MARKET GUIDE FLEXIBILITY – DRAFT 1.1!

Revision history

Revised on	Version	Description	Status
09.05.2022	0.1	Proposal by Product Design Group Flex sent to market parties as input for workshop on 19.05.2022	Draft
09.06.2022	1.0	Integration of remarks from the market consultation process ended 3/06/2022	Submitted for approval by MC DSO
xx.04.2023	1.1	Clarification based on VREG comments on previous version Changes related to:	Draft

		• opening of aFRR to LV • new functioning rules for CRM • digitalization of the FCR asset register	

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DISCLAIMER

The Terms and conditions (T&Cs) of all FRP products mentioned in this document are available on the FRP website. In the case any product specific aspects would be inconsistent with this market guide flexibility, these T&Cs will prevail.

1. Introduction

This document provides an overview of the flexibility market processes in Belgium, focused on the interaction between (Distribution) System Operators and Flexibility Service Providers. It is intended to serve as a market guide for the interactions with all Distribution System Operators active on the Belgian grid, regardless of the region and for all available flexibility products from different Flexibility Requesting Parties (FRP).

We have made an effort to make this market guide as generic and practical as possible, even though the legal and regulatory framework in the different regions is not necessarily the same and certain flexibility products may require specific functionality. The region or product specific aspects are indicated where applicable. In order to avoid duplication of information, the document refers to additional or more detailed functionality described in other technical specifications. A list of reference documents may be found as an annex.

This market guide also covers the requirement in the Flemish grid code[1] to develop and maintain – together with the transmission grid operator and other relevant stakeholders – rules for the market processes for flexibility. To this end, a consultation procedure has been set up to inform the interested market parties and capture their feedback on the proposed processes. This consultation procedure is run according to article 4.3.63 §3 of the Flemish Grid Code. It includes stakeholder interaction via the Synergrid Product Design Group flexibility[2].

In order to increase maturity and include new evolutions in the flexibility market, this document will be reviewed and updated by the Product Design Group as required by the regional/federal legislation or when new products are introduced.

[1] Technisch Reglement Distributie Elektriciteit, art. 4.3.63

[2] Information on the Product Design Group flexibility is available on the Synergrid website, Product Design Flexibiliteit - Synergrid

2. General

2.1. Scope

The domain Flexibility covers the market processes and information exchange regarding flexibility products on the distribution grid. It consists of the following five domains:

- **Structure :** Includes all activities to the exchange of information (master data) necessary for the later business processes. The different parties request creation of, changes to or deletion of energy market business objects, such as metering points, meters, contracts etc., or to its attributes.
- **Operate :** Includes all activities linked to the message exchanges to handle the flexibility markets.
- **Measure :** Includes all activities linked to reading, treating and forwarding the metered data on SDP-Flex level related to flexibility products.
- **Settle :** Includes all activities linked to the allocation of flexibility volumes to the involved market parties and – if applicable – handle their impact on the supply market.
- **Billing** *:* Includes the current and future processes to allow the billing between DSO and FSPs related to flexibility.

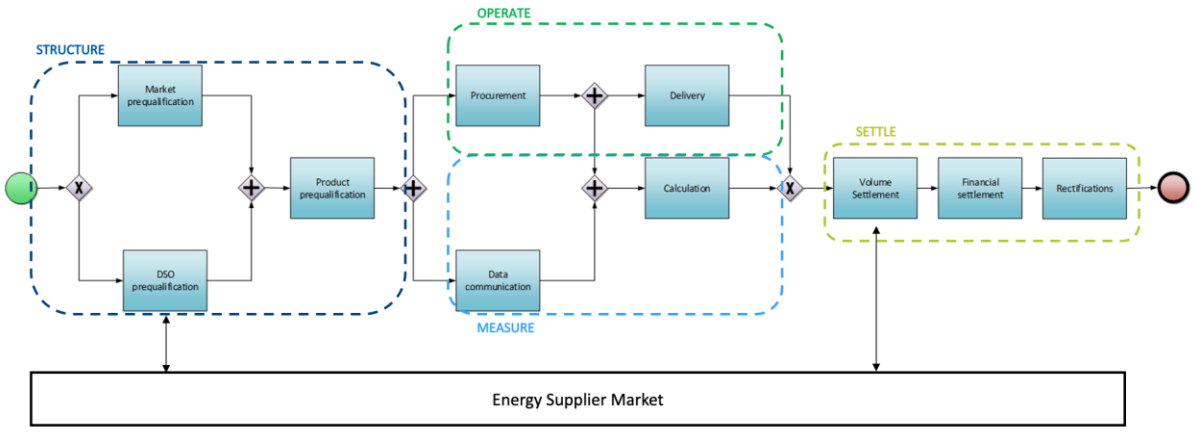


Figure 1 - Overview of flexibility market processes and domains

This document only relates to Service Delivery Points Flex on the distribution grid and only describes the processes linked to information flows in which the DSO is involved in detail. For clarity purpose, this document goes through the end-to-end process. The activities where the DSO does not have a role will only be briefly described.

Each time a process refers to an external document, this is indicated with the icon . An overview of all external documents can be found in Annex 1 - List of relevant documents.

2.2. Concepts and Terminology

In order to allow a correct understanding of this document a few concepts and terms are listed.

aFRR	Automatic Frequency Restoration Reserve
BRP	Balance Responsible Party
CDS	Closed Distribution System
CDSO	CDS Operator
CMU	Capacity Market Unit
CPO	(Real-Time) Communication Platform Operator
CRM	Capacity Remuneration Mechanism
DA	Day Ahead
(D)GU	(Distribution) Grid User
DSO	Distribution System Operator
FCR	Frequency Containment Reserve
FRP	Flexibility Requesting Party
FSP	Flexibility Service Provider
GWM	Gateway Manager
HV	High voltage
ID	Intraday
LV	Low voltage
mFRR	Manual Frequency Restoration Reserve
MV	Medium voltage
NFS	Network Flexibility Study
NRP	Nominal Reference Power
PQP	Prequalified Power
RTCP	Real-Time Communication Platform
SDP Flex	Service Delivery Point Flex
SDR	Strategic Demand Reserve
SO	System Operator
ToE	Transfer of Energy
TSO	Transmission System Operator
TRDE	Regional Electricity Distribution Grid Code in Flanders

Table 1 - List of abbreviations

Activation	The modulation of the offtake and/or of the injection of a grid user. It can be automatic or manual depending on the flexibility product.
Activated Power	The volume notified by the FSP to the DSO, which, as a result of an activation of the flexibility for a Service Delivery Point Flex, was modulated for the grid user.
Activation Period	Based on an external signal, the period during which the flexibility is activated. This period is identified by a start time and an end moment. The period related to a potential recuperation at a later

	stage of the non-consumed energy during the activation is not part of this activation period.
Automatic Frequency Restoration Reserve (aFRR)	As defined by the terms and conditions (T&C) BSP aFRR of Elia.
Baseline	Set of values that reflects the supposed electrical profile without activation, i.e. what would have been the offtake or injection for the Service Delivery Point Flex if there was no activation.
Balance Responsible Party (BRP)	For each grid access point, there must be a designated BRP. The BRP may be a producer, major customer, energy supplier or trader. As a result, each BRP is responsible for a portfolio of access points and must develop and take all reasonable measures to maintain the balance between injections, offtakes and commercial power trades within its portfolio.
Balancing Service Provider (BSP)	Flexibility Service Provider that offers balancing services to the Transmission System Operator.
(Balance) Supplier	A party that markets the difference between actual metered energy consumption and the energy bought with firm energy contracts by the Party Connected to the Grid. In addition, the Balance Supplier markets any difference with the firm energy contract (of the Party Connected to the Grid) and the metered production
Capacity Market Unit (CMU)	A Capacity (« Individual CMU ») or several associated Capacities (« Aggregated CMU») used in the consecutive phases of the Capacity Remuneration Mechanism to deliver the Service.
Capacity Remuneration Mechanism (CRM)	A mechanism to ensure resource adequacy in Belgium based on “reliability options”. The selected capacity providers receive a fixed capacity remuneration but have the obligation to reimburse incomes above a set price level.[3]
Closed Distribution System (CDS)	A closed distribution system (CDS) is a network that distributes electricity within a geographically confined industrial, commercial or shared services site, for which: for specific technical or safety reasons, the operations or the production process of the users of that system are integrated; or that system distributes electricity primarily to the owner or operator of the network or their related undertakings.
Closed Distribution System Operator (CDSO)	A Closed Distribution System Operator is a physical or legal person officially appointed in the capacity of CDS manager by the competent authority. The competent authority is appointed via the CDS administrative recognition process. The process is regionalized and

[3] More information can be found on the following website:
https://economie.fgov.be/fr/themes/energie/securite-dapprovisionnement/mecanisme-de-remuneration-de

	is fixed for each region and at federal level. The authority is generally the minister of energy.
Communication Platform User Designation	Document signed by the DGU to mandate the FSP to onboard and manage an Endpoint coupled to their connection point and to enable data routing.
Connection Point	See Technical Regulations. The Connection Point is identified by an off-take EAN and, where applicable, an injection EAN. Also referred to as Headpoint.
Delivery Period	The period in which the contracted flexibility has to be delivered.
Delivery Point	A (future) point on an electricity grid or within electrical installations of a Grid User where the Service is or will be delivered. This point is or will be associated with one or several metering device(s) that allow Elia to control and measure the delivery of the Service.
Delivery Direction Up or Down	When delivering flexibility, the electrical power can be controlled in two directions: - Up: direction of the activation of the flexibility that corresponds to a reduction of the offtake or an increase of the injection. - Down: direction of the activation of the flexibility that corresponds to an increase of the offtake or a decrease of the injection. The direction indicates how the grid frequency is restored.
(Distribution) Grid User (D(GU))	As defined in Art. 2 §1 (57) of the Federal Grid Code for a Grid User connected to the ELIA Grid or to Public Distribution Grid; or as defined in Art. 2 §1 (58) of the Federal Grid Code for a Grid User connected to a CDS. If the DGU wants to participate in the Flex market, he can: 1. Pick up the role of FSP for his own connection points, or 2. Give a mandate to a FSP who will then represent the DGU in the Flex market.
Distribution System Operator (DSO)	The DSO maintains, reinforces, expands and operates the distribution grid. The distribution grid brings the electricity from the transmission grid to end users down to household level. The DSO is also responsible for metering data management in the market.
Endpoint	A digital data access point registered on the Real-Time Communication Platform that allows the exchange of data between the Endpoint and an Application over the RTCP via a Gateway.

Energy Delivered	The volume calculated by the DSO that corresponds to the activation of the flexibility for a Service Delivery Point Flex.
Fast Track prequalification process	The process to be followed by a CRM Candidate who does not want to participate to the CRM but has the legal obligation to submit a Prequalification File according to the Electricity Law, article 7undecies, §8.
Flex Data Hub	Application that uses and/or stores and structures flexibility related data. It is connected to the Real-Time Communication Platform for the exchange of data and the activation of real-time data stream. The activation of an asset happens through the FRP.
Flexibility	The alteration of the profile of production, injection, consumption or offtake of energy in response to an external signal in order to either provide a service in the energy system or to obtain a financial benefit.
Flexibility Service	The list of Flexibility Services is included in the FSP-DSO contract. Also referred to as Flexibility Product
Flexibility Requesting Party (FRP)	Market party that has an agreement with one or more Flexibility Service Providers to provide a Flexibility Service.
Flexibility Service Provider (FSP)	Market party that provides one or more flexibility services through one or more Service Delivery Points Flex.
Frequency Containment Reserve (FCR)	As defined by the T&C BSP FCR of Elia.
Gateway	A private communication gateway connecting the physical asset and its metering device to the Real-Time Communication Platform in a digital way.
Gateway Manager (GWM)	The Gateway Manager maintains and manages the gateways. This role is defined in case it is assumed by someone else than the Communication Platform Operator of the RTCP.
High Voltage (HV)	As defined in the regional legislation (Ordonnance for Brussels, energiedecreet for Flanders, Décret for Wallonia)
Low Voltage (LV)	As defined in the regional legislation (Ordonnance for Brussels, energiedecreet for Flanders, Décret for Wallonia)
Manual Frequency Restoration Reserve (mFRR)	As defined by the T&C BSP mFRR of Elia.

Medium Voltage (MV)	As defined in the regional legislation (Ordonnance for Brussels, energiedecreet for Flanders, Décret for Wallonia)
Network Flex Study (NFS)	The examination of the potential impact of flexibility on operational security constraints.
Nominal Reference Power (NRP)	The maximum capacity that can be offered in the CRM without taking into account the derating factor or the opt-out volume.
Pool	All Service Delivery Points Flex (and the associated flexibility means) which may be activated by the FSP as part of a Flexibility service. For each SDP-Flex that is part of the Pool, it contains all the administrative and technical information to achieve a correct execution of the FSP-DSO contract.
Prequalified Power (PQP)	The prequalified power is the result of a NFS and is the maximum flexibility power that the Service Delivery Point Flex can contract for a flexibility product
3rd party submeter	The meter is not owned, installed and maintained by the DSO, but by a 3rd party.
Real-Time Communication Platform (RTCP)	Platform that enables a secure exchange of real-time data between the assets of Grid Users and applications of Application Service Providers.
Service Delivery Point Flex (SDP-Flex)	An element, attached to a Connection Point, that can be used in the context of a Flexibility Service. It is identified by the measurement point used for the control and/or calculation of the availability and/or activation of flexibility in the context of the Flexibility Services referred to in the FSP-DSO contract.
Strategic Demand Reserve	The strategic reserve was introduced by the Law of 26 March 2014 amending the Federal Electricity Act of 29 April 1999. This tasked Elia with organising, managing and, if necessary, activating a strategic reserve mechanism to offset any structural generation shortages during the winter months. This mechanism helps guarantee Belgium's security of supply in winter. It differs from the balancing resources Elia uses all year round to offset the sum of BRPs' residual imbalances in real time.
System Operator	System Operator includes TSO & DSOs & CDSOs. When we refer to a SO in the text, it relates to the SO of the Grid User.
Transfer of Energy (ToE)	Framework to neutralize the effects of the activation of energy by the FSP on the Supplier and the BRP of the DGU. It enables the flexibility of demand to be valorized via an independent FSP.
Transmission System Operator (TSO)	The operator of the high-voltage transmission grid. In Belgium this is Elia. The TSO maintains, reinforces and expands the high-voltage grid that transports large volumes of electricity over longer distances.

	The TSO is further the final responsible for secure grid operation and has to make sure that demand and generation are always in balance.
Unsheddable Margin	The minimal amount of net active power offtake (in kW/MW) that cannot be curtailed (inflexible or unsheddable power) at the Delivery Point(s) concerned. It cannot be lower than the negative of the nameplate capacity of production and the negative of maximal injection.

Table 2 - List of definitions

The concepts **Connection Point**, **Delivery Point**, **Service Delivery Point Flex**, **Endpoint** and **Gateway** are further illustrated below. The given examples are not exhaustive and demonstrate a situation where a grid user with a factory and battery storage provides a flexibility service either with the entire connection point or with only a subasset.

