General Framework for Demand Side Service for Primary Control

Between

ELIA SYSTEM OPERATOR N.V., a company established under Belgian law with head office at Keizerslaan 20, B-1000 Brussels, company registration number 476.388.378, and represented by **Frank Vandenberghe** and **Chris Peeters**, authorised signatories;

Hereinafter referred to as “ELIA”

and

Company name:	
Address head Office:	
V.A.T. number :	
Represented by:	

Hereinafter referred to as the “Supplier”,

ELIA and the Supplier are referred to as "The Parties".

Disclaimer: This version of the General Framework for Demand Side Service for Primary Control (Hereinafter referred to as “General Framework R1 Load”) replaces the previous version of the General Framework for Demand Side Service for Primary Control valid between 01/01/2015 and 01/04/2016 between the Parties (Hereinafter referred to as “Initial General Framework R1 Load”).

All Short Term and Long Term Tenders organized as from 01/04/2016 and the resulting contracted volumes are subject to this General Framework R1 Load. All R1 Power Contracted before 01/04/20106 is still subject to the Initial General Framework R1 Load.

Suppliers who did not have an initial General Framework R1 with ELIA, have to sign this version only as it replaces the initial version.

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WHEREAS:

ELIA provides for the operation of the transmission grid over which it has right of ownership – or, at least, user rights (hereinafter referred to as "Transmission Grid");

ELIA has been appointed as transmission grid operator, in accordance with the law of 29 April 1999 concerning the liberalisation of the electricity market and supervises the safety, reliability and efficiency of the Transmission Grid;

ELIA must therefore ensure the provision of the requisite ancillary services – in particular Primary Control – in accordance with Art. 236 *et seq* of the Grid Code;

In this context ELIA purchases various services that, combined, meet the minimum requirements of Primary Control, such as at the moment of the signature of the General Framework:

- Demand Side Primary Control, governed by this General Framework: Asymmetric Upward Regulation when F<49,900Hz and/or Asymetric Downward Regulation when F>50,100 Hz.
- Symmetric Primary Control 100mHz and 200mHz, governed by the General Framework for Primary Control Service by Generators: Upward Regulation and Downward Regulation when F<50,000Hz respectively F≥50,000Hz.
- Asymmetric Downward Primary Control, governed by the General Framework for Primary Control Service by Generators: Downward Regulation when F≥50,100Hz

The combination of the above mentioned services is compliant with the rules and recommendations of ENTSO-E OH Policy 1.

The Supplier has the required Resources to provide ELIA with primary frequency control for Asymmetric Regulation and make it available to the Transmission Grid in accordance with Art. 237 of the Grid Code, and thus to participate in the Demand Side Primary Frequency Control Service;
OR
The Supplier has an agreement with one or more Grid Users who have the required Resources to provide ELIA with primary frequency control for Asymmetric Regulation and make it available to the Transmission Grid in accordance with Art. 237 of the Grid Code, and thus to participate with this aggregated pool of Grid Users in the Demand Side Primary Frequency Control Service.

R1 Load is procured through an Open Qualification Procedure in which both Long Term[1] and Short Term procurements can be organized subject to this General Framework for the Service. This General Framework for the Service is a multiannual Framework that can be updated when required.

[1] Usually R1 is sourced on a Short Time basis but in order to maintain all possibilities for the future, this General Framework still contains the option to source on a Long Term basis.

This General Framework for the Service applies at all times to all parties that submit a valid candidature to ELIA, within the Framework of an Open Qualification procedure published by ELIA on http://europe.ted.eu.

The present General Framework for the Service lays down the mutual rights and obligations of ELIA and The Supplier in relation to the procurement of Long Term and Short Term Demand Side Service for Primary Control and the eventual provision by The Supplier of this Service within the Control Area.

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IT IS CONSEQUENTLY AGREED AS FOLLOWS:

1 Definitions

Access Contract	The contract concluded between ELIA or the DSO and the Grid User of the Transmission or Distribution Grid, in accordance with the applicable Grid Code, which specifies the conditions relating to the granting of access to the Transmission or Distribution Grid;
Access Point(s) Concerned	One or more Access Point(s) connected to the Transmission or Distribution Grid subject of this General Framework with one or more Resources providing the Service to ELIA. A list of the Access Point(s) Concerned is agreed and kept up to date between both parties as described in Art. 4.3;
Activation Time	The time needed to activate the R1 Load Power Required;
Analysed Frequency Deviation Report	A report drawn up by ELIA relating to the R1 Load Power Supplied in the case of a Frequency Deviation;
ARP (“Access Responsible Party”)	The natural or legal person that concludes an ARP Contract with ELIA;
ARP Concerned	The ARP responsible for following up the Offtake at one or more Access Point(s) Concerned;
ARP Contract	The contract concluded between ELIA and an ARP in accordance with Articles 150 and 151 et seq of the Grid Code;
Capacity Bid(s)	A number of offered volumes for the Service in combination with a price offer, allowing ELIA to procure the Service for a defined Delivery Period;
Contracted Demand Side Primary Control Power or “Contracted R1 Load Up Power” or “Contracted R1 Load Down Power”	The quantity of the Service, being R1 load for Upward or for Downward Regulation, contracted by ELIA with the Supplier for a defined Delivery Period in relation to the General Framework ; unless mentioned explicitly, the term “Contracted R1 Load Power” will concern both services in the same manner;
Control Area	The area for which ELIA has been designated transmission grid operator in accordance with the law of 29 April 1999;

CREG	The federal regulating body of gas and electricity markets in Belgium;
Delivery Period	The timeframe and Period in which the Contracted Primary Control Power has to be made available to ELIA (e.g. January Peak ; yearly 2016 PEAK);
Demand Side Primary Control or Asymmetric Primary Control or “R1 Load Up” or “R1 Load Down” or “R1 Up Service” or “R1 Down Service” or “Service”	The automated and local response to Frequency Deviation above 100 mHz resulting in an automatic regulation of the Supplier Resources at the Access Point Concerned;
Demand Side Primary Control Power Made Available or “R1 Load Up Power Made Available” or “R1 Load Down Power Made Available”	The quantity of R1 Load Power (in MW) of the Service actually made available to ELIA by the Supplier in relation to the present General Framework; "R1 Load_Up_mad" or "R1 Load_Down_mad" : the quantity of Primary Control Power that will perform respectively Upward or Downward Regulation in case of a negative or positive Frequency Deviation; unless mentioned explicitly, the term “R1 Load Power Made Available” will concern both services in the same manner;
Demand Side Primary Control Power Obligation or “R1 Load Up Power Obligation” or “R1 Load Down Power Obligation”	The sum of Long Term Contracted Primary Up (or Down) Control Power, Short Term Contracted Primary Up (or Down) Control Power of the Service in relation to the present General Framework; unless mentioned explicitly, the term “R1 Load Power Obligation” will concern both services in the same manner;
Demand Side Primary Control Power or “R1 Load Power”	A quantity of the Service expressed in MW;
Demand Side Primary Control Power Required or "Plev_required"	The R1 Load Power (in MW) of the Service to be supplied for Upward or Downward Regulation by the Supplier to the Transmission Grid following a Frequency Deviation in relation to the present General Framework;
Demand Side Primary Control Power Supplied or “R1 Load Up Power Supplied” or “R1 Load Down Power Supplied”	The quantity of Primary Control Power (in MW) of the Service physically supplied by the Supplier for Upward or Downward Regulation to the Transmission Grid following a Frequency Deviation in relation to the present General Framework; unless mentioned explicitly, the term “R1 Load Power Supplied” will concern both services in the

	same manner;
Distribution Grid	The electricity distribution system for which the Distribution System Operator has proprietary rights or at least user or operating rights and for which it is the designated Distribution System Operator as licensed by the Regional Regulator or the competent regional authorities;
Distribution System Operator Concerned ("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 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 Distribution Grid to meet reasonable demands for electricity distribution;
Downward Regulation	In case of a positive Frequency Deviation, Primary Control Power supplied to the Transmission Grid (by decreasing production or increasing Offtake);
ENTSO-E	European Network of Transmission System Operators for Electricity;
Frequency Deviation	A deviation (positive or negative) in the Frequency, compared to 50.000Hz;
Frequency or "F"	The frequency of the Transmission Grid in Hz;
General Framework	The present General Framework for Primary Control Service;
General Terms & Conditions	The General Conditions governing ancillary services at the time that a Capacity Bid is made valid for the applicable Delivery Period. At the moment of the signature of the General Framework, the version published on ELIA's website dates 13/05/2013. All references in the General Framework are based on this version;
Grid Code	The provisions of the Royal Decree of 19 December 2002 regarding the technical regulations for operating an electricity grid and access thereto;

