the whole capacity availability test.

The start time of the capacity availability test is indicated in the request sent by ELIA, in accordance with Annex 11.G. The start time is at least 2 minutes later than the moment at which the test signal is sent by ELIA.



Annex 11 Availability test

Energy availability test

An energy availability test is triggered by sending a test signal to the BSP, in accordance with Annex 11.F, when the Frequency passes by 50Hz.

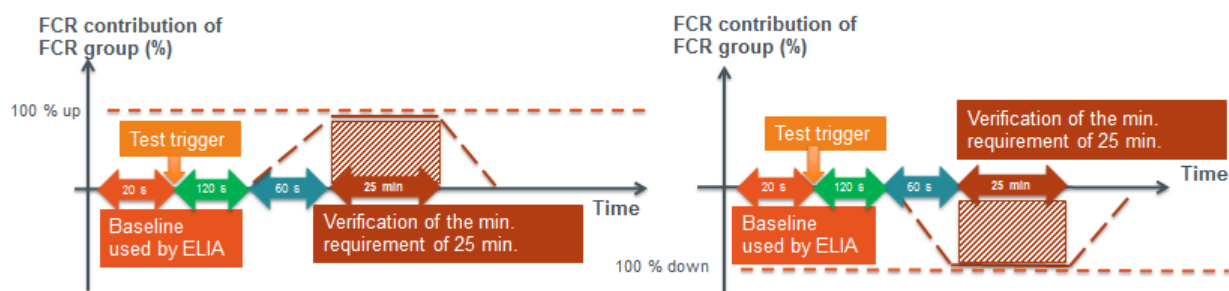
The energy availability test consists of several steps, as shown on the illustrations hereunder:

- i. A ramping phase to the FCR Capacity Requested in the requested direction of 60 seconds;
- ii. A provision of the FCR Capacity Requested in the requested direction for 25 minutes (1500 seconds);

The baseline for the energy availability test is computed over the 20 seconds preceding the moment at which the test signal is sent by ELIA., in accordance with annex 11.D.

The charging/discharging of Delivery Points with Energy Limited Reservoir should be stopped as of start time of the energy availability test and during the whole energy availability test.

The start time of the energy availability test is indicated in the request sent by ELIA, in accordance with Annex 11.G. The start time is at least 2 minutes later than the moment at which the test signal is sent by ELIA.



11.C RULES ON PERFORMANCE OF AVAILABILITY TESTS

ELIA respects the following rules to trigger the availability tests:

- ELIA performs at minimum one capacity and one energy availability test per year;
- ELIA has the right to test all the FCR Awarded at least once a year;
- ELIA has the right to perform at least one availability test per month;
- ELIA has the right to test all Delivery Points included in the Pool of the BSP once a year.

Limitation on the number of availability tests

ELIA triggers availability tests while respecting a limitation on the number of availability tests, which applies on a rolling window of 12 months, always starting at Month M (current Month).

ELIA has the right to perform at maximum 12 capacity availability tests on the rolling window:

- In case of two successive successful capacity availability tests, in accordance with Art. II.12.7, ELIA reduces this limitation to 6 capacity availability tests on the rolling window.

Annex 11 Availability test

- Any failed capacity availability test, in accordance with Art.II.12.7, automatically sets the limitation on number of capacity availability tests back to 12 for the rolling window.

ELIA has the right to perform at maximum 3 energy availability test on the rolling window. However, if the result of all energy availability tests is negative, ELIA has the right to request an additional one.

In case of dispute, the limitation is updated according to the results provided by ELIA in its report, as foreseen in Art. II.12.8, until sufficient proof is provided by the BSP to review the results and consequently agreement between ELIA and the BSP on results of the concerned availability test(s) is reached.