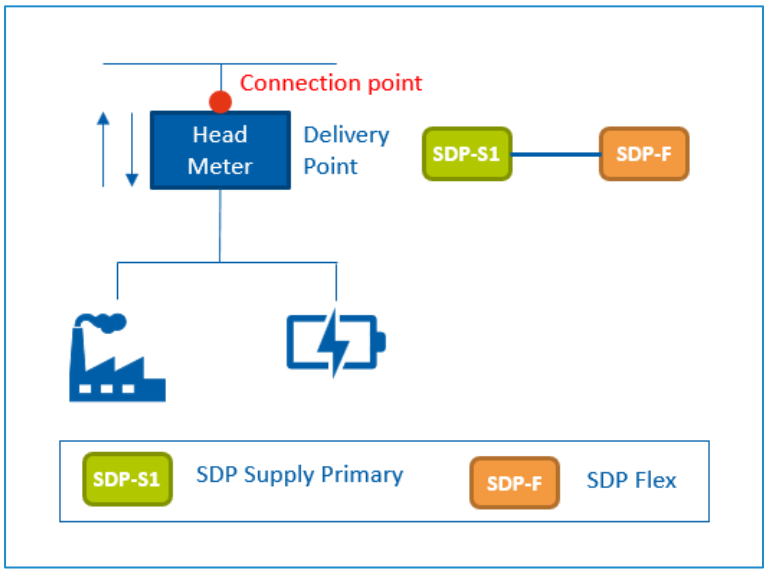


Figure 2 - Basic example: Grid user delivers flexibility with the whole connection point

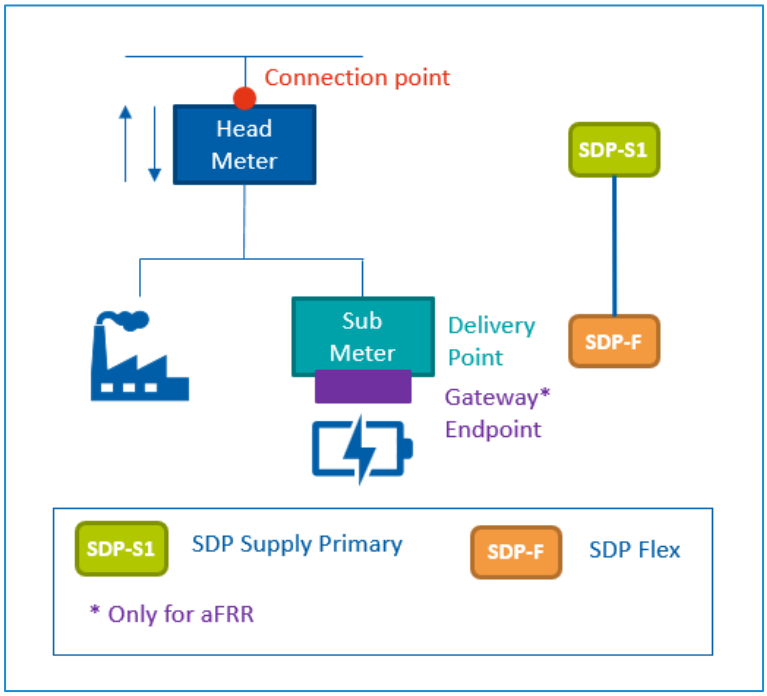


Figure 3 - Basic example: Grid user delivers flexibility with only a subasset

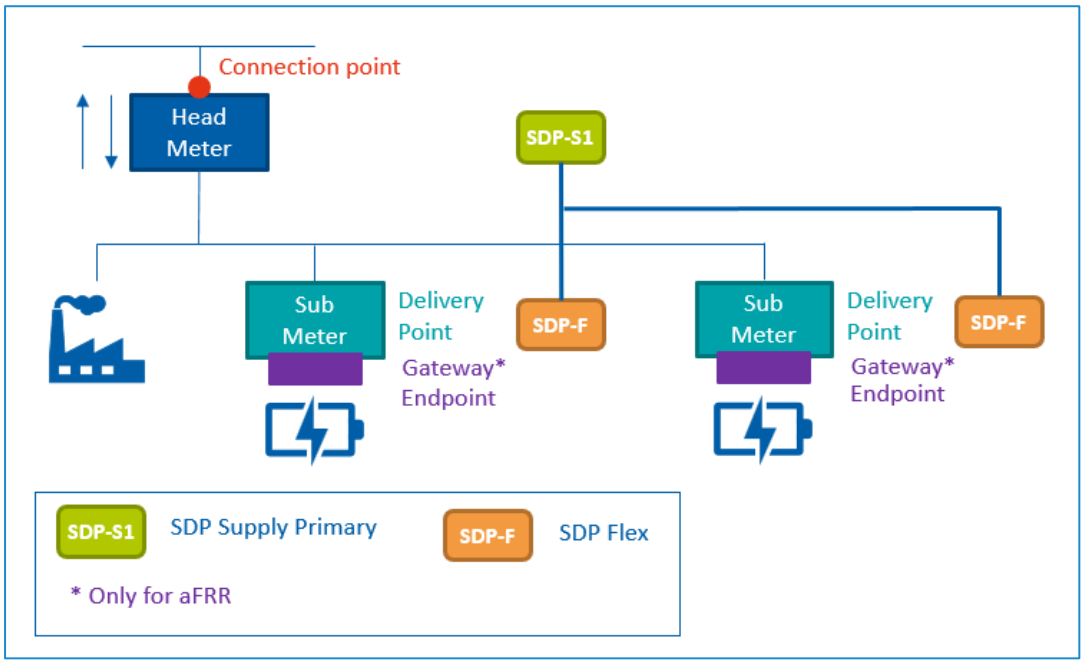


Figure 4 - Basic example: Grid user delivers flexibility with multiple subassets

2.3. Roles and responsibilities

The role model which is described below lists the relationships between roles on a general level.

From the role model it can then be deduced, which roles should be involved in the detailing of a particular process / interaction. For the electricity market there is a harmonized model, developed

and maintained by ENTSO-E, EFFET and ebIX®. This role model covers both upstream and downstream electricity markets. A market party can assume multiple roles in the flexibility market.

The roles used in this documentation are based on the so-called "THE HARMONISED ELECTRICITY MARKET ROLE MODEL"

2.3.1. Market Roles

The following diagram gives an overview of the net-user interactions between the different market roles in the flexibility market.

For info: A Service Delivery Point Flex is related to 1 Delivery Point, 1 service (product) and 1 FSP. A Delivery Point can have multiple SDP-F's: 1SDP-F for each service/product delivered by a certain FSP.

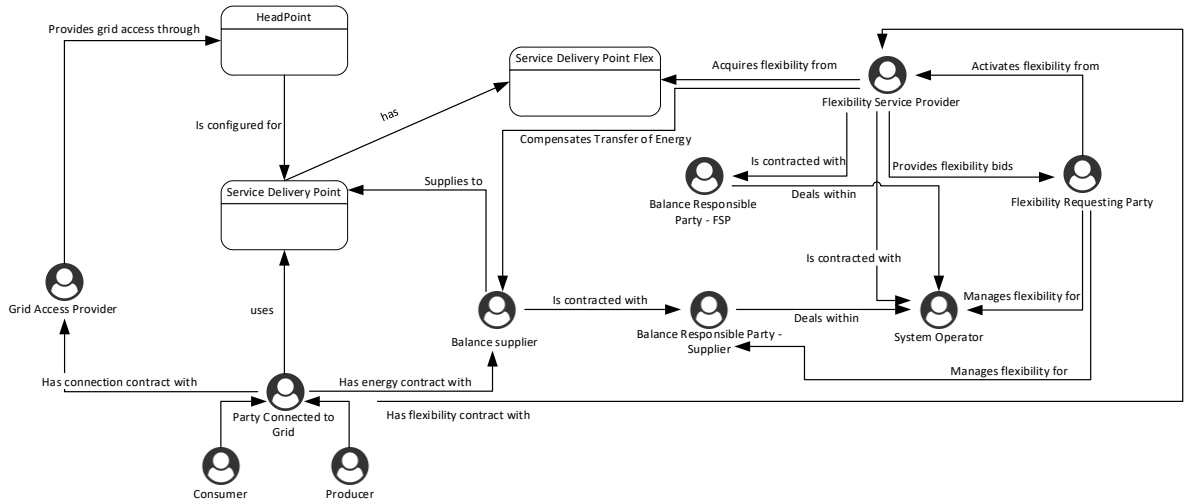


Figure 5 – Market Roles Diagram

2.3.2. Market Parties

The market parties which also occur in the supply market will not be described in this document. Their definition can be found in the Atrias documents on Market Roles.

The market parties which are specific for the flexibility market are:

2.3.2.1. Flexibility Requesting Party

The Flexibility Requesting Party (FRP) can have an agreement with one or more Flexibility Service Providers to provide a Flexibility Service.

This party informs the market of flexibility requirements, receives bids against the requirements and in compliance with the prequalification criteria (if applicable), determines which bids meet requirements and assigns contracts.

It can either be the SO (TSO/DSO/CDSO depending on the grid) or an independent party.

2.3.2.2. Flexibility Service Provider

The Flexibility Service Provider (FSP) provides one or more flexibility services through one or more Service Delivery Points Flex.

The FSP can only include SDP-F's in his Pool for which he signed a flexibility agreement with the relevant DGU. This agreement needs to be compatible with the connection contract and with the qualification of the connection point delivered by the DSO.

If the DGU doesn't want to work with a FSP, the DGU can - for its own connection points - also fulfill the role of FSP. If a contract is signed between FSP and DGU, the FSP will represent the DGU in the Flex market for its connection points.

The FSP commits to activate flexibility only on the SDP-F's belonging to the Pool and to respect the limits and restrictions as defined in the FSP-DSO contract.

The DSO may, according to the applicable legal framework, temporarily restrict the delivery of flexibility through one or more SDP-Fs if the delivery may compromise the operational security of its electricity distribution network.

2.3.3. Contracts between market parties

Contractual relations

For the parties described above, the following diagram shows an overview of their contractual relations. For each SO, the FRP can be a different party.

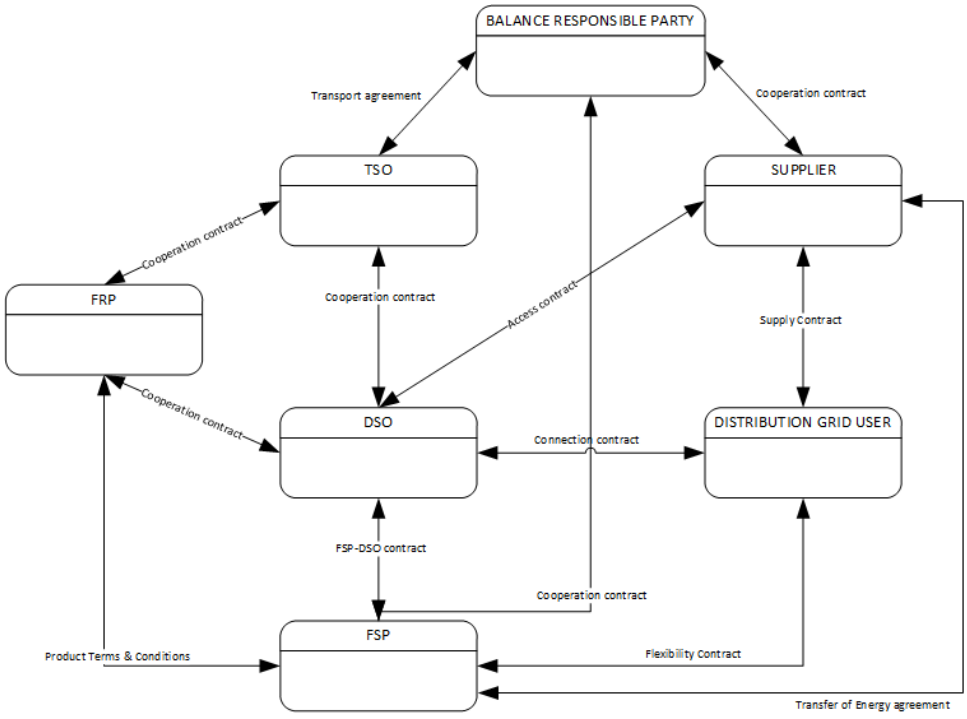


Figure 6 – Contracts between Market Parties

3. Flexibility product overview

3.1. Processes of flexibility products

The following table indicates which processes are applicable for each flexibility product on a high-level basis. A more detailed overview (including updates due design changes) can be found on the website of Elia[4]:
- Frequency Containment Reserve (FCR)
- Automatic Frequency Restoration Reserve (aFRR)
- Manual Frequency Restoration Reserve (mFRR)
- Strategic Demand Reserve (SDR)
- Transfer of Energy in Day-Ahead/Intraday market (ToE in DAID market)
- Capacity Remuneration Mechanism (CRM)

Note that the processes listed in the table below refer to processes performed by the DSO. In some cases, the Transmission System Operator can perform similar processes. In the case of FCR for example ELIA conducts the following three processes: "Ex-post data communication", "Real-Time Data Communication", and "Calculation Baseline".

	FCR	aFRR	mFRR	SDR	ToE in DA/ID	CRM
Scope						
HV/MV	X	X	X	X	X	X
LV	X	X				X
Structure						
Market prequalification						
FSP agrees to Terms and Conditions of the FRP	X	X	X	X		
DSO prequalification						
Sign FSP-DSO contract	X	X	X	X	X	X[5]
Contract Connection Check[6]	X	X	X	X	X	X[7]
Net Flex Study[8]		X	X	X	X	X[9]
Identification Delivery Point[10]	X	X	X	X	X	X
Set up ex-post data exchange			X	X	X	X
Set up real-time data exchange[11]		X				
Product prequalification						

[4] www.elia.be
[5] Not needed when Fast Track scenario is used (CRM exit-door)
[6] Only applicable for voltage >1 kV, not below 1 kV.
[7] Not needed when Fast Track scenario is used (CRM exit-door) or in case of Additional non-existing Delivery point
[8] For region Flanders: as stated in TRDE 2.3.26: in case of LV, flexible power will not be restricted when it is limited to 5 kVA for a mono phase connection or 10 kVA for three phase connection.
[9] Not needed when Fast Track scenario is used (CRM exit-door) or in case of Additional non-existing Delivery point. When the delivery point becomes existing, NFS is required.
[10] For LV, no separate request is needed: the identification used will always be the identification of the delivery point linked with the headmeter of the connection point.
[11] Today the DSOs and the Flexhub are not involved in the real-time data exchange for FCR.

Sign FSP-FRP contract	X	X	X	X	X	X[12]
Start new service	X	X	X	X	X	X
Update service	X	X	X	X	X	X
Stop service	X	X	X	X	X	X
Determine Nominal Reference Power						X
Prequalification check and test by FRP	X	X	X	X		X
Baseline check by FRP		X				

[12] In the case of CRM, the FSP-FRP contract (i.e. the Capacity Contract) is signed after selection in the auction.

		FCR	aFRR	mFRR	SDR	ToE in DA/ID	CRM
	Operate						
	Procurement						
Bidding		X	X	X	X		X
Market clearing		X	X	X	X		X
	Delivery						
Pre-delivery monitoring							X
Activation		X	X	X	X	X[13]	X[14]
Notify DSO of Activation				X	X	X	
	Measure						
	Data communication						
Ex-post Data Communication				X	X	X	X
Real-Time Data Communication			X				
	Calculation						
Calculation Baseline			X (done by FSP)	X	X	X	X
Calculation Energy Delivered			X	X	X	X	
	Settle						
	Volume Settlement						
Data for FRP/FSP Settlement		X	X	X	X		
BRP perimeter correction (*)			X[15]	X	X	X	
Publication of ToE volumes			X[16]	X	X	X	
	Financial Settlement						
FSP settlement		X	X	X	X	X	
	Rectifications						
Yearly check on rectifications			X	X	X	X	

Table 3 - Overview of flexibility products vs processes

(*) For the specific rules and exceptions of the 'BRP perimeter correction', we refer to the Term & Conditions of the relevant product and the ToE rules (see website Elia).

3.2. Metering requirements of flexibility products

When a flexibility product is created, the FRP and DSO need to define in accordance with the relevant legislation (eg. TRDE Art 3.1.17 §2) the relevant metering requirements so that the DSO is able to exchange the required metering data for the delivered flexibility volumes, Transfer of Energy, …

The metering requirements can have following dimensions:

[13] Activation is done by the FSP, but is also registered in the Flexhub. It serves as input for the calculation of the delivered energy volumes.

[14] Activation in AMT (Availability Monitoring Trigger) hours as defined in the CRM functioning rules.

[15] aFRR is today only via opt-out or passthrough configuration => The impact on the BRP perimeter correctionis described in the Terms & Conditions of the aFRR product and the ToE rules (see website Elia).