Grid User Concerned	The natural or legal party connected to the Transmission or Distribution Grid as supplier or consumer at an Access Point Concerned;
Interruptibility Contract	A contract for the Interruptibility service that can be concluded between ELIA and the Supplier, which specifies the product of Interruptibility;
Local Production	We speak of local production if the production units are connected to an Access Point Concerned;
Long Off Peak or LOP	A Period defined as follows: The hours between 20:00 pm and 08:00 am for all 7 the days of the week and the hours between 08:00 am and 20:00pm on Saturday and Sunday;
Long Term	Relative to the Long-Term Products;
Long Term Product	The Service or Variant Service with a Delivery Period greater than one Month;
Lot	A quantity of power (expressed in MW) contracted by ELIA with the Supplier for a Long Term Delivery Period;
Maximum Offtake	The maximum electrical offtake from the Transmission or Distribution Grid at an Access Point Concerned by the Grid User, in order to be able to deliver the Contracted R1 Load Down Power; this value can be positive or negative;
Minimum Offtake	The minimum electrical offtake level from the Transmission Grid or Distribution Grid at an Access Point Concerned by the Grid User, in order to be able to deliver the Contracted R1 Up Power; this value can be positive or negative;
Missing MW Upward or “R1Load up_missing” and/or Missing MW Downward or "R1Load down_missing"	The difference (in MW) between the Primary Up (respectively Down) Control Power Obligation and Primary Control Power Up (respectively Down) Made Available by the Supplier; unless mentioned explicitly, the term “Missing MW” will concern both services in the same manner;
Month	Period starting at 0hrs the 1st of the month until 24hrs the last day of the month;

Monthly Fixed Remuneration	The remuneration for the reservation of the Long Term Contracted R1 Load Power of the Service described in Art. 6.2.1of the present General Framework;
Monthly ST Remuneration	The remuneration for the reservation of the Short Term Contracted R1 Load Power of the Service described in Art. 6.2.2of the present General Framework , calculated on a monthly basis irrespective of the Delivery Period of the Short-Term Products;
Offtake	Usage of Active Power at a physical location connected to the Transmission Grid at a certain voltage level;
Open Qualification Procedure	A pre-qualification procedure in which prospective suppliers are screened based on criteria set by ELIA in a publication on ted.europe.eu;
Peak or P	A Period defined as follows: the hours between 08:00 and 20:00 during weekdays (from Monday till Friday, including holidays);
Period	Peak (P) hours or Long Off-Peak (LOP) hours;
Prequalification Procedure	The procedure describing the different tests that should be completed in order for a Resource to be pre-qualified by ELIA as described in Annex 5;
Primary Control	The increase/decrease of active power based on a frequency deviation (all services, this Service and Variant Services of Primary Control, together lead to linear reaction for frequency deviations between -200 and +200mHz, as described by Entso-e);
Primary Control Range	The range of frequency in which Primary Control Power, depending on the service, is activated: • whenever the frequency is equal to or greater than 50,000Hz (Primary Control Range F≥50,000Hz) • whenever the frequency is equal to or greater than 50,100Hz (Primary Control Range F≥50,100Hz) • whenever the frequency is lower than 50,000Hz (Primary Control Range F< 50,000Hz) • whenever the frequency is equal to or lower than 49,900Hz (Primary Control Range F≤ 49,900Hz);

Resource	An equipment not registered in a CIPU contract connected to the Transmission Grid or the Distribution Grid at an Access Point Concerned, that makes available and supplies the R1 Load Power Required within the Periods mentioned in this General Framework via an automatic adjustment mechanism to Frequency Deviation;
Strategic Demand Reserve Contracts	A contract governing the provision of the Strategic Demand Reserve service on an Access Point Concerned;
Short Term	Relative to the Short-Term Products;
Short Term Product	The Service or a Variant Service with a Delivery Period smaller or equal to one Month;
Supplier-DSO contract	An agreement between the Supplier and DSO allowing the Supplier to provide the Service to ELIA with the Access Points listed in this agreement;
Transmission Grid	The electricity transport system for which ELIA has proprietary rights or at least user or operating rights and for which ELIA is the designated operator;
Unavailability	A well-defined period of time in which the quantity of Primary Control Power Made Available to ELIA is less than the Contracted Primary Control Power;
Upward Regulation	In case of a negative Frequency Deviation, power supplied to the Transmission Grid (by increasing production or decreasing Total Offtake);
Variant Service	An existing or future service consisting of the provision of Primary Control to ELIA, other than the Service described in the General Framework that can, if applicable and described in the award criteria, compete in a tender with the Service;
Week	Period starting at 0hrs Monday morning until 24hrs the next Sunday;

2 Conclusion of the General Framework and application of the General Terms & Conditions

2.1. The Supplier makes best effort (not being unreasonable) by signature of this General Framework to participate in the procurements for the Service throughout the validity period of the General Framework, i.e. from 1 April 2016 to 31 December 2018, and in case of Contracted R1 Load Power for a Delivery Period, to provide the Service throughout this Delivery Period.

2.2. The present General Framework will come into force subject to the conditions set forth in the Open Qualification Procedure.

2.3. ELIA is entitled to evaluate, at any time during the validity period of the General Framework, whether the Supplier complies with the conditions mentioned in Art. 2.2. For the avoidance of doubt, this does not entail any right for ELIA to physically access Supplier's assets unless necessary for verification of the measurement installations as foreseen in Art. 5.2. If it is confirmed that the Supplier no longer complies with these conditions, ELIA will notify the Supplier and the General Framework will be suspended. If after 15 working days the Supplier remains uncompliant to these conditions the General Framework will be terminated without prior approval by a court of law in accordance with the terms of Art. 11 of the General Terms & Conditions.

2.4. The performance of the General Framework is governed by the General Terms & Conditions. An update of the General Terms & Conditions will be done be in accordance with Ch. 9.

2.5. The clauses of the General Framework will be supplemented by the General Terms & Conditions. If there is a contradiction between the General Framework and the General Terms & Conditions, the General Framework shall take precedence.

2.6. The Supplier declares that he has received a copy of the General Terms & Conditions, which can also be consulted on ELIA's website (http://www.elia.be/en/suppliers/information-and-tools-for-suppliers) and that he accepts them. The Supplier hereby renounces his own general conditions, special or otherwise, regardless of the time when they were remitted or the form of their remittance.

3 Subject matter of the General Framework

3.1. The General Framework governs the general agreement between the Parties regarding the procurement of the Service by ELIA from the Supplier and the rights and obligations of the Parties with regard to the provision of the Service, in accordance with the terms and specifications hereof.

3.2. Within the framework of this General Framework, ELIA will procure the Service "Demand Side Primary Control", during Peak and Long Off Peak Hours.

3.3. In case of a Contracted R1 Load Power, the Supplier will provide the Demand Side Primary Control for ELIA at the Access Point(s) Concerned.

3.4. Procurement of the Service

3.4.1. For the purpose of determining the R1 Load Power Obligations, the quantity of Long Term Contracted R1 Load Power and Short Term Contracted R1 Load Power is determined as follows:

3.4.2. Principles

- ELIA will contract a part of its Primary Control on Short Term and a part on Long Term basis from Suppliers holding a valid General Framework for the Service or an agreement for Variant Services with ELIA;
- The repartition of the total procured Primary Control Power by ELIA on a Short Term and/or Long Term basis and the determination of the split between the Service and other Variant Services are defined by ELIA (both Long Term and Short Term can be set at 0MW);
- ELIA is entitled to organize a Long Term procurement with the possibility to reduce the procured Primary Control Power partially or completely in favor of Short Term procurement;
- To participate in a Short Term and/or Long Term procurement for the Service organized by ELIA, the Supplier must have signed a valid General Framework with ELIA which is valid at least until the end of the applicable Delivery Period;
- If the conditions set forth in the Open Qualification Procedure are not valid during the entire Delivery Period, the Supplier should reapply via the Open Qualification Procedure and sign a new General Framework for the Service with ELIA;
- The Supplier allows ELIA to publish aggregated and anonymized information relating to the Long Term and Short Term results on ELIA's website;
- The present General Framework lays down the conditions and procedures for participation in this Long Term and/or Short Term procurement of the Service.

3.4.3. Procedure for participation in the Long Term and Short Term procurement

ELIA will duly inform all Suppliers of the specific conditions for Long Term and Short Term procurement of the Service. These conditions will contain at least what follows:

- ELIA will announce the procurement on a Long Term basis to the Suppliers with a valid General Framework at that moment, at least fourteen calendar days before the call for tender (hereinafter referred to as "Call for Tender";
    - This announcement will contain at least:
        - The Long Term Delivery Period;
        - If known, the volume that ELIA will contract on a Long Term Basis, if not known an estimated volume;

- The date of the launch of the call for tender;
- The deadline to submit the Long Term Capacity Bids.