11.D COMPLIANCY CRITERIA

The FCR Power supplied during an availability test is determined per Time Step, taking into account all Delivery Points included in the tested FCR Energy Bid(s), as follows:

In the upward direction,

$$FCR \text{ Power supplied}_{test}(ts) = \max \{ \text{baseline} - P_{meas}(ts) ; 0 \}$$

In the downward direction,

$$FCR \text{ Power supplied}_{test}(ts) = \max \{ P_{meas}(ts) - \text{baseline} ; 0 \}$$

$$P_{meas}(ts) = \sum_{\substack{\text{All DP included in the} \\ \text{tested FCR Energy Bid(s)}}} DP_{measured}(ts)$$

The baseline is equal to the average power measured during the 20 seconds preceding the moment at which the test signal is sent by ELIA (period TS_0 to TS_0+19):

$$\text{baseline} = \frac{1}{20} * \sum_{ts=TS_0}^{TS_0+19} [P_{meas}(ts) - CH/DCH \text{ Correction}(ts) + FCR \text{ Requested}(ts)]$$

Where:

- CH/DCH Correction is determined by

$$CH/DCH \text{ Correction}(ts) = \sum_{\substack{\text{All DP with Limited Energy Reservoirs} \\ \text{included in the tested FCR Energy Bid(s)}}} DP_{CH-DCH}(ts)$$

In case Delivery Points with Limited Energy Reservoir are included in the tested FCR Energy Bid(s), the baseline integrates a correction value for the charging/discharging of the concerned Delivery Point, based on the DP_{CH-DCH} communicated in real-time by the BSP in accordance with Annex 10.C.

- FCR Requested (ts) for the tested FCR Energy Bid(s), computed in accordance with Annex 10.A.

Annex 11 Availability test

A capacity availability test is compliant if the following conditions are simultaneously satisfied:

- ✓ less than 3 values of the 10 second average FCR Power supplied, $AV_{FCR Power supplied, test} (10s window)$, are inferior to the FCR Capacity Requested for the phase of provision of the FCR Capacity Requested upward (i.e phase ii);
- ✓ less than 3 values of the 10 second average FCR Power supplied, $AV_{FCR Power supplied, test} (10s window)$, are inferior to the FCR Capacity Requested for the phase of provision of the FCR Capacity Requested downward (i.e phase v);

An energy availability test is compliant if less than 26 values of the 10 second average FCR Power supplied, $AV_{FCR Power supplied, test} (10s window)$, are inferior to the FCR Capacity Requested for the phase of provision of the FCR Capacity Requested, i.e phase ii.

$$AV_{FCR Power supplied} (10s window) = \frac{1}{10} * \sum_{ts}^{ts+9} FCR Power supplied_{test} (ts)$$

11.E DETERMINATION OF FCR MISSING MW

If a capacity availability test is not compliant, ELIA will calculate the FCR Missing MW.

To this purpose, ELIA only considers the two phases of provision of the FCR Capacity Requested (i.e. phases ii and v). The FCR Missing MW corresponds to the greatest difference, over all Times Steps of concerned phases, between:

- the FCR Capacity Requested;
- the 10 seconds average FCR Power supplied.

$$FCR \text{ Missing MW} = \max \left\{ \min_{all \ 10s \ windows} \left[FCR \ Capacity \ Requested - AV_{FCR \ Power \ supplied} (10s \ window) \right]; 0 \right\}$$

11.F DETERMINATION OF FCR MISSING TIME

If an energy availability test is not compliant, ELIA will calculate the FCR Missing Time.