[16] aFRR is today only via opt-out or passthrough configuration => The impact on the BRP perimeter correctionis described in the Terms & Conditions of the aFRR product and the ToE rules (see website Elia).

Granularity of data: 2 seconds, 4 seconds or 15 minute data

Frequency of data: Real-time or ex-post

Origin of data:

- Head or submeter
- Regulated or private

  For the regulated meter (non-private), we can make a further distinction between:
  - Fully regulated: the meter is owned, installed and maintained by the DSO, and the DSO is responsible for all metering aspects
  - Regulated: Same as fully regulated, except that the meter is installed and maintained by a 3rd party
  - Semi-regulated: The 3rd party is also owner of the meter

The following table indicates which metering requirements are currently applicable for each flexibility product.

	FCR	aFRR	mFRR	SDR	ToE in DA/ID	CRM
Granularity of data	2''[17]	4"	15'	15'	15'	15'
Frequency of data	Real-time (and Ex-post)	Real-time	Ex-post	Ex-post	Ex-post	Ex-post
Origin of data	Submeter[18] or regulated headmeter	Submeter[19] or regulated headmeter	Regulated head- or submeter	Regulated head- or submeter	Regulated head- or submeter	Regulated head- or submeter

Table 4 - Metering *requirements*

- For the latest version of the metering requirements, we refer to Annex 1 with the list of relevant documents

3.3. Combination of flexibility products

The MG Flexibility will take into account any rules regarding combination of products possibilities as described in the FRPs' product specifications.

[17] FRP will get 2'' data, but DSO is not involved in this process.

[18] Today only 3rd party submeter. FCR: only private meters, because no metering requirements from DSO.

[19] Today only 3rd party submeter. aFRR: semi-regulated, because metering requirements are described in C8/06

4. Structure

4.1. Market prequalification

This section describes the processes for a candidate to qualify for FSP. The FRP checks if the candidate complies with the necessary requirements, which could be financial or communication-wise. The qualification as FSP is valid for all flexibility services that are supported by the same market platforms and have similar financial requirements.

Today, Elia operates the markets for the procurement of FCR, aFRR and mFRR, ToE in DA/ID and CRM.

4.1.1. FSP agrees to Terms and Conditions of the FRP

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to verify if the FSP candidate can comply with financial requirements etc. in order to provide flexibility services. The FSP candidate contacts the FRP and signs the Terms and Conditions. The FRP contacts the Flex Hub Operator to add the FSP to the market register.

4.2. DSO Prequalification

This section describes the processes for the FSP to check the delivery of flexibility does not cause congestion and avoid constraint-related checks later during the procurement phase. It also describes the processes to prepare the Delivery Point for participation to flexibility services, such as identifying the Delivery Point and setting up the data exchange.

4.2.1. Sign FSP-DSO contract

Process definition

The FSP-DSO contract describes the mutual rights and obligations of the DSO and the FSP with regard to the use by the FSP of flexibility of distribution grid users connected to the distribution grid managed by the DSO as part of the flexibility services that are described in the service catalogue of the contract.

Process flow

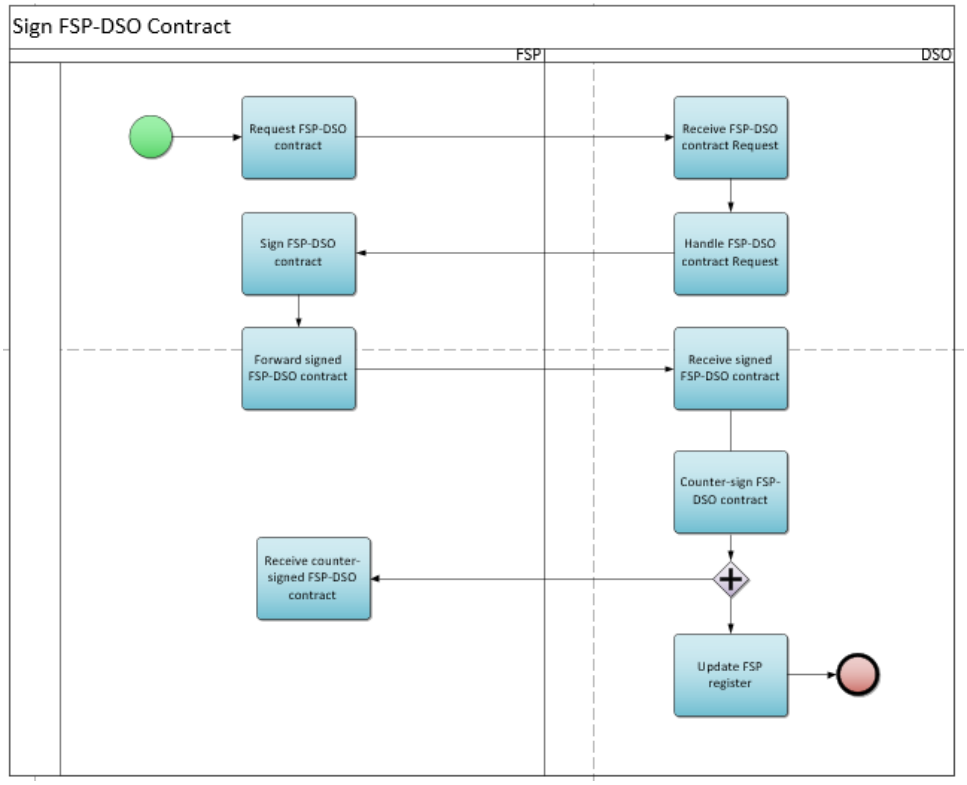


Figure 7 - Sign FSP-DSO Contract

Process description

Starting signal:

The FSP contacts the DSO via e-mail to sign the FSP-DSO contract .

Prerequisites:

Not applicable

Ends when:

The System Operators update the FSP register.

Result:

Both FSP and DSO have a copy of the signed FSP-DSO contract.
The FSP is registered in the Market Party register.

Exceptions:

Not applicable.

Flow:

1. Request FSP-DSO contract

The FSP sends the DSO a request to sign a FSP-DSO contract.

2. Receive FSP-DSO contract request

The DSO receives the request to sign a FSP-DSO contract.

3. Handle FSP-DSO contract
The DSO creates a FSP-DSO contract for the FSP.

4. Sign FSP-DSO contract
The FSP signs the FSP-DSO contract.

5. Receive FSP-DSO contract
The DSO receives the FSP-DSO contract, signed by the FSP.

6. Counter-sign FSP-DSO contract
The DSO counter-signs the FSP-DSO contract within 10 working days after reception of the complete contract signed by the FSP.

7. Receive counter-signed FSP-DSO contract
The FSP receives the counter-signed FSP-DSO contract.

8. Update Market Party register
The System Operators check whether the FSP is already registered in the Market Party register and, if not, updates the register.

Steering of the process (general process agreements)
Timings:
The process starts when the FSP candidate contacts the DSO to sign the FSP-DSO contract.

Interactions:
A signed copy of the latest approved version of the DSO-FSP contract is a prerequisite for the FSP for providing flexibility services on the DSO grid.

Annulations and corrections:
Always the latest version of the contract needs to be signed.

Regional differences:
In Wallonia, an FSP needs to obtain a regional license for the supply of flexibility services.

4.2.2. Contract Connection Check

Scope
HV/MV on DSO-grid: Applicable for all products
LV: Not applicable

Process definition
The DSO informs the DGU's (or the mandated FSP) with information from the connection contract that could be required for flexibility products. The request of information can be done by the DGU or the FSP on his behalf. The overview table in 3.1 describes for which services the Contract Connection Check (CCC) is considered a prerequisite.

Process flow

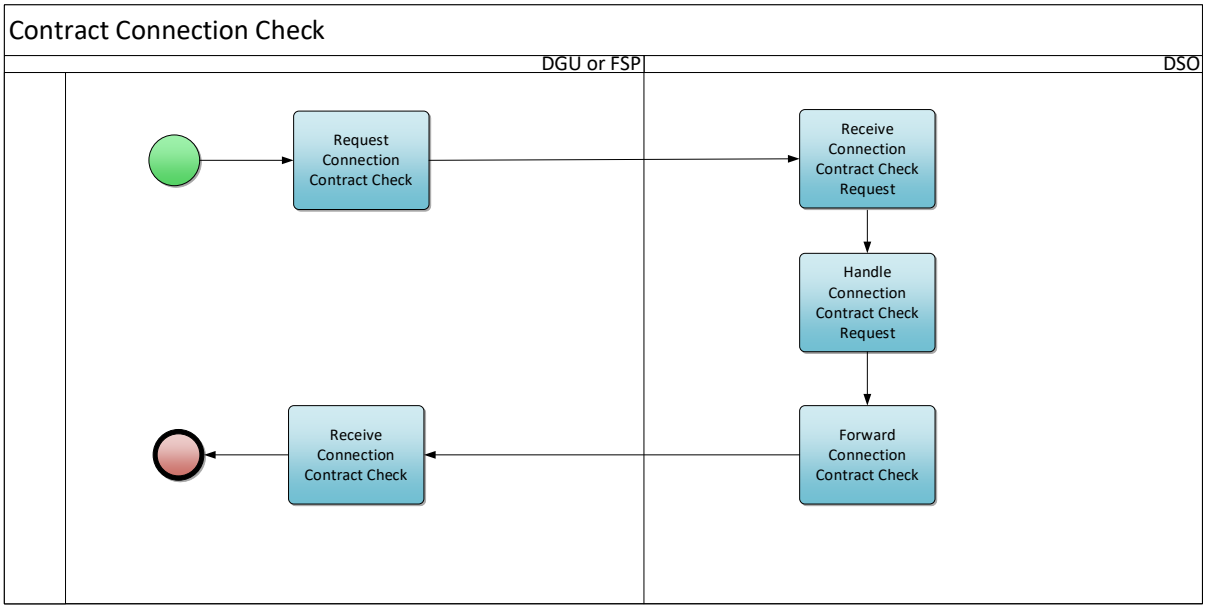


Figure 8 - Contract Connection Check

Process description

Starting signal:

This process starts when the DGU (or the FSP on his behalf) sends a request for Connection Contract Check to the DSO.

Prerequisites:

Presence of a connection contract.

Connection points below 1 kV (low-voltage) have no connection contract, since the connection reglementation is applicable. Hence, a connection contract check is not applicable there.

Ends when:

The DSO has sent the Contract Connection Check (CCC) document to the DGU or the FSP.

Result:

The DGU or the FSP has received the CCC.

Exceptions:

Not applicable

Flow:

1. Request Connection Contract Check

The DGU (or the FSP on his behalf) sends a filled in request form for a Connection Contract Check [part of document C8/01].

2. Receive Connection Contract Check request

The DSO receives the filled in request form

3. Handle Connection Contract Check request

The DSO verifies the Connection Contract details.

4. Forward Connection Contract Check
The DSO forwards the Connection Contract details to the DGU or the FSP [C8/01].

5. Receive Connection Contract Summary
The DGU or the FSP receives the Connection Contract details from the DSO.

Steering of the process (general process agreements)
Timings:
This process is ad hoc and starts when the DGU or the FSP sends the DSO the Connection Contract Check document.
In case the request is not valid, the DSO will inform the DGU within 5 working days.
In case the request is valid, the DSO forwards to the DGU the Connection Contract Check within 15 working days after the request.

Interactions:
HV/MV on DSO-grid: CCC is a pre-condition for NFS.

Annulations and corrections:
In case the information provided by the DSO to the DGU/FSP is not or no longer correct, the DGU/FSP should contact the DSO as soon as possible, in order to refresh the CCC.

Regional differences:
In Brussels, only the FSP can request the Contract Connection Check.

4.2.3. Net Flex Study

Scope
Voltage level:

HV/MV/LV on DSO-grid: Applicable
Exception LV: For region Flanders, as stated in TRDE 2.3.26: in case of LV, flexible power will not be restricted when it is limited to 5 kVA for a mono phase connection or 10 kVA for three phase connection.

Products (for reference):

FCR: No NFS applicable
aFRR, mFRR, DA/ID: NFS applicable
CRM: NFS applicable, except for Fast Track (= CRM exit-door) and Additional non-existing Delivery Points

Process definition
The goal of the NFS is to verify how the activation of flexibility would affect the functioning of the distribution grid. The request of information can be done by the DGU or the FSP on his behalf. The overview table in 3.1 describes for which services the Net Flex Study (NFS) is considered a prerequisite.

The DSOs need to be able to guarantee the safety and reliability of their respective grids. The activation of flexibility may therefore not jeopardize the functioning of the grid, both in normal and degraded mode. This means more specifically that the activation of flexibility may not:

- negatively affect the stability of the grid;
- cause congestion;

- cause any problems linked to power quality.

If so, the DSO can decide to limit or reject the provision of flexibility services for certain Connection Points in order that operational security limitations of the grid will be respected.

The end result of the NFS will be communicated by the DSO to the FSP.

Process flow

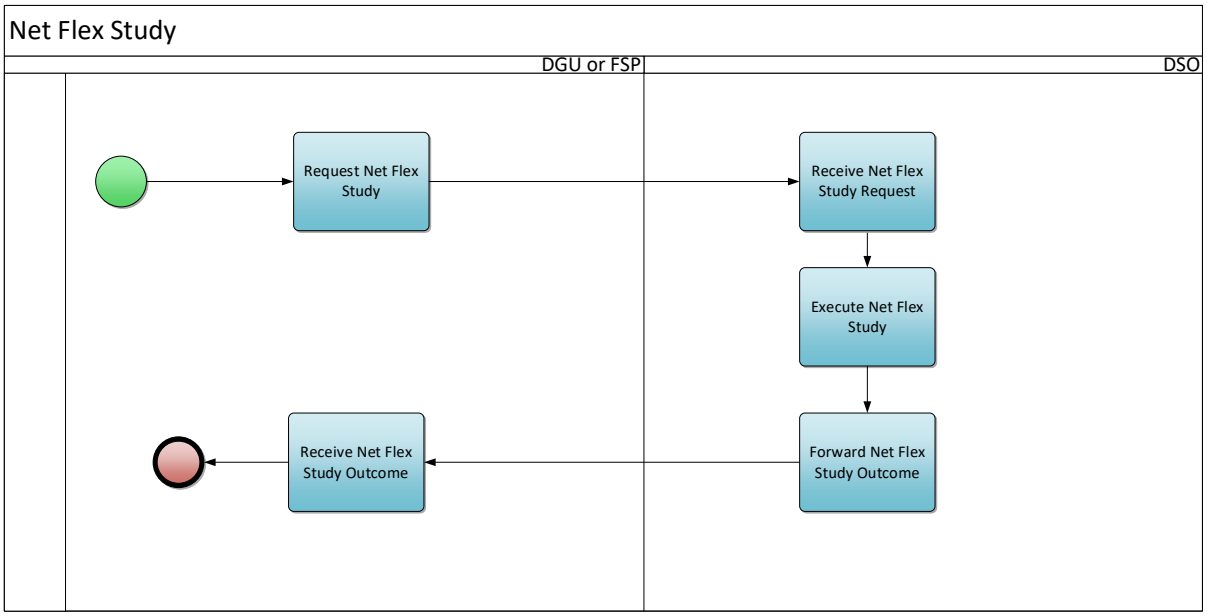


Figure 9 - Net Flex Study

Process description

Starting signal:
This process starts when the DGU (or the FSP on his behalf) sends a request for a Net Flex Study to the DSO.

Prerequisites:
The DGU has received a valid Connection Contract Outcome (if applicable: see Contract Connection Check - scope).

Ends when:
The DSO has determined the impact on the grid and sent the results to the DGU or the FSP.

Result:
The DGU or the FSP has received the results of the Net Flex Study, which is either a green or red color code.
The DSO has registered the Headpoint and the NFS results in the Flex register.