- For Short Term procurement, the tendering for Delivery Period P will take place earliest at the start of Delivery Period P-1. The volumes and Delivery Periods put out to tender will be published by ELIA on its website.
- The platform and/or formats, are defined by ELIA and
  - For a Long Term procurement will be communicated with the call for tender;
  - For the Short Term procurements are published on ELIA's website (http://www.elia.be/en/suppliers/purchasing-categories/energy-purchases/Ancillary-Services-Volumes-Prices)
- Valid Capacity Bids will consist of:
  - a volume for the Service;
  - a unit price for the reservation in €/MW/h;
  - if applicable, some optional conditions set by the Supplier as part of an ELIA-pre-defined list of eligible conditions;
- The permitted number of Capacity Bid(s) is unlimited. When participating, the Supplier will make his best efforts (not being unreasonable) to introduce the largest number of (if necessary mutually exclusive) combinations of Capacity Bid(s) possible, even if the offered price does not change for different volumes and/or combinations of Capacity Bid(s), in order to facilitate the determination of the overall lowest-cost choice.
- Capacity Bids will be at least 1MW and any additional capacity must be offered in minimum increments of ±1 MW.
- For the duration of the entire applicable Delivery Period, the provision of R1 Load Power is portfolio based, meaning that Capacity Bids are linked to the portfolio of Resources located at the Access Points Concerned agreed between both Parties, but not to a specific Resource.
- The Supplier can submit bids for the R1 Load Up or Down Services independently.
- The maximum volume of a Capacity bid shall not exceed the sum of the maximum R1 Load Up or Down per Access Point Concerned as agreed between both Parties in the list of Access Points Concerned as defined in Art. 4.3.
- A Capacity Bid is a firm commitment by the Supplier to deliver the corresponding R1 Load Power Obligation at the specified unit price if awarded by ELIA as part of the procurement process. A Supplier shall not use the offered capacity in any way until he has been notified of the outcome of the

tender or until the deadline for communication, as specified with the call for tender or in the bidding instructions, of the award by ELIA, has passed.

- At the moment where ELIA has received all valid Capacity Bids, ELIA might ask a modification of some specific Capacity Bids or ELIA might contact all parties with a General Framework for Primary Control (this Service and/or a Variant Service) and ask to make more Primary Control Power available; this in order to guarantee the optimal economical award or in the case where insufficient volume has been offered to ELIA. The Supplier will make his best efforts to respond to such a request.
- Once a Capacity Bid is awarded, the award decision will be communicated to the Supplier by ELIA. As from that moment the awarded Bid is considered to be the Contracted R1 Load Power. ELIA will publish relevant aggregated and anonymized information regarding the awarded volumes and prices on its website.
- For the Short Term procurement the awarding criteria are published on ELIA's website.
- For the Long Term procurement the awarding criteria will be communicated with the Call for Tender.
- For every Capacity Bid awarded by ELIA, the Supplier will receive an order confirmation stating the volume, the reserve period and the amount of remuneration.
    - Long Term awarded Capacity Bids will be added to the General Framework by exchange of a completed template Annex 1 and a purchase order will be issued by ELIA.
    - Short Term awarded Capacity Bids are fixed in a purchase order.

3.4.4. Consequences of Contracted R1 Load Power:

If a Capacity Bid is awarded, the Supplier undertakes to supply the Service for the entire duration from the start of the applicable Delivery Period (without further action by ELIA).

This implies:

- The quantity of Contracted R1 Load Power is a part of the R1 Load Obligation for the application of all provisions of the present General Framework.
- Consequently, the R1 Load Power Made Available to be activated by the Supplier on his Resources, the record and monitoring of the provision of the Service, the resulting penalties for non-compliance according to Ch. 7 among other provisions will be based on the R1 Load Power Obligations.
- The remuneration for the Contracted R1 will be based on the offered unit price as described in Art.6.2.

3.5. Change in the quantity or the characteristics of Long Term Contracted R1 Load Power at ELIA's request

3.5.1. The quantity of Long Term Contracted R1 Load Power stated in the completed template of Annex 1 for the applicable Delivery Period and/or the characteristics such as the value of the power/frequency characteristic λ0 or λELIA mentioned in Annex 3of the present General Framework might be reviewed at ELIA's request if:

- The rules, recommendations and/or procedures of ENTSO-E are changed during the Long Term Delivery Period. The review will be done in accordance with the changed rules, recommendations and procedures of ENTSO-E. ELIA shall consult the Suppliers about the introduction of such new rules.
- ELIA has the possibility, during the validity period of the General Framework, to contract Primary Control Power with other market players, in accordance with Art.233 of the Grid Code;
- ELIA decides, for an objectively justified reason, to limit or cancel the quantity of power contracted for Demand Side Primary Control.

3.5.2. If the General Framework is reviewed as per Art. 3.5.1, the Parties shall take into account and, as the case may be, consult one another on the time the Supplier and/or ELIA need to technically arrange the new quantity of Long Term Contracted R1 Load Power and/or the new value of the power/frequency characteristic λ0 or λELIA, as well as the transfer measures associated therewith. The procedure set out in Articles 10.1-10.4 of the General Terms & Conditions ("Review") applies to this clause.

3.6. Activation

- In case of a Frequency Deviation, the Supplier will activate automatically the R1 Load Power Required as defined in Annex 4.
- The activation will be done within the foreseen Activation Time as defined in Annex 4.
- The R1 Load Power Supplied must be able to remain activated without interruption for 15 minutes after its activation.
- The frequency measurements must be local, meaning that the equipment measuring the Frequency Deviations must be installed at each site of an Access Point Concerned.

4 Conditions for participation in the Service (selection conditions in the Open Qualification Procedure)

4.1. For the avoidance of any misunderstanding, the Parties are aware of the mutual relationships that exist between the present General Framework, the Interruptibility Contract(s), Strategic Demand Reserve Contracts the ARP Contract(s) and the Access

Contract(s) with ELIA and/or the DSO concerned, as each of them is an essential constituent of the means that ELIA uses to ensure the safety, reliability and efficiency of the Transmission Grid. The observance of the rules set out in the aforementioned contracts is necessary for the proper implementation of the present General Framework.

4.2. Notwithstanding the fact the Supplier has met the selection conditions in the Open Qualification Procedure, ELIA is entitled to evaluate at any time during the validity period of the General Framework, whether the Supplier complies with these conditions as mentioned in Art 2.3.

4.3. Access Points Concerned

4.3.1. The Supplier and ELIA agree on the list of Access Points Concerned with a Resource that the Supplier declares technically capable of providing the Service and that are prequalified as specified in Annex 5.

This list of Access Points Concerned may be updated during the lifetime of the General Framework if following principles are respected:

- Changes become effective at the beginning of each month;
- The changes must be notified to ELIA by submitting via e-mail to contracting_AS@elia.be :
    - an updated list of Access Points based on the template in Annex 2;
    - a signed version of Annex 3 by the new Grid Users Concerned;
- At the moment of the notification, the Delivery Points must be in respect with the applicable conditions set in Articles 4.3 and 4.4 ;
- Changes become effective at the beginning of each Month;
- ELIA will accept or reject the updated list at latest 5 working days by e-mail after reception of notice;
- A changed pool will only come into force in case the prequalification test has been succeeded as described in Annex 5. The Supplier can choose to perform this test on the entire portfolio or on the specific Access Points Concerned;
- The changes may not result in a change in the Contracted Primary Control Power as specified in Art. 3.4.3.

4.3.2. The maximum R1 Load Power to be provided on one Access Point Concerned is limited to 25MW.

4.3.3. The Supplier confirms that the Access Point(s) Concerned is/are included both in valid Access Contracts and valid ARP Contracts.

4.3.4. In case the Supplier is not the Grid User Concerned, the Supplier has obtained the consent of all Grid Users Concerned, by signature of Annex 3by the Grid User Concerned. The Supplier provides ELIA with a copy of the signed Annex 3for each Access Point Concerned.

4.4. Conditions specific for the Access Points connected to the DSO grid

- The Supplier and the DSO agree, in a contract (hereinafter referred to as "Supplier-DSO contract") on a list of Access Points connected to the DSO grid that the Supplier declares technically capable of providing the Service.
- ELIA must receive a copy of the signed Supplier-DSO contract.
- The list of DSO connected Access Points is provided by the DSO to ELIA. ELIA will only consider this list. The Supplier keeps ELIA informed of the latest list of DSO connected Access Points for informative purposes.
- ELIA will perform its pre-qualification procedure on these Access Points under the conditions specified in Annex 5.