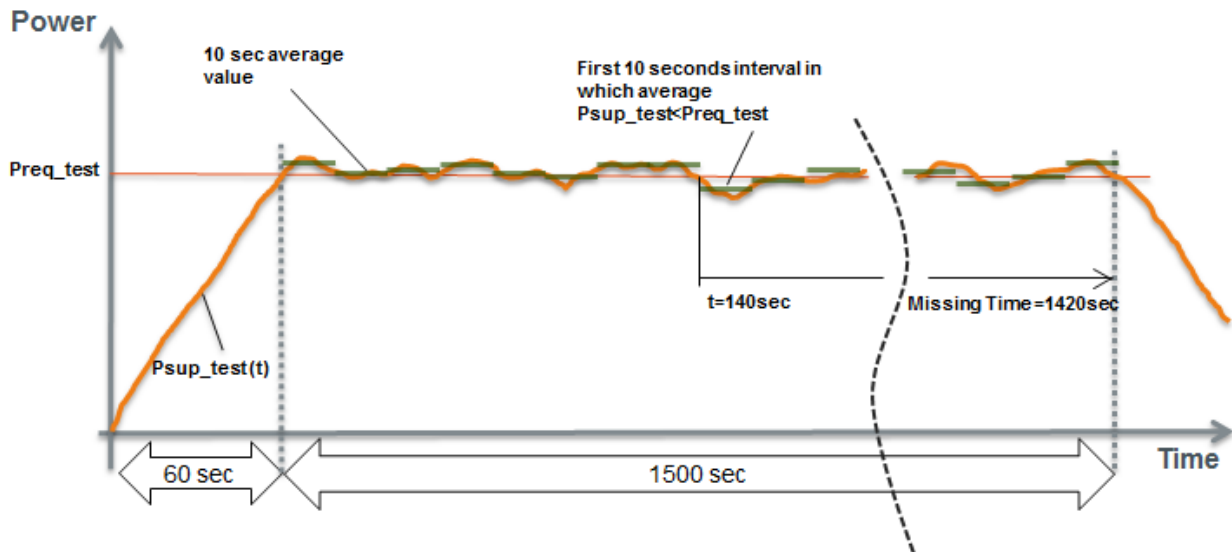
To determine the FCR Missing Time, ELIA only considers the phase of provision of the FCR Capacity Requested, i.e. the 1500 seconds of phase ii.

The FCR Missing Time corresponds to the difference between the duration (in seconds) of:

- the period comprised between start time of the 10 seconds interval, in which the first 10 second average FCR Power supplied, $AV_{FCR Power supplied} (10s window)$, inferior to the FCR Capacity Requested for the energy availability test is observed;
- the end time of the energy availability test.

Annex 11 Availability test

This can be represented in a graphical example for an Energy availability test:



In the example hereabove, the ramping phase starts at $t = 0$ second. The interval during which the first $AV_{FCR Power\ supplied}$ (10s window) inferior to the FCR Capacity Requested starts at $t = 140$ seconds. Taking into account that the energy availability test ends at $t = 1560$ seconds, the FCR Missing Time for the example amounts 1420 seconds.

11.G COMMUNICATION REQUIREMENTS

In order to trigger an availability test, ELIA notifies the BSP by an electronic message. The detailed technical specifications of the communication protocols are described in the document “FCR real-time data exchange”. This document can be consulted on the ELIA website or can be requested by e-mail to contracting_AS@elia.be or to the contractual responsible, as listed in Annex 15. ELIA can modify unilaterally the content of these messages. In such a case, ELIA informs the BSP taking into account reasonable delay, not less than 20 Working Days, for implementation before changes become effective.

ANNEX 12. ACTIVATION CONTROL

In accordance with Art. II.13, ELIA will check on a monthly basis that the FCR Supplied by the BSP meets the contractual requirements.

12.A DETERMINATION OF FCR SUPPLIED BY THE BSP

The FCR Supplied, for the analyzed Frequency Variation, is computed as follows:

in the upward direction,

$$FCR\ Supplied = \max \{ P_{meas_{before}} - P_{meas_{after}} ; 0 \}$$

in the downward direction,

$$FCR\ Supplied = \max \{ P_{meas_{after}} - P_{meas_{before}} ; 0 \}$$

Where:

- The FCR Supplies is determined based on all Delivery Points contribution. To this purpose, ELIA computes the P_{meas} for each Time Step. In case Delivery Points with Limited Energy Reservoir are included in the FCR Energy Bid, a correction value for the charging/discharging of the concerned Delivery Point, based on the DP_{CH-DCH} communicated in real-time by the BSP in accordance with Annex 10.C

$$P_{meas}(ts) = \sum_{\substack{\text{All DP included in the} \\ \text{FCR Energy Bid(s)}}} [DP_{measured}(ts) - DP_{CH-DCH}(ts)]$$

- The $P_{meas_{before}}$ is computed over the period of 20 seconds exactly preceding the Frequency Variation (period comprised between $TS_{before-19}$ and TS_{before}), as follows:

$$P_{meas_{before}} = \frac{1}{20} * \sum_{ts=TS_{before-19}}^{TS_{before}} P_{meas}(ts)$$