Exceptions:
Not applicable

Flow:

1. Request Net Flex Study
The DGU sends an application for a NFS to the DSO. This application consists of the NFS request form [part of document C8/01]

2. Receive Net Flex Study request
The DSO receives the NFS related documents from the DGU.

3. Execute Net Flex Study
The DSO executes the NFS for the distribution grid.

4. Forward Net Flex Study Outcome
The DSO forwards the outcome of the NFS to the DGU. [C8/01]

5. Receive Net Flex Study Outcome
The DGU receives the Net Flex Study details from the DSO.

Steering of the process (general process agreements)

Timings:
This process starts when the DGU sends the DSO a Net Flex Study request form. In case the request is not valid, the DSO will inform the DGU within 5 working days. In case the request is valid, the DSO forwards to the DGU the Net Flex Study Outcome within 30 calendar days after the request.

Note that if the DSO needs to modify the validity of an NFS result, this needs to be communicated as defined in C8/01 in order to that the concerned FSP has time to take corrective actions in regards to his pool.

It's possible that the DSO re-evaluates the prequalified power because of increased risk in that zone 12 months after this constatation the prequalified power can be reduced by the DSO (exception for certain multi-year contracts)

Interactions:
This process determines the prequalified power per Connection Point for providing flexibility services. This will have an effect on the bids in the tendering process.

Annulations and corrections:
In case the information provided by the DSO to the DGU/FSP is not or no longer correct, the DGU/FSP should contact the DSO as soon as possible, in order to refresh the NFS.

Regional differences:
In Brussels, only the FSP can request the Net Flex Study.

4.2.4. Identification Delivery Point

Scope

- A separate identification of the delivery point is not needed when the delivery point is linked with the headmeter of the connection point
- For LV, the identification used will always be the identification of the delivery point linked with the headmeter of the connection point. As a result, for LV only 1 SDP-Flex can be registered per product/FSP and it will be at headpoint level.

Process definition

The goal of the process is to create a unique identifier for the Delivery Point, so that the FSP can use the identifier in its communication towards the DSO and FRP for flexibility purposes (such as starting a new service, placing a bid…). The request of identification can be done by the FSP.

Process flow

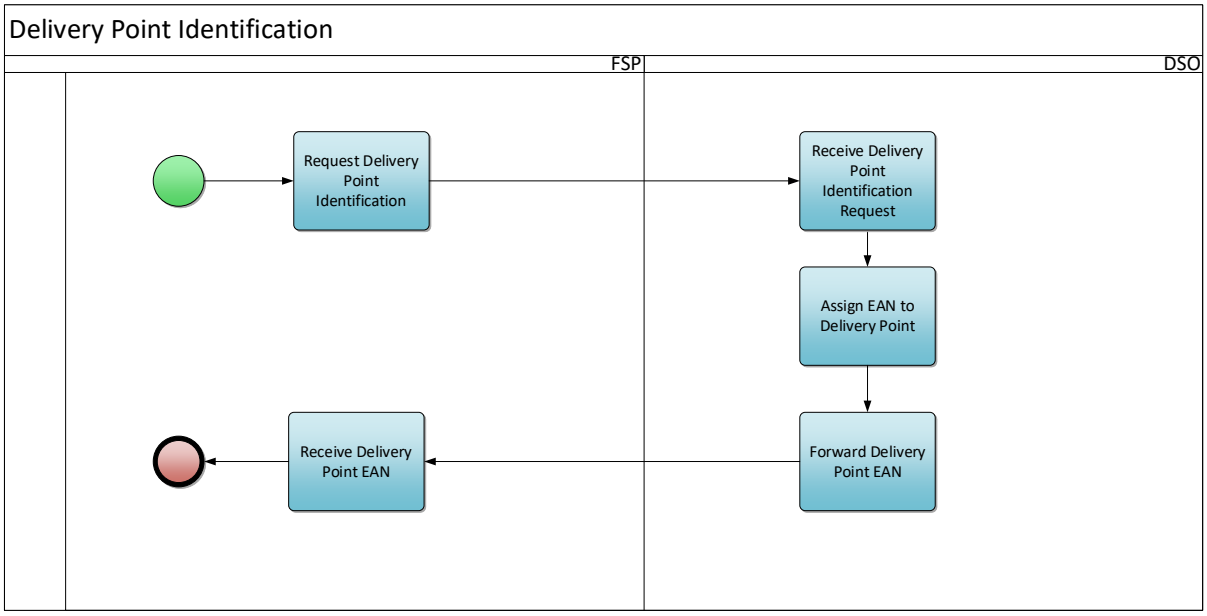


Figure 10 - Delivery Point Identification

Process description

Starting signal:

The procedure starts when the FSP submits a request for Delivery Point Identification.

Prerequisites:

A Net Flex Study has been executed for the connection point (if applicable, see Net Flex Study – scope).

Ends when:

The process ends when the DSO has assigned an EAN for the Delivery Point and the DSO sends the EAN to the FSP.

Result:

The FSP receives the EAN of the Delivery Point.
The DSO registers the Delivery Point in the Flex Register.

Flow:

1. Request Delivery Point Identification

The FSP sends a filled in request form for a Delivery Point Identification to the DSO [see Annex 6].

2. Receive Delivery Point Identification request

The DSO receives the Delivery Point Identification request from the FSP.

3. Assign EAN to Delivery Point

The DSO assigns an EAN to the Delivery Point.

4. Forward Delivery Point EAN

The DSO forwards the Delivery Point EAN to the FSP.

5. Receive Delivery Point EAN

The FSP receives the Delivery Point EAN from the DSO.

Steering of the process (general process agreements)

Timings:

Not applicable

Interactions:

This process determines the identifier of the delivery point. This is used in further processes, such as pool update, bidding, measure, settlement …

For flexibility services that can be requested through the Flex Data Hub Portal, this process is done together with the process 'Start new service'. Hence, all the steps above are not applicable in that case.

Annulations and corrections:

Not applicable

Regional differences:

Not applicable

4.2.5. Set up ex post data communication

Process definition

The data communication to exchange measured or metering data in the flexibility market can, depending on the flexibility products, require ex-post communication. The setup and testing of this link is performed as part of the activities on the onboarding as part of FSP-DSO contract signed with the System Operator.

The goal of the process is to install and onboard a meter that will be used for the exchange of ex-post data. The processes are described in more detail in Synergrid Technical Regulation C8/02 .

Process flow

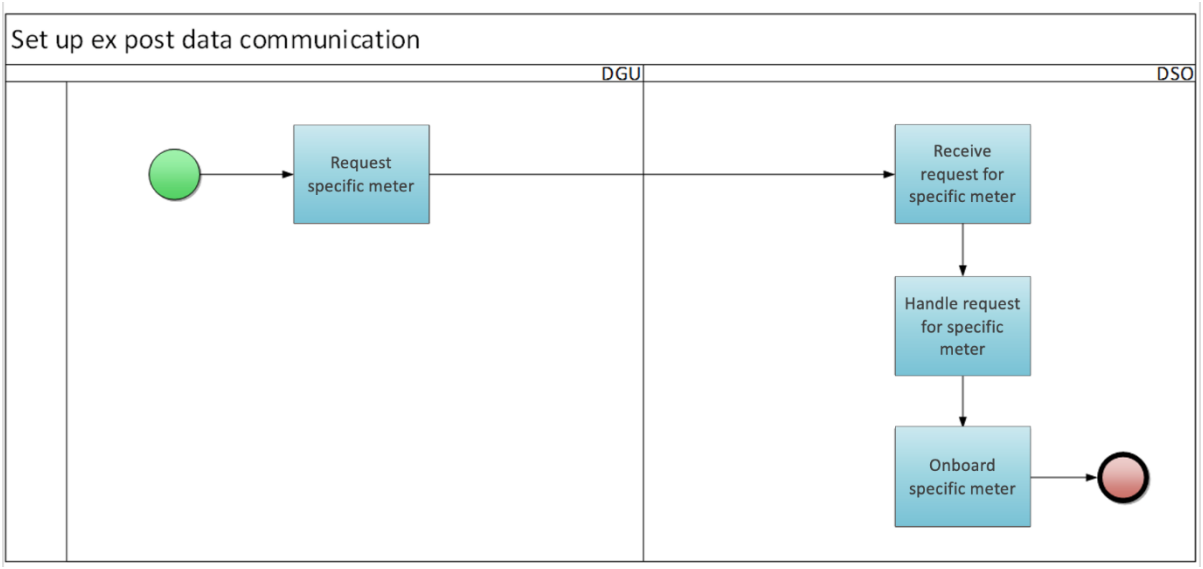


Figure 11 - Set up ex-post data communication

Process description

Starting signal:
The DGU requests the DSO to install a specific meter.

Prerequisites:
Not applicable

Ends when:
The DSO has onboarded the meter in his system.

Result:
The DSO has installed a meter behind the connection point of the DGU and is able to read and process the data.

Exceptions:
Not applicable

Flow:

1. Request specific meter
The DGU e-mails the DSO with the request to install a specific meter behind the connection point.

2. Receive requests for specific meter
The DSO receives the request from the DGU.

3. Handle request for specific meter
The DSO will send out an offer and, once accepted, install the meter at the DGU's location, see more details in C8/02.

4. Onboard specific meter
The DSO onboards the specific meter in his system.

Steering of the process (general process agreements)

Timings:

The process starts when the DGU sends a request to the DSO.
For more specific timings, see C8/02.

Interactions:

Data from the meter will be used in further flexibility processes.
A specific meter can lead to the DSO billing a tariff to the DGU.

Annulations and corrections:

Not applicable

Regional differences:

Not applicable

4.2.6. Set up real-time data communication

Process definition

The data communication to exchange measured or metering data in the flexibility market can, depending on the flexibility products, require real-time communication. The setup and testing of this communication is part of the activities on the onboarding as part of specific contracts signed.

Before these SDP-F's can become active in the market the FSP has to set up and test the data communication with the System Operator. The setup and testing of this link is performed as part of the activities on the onboarding as part of FSP-DSO contract signed with the System Operator.

The goal of the process is to install and onboard a meter that will be used for the exchange of real-time data. The processes are described in more detail in Synergrid Technical Regulation C8/07 .

Process flow

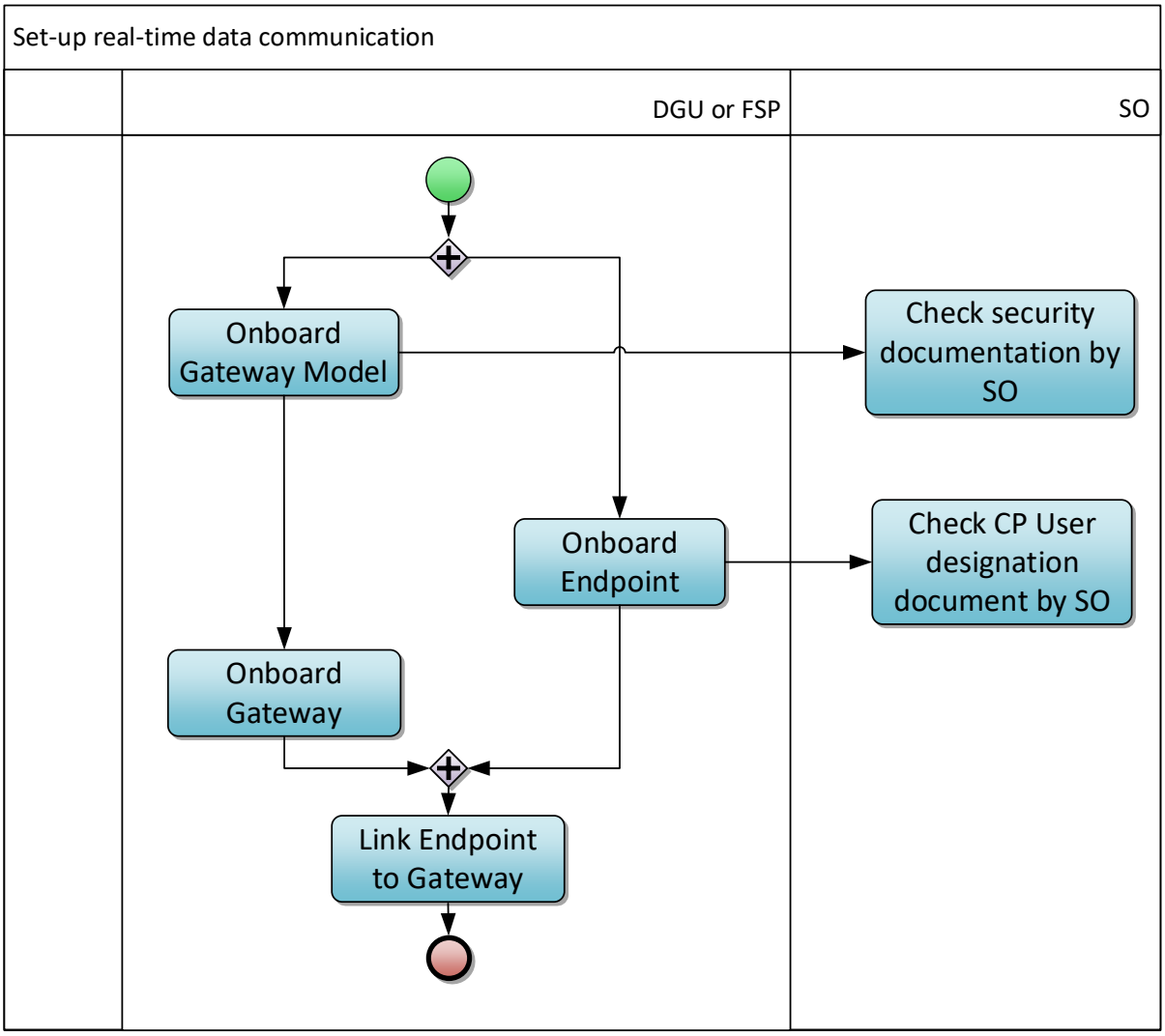


Figure 12 - Set up real-time data communication

Process description

Starting signal:

The procedure starts when the DGU or the mandated FSP submits a request to onboard a Gateway Model Point or Endpoint.

Prerequisites:

As the gateway is an essential equipment for capturing and transmitting data used for the market processes (e.g. Walloon decreet art 35 sexies), the setup of the gateway for Delivery Points connected to the distribution network is also within the scope of the DSO. Therefore, the general setup and architecture (local gateway (i.e. directly near the Delivery Point) and/or central gateway (i.e in the FSP premises)) must be agreed between TSO and DSO before the ”onboarding process”.

Ends when:

The Endpoint is successfully linked to the Gateway.

Result:

The Gateway and Endpoint are onboarded and linked to each other.

Exceptions:
Not applicable

Flow:

1. Onboard Gateway Model
The DGU or mandated FSP onboards a Gateway model. The System Operators check the security documentation and technical specifications, which need to be aligned with C8/06 .

2. Onboard Gateway
The GU or mandated FSP onboards a Gateway.

3. Onboard Endpoint
The GU or mandated FSP onboards an Endpoint. In case the FSP onboards the Endpoint, the System Operator to which grid the connection point is connected will check the Communication Platform User Designation Document.

4. Link Endpoint to Gateway
The GU or mandated FSP links the Endpoint to the Gateway.

Steering of the process (general process agreements)
Timings:
This process starts when the DGU or FSP onboards a Gateway Model or Endpoint.

Interactions:
The Endpoint key is necessary to start the data exchange in a later phase.

Annulations and corrections:
Not applicable

Regional differences:
Not applicable

4.3. Product Prequalification

This section describes the processes for the FSP to prequalify its Delivery Points for a certain flexibility product or service.

4.3.1. Sign FSP-FRP contract

This process will not be described in detail and can be found on the FRP website for the respective products:

- FCR
- aFRR
- mFRR
- SDR
- ToE in DAID market
- Capacity Remuneration Mechanism

4.3.2. Start new service

Process definition

When an FSP wants to deliver a flexibility service with a certain DGU, the FSP needs to register the flexibility service for that DGU with the DSO. This allows the DSO to perform some checks and the DSO will inform the FRP which SDP-Flex are added to the pool of the FSP. In case of an FSP switch, this action also allows the DSO to inform the old FSP that he has lost a DGU.