4.5. If it is confirmed that the Supplier, during the validity period of the present General Framework, does not meet the conditions set out in Art 2.2, the Parties shall enter into consultation in accordance with the terms of Art. 11 of the General Terms & Conditions.

4.6. The Supplier will inform the ARP(s) Concerned of the present General Framework.

4.7. The Supplier holds ELIA harmless – notwithstanding any other provision of the present General Framework and within the limits of liability described in the General Terms & Conditions – from any claim that a third party might institute against ELIA as a direct or indirect consequence of the present General Framework.

5 Record and monitoring of the Service

5.1. Monitoring of the R1 Load Power Made Available

5.1.1. The R1 load Power Made Available to ELIA for a given Period will be monitored based on ELIA's own measurements at Access Point(s) concerned, the technical characteristics as mentioned in Annex 2and the Unavailability communicated by the Supplier as per method described in Annex 6; also, depending on the Service (Upward or Downward), on one of the following values (considering their sum for all Access Points Concerned):

- The Minimum Offtake value for the Access Point Concerned for a given Period as declared in Annex 2. When the power measured for the given Period is below this level, the Supplier will be unable to activate the Primary Control Power Required, resulting in a lower amount of Primary Control Power Made Available.
- The Maximum Offtake value for the Access Point Concerned for a given Period as declared in Annex 2. When the power measured for this Access Point for the given Period is above this level, the Supplier will be unable to activate the Primary Control Power Required, resulting in a lower amount of Primary Control Power Made Available.

5.1.2. For Access Points for which ELIA does not have its own measurements the R1 Load Power Made Available to ELIA for a given period will be monitored based on measurement data communicated by the Supplier as described in Annex 13 which ELIA will integrate ex-post to quarter-hourly values, the technical characteristics as mentioned in Annex 2and the Unavailability communicated by the Supplier as per method described in Annex 6.

5.1.3. In case of application of Art. 5.1.2 ELIA must validate the possible use of the Supplier's measuring equipment for his availability & activation controls (as described in Ch. 7) before the first Delivery Period. In such a situation, the Supplier is responsible for providing ELIA with accurate data, and is responsible for the correct functioning and maintenance of his measuring equipment. In order to ensure the accuracy of the transmitted measurements, ELIA reserves the right to perform necessary verifications during the contractual period; the Supplier must facilitate the said verifications by all possible means. Should these verifications prove the transmitted measurement data to be inaccurate, ELIA will notify the Supplier by registered letter and will request that an explanation be provided by registered letter within 7 calendar days starting from notification; in the absence of an answer or in case the explanation for the said deviations does not suffice to prove that the Supplier has made his best effort to provide accurate data to ELIA, the Access Point Concerned will be immediately suspended from the list of Access Points with which the Supplier provides the Service (Annex 2of the present General Framework) until a new verification proving the accuracy of ex-post data is performed by ELIA on demand of the supplier. Also in this case, unless proved otherwise by the Supplier ELIA will consider that all measurements communicated by the Supplier since the beginning of the contract are false. ELIA reserves the right to take all further action in reclaiming its Damage and Interests as foreseen by the General Terms & Conditions. Furthermore, in accordance to article 66 of the Royal Decree of 16th of July 2012 relative to the award of public contracts, ELIA reserves the right to exclude the Supplier from its future procurement procedures for an indefinite time period.

5.1.4. The Supplier will notify ELIA in case of Unavailability, as described in Annex 6.

5.1.5. ELIA provides, at the latest two months after the month M a report for the evaluation and monitoring of the R1 Load Power Made Available during this month M, by the Supplier.

5.1.6. Should a dispute arise over the measurements taken by ELIA as mentioned in Art. 5.1.1 they may be compared with those made by the Supplier provided both measurements have comparable time references. If the Supplier observes a significant error or difference between both series of measurements, ELIA will be informed hereof within the deadline specified in Art. 8.5of the present General Framework.

5.1.7. The Parties agree that if the average R1 Load Power Made Available during a month does not meet the Contracted R1 Load Power for that month as defined in Art. 3.4, the remuneration to be paid by ELIA to the Supplier will be reduced by the remuneration reductions under Art. 7.1, without prejudice to any liability of the Supplier for the non-fulfillment of his obligations under Art. 4 of the General Terms & Conditions.

5.2. Monitoring of the R1 Load Power Supplied

5.2.1. The R1 Load Power Supplied will be evaluated by comparing, for 3 Frequency Deviations, the R1 Load Power Required, as defined in Annex 4, with the R1 Load Power Supplied as per method described in Annex 7. For this evaluation, ELIA will always use, when available, its own measurements at the Access Point(s) Concerned. If there are no available measurements ELIA will use measurements transmitted by the Supplier as described in Annex 13.

5.2.2. ELIA provides, at latest two months after the month when the analyzed Frequency Deviation occurred, the Analyzed Frequency Deviation Report for the evaluation and monitoring of the R1 Load Power Supplied[2] by the Supplier.

5.2.3. As distinct from the foregoing, ELIA reserves the right to make additionally two full, one-off reports during the validity period of the General Framework that will go back up to 6 (six) months in time.

5.2.4. Should a dispute arise over the Frequency Deviations measured by ELIA, the measurements taken by ELIA may be compared with those made by the Supplier provided both measurements have comparable time references. If the Supplier observes a significant error or difference between both series of measurements, ELIA will be informed hereof within the deadline specified in Art. 8.5of the present General Framework.

5.2.5. The Parties agree that if the R1 Load Power Required is not provided by the Supplier in accordance with this General Framework as specified according to this article, the price to be paid by ELIA will be reduced by the remuneration reductions under Art. 7.2, without prejudice to any liability of the Supplier for the non-fulfillment of his obligations under Art. 4 of the General Terms & Conditions

5.2.6. When the Supplier doubts that the measurements of the Resource used by ELIA to determine the R1 Load Power Supplied are disrupted with other random consumptions not related the Resource R1, he may challenge these measurements. In this case he must provide ELIA with his own measurements of the Resource R1 (new value every 10sec), In case these measurements show that the Service was provided by the Resource, the reductions described in Art. 7.2will not apply.

[2] A priori by the analysis of 3 frequency deviations per month greater than 100mHz

6 Remuneration

6.1. The remuneration of the Service consists only of remuneration for reservation of the Long Term and/or Short Term Contracted R1 Load Power.

6.2. Remuneration for Reservation

6.2.1. The foreseen remuneration or Monthly Fixed Remuneration for the delivery of the Long Term Contracted R1 Load Power will be calculated on the basis of the unit prices and volume of Contracted R1 Load Power listed in the exchanged, completed template Annex 1.

It corresponds to the sum of remunerations for the various Lots where each remuneration is the product of:

- The unit price for that particular Lot in accordance with the exchanged, completed template Annex 1
- The number of MW of said Lot in accordance with the exchanged, completed template Annex 1 and
- The number of corresponding hours per year for the Delivery Period concerned, divided by 12.

6.2.2. The foreseen remuneration or Monthly ST Remuneration for the delivery of the Short Term Contracted R1 Load Power will be calculated on a monthly basis, based on unit prices of the corresponding Short Term Contracted R1 Load Power. The remuneration corresponds to the sum of the remunerations for the various selected Short Term Capacity Bids where the remuneration is the product of:

- The unit price, in €/MW/h; for the Short Term Contracted R1 Load Power in accordance with Art. 3.4;
- The number of MW of said Short Term Contracted R1 Load Power in accordance with Art. 3.4. and
- The number of corresponding hours of the Delivery Period concerned.

6.3. There will be no remuneration for the energy supplied in the framework of the performance of the present General Framework.

7 Penalties for non-performance of the General Framework

7.1. Non-compliance with the R1 Load Power Obligation (Availability)

7.1.1. ELIA will check every month whether the R1 Load Power Made Available to ELIA measured as defined in Ch. 5, during month M-2, meets the Contracted R1 Load Power as per Art. 3.4.

7.1.2. If ELIA established that the Supplier has failed to provide the quantity of Contracted R1 Load Power as per Art. 3.4, a monthly reduction RED1, as described in Annex 8will be applied.

7.2. Non-compliance with the R1 Load Power Required (Activation)

7.2.1. ELIA will check every month that the quantity of R1 Load Power Supplied by the Supplier, measured as defined in Ch. 5, during Frequency Deviation in month M-1, meets the requirements under Art. 3.6. of the present General Framework.

7.2.2. In case ELIA establishes that the Supplier has failed to deliver the R1 Load Power Supplied foreseen under Art. 3.3., ELIA is entitled to apply monthly remuneration reductions as defined in Annex 9.