- The $P_{meas_{after}}$ is computed over the period of 20 seconds starting as of the time the Frequency Variation reaches its maximum value (period comprised between TS_{after} and $TS_{after+19}$), as follows:

In the upward direction,

$$P_{meas_{after}} = \min_{ts \in [TS_{after}; TS_{after+19}]} [P_{meas}(ts)]$$

In the downward direction,

$$P_{meas_{after}} = \max_{ts \in [TS_{after}; TS_{after+19}]} [P_{meas}(ts)]$$

12.B DETERMINATION OF THE FCR REQUESTED FOR A FREQUENCY VARIATION

The FCR Requested for the a certain Frequency Variation is determined as follows:

$$FCR Requested_{Frequency\ Variation} = |FCR Requested_{before} - FCR Requested_{after}|$$

Where:

- FCR Requested_{before} is the FCR Requested, as described in Annex 10.A, corresponding to the Frequency F_{before} , which is the average value of the frequency (in Hz) during the period of 20 seconds preceding the start of Frequency Variation (as communicated by ELIA for the selected Frequency Variation);

$$F_{before} = \frac{1}{20} * \sum_{ts=TS_{before}-19}^{TS_{before}} F(ts)$$

- FCR Requested_{after} is the FCR Requested, as described in Annex 10.A, corresponding to the Frequency F_{after} , which is the average value of the frequency (in Hz) during a period of 20 seconds starting at the time the Frequency Variation reaches its maximum value;

$$F_{after} = \frac{1}{20} * \sum_{ts=TS_{after}}^{TS_{after}+19} F(ts)$$

If a Frequency Variation occurs spanning two different CCTUs and in case the BSP is offering the FCR Service with the same Delivery Points in the two CCTUs, the maximum value from both CCTUs will be retained as the $FCR Requested_{Frequency\ Variation}$.

ANNEX 13. PENALTIES

13.A PENALTIES RELATED TO FCR MADE AVAILABLE

In accordance with Art. II.15.1, the penalty for non-compliance with FCR Made Available is calculated for Month M as follows:

$$P_{FCR\ Made\ Available}(Month\ M) = \sum_{All\ CCTU\ of\ Month\ M} P_{FCR\ Made\ Available}(CCTU)$$

$$P_{FCR\ Made\ Available}(CCTU) = \#CCTU_{non-compliant} * MW_{not\ made\ available} * CP_{WA}$$

Where:

- *All CCTU of Month M*

All CCTU of Month M for which the BSP has a positive FCR Obligation;

- $\#CCTU_{non-compliant}$

The number of CCTU for which a penalty related to the FCR Made Available applies for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of the concerned non-compliance with FCR Made Available;

- $MW_{not\ made\ available}$

This value is determined as follows:

- For each quarter-hour of the concerned CCTU, the difference between the FCR Obligation and the corresponding FCR Made Available is determined;
- The differences established in point (i) for each quarter-hour are summed;
- The sum established in point (ii) is divided by 4 to obtain the $MW_{not\ made\ available}$.

Example:

Non-compliant quarter-hours of CCTU 4 (16:00-20:00)	16:30-16:45	16:45-17:00	19:00-19:15	19:15-19:30
FCR Obligation (1)	70	70	70	70
FCR Made Available (2)	50	60	40	30
(1)-(2)	20	10	30	40
$MW_{not\ made\ available}$	= (20+10+30+40)/4 = 100/4 = 25			

Annex 13 Penalties

- CP_{WA}

The weighted average of capacity prices (in €/MW/h) corresponding to all FCR Capacity Bids awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of the concerned non-compliance with FCR Made Available. The weight is the FCR Awarded for the concerned FCR Capacity Bid.