Process flow

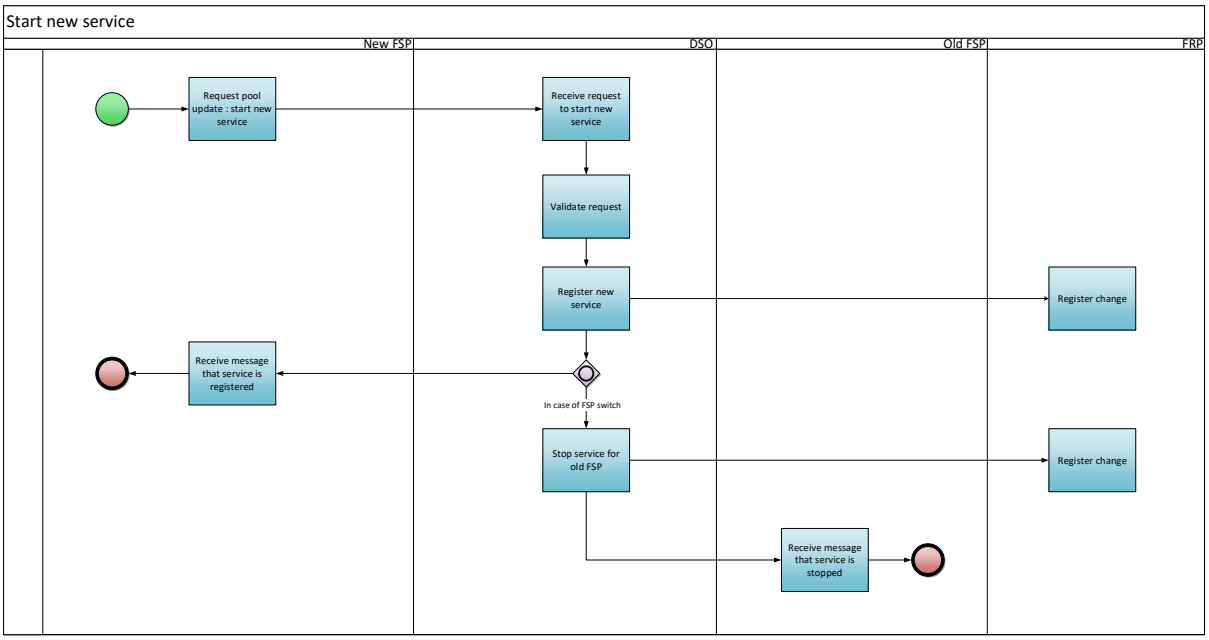


Figure 13 - Start new service

Process description

Starting signal:

The FSP sends a request to start a new service to the DSO.

Prerequisites:

- The FSP has signed FSP-FRP contract with the FRP
- The FSP has signed FSP-DSO contract with the DSO
- The connection point has a valid NFS if applicable (see NFS-scope) or contract offer
- For services that cannot be requested via the Flex Hub Portal: the DSO has registered the Delivery Point in the Flex Register
- The FSP has a valid mandate from the DGU to have access to the measured and computed data required for the flexibility product(s)

Ends when:

The new FSP has been informed the service has been added.
In case of FSP switch: the old FSP has been informed the service has been removed.

Result:

The Service Delivery Point Flex is registered

Exceptions:

- The FSP doesn't need to have a signed FSP-FRP contract if he/she wants to start a new service for CRM.
- For FCR low-voltage, it is not required that the delivery point is already registered in the Flex Register

Flow:

1. Request pool update: start new service
The FSP sends a request to the DSO to start a new flexibility service.

- the following flexibility services need to be requested via the Flex Hub Portal:
  - aFRR
  - mFRR
  - ToE in DA/ID
  - FCR (only high/medium-voltage on DSO-grid)
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in form based on Annex 7 of this document:
  - CRM
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in csv-file based on Annex 5 of this document :
  - FCR low-voltage

2. Receive request to start new service
The DSO receives the request of the FSP.

3. Validate request
The DSO validates the request and performs some checks:

- Verification of general requirements for flexibility: does the Delivery Point comply with the requirements described in Article 4 of the FSP-DSO contract.
- Verification of specific requirements for the flexibility service: does the Delivery Point comply with the specific requirements for this service such as the metering requirements, see Annex 1 of the FSP-DSO contract.
- Verification that the FSP has a valid mandate from the DGU to have access to measured and computed data of the flexibility product(s).

The DSO does not verify if the service can be combined with existing services on the connection point, as this is the responsibility of the FSP.

4. Register new service
The DSO updates the Flex Register and registers a new Service Delivery Point Flex.

If the service requires real-time data and the Endpoint key is included in the pool update, then the DSO will activate the real-time data exchange.

5. Register change
The FRP registers the change from the Flex Register in its back-end tools.

6. Receive message that service is registered
The FSP receives confirmation from the DSO that the service is registered, either through e-mail or by consulting the Flex Data Hub Portal.

7. Stop service for old FSP
In case of an FSP switch, the DSO stops the service for the old FSP.

If the service required real-time data, the DSO will deactivate the real-time data exchange as well.

8. Register change
The FRP registers the change in the Flex Register in its back-end tools.

9. Receive message that service is stopped
The FSP receives confirmation from the DSO that the service is stopped, either through e-mail or by consulting the Flex Data Hub Portal.

Steering of the process (general process agreements)

Timings:
The process starts when the FSP sends a request for a new service to the DSO.
The DSO will process the request by the start of the next month, provided it is received at the latest 5 working days before the end of the month.

Interactions:
For flexibility services that can be requested through the Flex Data Hub Portal, this process is done together with the process 'Identification Delivery Point'.

Annulations and corrections:
Not applicable

Regional differences:
Not applicable

4.3.3. Update service

Process definition

When an FSP wants to update the properties of an SDP-Flex in its pool, the FSP needs to register the changes with the DSO. This allows the DSO to perform some checks and the DSO will inform the FRP which SDP-Flex are updated.

Process flow

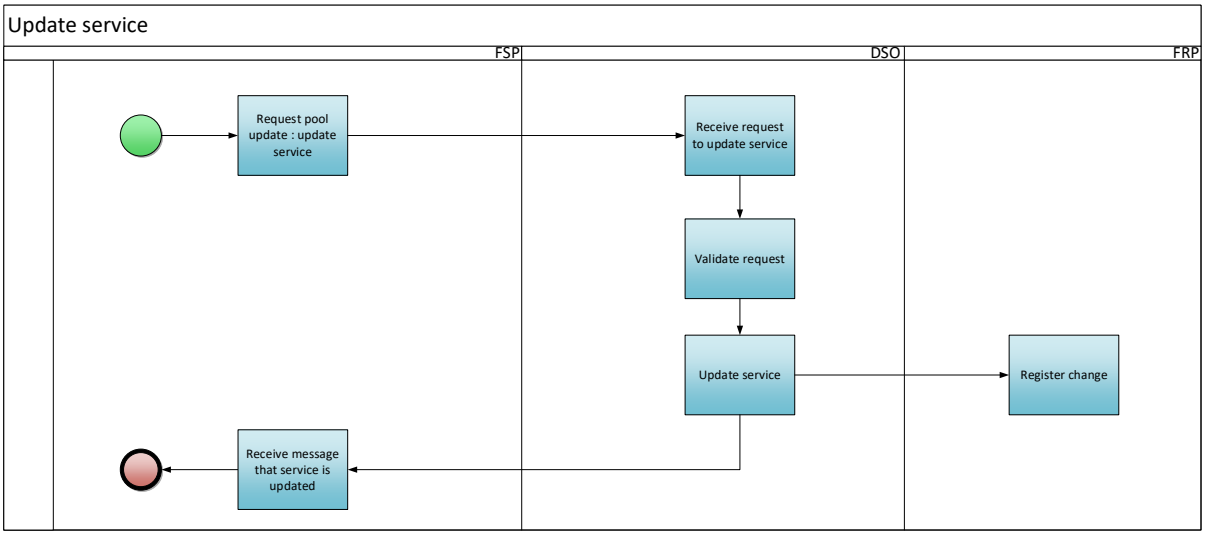


Figure 14 - Update service

Process description

Starting signal:
The FSP sends a request to update an existing service to the DSO.

Prerequisites:
The FSP has an active service for the SDP-Flex for the current and the next month. The reason for this is to avoid that, in case of an FSP switch, the old FSP can still request updates for the SDP-Flex.

Ends when:
The FSP has been informed the service has been updated.

Result:
The Service Delivery Point Flex is updated.

Exceptions:
Not applicable.

Flow:

1. Request pool update: update service
The FSP sends a request to the DSO to update an existing flexibility service.

- the following flexibility services need to be updated via the Flex Hub Portal:
  - aFRR
  - mFRR
  - ToE in DA/ID
  - FCR (only high/medium-voltage on DSO-grid)
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in form based on Annex 7 of this document:
  - CRM
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in csv-file based on Annex 5 of this document :
  - FCR low-voltage

2. Receive request to update service
The DSO receives the request of the FSP.

3. Validate request
The DSO validates the request.

4. Update service
The DSO updates the Service Delivery Point Flex.

If the FSP has updated the service by adding the Endpoint key, the DSO will activate the real-time data exchange.

5. Register change
The FRP registers the change from the Flex Register in its back-end tools.

6. Receive message that service is updated
The FSP receives confirmation from the DSO that the service is updated, either through e-mail or by consulting the Flex Data Hub Portal.

Steering of the process (general process agreements)

Timings:

The process starts when the FSP sends a request to update a service to the DSO.
The DSO will process the request by the start of the next month, provided it is received at the latest 5 working days before the end of the month.

Interactions:

Not applicable

Annulations and corrections:

Not applicable

Regional differences:

Not applicable

4.3.4. Stop service

Process definition

A service can be stopped on initiative of the FSP: when an FSP wants to stop delivering a flexibility service with a certain DGU, the FSP needs to stop the flexibility service for that DGU with the DSO. This allows the DSO to perform some checks and the DSO will inform the FRP which SDP-Flex are stopped. The FSP also uses this process in case of a customer switch or combined switch in the supply market.

A service can also be stopped on initiative of the DSO (see Article 5 of FSP-DSO contract):

- in case the requirements of FSP-DSO contract are no longer fulfilled
- in case the functioning of the grid is jeopardized by the flexibility delivery (temporary stop)

The FSP can contest the decision of the DSO.

Lastly, a service can also be stopped when another FSP takes over the SDP-Flex, this is described in the process 'Start new service'.

Process flow

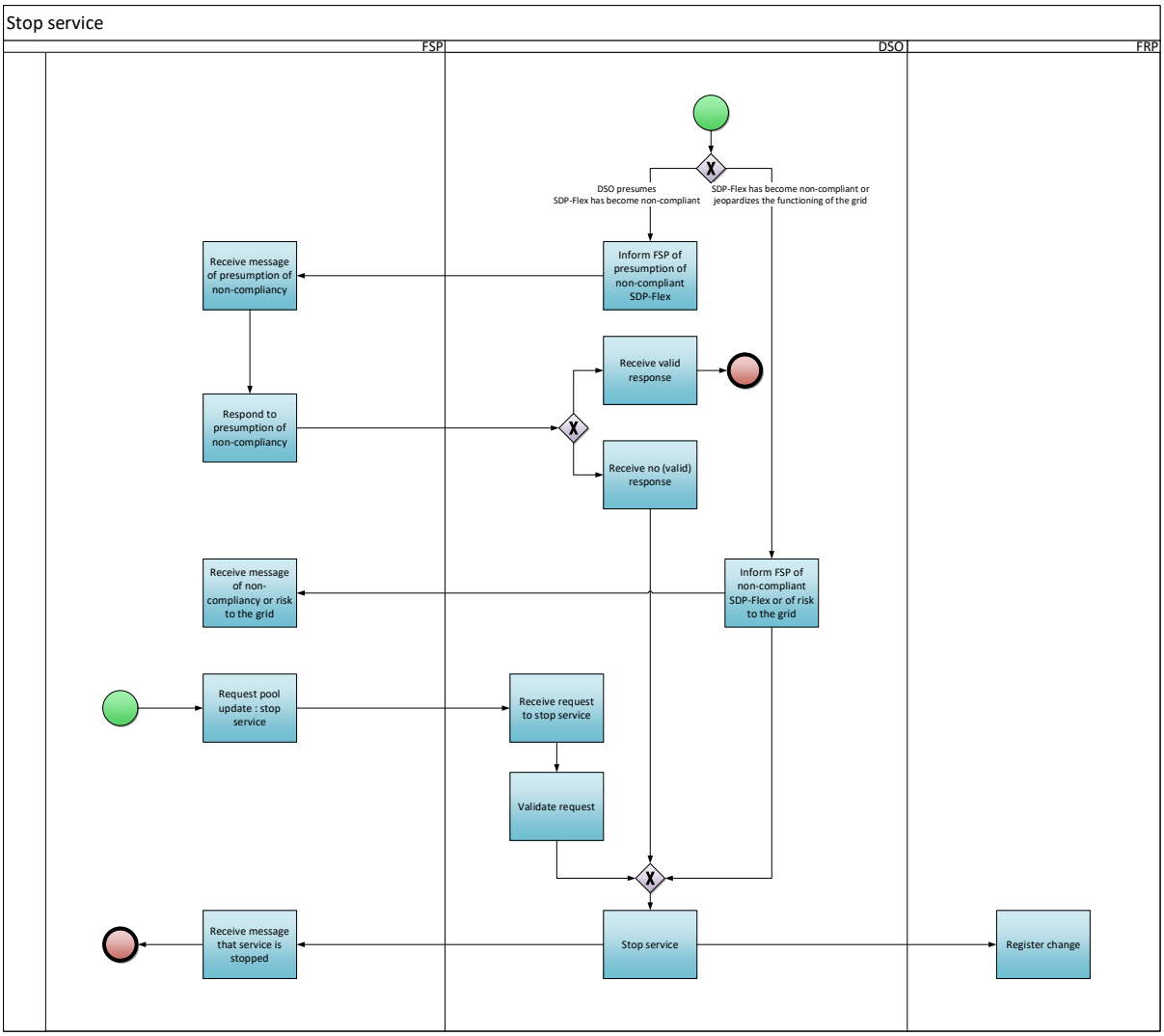


Figure 15 - Stop service

Process description

Starting signal:

Depending on the situation, the process can start as follows:

- The FSP sends a request to stop an existing service to the DSO, or
- The DSO sends a message to the FSP that the service will be stopped

Prerequisites:

The FSP has an active service for the SDP-Flex for the current and the next month.

Ends when:

The FSP has been informed the service has been stopped.

Result:

The Service Delivery Point Flex is stopped.

Exceptions:

Not applicable.

Flow:

1. Inform FSP of presumption of non-compliant SDP-Flex
The DSO informs the FSP that there is a presumption that the SDP-Flex is no longer compliant with the requirements for participation to flexibility services.

2. Receive message of presumption of non-compliancy
The FSP receives the message from the DSO.

3. Respond to presumption of non-compliancy
The FSP has 5 working days to respond to the message of the DSO.

4. Receive valid response
If the DSO receives a valid response of the FSP within 5 working days, the process stops and the service will not be stopped.

5. Receive no (valid) response
If the DSO receives no (valid) response of the FSP within 5 working days, the DSO will take action to stop the service.

6. Inform FSP of non-compliant SDP-Flex or of risk to the grid
The DSO informs the FSP that the SDP-Flex jeopardizes the functioning of the grid that the SDP-Flex is no longer compliant with the requirements for participation to flexibility services.

7. Receive message of non-compliancy or risk to the grid
The FSP receives the message from the DSO.

8. Request pool update: stop service
The FSP sends a request to the DSO to stop an existing flexibility service.

- the following flexibility services need to be stopped via the Flex Hub Portal:
  - aFRR
  - mFRR
  - ToE in DA/ID
  - FCR (only high/medium-voltage on DSO-grid)
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in form based on Annex 7 of this document:
  - CRM
- the following flexibility services need to be requested via e-mail to the DSO, with a filled in csv-file based on Annex 5 of this document :
  - FCR low-voltage

9. Receive request to stop service
The DSO receives the request of the FSP.

10. Validate request
The DSO validates the request.

11. Stop service
The DSO stops the Service Delivery Point Flex.

If the service required real-time data, then the DSO will deactivate the real-time data exchange.