7.3. Accumulation of penalties

Penalties for non-compliance with R1 Load Power Obligation and penalties for non-compliance with the R1 Load Power Required can be accumulated.

7.4. Penalty cap

The sum of the penalties under Art. 7.1 and 7.2of the present General Framework will be subject to a monthly and a yearly cap, without prejudice to any liability on the part of the Supplier for the non-fulfillment of his obligations in accordance with Art. 6 of the General Terms & Conditions. The method for calculation of these penalty caps is detailed in Annex 10.

8 Invoicing and payment

8.1. For every volume awarded (Long Term and/or Short Term Contracted R1 Load Power) the Supplier will receive an order confirmation stating a purchase order number and the remunerations.

8.2. Via a joint validation platform or other channel, ELIA will provide in accordance with Art. 5.1.1the Supplier with a report, at the latest by the end of each calendar month, relating to the evaluation and monitoring of the R1 Load Power Made Available in month M-2. This report will indicate, among other things, all penalties for month M-2 as calculated by ELIA in accordance with Art. 7.1of the present General Framework, showing the method of calculation and all data on which the calculation is based.

8.3. Via a joint validation platform or other channel, ELIA will provide in accordance with Art. 5.1.1. the Supplier with a report, at the latest by the end of each calendar month, relating to the evaluation and monitoring of the R1 Load Power Supplied provided by the Supplier in month M-2. This report will indicate, among other things, all penalties for month M-2 as calculated by ELIA in accordance with Art. 7.2of the present General Framework, showing the method of calculation and all data on which the calculation is based.

8.4. If it appears subsequently that the calculated penalty(ies) is(are) incorrect, the first Party to take action will inform the other Party thereof as soon as possible. The Parties will then try to reach an amicable solution. In the absence thereof, the dispute settlement procedure mentioned in Art. 13.2 of the General Terms & Conditions shall apply.

8.5. Disputes from the Supplier regarding the report stipulated in Art. 8.2must be reported within 25 calendar days starting from the day following ELIA's submission of the respective report. Should this occur, the Parties shall enter into negotiations with each other with a view to reaching an agreement.

If no agreement can be reached:

- The Supplier, when drawing up his pro-forma invoice for Month M as specified in Art. 8.6, shall take 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. 13.2 of the General Terms & Conditions shall apply.

8.6. The Supplier shall send ELIA's Settlement department (see list of contact persons exchanged as described in Art. 10) his monthly pro-forma invoice no later than on the 25th (twenty-fifth) of each calendar month M. The pro-forma invoice will include, among other things:

(a) the purchase order number
(b) the Monthly Fixed Remuneration for the Long Term Contracted R1 Load Power for the following month, calculated as described in Art. 6.2.1of the present General Framework;
(c) The Monthly ST Remuneration for the Short Term Contracted R1 Load Power for month M, calculated as described in Art. 6.2.2
(d) As the case may be, the availability penalties for month M-3 as calculated by ELIA under Art. 7.1. and as reported by ELIA under Art. 8.2of the present General Framework;
(e) As the case may be, the activation penalties for month M-3 as calculated by ELIA under Art. 7.2. and as reported by ELIA under Art. 8.3of the present General Framework;
(f) The Supplier's bank account number to which payment must be made.

8.7. ELIA shall either approve or reject the pro-forma invoice within 5 working days of receiving it. In accordance with the pro-forma invoice, the invoice may only be sent to the Invoicing & Payment department after ELIA has approved the pro-forma invoice.

8.8. Annex 11includes the appropriation structure to be used by the Supplier.

9 Modifications to the General Framework

9.1. ELIA has the responsibility to have the same General Framework for the Service for all Suppliers.

9.2. Therefore, before modifying the General Framework, ELIA will inform all the Suppliers who have signed a General Framework for the Service at least thirty days before a Short Term and/or Long Term procurement by means of a proposal for an addendum.

- For Short Term procurement this is thirty calendar days before the opening of Gate 1;
- For Long Term procurement this is thirty calendar days before the call for tender;

9.3. In case the notification is made less than thirty calendar days before the procurement, the current General Framework without modifications will apply.

9.4. When ELIA does not reach an agreement with one or more parties who have signed a General Framework for the Service with ELIA, ELIA can, in order to respect Art. 9.1:

- notify all abovementioned parties that the General Framework without modifications will apply for the next tender
- exclude the Supplier that refuses the addendum from a Long Term and/or Short Term tender.

9.5. All contracted R1 Load Power from the Supplier in a Long Term and/or Short Term procurement before the contractual update are subject to the General Framework applicable at that time.

9.6. In case of modifications to the General Framework requested by the Supplier to ELIA, ELIA will consider these modifications, taking Art. 9.1into account and to implement the changes, will proceed as described in Art. 9.2

10 Contact persons

10.1. Both parties shall keep the contact details up to date throughout the validity of the General Framework, by exchanging the filled out template in Annex 12. These exchanges and updates can be done via e-mail.

10.2. All contacts between the Supplier and ELIA regarding the present General Framework should take place between the persons designated in this list.

Drawn up in Brussels on [date] in duplicate, with each Party declaring having received an original copy.

ELIA SYSTEM OPERATOR N.V., represented by:

Name : Frank Vandenberghe
Function : Chief Officer Customers, Market & System
Date:

Name: Chris Peeters
Function : Chief Executive Officer
Date:

XXX Represented by:

Name : XXX
Function :
Date:

Name: XXX
Function :
Date:

Annex 1. Template Long Term Contracted R1 Load Power

This Annex is a part of the General Framework for R1 Load Service concluded between both Parties and lays down the Long Term Contracted R1 Load Power.

Delivery Period: from XX/XX/XXXX till XX/XX/XXXX

Lot	Service & Product type	Volume [MW]	Price [€/MW/h]	Period
1	R1 Load Service (upward regulation)			Peak
2	R1 Load Service (upward regulation)			Long Off-peak
3	R1 Load Service (downward regulation)			Peak
4	R1 Load Service (downward regulation)			Long Off-peak

ANNEX 2. Template for the list of Access Points Concerned

Supplier :
Version:

In accordance with Art. 4.3the Supplier must declare its Resources connected to Access Point(s) Concerned connected to the Transmission or Distribution Grid that are technically capable of making available and supplying R1 Load Power.

The list of Access Points Concerned can be modified in the lifetime of the General Framework under the conditions described in Art. 4.3.

Updates of this list must be exchanged and agreed upon via email (both to the contracting responsible and contracting_AS@elia.be) in respect of conditions described in Art. 4.3.1

Grid User Concerned	Access Point Concerned	EAN code	Max amount of R1 Load Power	Upward or Downward Service	Minimum Offtake	Maximum Offtake	TSO/DSO connected
		Total R1 Load power					

Annex 3. Template Consent Grid User Concerned

The Undersigned, _____ with his registered office at_____, with company reg. no _____ "Grid User Concerned") has concluded a contract with _____, whose head office is at _____, with company reg. no. _____ (hereinafter, "Supplier") on (date) _____ (hereinafter, the "Contract") concerning (among other things) the provision of Demand Side Primary Control Service from the Grid User Concerned at the Access Point EAN _____ (hereinafter the "Access Point Concerned")

The Grid User Concerned hereby gives the Supplier the permission to offer the Demand Side Service for Primary Control to ELIA as described in the General Framework for Demand Side Service of Primary Control concluded between the Supplier and ELIA, from _____ to _____.

The Grid User Concerned hereby renounces any possible legal claims that he might invoke against ELIA because of the implementation of the General Framework for Demand Side Service of Primary Control. The Grid User Concerned moreover holds ELIA harmless from any legal claims that might be instituted by a third party (such as, but not limited to, the Supplier of the Grid User Concerned) due to the implementation by ELIA of the General Framework for Demand Side Service of Primary Control.

The Grid User Concerned confirms having been informed by the Supplier as to the contents of the General Framework for Demand Side Service of Primary Control, including the parts relating directly to the Grid User Concerned, and agrees to the conditions described therein.

The Grid User Concerned hereby gives explicit permission to ELIA to inform the Supplier of the measurements of the Resource(s) connected to the Access Point Concerned.