In case no FCR Capacity Bid has been awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of the concerned non-compliance with FCR Made Available, CP_{WA} is equal to the average price of the capacity auction corresponding to the CCTU for which the non-compliance is observed;

13.B PENALTIES FOR FCR MISSING MW

In accordance with Art. II.15.4, the penalty resulting from FCR Missing MW is calculated on a monthly basis as follows:

$$P_{FCR\ Missing\ MW} = \sum_{month\ M} \alpha * FCR\ Missing\ MW * CP_{WA} * \#CCTU * hours_{CCTU}$$

Where:

- α : penalty factor equals to 0,75 by default;
In case the penalty concerns a second consecutive failed availability test, α is equal to 1,5.
- CP_{WA} : the weighted average of capacity prices (in €/MW/h) corresponding to all FCR Capacity Bids awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of performance of the concerned availability test. The weight is the FCR Awarded for the concerned FCR Capacity Bid;
- $\#CCTU$: the number of CCTU for which at least one FCR Capacity Bid has been awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of performance of the concerned availability test;
- $hours_{CCTU}$: number of hours of a CCTU.

13.C PENALTIES FOR FCR MISSING TIME

In accordance with Art. II.15.4, the penalty resulting from FCR Missing Time is calculated on a monthly basis as follows:

$$P_{FCR\ Missing\ Time} = \sum_{month\ M} \alpha * \frac{FCR\ Missing\ Time}{1500} * CP_{WA} * CV_A * \#CCTU * hours_{CCTU}$$

Where:

Annex 13 Penalties

- α : penalty factor equals to 0,75 by default;
In case the penalty concerns a second consecutive failed availability test, α is equal to 1,5.
- CP_{WA} : the weighted average of capacity prices (in €/MW/h) corresponding to all FCR Capacity Bids awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of performance of the concerned availability test. The weight is the FCR Awarded for the concerned FCR Capacity Bid;
- CV_A : the average volume corresponding to all FCR Capacity Bids awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of performance of the concerned availability test.
- #CCTU: the number of CCTU for which at least one FCR Capacity Bid has been awarded to the BSP for the period comprised between Day D-29 until Day D (i.e. 30 Days), where Day D is the date of performance of the concerned availability test;
- $hours_{CCTU}$: number of hours of a CCTU.

13.D ADAPTATION OF FCR_{MAX}

In accordance with Art. II.12.7 and II.15.5, ELIA adapts the FCR_{max} in case of two failed consecutive capacity availability tests, as follows:

$$new\ FCR_{max} = FCR_{max} - \min\{FCR\ Missing\ MW_{test\ 1}; FCR\ Missing\ MW_{test\ 2}\}$$

13.E PENALTIES FOR ACTIVATION CONTROL

In accordance with Art. II.15.6, the financial penalty for Month M is determined as follows:

$$P_{non-compliant\ activations} = \sum_{\substack{\text{all analyzed Frequency Variations} \\ \text{of Month M}}} [0,2 * failure\ factor * Remuneration\ (Month\ M)]$$

$$failure\ factor = \max\left\{\frac{FCR\ Requested_{Frequency\ Variation} - FCR\ Supplied}{FCR\ Requested_{Frequency\ Variation}}; 0\right\}$$

Where:

- *Remuneration (Month M)* is the total remuneration for the FCR Awarded, determined in accordance with Art. II.14.1, for Month M.

13.F CAP FOR FINANCIAL PENALTIES

In accordance with Art. II.15.9, the monthly cap is defined as follows:

$$Monthly\ cap\ [Month\ M] = Remuneration\ for\ FCR\ Awarded\ [Month\ M]$$

ANNEX 14. APPROPRIATION STRUCTURE

Imputation code	Description
	Remuneration for FCR Awarded
	Availability control penalties
	Activation control penalties

ANNEX 15. CONTACT DETAILS

Version: DD/MM/YYYY

For ELIA:

1	Contractual responsible(s)
2	Delivery Control
3	Invoice monitoring
3.1	Settlement
3.2	Invoicing & Payment
4	Real time operations and operational monitoring
5	Offline operations (Duty)

Annex 15 Contact details

For the BSP:

1	Contractual responsible(s)
2	Capacity auctions
3	Invoicing matters
4	Real time (24 hrs per day) (max. one phone number)
5	Transactions outside real time

Updates of this list must be exchanged via email (both the contract responsible and contracting_AS@elia.be).