12. Register change
The FRP registers the change from the Flex Register in its back-end tools.

13. Receive message that service is stopped
The FSP receives confirmation from the DSO that the service is stopped, either through e-mail or by consulting the Flex Data Hub Portal.

Steering of the process (general process agreements)
Timings:
The process starts:

- when the FSP sends a request to stop a service to the DSO
- when the DSO sends a message to the FSP that the SDP-Flex will be stopped

The DSO will process the request by the start of the next month, provided it is received at the latest 5 working days before the end of the month.

If the DSO decides to stop the SDP-Flex due to non-compliancy or if it poses a risk to the grid, the change is applicable immediately.

Interactions:
Not applicable

Annulations and corrections:
Not applicable

Regional differences:
Not applicable

4.3.5. Determine Nominal Reference Power

Process definition
The goal of the process is to define the Nominal Reference Power, which is used to define the maximum power that can be offered for the Capacity Remuneration Mechanism.

FSP & FRP can ask the DSO to calculate a Reference Power. Following methods are currently supported in the market to define the Reference Power:

1) the use of historical data (method 1)

2) the organization of a pre-delivery test (method 2)

For both methods, the DSO makes the Reference Power available to the FRP.

Summary process description
Method 1: the use of historical data

1. FRP requests calculation based on historical data for a defined period
2. DSO performs calculation
3. DSO makes calculation result (= Reference Power) available to FSP & FRP
4. FSP can contest the result of Method 1, and ask for Method 2 when the result is not representative

Method 2: the organization of a pre-delivery test

1. FRP requests calculation based on the activation test
2. The 15' time periods in which the activation tests take place are determined by the FSP & FRP in consultation with the DSO.
3. The DSO can cancel the test if it jeopardizes the net security.
4. DSO performs calculation
5. DSO makes calculation result (= Reference Power) available to FSP & FRP

Process flow

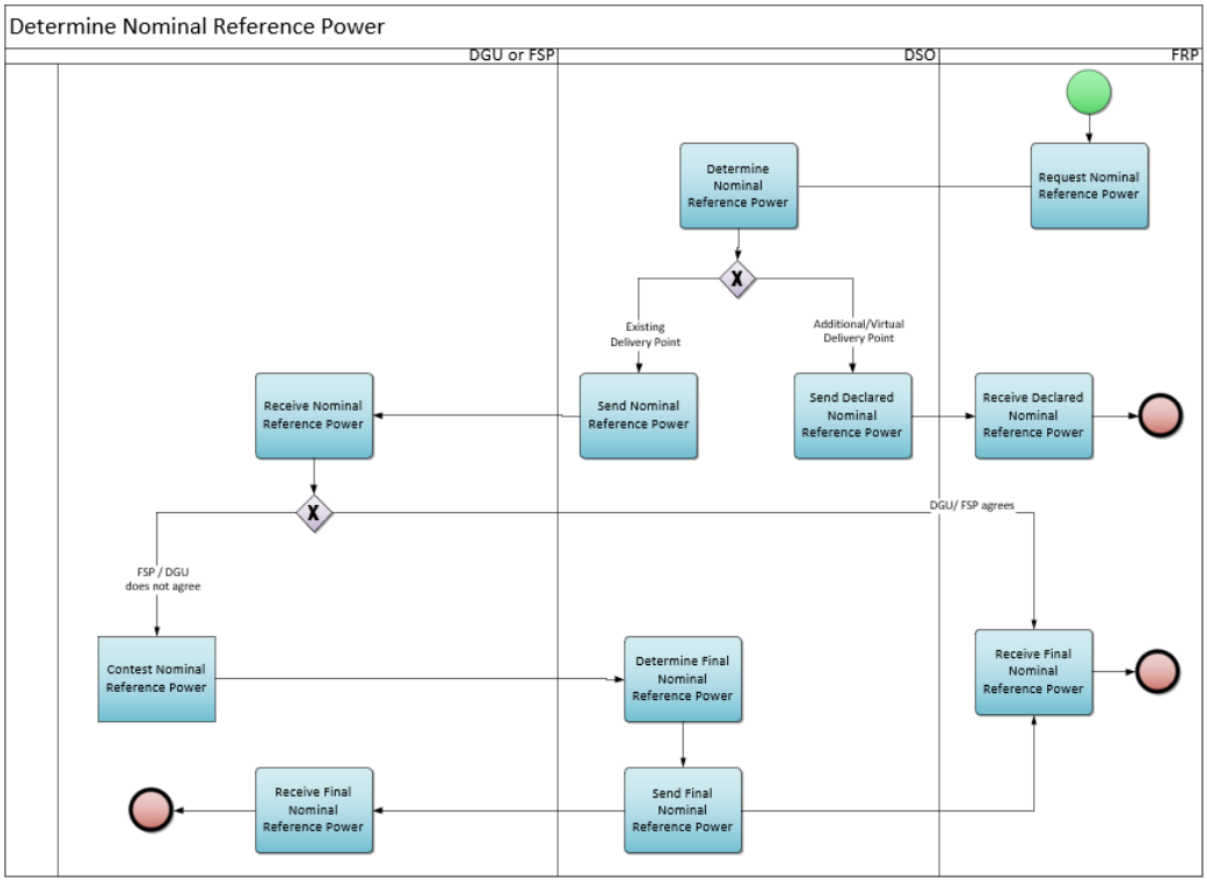


Figure 16 - Determine Nominal Reference Power

Process description

Starting signal:

The procedure starts when the FRP directly or indirectly submits a request.

Prerequisites:

A valid Net Flex Study or Contract Offer.

The Service Delivery Point Flex has been registered.

Ends when:

The process ends when the DSO has determined the Final Nominal Reference Power for the Delivery Point and informs the FSP.

Result:

The FSP receives the Final Nominal Reference Power.

The DSO updates the Flex Register.

Exceptions:
If the DGU participates to the Fast Track Procedure, it does not need to comply with the prerequisites.

Flow:

1. Request or Declare Nominal Reference Power
The FRP requests the DSO to determine the Nominal Reference Power. The request will be send via a pre-defined format, which can be found in Annex 8 of this document .

2. Determine Nominal Reference Power
The DSO determines the Nominal Reference Power, according to the calculation procedure specified in the CRM functioning rules.

3. Send Nominal Reference Power
The DSO sends the Nominal Reference Power to the FSP.

4. Receive Nominal Reference Power
The FSP receives the Nominal Reference Power from the DSO.

5. Contest Nominal Reference Power
The FSP can contest the Nominal Reference Power to the DSO. Contestation needs to be send max 5 working days after the FSP has received the Nominal Reference Power.

6. Determine Final Nominal Reference Power
After contestation, the DSO will determine the Final Nominal Reference Power.

7. Send Final Nominal Reference Power
The DSO sends the Final Nominal Reference Power to the FSP.

8. Receive Final Nominal Reference Power
The FSP receives the Final Nominal Reference Power from the DSO.

Steering of the process (general process agreements)
Timings:
This process starts when the FRP requests a Nominal Reference Power to the DSO. The DSO will determine the Final Nominal Reference Power within the period specified in the CRM functioning rules.

Interactions:
The Nominal Reference Power will be used to define the maximum power that can be offered for the Capacity Remuneration Mechanism.

Annulations and corrections:
Not applicable

Regional differences:
Not applicable

4.3.6. Prequalification check and test by FRP

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to ensure the SDP-Flex can deliver the flexibility service according to the FSP-FRP contract. This may include the organization of a simulation test. After a successful prequalification, the SDP-Flex can be used for participation to flexibility services.

Interaction with DSO:

- The 15' time periods in which the activation tests take place are determined by the FRP in consultation with the DSO.
- In case a simulation test is organized, the DSO can cancel the test if it jeopardizes the net security.
- The FRP can ask the DSO to provide metering data for the SDP-Flex faster than usual if this is necessary for the FRP to review the simulation test.

4.3.7. Pre-delivery control

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

For some products/units (eg. for product CRM and an existing CMU), the FRP will check the status of the CMU during the pre-delivery period. The goal of this process is to ensure the unit can deliver the capacity/flexibility during the contracted period. This will result in additional calculations to determine the Pre-delivery Measured Power and may include the organization of a simulation test. If there is a missing capacity identified after the pre-delivery control, it could lead to penalties and might also impact the initial contracted capacity.

The processes to define the Reference Power are equal to the processes defined in 4.3.6 Prequalification check and test.

4.3.8. Baseline check by FRP

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to ensure the baseline that is chosen or sent by the FSP is appropriate for determining the delivered flexibility. The FRP performs these checks.

5. Operate

5.1. Procurement

This section describes the processes to collect the bids and clear the market.

5.1.1. Bidding

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to collect the bids from the FSP.

5.1.2. Market clearing

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to aggregate all bids from the FSP's and match them with the flexibility demand of the FRP to clear the market. The bids that are selected have a commitment to deliver flexibility according to the terms and conditions in the FSP-FRP contract.

5.2. Delivery

This section describes the processes for the flexibility delivery by the selected bids.

5.2.1. Activation

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

The goal of this process is to deliver flexibility and to register the activation in the Flex Register to calculate and ultimately settle the energy delivered.

Depending on the product design of the flexibility product, the FSP reacts to a certain signal to start delivering the flexibility service. This could be a direct signal by the FRP, a change in grid frequency, a change in market price… The activation is registered afterwards in the Flex Register.

5.2.2. Notify DSO of Activation

Scope

Products:

- mFRR
- SDR
- DA/ID

Process definition

The FSP needs to inform the DSO after an SDP-Flex was activated for a flexibility service. This allows the DSO to keep this information in mind when validating the load profiles of the DGU's.

Process flow

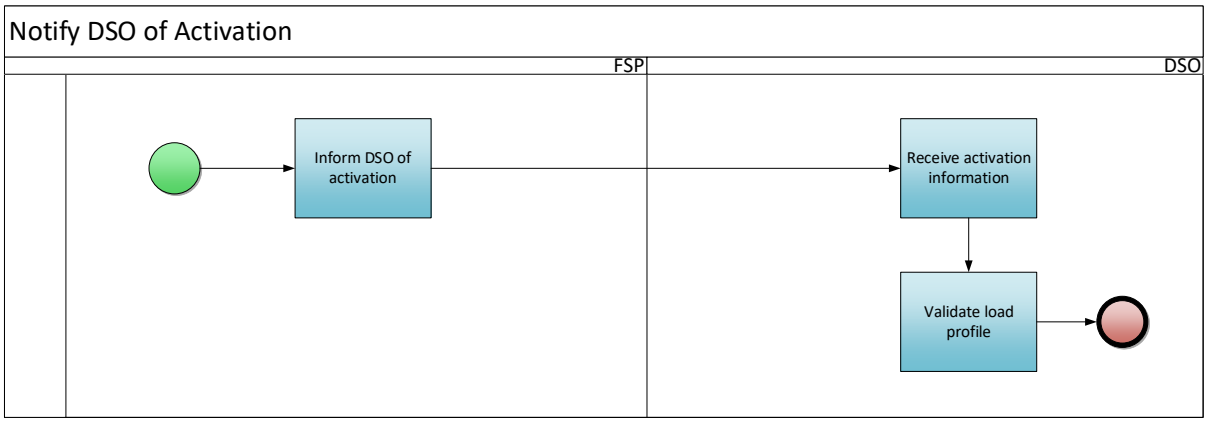


Figure 17 - Notify DSO of Activation

Process description

Starting signal:

The process starts when the FSP sends an e-mail to the DSO to notify the DSO of an activation or when the DSO detects an activation based on a signal provided by the FRP.

Prerequisites:

The SDP Flex is registered in the Flex Register.

Ends when:

The DSO validates the load profile of the DGU taking into account the flex activation.

Result:

The DSO is able to validate a deviating load profile of a DGU that provided a flexibility service.

Exceptions:

Not applicable

Flow:

1. Send activation information to DSO

The FSP sends an e-mail to the DSO with the following information

- EAN of SDP-Flex
- Start time of activation
- End time of activation
- Activated power (if available)

2. Receive activation information

The DSO receives the information of the FSP

3. Validate load profile

The DSO validates the load profile of the DGU, taking into account the flex activation.

Steering of the process (general process agreements)

Timings:

The FSP informs the DSO at the latest on the 1st working day after the activation took place.

Interactions:

Not applicable

Annulations and corrections:

Not applicable

Regional differences:

Not applicable

6. Measure

6.1. Concepts

Before defining the measure processes, some concepts are introduced that are used in the measure processes.

6.1.1. Granularity of data

- 15-minute interval measurement
- 4-second metering data

6.1.2. 2 types of measurement units

- Volume (kWh)
- Power (W)

6.1.3. Frequency of data

- Ex-post on a monthly basis
- Ex-post on demand
- (Near) Real-time

6.1.4. Origin of data

- DSO headmeter
- DSO submeter: metered or calculated
- Private submeter

6.1.5. Data validation rules

The 15-minute load profile data is validated according to the standard data validation process (UMIG – HB – ME – 03 – Validation rules) that is in place for AMR and Digital Meters.

The real-time data used in the measure processes is validated according to specific rules, see C8/06

- Technical validations:
  - Correct syntax
  - Successful decryption
  - Complete message: all data fields are present
  - Correct data format
  - Timestamp measurement is a multiple of 4 s
  - Creation timestamp does not lie more than 2s before timestamp measurement
  - Grouped message does not contain more than 15 messages

- Functional validations
  - SDP-Flex is registered in the Flex Register and linked to a FSP for the concerned timeframe
  - The endpoint is registered in the Flex Register and linked to the correct SDP-Flex for the concerned timeframe
  - There is no metering data stored yet for the concerned timeframe

6.2. Data Communication

6.2.1. Ex-post Data Communication

Process definition

If a Service Delivery Point Flex requires 15-minute load profile data for a specific flexibility product, the following process flow is used. The collection of the 15-minute load profile data is part of the standard data collection process that is in place for AMR and Digital Meters.

The technical specifications of this data communication is documented in the TRDE and C8/02. In the future, in case of new rules regarding submetering, the data communication standard will be updated.

Process flow

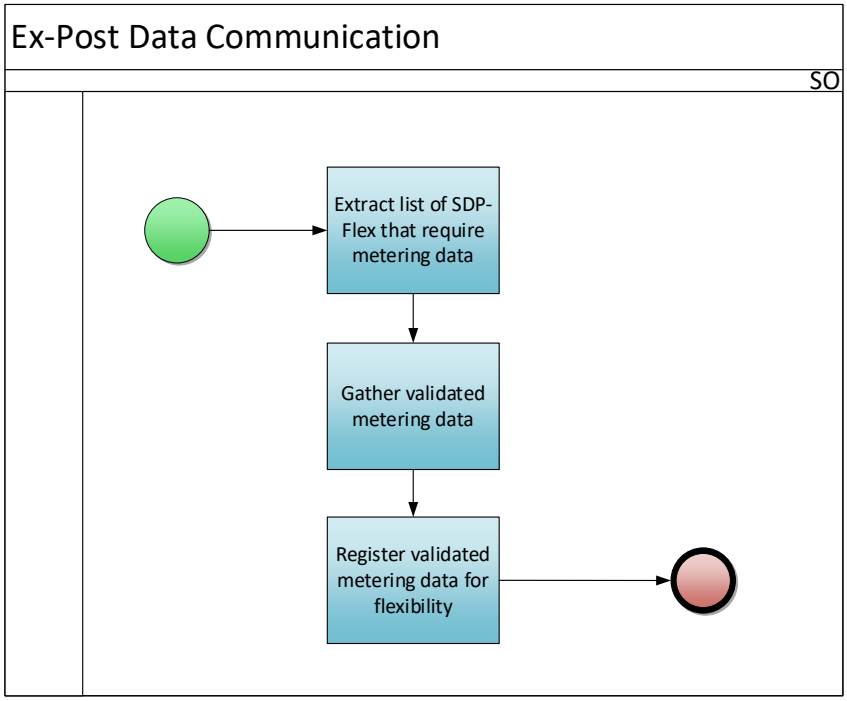


Figure 18 - Ex-Post data communication

Process description

Starting signal:
Once a month, the System Operator extracts a list of all SDP-Flex that require metering data.