Thus drawn up in two originals in _____ on (date)_____

The Grid User Concerned: _____

Signature:

ANNEX 4. Activation of R1 Load Power Required

A) DETERMINATION OF THE R1 LOAD POWER REQUIRED:

For a specific Period and a specific quarter-hour, the quantity of R1 Load Power Required to be supplied (Upward or Downward), will be determined via the power/frequency ratio $\lambda 0$ on the basis of the Frequency Deviation according to the following formulas:

When **50,100Hz > f > 49,900Hz :**

$Plev = 0MW$

When **49,800Hz ≤ f ≤ 49,900Hz :**

$Plev = -\lambda 0 * 2 * (Pb_{[Supplier, Period]} * (\Delta f + 0{,}100Hz))$

When **f < 49,800 Hz:**

$Plev = Pb_{[Supplier, Period]}$

When **50,100Hz ≤ f ≤ 50,200 Hz :**

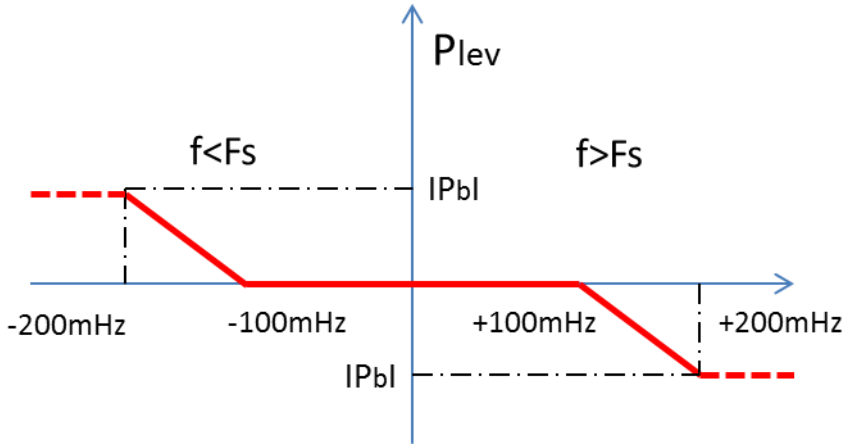
$Plev = -\lambda 0 * 2 * (Pb_{[Supplier, Period]} * (\Delta f - 0{,}100Hz))$

When **f > 50,200 Hz:**

$Plev = -Pb_{[Supplier, Period]}$

- Plev = the R1 Load Power Required in MW, being the quantity of power to supply in case of a frequency deviation;
- Δf = a Frequency Deviation in [Hz];
  - $\Delta f = f - 50{,}000Hz$
- Pb[Supplier, Period] = the Contracted R1 Load Power with the Supplier for this quarter-hour;
- $\lambda 0$ = the power/frequency characteristic of ENTSO-E, equal to 15000 [MW/Hz]/3000 [MW] = 5 [1/Hz].

Graphically, Plev can be represented as follows:



For the quarter-hours where an Unavailability was communicated according to Art. 5.1, Plev will be set to 0 (zero) MW.

B) REQUIRED ACTIVATION TIME

The time for starting the action of primary control is a few seconds after the Frequency Deviation, the deployment time for 50 % or less of the total R1 Load Power Required is at most 15 seconds and from 50 % to 100 % the maximum deployment time rises linearly to 30 seconds.

Annex 5. Prequalification Procedure

This annex describes the organizational and technical requirements and tests to qualify a Resource.

Because of the importance of ancillary services, ELIA must be assured that the Supplier meets the organizational requirements and that his Resource(s) meet the technical requirements in order to be able to deliver the contracted service.

A Supplier who meets the organizational requirements can supply said services to ELIA with the pre-qualified Resource(s) for that service. The Supplier must meet the organizational requirements before the start date of the contract. Suppliers which have provided these services to ELIA in previous years are considered to be pre-qualified.

A Resource that meets the technical requirements will be pre-qualified by ELIA and may provide ELIA with the services for which it's pre-qualified. Resources which have provided these services to ELIA in previous years are considered to be pre-qualified. A Resource must be pre-qualified before it can be part of a contract.

A) Organizational requirements for the Supplier

The Supplier and ELIA will check together:

- Offline Communication
    - Communication unavailability: the Supplier must be able to nominate his Obligations to ELIA in the formats requested by ELIA.
- Real-time communication (if applicable for the considered Service)
    - A secure communication channel must be set up between ELIA and the Supplier.
    - The Supplier must be able to receive and interpret the signals.
- In case Art. 5.1.2 is of application, ELIA must have validated before delivery of the service that communication of measurement data is done correctly and according to what is stipulated in Art. 5.1.2 and Annex 13. For this, the Supplier must provide to ELIA :
    - An electrical plan indicating the measuring equipment's precise position;
    - A declaration from the installer certifying that the measuring installation is conform to ELIA's requirements as these are described in Annex 13.

B) Technical Requirements: Attestation of Resources

- In order to attest a Resource to participate in a specific service it must successfully pass a simulation test as described below.
- In case the Resource does not complete the simulation test successfully, ELIA and the Supplier will make best effort to identify the source of the failure and the Supplier will make best effort to solve the source of the failure.

a. Organization of the simulation

- The Supplier contacts ELIA for the practical organization of the tests (planning,..).
- Any costs linked to the tests are borne by the Supplier.
- The tests may not jeopardize the grid security.

Simulation Test for Primary Control Power

For the simulation of Primary Control Power, the Supplier must substitute the measured frequency with a simulated value.

In the simulation the Supplier will be tested to check whether he meets the requirements for:

1. Immediate Frequency Deviation leading to a maximum activation of Primary Control:

   This test takes 120seconds and checks whether the maximum volume indicated in table 1 of this Annex can be activated within the required timeframes by simulating an immediate frequency change with the frequency's stated in the table below.

Product	Simulated frequency at t=0sec	Simulated frequency from t=1sec to t=120sec	Simulated frequency at t=121sec
Symmetric Primary Control	50,000Hz	49,800Hz	50,000Hz
Asymmetric Primary Control	50,000Hz	50,200Hz	50,000Hz
Demand Side Primary Control (Upward Regulation)	50,000Hz	49,800Hz	50,000Hz
Demand Side Primary Control (Downward Regulation)	50,000Hz	50,200Hz	50,000Hz

2. Checks:

Requirements for attestation
Is 50 % of the maximum R1 activated on t=15sec ?
Is minimum 100% of the maximum R1 activated on t=30sec ?
Does minimum 100% of the maximum R1 remain activated from

t=30sec to t=120sec ?
Does the Generation/Offtake return to its original setpoint after t=121sec ?

b. DSO contract

Before performing the simulation tests, ELIA needs to receive a valid and up-to-date copy of the signed contracts between the Supplier and the DSOs concerned by each point.

Annex 6. Procedure for the determination of R1 Load Power Made Available

A) Communication of Unavailability

In case of Unavailability of the Service, the supplier has to notify ELIA. The notification of Unavailability is done by e-mail to the dispatching of ELIA (National Control Center) & system services (Customer Relations – Energy Procurement & Operations). This e-mail is the evidence of the notification of Unavailability.

The minimum duration for Unavailability is 15 minutes and must start on the hour, 15 minutes, 30 minutes or 45 minutes past the hour.

The start of the Unavailability must be in the future. Ex-post communication of Unavailability will not be valid.

The Unavailability is only effective, at the earliest 5 minutes after the notification.

When an Access Point Concerned is also a part of a Strategic Reserves Contract, the Supplier cannot declare Unavailability after the warm up period for Strategic Reserves has been announced.

In total the Unavailability communicated by the Supplier is limited to 37 hours a month (1 hour of 50% unavailability is counted 1 hour of unavailability).

The communication mail must contain the following information:

- Start date + start hour of the Unavailability
- End date + end hour of the Unavailability

The amount of MW and Service type (R1 up or R1 down) that are unavailable

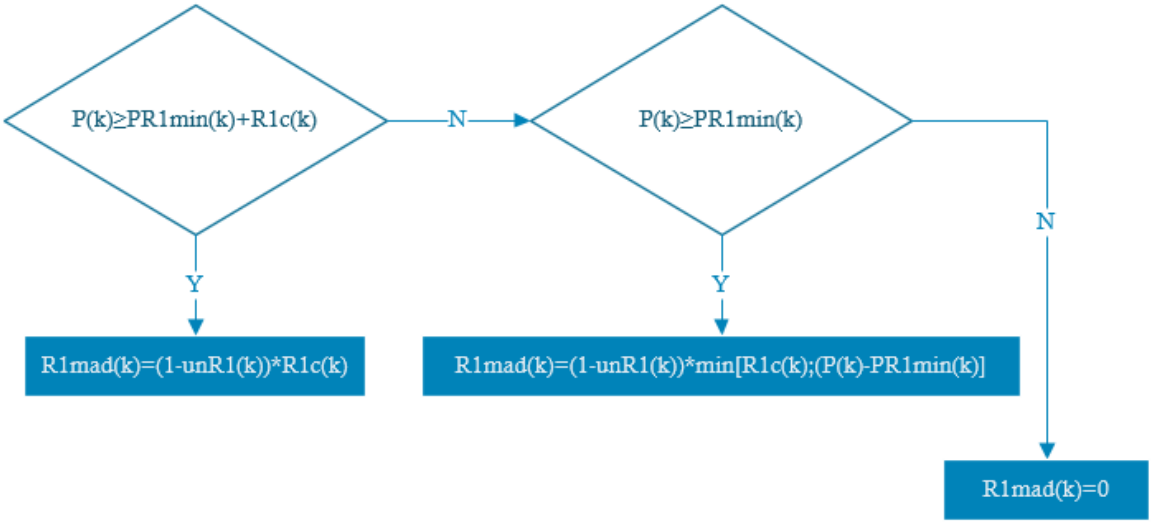
B) Determination of R1 Load Power Made Available for the Upward service

The quantity of R1 Load Power Made Available by the Supplier will be determined as follows:

In which:

- k = a parameter that represents the quarter-hour;
- P(k) = the total power measured at the Access Points Concerned, expressed in MW, for quarter-hour k;
- PR1min(i) =the sum of Minimum Offtake values for Access Points Concerned as declared in Annex 2;
- R1c(k) = Contracted R1 Load Up Power for quarter-hour k as defined in Art. 3.3;
- R1mad(k) = R1 Load Up Power Made Available for quarter-hour k;
- unR1(k) = A value between 0 and 1, representing the % of MW communicated as unavailable as described in Art. 5.1.1. In case no

unavailability has been communicated, the value will be 0. In case the total volume is unavailable, this value will be equal to 1.

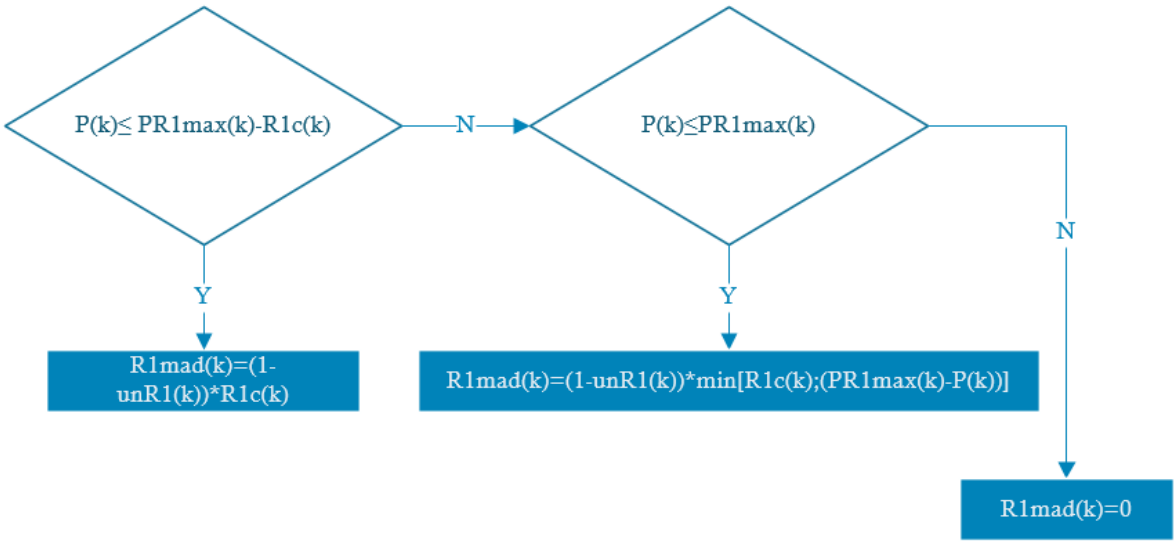


C) Determination of R1 Load Power Made Available for the Downward service

The quantity of R1 Load Power Made Available by the Supplier will be determined as follows:

In which:

- k = a parameter that represents the quarter-hour;
- P(k) = the total power measured at the Access Points Concerned, expressed in MW, for quarter-hour k;
- R1c(k) = Contracted R1 Load Down Power for quarter-hour k as defined in Art. 3.3;
- PR1max(i)= the sum of Maximum Offtake values for Access Points Concerned as declared in Annex 2;
- R1mad(k) = R1 Load Down Power Made Available for quarter-hour k;
- unR1(k) = A value between 0 and 1, representing the % of MW communicated as unavailable as described in Art. 5.1.1. In case no unavailability has been communicated, the value will be 0. In case the total volume is unavailable, this value will be equal to 1.


P(k)≤ PR1max(k)-R1c(k)
N
P(k)≤PR1max(k)
N
Y
Y
R1mad(k)=(1-unR1(k))*R1c(k)
R1mad(k)=(1-unR1(k))*min[R1c(k);(PR1max(k)-P(k))]
R1mad(k)=0

Annex 7. Ex-post evaluation of the R1 Load Power Supplied

ELIA will evaluate a maximum of 3 Frequency Deviations greater than 100mHz per month by comparing the R1 Load Power Required and the R1 Load Power Supplied.

Determination of R1 Load Power Supplied for the Upward Service

The R1 Load Power Supplied at the Access Point(s) Concerned is the positive difference between the measure after and before the Frequency Deviation at the Access Points Concerned,

The determination of the R1 Load Power Supplied, Plev_supplied, for the analyzed Frequency Deviation will be made by calculating the difference between:

- The average value of the measure (MW) over a period of 20 seconds starting exactly 20 seconds before the Frequency becomes for the first time in a period of 300 seconds, smaller than 49,900Hz

and

- The lowest value of the measure (MW), measured by ELIA, in a period of 30 seconds starting at the moment when the Frequency Deviation reaches its maximum value.

If the R1 Load Power Supplied suffices to meet the R1 Load Power Required of the present General Framework, then the Supplier will have fulfilled his obligations for the Demand Side Primary Control as defined herein.

Determination of the R1 Load Power Required for the Upward Service

The determination of the R1 Load Power Required for the analyzed Frequency Deviation will be made by calculating the difference between Plev_voor and Plev_na:

$$Plev\_required = Plev_{voor} - Plev_{na}$$

- $Plev_{na}$: the value of Plev calculated as described in Annex 4by substituting f in said formulas with fna ($Plev_{na}$):
  - fna = the average value of the frequency (Hz) during a period of 5 seconds from the time that the Frequency Deviation reaches its maximum value;
- $Plev_{voor}$: the value of Plev calculated as described in Annex 4by substituting f in said formulas with fvoor ($Plev_{voor}$):

- fvoor = 49,900Hz;

In the evaluation by ELIA of the R1 Load Power Required and if a Frequency Deviation occurs spanning two different Periods, the maximum value for the two Periods will be retained as the quantity Required.

Determination of R1 Load Power Supplied for the Downward Service

The R1 Load Power Supplied at the Access Point(s) Concerned is the negative difference between the measure after and before the Frequency Deviation at the Access Points Concerned.

The determination of the R1 Load Power Supplied, Plev_supplied, for the analyzed Frequency Deviation will be made by calculating the difference between:

- The average value of the measure (MW) over a period of 20 seconds starting exactly 20 seconds before the Frequency becomes for the first time in a period of 300 seconds, higher than 50,100Hz.

and

- The highest value of the Total Offtake (MW), measured by ELIA, in a period of 30 seconds starting at the moment when the Frequency Deviation reaches its maximum value.

If the R1 Load Power Supplied suffices to meet the R1 Load Power Required as defined herein after, then the Supplier will have fulfilled his obligations for the Demand Side Primary Control as defined herein.

Determination of the R1 Load Power Required for the Downward Service

The determination of the R1 Load Power Required for the analyzed Frequency Deviation will be made by calculating the difference between Plev_na and Plev_voor :

$$Plev\_required = Plev_{na} - Plev_{voor}$$

- $Plev_{na}$: the value of Plev calculated as described in Annex 4by substituting f in said formulas with fna ($Plev_{na}$):
  - fna = the average value of the frequency (Hz) during a period of 5 seconds from the time that the Frequency Deviation reaches its maximum value;
- $Plev_{voor}$: the value of Plev calculated as described in Annex 4 by substituting f in said formulas with fvoor ($Plev_{voor}$):

- fvoor = 50,100Hz;

In the evaluation by ELIA of the R1 Load Power Required and if a Frequency Deviation occurs spanning two different Periods, the maximum value for the two Periods will be retained as the quantity Required.

Communication of analyzed frequency deviations

As specified in Art. 5.2.1, for every Analyzed Frequency Deviation Report ELIA will inform the Supplier of the technical characteristics of the Frequency Deviation for each Analyzed Frequency Deviation.