Prerequisites:
Ex-post data has been registered and validated in the systems of the System Operator.
SDP-Flex is registered in Flex Register

Ends when:
The metering data is registered in the Flex Data Hub.

Result:
Metering data is available for all SDP-Flex that require it.

Exceptions:
Not applicable

Flow:

1. Extract list of SDP Flex that require metering data
The System Operator extracts a list of SDP-Flex that require metering data.

2. Gather validated metering data
The System Operator gathers the necessary validated metering data from its systems and, when necessary, prepares the data for the SDP-Flex.

3. Register validated metering data for flexibility
The System Operator registers the validated metering data.

Steering of the process (general process agreements)
Timings:
The System Operator needs to register the metering data by ((M+1) +11WD) in the Flex Data Hub for the SDP-Flex that require it.

Interactions:
The ex-post data is used for further settlement purposes.

Annulations and corrections:
See chapter on Reconciliation.

Regional differences:
Not applicable

6.2.2. Real-Time Data Communication

Process definition
If a Service Delivery Point Flex requires Real-Time Data Communication for a specific flexibility product, the following process flow is used.

The technical specifications of this data communication is documented in C8/06  .

Process flow

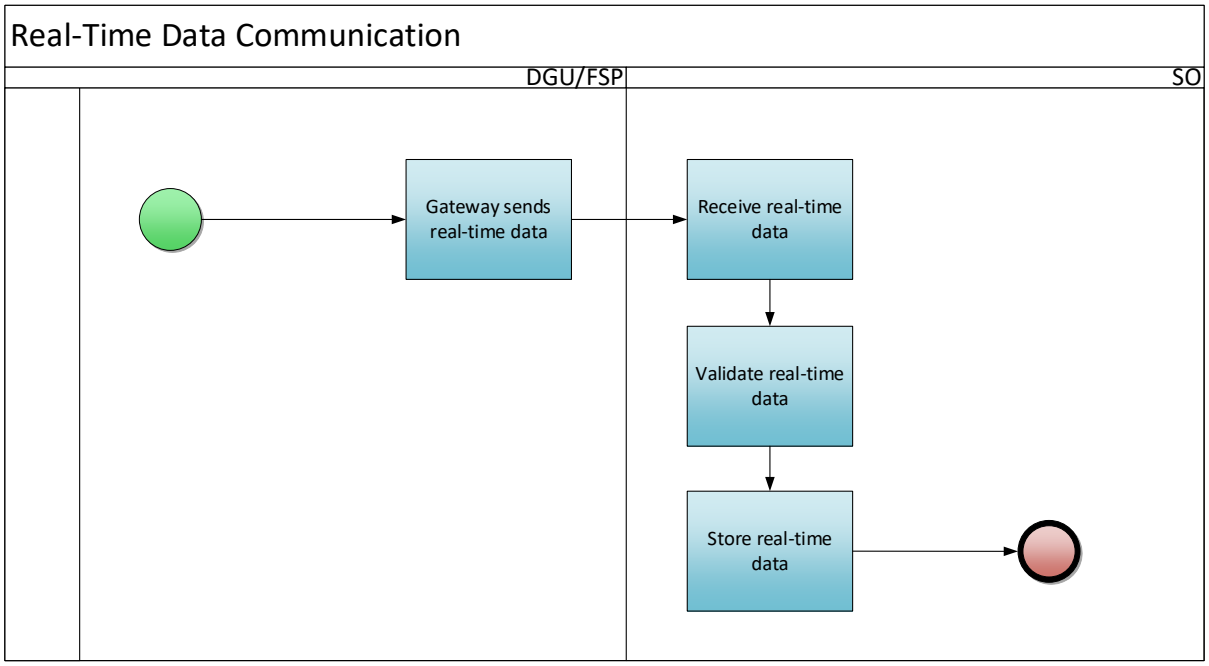


Figure 19 - Real-Time Data Communication

Process description

Starting signal:
The gateway sends real-time data to the System Operator.

Once the flexibility contract is activated for a product that requires 4 sec real-time data, the data communication is activated for the endpoint. This endpoint should also be linked to an active Gateway.

Prerequisites:

- SDP-Flex is registered
- Endpoint key is registered
- Endpoint is linked to the gateway

Ends when:
Real-time data is stored successfully in the metering register in the Flex Data Hub.

Result:
Real-time data is available in the metering register

Exceptions:
The FSP can send data in a throttled way when the communication is down and through manual process if that does not work.

Flow:

1. Gateway sends real-time data
The gateway captures the real-time data from the metering device, encrypts it and sends it to the System Operator.

2. Receive real-time data
The System Operator receives the real-time data.

3. Validate real-time data
The System Operator decrypts the real-time data and validates the message.

4. Store real-time data
The real-time data is stored at the System Operator.

Steering of the process (general process agreements)
Timings:
This process is continuous and near-real time.

Interactions:
The real-time data is used for further settlement purposes.

Annulations and corrections:
Data that cannot pass the validation rules are intercepted and these errors are stored in a separate table, which can be consulted by the FSP in the Flex Data Hub Portal.

An FSP can request the FRP to fill in data gaps by uploading a dataset ex-post.

Regional differences:
Not applicable

6.3. Calculation

The System Operator performs monitoring and calculations on the data that is communicated for each SDP-Flex. The calculation details depend on the flexibility product.

6.3.1. Calculation Baseline

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description
The goal of this process is to calculate the baseline or reference curve of an SDP-Flex before or during its activation period. Depending on the product design of a flexibility product, this calculation is either done by the FSP or by the DSO.

Interaction with DSO:

- In case the FSP chooses to use an adjusted baseline for ToE in DA/ID, the FRP can ask the DSO to provide metering data for the SDP-Flex faster than usual.

6.3.2. Calculation Energy Delivered

This process will not be described in detail, since there is little interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description
The goal of this process is to calculate the energy delivered by the Service Delivery Point Flex during an activation period. It is a monthly process performed by SOs and the results are further used in the

settlement processes. SOs calculate the energy delivered according to the product design of each flexibility product, by calculating the difference between the actual load profile and the baseline or reference curve.

The FSP can consult the Energy Delivered volumes in the Flex Data Hub Portal.

7. Settle

There are three different streams of the settlement:

- The settlement between the FSP and his customer (out of scope of this document)
- The settlement between the FRP and the FSP (cf. T&C BSP mFRR[20])
- The settlement for transfer of energy (cf. CREG's decision (B)1677[21] ; Transfer of Energy rules[22] and T&C BRP[23]):
    - Energy settlement between the FSP and the supplier
    - BRP perimeter correction

7.1. Volume Settlement

7.1.1. Data for FRP/FSP Settlement

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

Depending on the product, different kind verification are done by the FRP in order to check the service offered by the FSP (described by the FRP):

- Availability controls are based on the measurement
- Activation controls are based on the Energy Delivered volumes calculated by SDP Flex

7.1.2. BRP perimeter correction

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description

For the specific rules and exceptions of the BRP perimeter correction, we refer to the Term & Conditions of the relevant product (eg. aFRR, mFRR, ...) and the ToE rules (see website Elia)..

7.1.3. Publication of Transfer of Energy volumes

Process definition

This process is part of the Transfer of Energy Framework and provides the necessary data to the FSP and the Supplier to enable them to correctly adjust the financial impact of the activation on the Supplier. The data exchange is described in more detail in document C8/05 .

[20] www.elia.be
[21] https://www.creg.be/fr/publications/decision-b1677
[22] https://www.elia.be/fr/marche-de-electricite-et-reseau/facilitation-du-marche-de-electricite/transfert-energie
[23] www.elia.be

Process flow

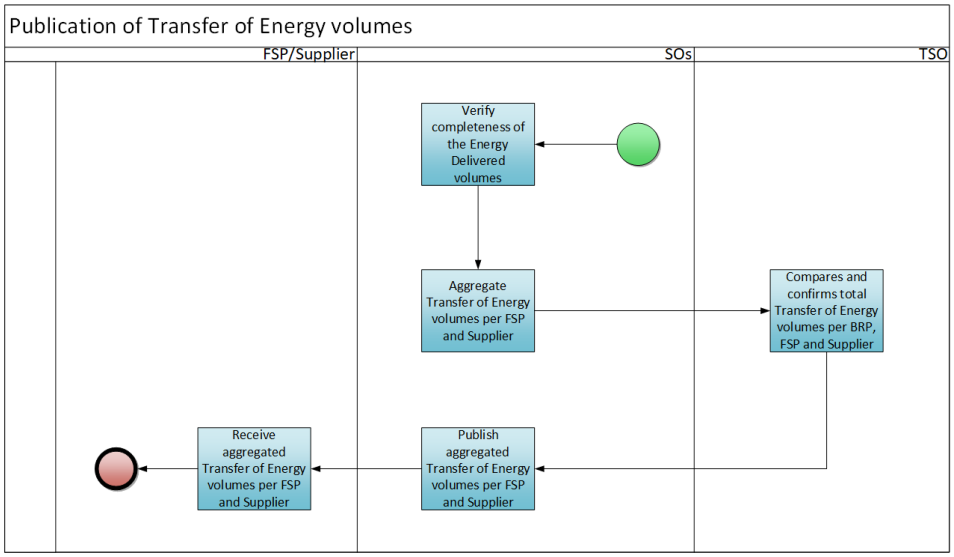


Figure 20 - Publication of Transfer of Energy volumes

Process description

Starting signal:

The process starts when the Energy Delivered volumes are complete in the Flex Data Hub.

Prerequisites:

- The FSP and the Supplier have access to a secure SFTP server, where the files are published.
- The SDP-Flex are subject to the Transfer of Energy Framework. The SDP-Flex with net injection or that are part of an opt-out agreement are excluded from the aggregated Transfer of Energy volumes.

Ends when:

The aggregated Transfer of Energy volumes per FSP and Supplier are published on the secure SFTP server.

Result:

The FSP has received the aggregated Transfer of Energy Volumes per Supplier.
The Supplier has received the aggregated Transfer of Energy Volumes per FSP.

Exceptions:

Not applicable

Flow:

1. Verify completeness of the Energy Delivered volumes

SOs verify that all individual Energy Delivered volumes are calculated.

2. Aggregate Transfer of Energy Volumes per FSP and Supplier

SOs aggregate the individual Transfer of Energy Volumes per FSP and Supplier and informs the TSO the aggregation is done.

3. Compare and confirm total Transfer of Energy volumes per BRP, FSP and Supplier

The TSO checks the consistency of the volumes and confirms them.

4. Publish aggregated Transfer of Energy volumes per FSP and Supplier
SOs publish the aggregated volumes: the XML files are uploaded on the folders of the market parties on a SFTP server.

5. Receive aggregated Transfer of Energy volumes per FSP and Supplier
The FSP and Supplier receive a notification by e-mail that there is a new file published on the SFTP server. The FSP and Supplier download the files.

Steering of the process (general process agreements)
Timings:
The aggregated Transfer of Energy volumes are published by (M+1)+2 months.

Interactions:
The FSP and Supplier will use the aggregated Transfer of Energy Volumes to determine the financial impact of the activation on the Supplier.

Annulations and corrections:
Corrected Transfer of Energy volumes can be defined and published due to rectification of the data (cf. *Yearly check on rectifications*).

Regional differences:
Not applicable

7.2. Financial settlement

7.2.1. FSP Settlement

This process will not be described in detail, since there is no interaction between the FSP and DSO in this process today. It is included to provide the reader with an end-to-end view.

Summary process description
The FRP performs a first financial settlement with the FSP shortly after an activation. Once the corrected Energy Delivered volumes are known, the FRP performs activation control and determines if the FSP needs to pay a penalty.

7.3. Rectifications

7.3.1. Yearly check on rectifications[24]

Process definition
Once a year, the SO's check for rectifications in Structure and Measure data for the SDP-Flex for the previous year. If the corrections have an impact on the invoicing to the FSP and BRP, the FRP will adjust the invoicing.

[24] Note: The annual check on rectification constitutes the final reconciliation of the flexibility volumes.

Process flow

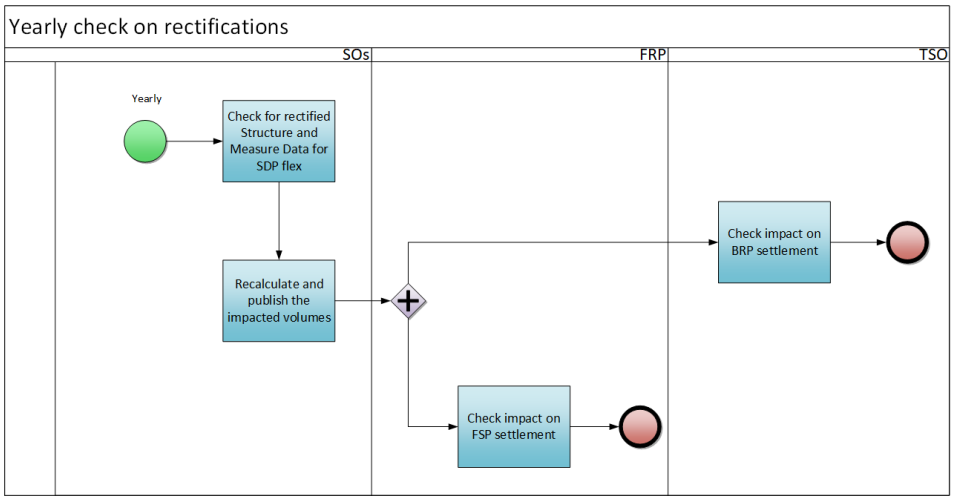


Figure 21 - Yearly check on rectifications

Process description

Starting signal:

Once a year, SO checks if rectification on the data of the previous year is needed.

Prerequisites:

A correction is needed on the data, either detected by the SO or by the FSP.

Ends when:

New results are calculated and published.

Result:

Corrected flex volumes are available.

Exceptions:

N/A

Flow:

1. Check for rectified Structure and Measure Data for SDP flex

SOs check if a correction in data implies a rectification with the relational, technical or metering data that has an impact on the results.

2. Recalculate and publish the impacted volumes

SOs recalculate de Energy Delivered volumes by DSP and if relevant the Transfer of Energy Volumes by SDP and the aggregated results.

3. Check impact on FSP settlement

FRP checks the impact on the FSP settlement

4. Check impact on BRP settlement

TSO checks the impact on the BRP settlement (perimeter correction)

Steering of the process (general process agreements)

Timings:

The process starts on (Y+1)+5M.

Interactions:
Not applicable

Annulations and corrections:
Not applicable

Regional differences:
Not applicable

8. Billing

This chapter is meant as a placeholder for future billing processes.

Currently there are no costs charged by the DSO to the FSP that are caused by the execution and support of the flexibility processes.

According to the FSP-DSO contract, costs can be invoiced to the FSP, only when the allocation of these costs is provided for in the distribution network tariffs approved by the regulator. The current costs for the platforms, data management, support … are spread across all DGU's through the gridfees, but this could evolve in the future

However, if a specific meter (not used in the supply market) is placed by the DSO for flexibility purposes, DSOs could charge a recurrent metering fee to the FSP (like it is the case for energy suppliers).

9. Monitoring & reporting

9.1. Monitoring

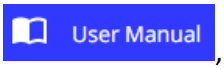
This chapter describes the processes and activities that characterize and monitor the quality of the flex market and process.

9.1.1. Flex register and metering data operational view and monitoring

All active FSP's & SO's have access to the web portal of the Flex Data Hub.

The webportal is the portal to view and monitor several dimensions:

- The own flex pool for each flex product
  - A list and details of each SDP for each active product
- View the metering and activation details
  - Details of activation of the flex service
  - View 15' metering details
  - View meterdata 4" (for aFRR)
  - View meterdata 4" which is not correct and has errors in the captation, process and storage datachain (for aFRR), see further
- The calculated "Energy Delivered" (only for mFRR and ToE in DA/ID[25])

More details about every monitoring capability can be found in the 

, located on the right top.