For the application of this article, the term 'technical characteristics' will be taken to mean the precise time of the Frequency Deviation and frequency time diagram during the minutes before and after the frequency deviation.

All the data exchanged will be confirmed by electronic message according to formats and software to be agreed upon.

Annex 8. Calculation of the remuneration reductions for non-compliance with the Contracted R1 Load Power

ELIA will check whether the Supplier has met the Contracted R1 Load Power (for the Up or Down Service) on a monthly basis by comparing the Contracted R1 Load Power with average quantity of R1 Load Made Available to ELIA for each Lot i (with i included between 1 and the number of lots) as per method described in Annex 6.

Remuneration reductions as well as remunerations are calculated independently for each Lot, even though their amounts can be cumulated in the invoicing.

If the average quantity of R1 Load Made Available is smaller than the Contracted R1 Load Power, a price reduction will be applied for Lot i for failing to meet the requirements concerning the average value of the R1 Load Power Made Available.

This monthly price reduction will be equal to RED1, whereby:

If ($R1_{mad\_moy\_lot\_i} / R1_{contractuel\_lot\_i}$) ≥ 95% then

$$RED1 = 1 * \left(R1_{mad\_moy\_lot\_i} - R1_{contractuel\_lot\_i}\right) * P_{lot\_i} * h_{lot\_i}$$

If ($R1_{mad\_moy\_lot\_i} / R1_{contractuel\_lot\_i}$) < 95% then

$$RED1 = \left[\left(1 * \left(95\% R1_{contractuel\_lot\_i} - R1_{contractuel\_lot\_i}\right)\right) + \left(1.3 * \left(R1_{mad\_moy\_lot\_i} - 95\% R1_{contractuel\_lot\_i}\right)\right)\right] * P_{lot\_i} * h_{lot\_i}$$

in which:

- h_{lot_i} = the number of hours in the relevant month for the Lot i under consideration;
- P_{lot_i} = the price in €/MW/h for Lot i, in accordance with Art. 6.2;
- $R1_{contractuel\_lot\_i}$ = the quantity of Contracted R1 Load Power;
- $R1_{mad\_moy\_lot\_i}$ = the average quantity of R1 Load Power Made Available to ELIA by the supplier for Lot i, specified as:

$$R1_{mad\_moy\_lot\_i} = \frac{\sum_{k \in lot\_i}^{jaar} \left(R1_{mad\_k}\right)}{nb\_qh\_lot\_i}$$

in which:

- $R1_{mad\_k}$ = the quantity of R1 Load Power Made Available to ELIA by the Supplier for quarter-hour k, as calculated with the procedure described in Annex 6;
- nb_qh_lot_i = the number of quarter-hours per time Period of the considered month to which Lot i relates for the Period concerned;
- k = a parameter that represents the quarter-hour;

Annex 9. Calculation of the remuneration reductions for non-compliance with the delivery of energy

If, for an analyzed Frequency Deviation, the sum of the total R1 Load Power Supplied (Plev_required) calculated under Annex 7of the present General Framework does not meet the R1Load Power Required for the analyzed Frequency Deviation (Plev_required) in accordance with Annex 4 of the present General Framework, then the ratio α (alpha) will be calculated, with

$$\alpha = (Plev\_required - Plev\_supplied)/Plev\_required.$$

If the value of α (alpha) is between 0 and 0,3 for a particular Frequency Deviation, the Supplier will grant ELIA a remuneration reduction in the relevant calendar month per analyzed Frequency Deviation in which the value of α (alpha) is between 0 and 0,3 for the month in which the Frequency Deviation occurs, amounting to:

α * 1/9 * (Monthly ST Remuneration + Monthly Fixed Remuneration)[34]

Example:

- **Contracted**
  - Pcontracted= 10MW, frequency deviation of 150mHz
  - Monthly remuneration = 10.000€
- **Activation:**
  - ∆Plev= 5 MW
  - Plev_tot=4,5 MW
- **Price reduction:**
  - α = (5-4,5)/5=0,1
  - Price reduction= 0,1 * 1/9 * 10.000€= 111€

If the value of α (alpha) is greater than 0,3 for a particular Frequency Deviation, the Supplier will additionally grant ELIA a remuneration reduction in the relevant calendar month per analyzed Frequency Deviation in which the value of α (alpha) is greater than 0,3 for the month in which the Frequency Deviation occurs, amounting to:

α * 1/3 * Monthly ST Remuneration + Monthly Fixed Remuneration

[3] In case of 3 times alpha = 0,3, the penalty equals 10% of the monthly remuneration

[4] In case of 3 times alpha = 1, the penalty equals 100% of the monthly remuneration

Example:

- **Contracted**
  - Pcontracted= 10MW, frequency deviation of 150mHz
  - Monthly remuneration = 10.000€
- **Activation:**
  - ∆Plev= 5 MW
  - Plev_tot =2,5 MW
- **Price reduction:**
  - α = (5-2,5)/5=0,5
  - Price reduction= 0,5 * 1/3*10.000€ = 1.666€

Remuneration reductions as well as remunerations are calculated independently for each Lot, even though their amounts can be cumulated in the invoicing.

Annex 10. Penalty Cap

A) Monthly Cap

$$Monthlycap = F4 * [[(MonthlyFixed\ \mathrm{Re}muneration) + MonthlyST\ \mathrm{Re}muneration(month)]],$$

with:

- F4: a factor of 2;
- Monthly Fixed Remuneration: as described in Art. 6.2.1;
- Monthly ST Remuneration: as described in Art. 6.2.2.

B) Yearly Cap

$$Yearlycap = \left[\left[(12 * MonthlyFixed\ \mathrm{Re}muneration) + \sum_{allmonths} MonthlyST\ \mathrm{Re}muneration(month)\right]\right]$$

, with:

- Monthly Fixed Remuneration: as described in Art. 6.2.1;
- Monthly ST Remuneration: as described in Art. 6.2.2;

Annex 11. Appropriation Structure

	Booking	Remuneration
Ancillary Services		
Primary Frequency Adjustment	910874	Monthly Fixed Remuneration
Primary adjustment - penalties	907194	Price reduction minor frequency deviation (a<=0,3)
	907195	Price reduction major frequency deviation (a>0,3)
	907197	Price reduction RED 1

Annex 12. Template - Contact persons

Supplier :
Version:

For ELIA:

Contractual matters: Aimilios Orfanos 20 boulevard de l'Empereur 1000 Bruxelles Tél. : +32 2 546 74 58 Fax : +32 478 963 312 Adresse e-mail : aimilios.orfanos@elia.be
Analysis of Frequency Deviations Farid Benbouali 20 boulevard de l'Empereur 1000 Bruxelles Tél. : 32 2 382 21 32 Adresse e-mail :farid.benbouali@elia.be
Invoicing matters Manuel Aparicio 20 boulevard de l'Empereur 1000 Bruxelles Tél. : 32 2 546 70 62 Adresse e-mail : system.services@elia.be
Real-time Operations Centre de contrôle national (Operations) 126 Avenue de Vilvorde 1000 Bruxelles Tél. : 32 2 382 23 83 Fax : 32 2 382 21 39 Adresse e-mail : dispatching@elia.be
Off-line Operations (Duty) Centre de contrôle national (Duty) 126 Avenue de Vilvorde 1000 Bruxelles Tél. : 32 2 382 23 08 Fax : 32 2 382 21 39 Adresse e-mail : dispatching@elia.be

For the Supplier:

Contractual matters
Invoicing matters
Real-time (24/7)
Off-line Operations
Analysis of Frequency Deviations

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

Annex 13. Rules and specifications for measurement data for Access Points connected to the Distribution Grid

A) Measurement data

Delivery of the R1 Service will be monitored by ELIA using measurement data collected at the access point for flexibility as defined in the “Supplier-DSO” contract. .

B) Transmission of measurement data

The measurement data will be transmitted to ELIA by the supplier in Real-Time through a SCADA connection using TASE 2 protocol (IEC 60870-6 or ICCP standard).

A change of protocol may only be done after coordination and mutual agreement between the two parties.

Supplier may propose aggregated measurement data to ELIA. After analysis, ELIA will approve or reject Supplier’s measurement proposal.

In any case, for such a situation the Supplier must at least distinguish for its aggregation:

- Service type concerned (R1 Downward or R1 Upward),
- The meter direction (injection or offtake)

At ELIA’s request, the Supplier will also give (ex-post) additional measurement data per Access Point pre-qualified to deliver the Service.

C) Resolution and accuracy

ELIA requires power measurement with a resolution of 2” per delivery point to verify the offered service.

Measures provided needs to have an accuracy of minimum (100kW; 3% of the total R1 Load Power for each Access Point)

Minimal measurement availability of 95 % is required.