9.1.2. Details real-time data monitoring

Dashboard in Real-Time Communication Platform

The RTCP (Real-Time Communication Platform) contains standard monitoring, meant for the Gateway Manager. It is by this way possible for the GWM to monitor the communication status, uptime en details of submeters.

Data in error in the Flex Data Hub Portal

Another monitoring capability for FSP's is to follow up meterdata that generates errors (for example of incorrect parameterisation of masterdata). This can be found in the menu: Metering & Activation / 4" Data In Error

9.1.3. SLA monitoring

The correct operation of the processes described in this market guide for flexibility depends on two aspects: respecting the process timings defined throughout the document and summarized in the Data Quality Agreement (**Error! Reference source not found.**) and achieving a sufficient availability level of t he underlying systems.

[25] The energy volume calculations for aFRR and SDR (product SDR not in Flexhub) are not performed in the Flexhub, but completely at Elia side.

System uptime is monitored by means of two KPI's:

- Monthly availability of FlexHub (%): defined as the uptime (in hours) of the FlexHub platform divided by the total number of hours per month, excluding planned maintenance intervals.
- Monthly availability of RTCP (%): defined as the uptime (in hours) of the RTCP platform divided by the total number of hours per month, excluding planned maintenance intervals.

Process timings are monitored by means of one KPI:

- Total amount of annual complaints related to the process timings listed in the Data Quality Agreement.

9.2. Reporting

The goal of reporting is to give transparency to the market, (system) operators and regulators about the market basics and key metrics.

Four metrics are defined to provide transparency on the overall market statistics related to flexibility on the DSO networks:

- Number of FSP's (with an active contract) [#]
- Contractual powers for the different flex product (aFRR, mFRR, SDR, CRM, FCR, …) [MW]
- Delivered volumes for each flex product for last year [MWh]
- Number of flex EAN's for each system operator, for all the products

One additional metric is defined to provide insight in the level of constraints and congestion on the distribution networks:

- The number of delivery points for flexibility that have a limitation of the assigned flexible power (UP or DOWN) as a result of an NFS study

10. Specific provisions for communication for flexibility on the LV distribution grid

FCR, aFRR and CRM (as of Year-1 auction of the first delivery year) are open to participation by DGU on the Low Voltage (LV) distribution grid. The impact on processes is described in this document where relevant.

This section will be extended when new products are open to LV participation.

10.1. Virtual Delivery Points

In order to efficiently deal with potentially large numbers of Delivery Points, Virtual Delivery Points may be created for SDP-Flex that are coupled to access points on the LV distribution grid. These Virtual Delivery Points (VDP) are in fact Delivery Point groups that are identified by means of a single EAN and that are handled as a single logical SDP-Flex for the flexibility service. This operational way of working is under evaluation for other Flex products on LV.

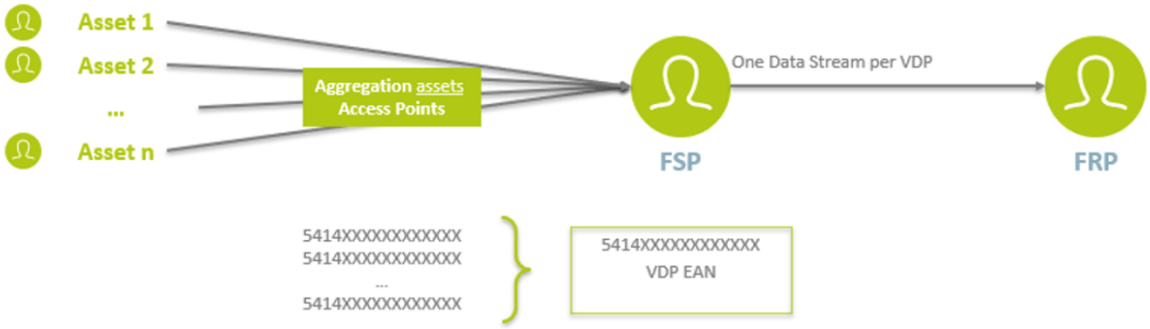


Figure 22 - Virtual Delivery Points

11. Specific provisions for CDS

Content will be added to this section in a later version of this document. This subject will be discussed in work groups.

12. Agreement on data quality (SLA)

An overview of the SLA's that are applicable to each step in the process can be found in **Error! R eference source not found.**.

13. Annexes

Annex 1 - List of relevant documents

Document name	Description	Location
FSP-DSO contract - Article 4 = General requirements for participation to flexibility services - Annex 1 = Service catalogue; describes the specific requirements for participation per flexibility service -	Model agreement between DSO and FSP concerning the delivery of flexibility services by means of flexibility of distribution grid users.	http://www.synergrid.be/ > Technical Regulations Electricity
Mandate	Authorization from the DNG to the FSP for contacts and communications regarding CCC, NFS and/or results of calculations and measurement data in the context of flexibility services	http://www.synergrid.be/ > Technical Regulations Electricity
C8/01	Network Flexibility Study for the gridusers' participation to flexibility products	http://www.synergrid.be/ > Technical Regulations Electricity
C8/02	General modalities for installation and management of specific meters for the flexibility products mFRR and SDR	http://www.synergrid.be/ > Technical Regulations Electricity
C8/05	Data exchange between System Operators and Market Parties for Transfer of Energy	http://www.synergrid.be/ > Technical Regulations Electricity
C8/06	Measurement system and Gateway for an aFRR service delivery point connected to the Distribution Grid	http://www.synergrid.be/ > Technical Regulations Electricity
C8/07	Explanatory note aFRR – business processes	http://www.synergrid.be/ > Technical Regulations Electricity

Annex 1 - List of relevant documents

Annex 2 - Real-Time Communication Platform & Flex Data Hub Portal

The flexibility processes mentioned in this document are supported by two platforms.

1. Real-Time Communication Platform

The Real-Time Communication Platform enables a secure exchange of real-time data between the assets of Grid Users and applications of Application Service Providers.

The platform is web-based and can be accessed via https://rtcp.synergrid.be/home.

User access can be requested by filling in the form on the welcome page. A user manual is available for download in the platform.

2. Flex Data Hub Portal

The Flex Data Hub Portal allows FSP's to consult and manage their Service Delivery Points Flex.

The platform is web-based and can be accessed via https://flexhub.synergrid.be/portal.

User access can be requested by sending an e-mail to the e-mail address mentioned on the welcome page. A user manual is available for download in the platform.

Annex 2 - Real time communication platform & Flex Data Hub portal

Annex 3 - User access SFTP for Transfer of Energy Volumes

The Transfer of Energy Volumes are delivered to the respective market parties in the form of automatically generated XML files. The relevant market parties will receive an account to download the files from a secure sFTP server on the Flex Data Hub.

For more information, see Synergrid Technical Regulation C8/05.

Annex 3 - User access SFTP for Transfer of Energy Volumes

Annex 4 - Market guide flexibility – data quality agreement

1. Introduction

The Market guide flexibility describes the way in which Distribution System Operators (DSOs) and Flexibility Service Providers (FSPs) communicate in the market regarding the relational and/or metering data of Access Points or Service Delivery Points for flexibility.

This document contains the data quality agreement between DSOs and FSPs that is applicable to this communication and the associated rights and obligations of both parties. By registering as an FSP with one or more DSOs in Belgium, the FSP agrees to adhere to both the Market guide flexibility and this data quality agreement.

2. Data quality – SLA table

The table below provides an overview of the Service Level Agreements that are applicable to the communication according to the Market guide flexibility. These SLA's are applicable in each region as of the date of publication or approval of the competent regulator (if required).

Exception for low-voltage: until the operational processes in table below are fully automated, the service level agreements will only be executed on a best effort basis for low-voltage delivery points.

Process	**Description**	**Timing**
Contract Connection Check	In case the request is valid, the DSO forwards to the DGU the Connection Contract Check.	15 working days
Contract Connection Check	In case the request is not valid, the DSO will inform the DGU within 5 working days	5 working days
Network Flexibility Study	In case the request is valid, the DSO forwards to the DGU the Net Flex Study Outcome	30 calendar days after the request
Network Flexibility Study	In case the request is not valid, the DSO will inform the DGU	5 working days
Set up ex post data communication		For more specific timings, see C8/02
Start new service	FSP requests new service	5 working days – change applicable first of next month
Edit service	FSP requests to edit service	5 working days – change applicable first of next month
Stop service	FSP requests to stop a service	5 working days – change applicable first of next month
Ex-post Data Communication		For more specific timings, see Regional Distribution Grid Codes
Determine Nominal Reference Power		The applicable timings are described in the CRM functioning rules

3. Associated rights and obligations

1. The responsible DSO communicates, for the exchange of messages with FSPs involved in flexibility services, according to the latest version of the Market guide flexibility that is published by Synergrid and – if required – approved by the competent regional regulator. Each DSO commits to making the necessary investments to deliver the data quality requirement described above.

2. The DSO monitors the quality of the communication. If the monitoring shows that the SLA is not met, the DSO makes all reasonable efforts to restore the data quality as quickly as possible.

3. In case of data quality issues, the DSO remains obligated to deliver and – if needed – rectify the required data to all involved market parties.

4. The DSO and the FSP are not liable towards each other, neither on a contractual basis nor outside of it, for any damages they suffer as a consequence of poor data quality of the communication according to the Market guide flexibility, except for direct, material damages that result from a proven serious fault or negligence within the responsibility of the other party. In any case, the liability of a party, for all damages that are related to data quality incidents with the same root cause, is limited to the total amount paid for the services provided for the involved access points or service delivery points and for the calendar year in which the root cause occurred.

5. Each FSP is responsible to make the necessary investments to allow communication according to the latest published and – if required – approved version of the Market guide flexibility.

6. At simple request of the DSO, FSPs will participate in tests that are set up to verify the correct message exchange described in the Market guide flexibility.

7. Each FSP commits to unduly provide the necessary information to the involved DSOs to allow and maintain the correct operation of the message exchange described in the Market guide flexibility.

8. Each FSP that is mandated by a Distribution Grid User for the communication towards DSOs regarding its flexibility services is liable for and exonerates the involved DSOs in case the FSP has not duly notified the withdrawal of the mandate of the Distribution Grid User.

9. The liability of a DSO towards an Access Holder is subject exclusively to the terms and conditions of the Access Contract. The FSP and the Distribution Grid User he represents commit to protect the DSO from any claims from Access Holders outside of what is foreseen in the Access Contract.

10. FSPs that also act as Access Holder for the involved access points or service delivery points and that make use of the above clause 4, thereby renounce to the rights described in the Access Contract and vice versa.

11. For the avoidance of doubt, the terms and conditions of the FSP-DSO contract, including those related to liabilities, remain in effect.

12. The DSO and FSP are not liable towards each other in case of and for the duration of an emergency situation or force majeure, as described in the applicable regulation or accepted in jurisdiction.

Annex 5 – File format csv-import for FCR low-voltage

Basic principles:

- File format = ".csv"
- Delimiter = ";"
- Decimal sign = ","
- File encoding: UTF-8
- First Row = Headings

The CSV-file includes following fields:

Column Name	**Mandatory**	**Description**	**Remark**
Timeslice Startdate	Y	Start date of the timeslice Format: dd/mm/yyyy	Example: 01/01/2023
Timeslice Enddate	N	End date of the timeslice Format: dd/mm/yyyy	Example: 31/12/2022 Leave empty if no enddate For the moment, not used during import.
EAN Delivery Point	Y	EAN of the Delivery Point	Remark (only for LV): in practice this will always be equal to the EAN of the Headpoint (until more clarity about submetering on LV).
EAN-Headpoint	Y	EAN of the headpoint	
Active Status	Y	Possible values: - Active - Inactive	Status inactive is used for removing an SDP-Flex from the pool of an FSP
Direction Delivery Point	Y	Possible values: - Off-take - Injection - Combined	
Voltage Level	Y	Possible values: LV (, MV, HV)	LV = low-voltage MV = medium-voltage HV = High-voltage The csv-import is only allowed for LV headpoints. DSOs will check the voltage level before importing the file.
Flexible Power FCR	Y	The maximum FCR Power that can be supplied by the Delivery Point Decimal sign: ","	Example: 9,2 Flexible power should be set to zero when status is inactive
Customer info Delivery Point	N	Free text field	

Example:
Timeslice Startdate;Timeslice Enddate;EAN Delivery Point;EAN-Headpoint;Active Status;Direction Delivery Point;Voltage Level;Flexible Power FCR;Customer info Delivery Point
01/03/2021;;541999999999869831;541999999999869831;Active;Off-take;LV;9,2;Customer X

Example for removing the SDP for customer X as of 01/01/2023:
Timeslice Startdate;Timeslice Enddate;EAN Delivery Point;EAN-Headpoint;Active Status;Direction Delivery Point;Voltage Level;Flexible Power FCR;Customer info Delivery Point

01/01/2023;;541999999999869831;541999999999869831;Inactive;Off-take;LV;0;Customer X

Annex 5 – File format csv-import for FCR low-voltage

Annex 6 – Form to request identification of a new SDP-F

As described in article 3.2.1 Start new service, the following form should be used. Cancels and supersedes previous versions beginning as of 24/02/2021.
When a request is done via the FlexHub portal, the request for identification of a delivery point is integrated in the Pool update. In this case, a separate request via the below template is not needed.


NL_New_SDP_F.xlsx


FR_New_SDP_F.xlsx

Annex 6 – Form to request identification of a new SDP-F

Annex 7 – Pool update

The following template is used for requests to update the pool. The SDP-Fs (and associated flexibility resources) included in the template will be updated in the Pool of the FSP.


NL_Pool.xlsx


FR_Pool.xlsx

Annex 7 – Pool update

Annex 8 – Template request NRP calculation

The FRP will use following template to request a NRP calculation to the DSO:

1) Template for Existing DPs:

“

A Prequalification File with the Delivery Point DP-ID has been submitted to Elia. This Delivery Point is connected to your grid (or to a CDS connected to your grid):

- DSO: DSO_Name
- Candidate: Candidate_Name
- Delivery Point ID: DP-ID
- Delivery Point status: Existing
- Delivery Point EAN: 156484978798878412
- Access Point EAN: 156484978798878412
- CMU-ID/FT-ID: CMU-ID
- Delivery Period: YYYY-YYYY
- Expected NRP (MW): NRP_Value
- NRP based on injection only: True/False
- Unsheddable margin (MW): Value
- Method for NRP determination: Method 1 – use of historical data
- Submission date: DD/MM/YYYY hh:mm:ss
- Calculation period start date: DD/MM/YYYY hh:mm:ss
- Calculation period end date: DD/MM/YYYY hh:mm:ss
- List of non-representative days: N/A
- Contact persons:
    - Test contact- test@externel.be – 04xx xx xx xx
    - Test 2 contact – etest2@externel.be -

It is requested to come back to ELIA with a value for the Nominal Reference Power for the above mentioned Delivery Point before DD/MM/YYYY.

“

2) Template for Additional DPs:

“A Prequalification File with the Delivery Point DP-ID has been submitted to Elia. This Delivery Point is connected to your grid (or to a CDS connected to your grid):

- DSO: DSO_Name
- Candidate: Candidate_Name
- Delivery Point ID: DP-ID
- Delivery Point status: Additional
- Delivery Point EAN: 156484978798878412
- Access Point EAN: 156484978798878412
- CMU-ID/FT-ID: CMU-ID
- Delivery Period: YYYY-YYYY
- Declared NRP (MW): NRP_Value
- Submission date: DD/MM/YYYY hh:mm:ss
- Contact persons:
    - Test contact- test@externel.be – 04xx xx xx xx
    - Test 2 contact – etest2@externel.be -

It is requested to come back to ELIA with a value for the Nominal Reference Power for the above mentioned Delivery Point before DD/MM/YYYY.

“

Annex 8 – Template request NRP calculation