Users' Group

Working group Belgian Grid

7 december 2023

Agenda

1. Flexible access
2. Incentives
   - 2.1. Hosting capacity maps
   - 2.2. Incentive MVAr
   - 2.3. Incentive CBA
3. Process EDS/EOS/reservation capacity
4. Connection contract
5. Miscellaneous
   - 5.1. satisfaction survey
   - 5.2. Roadmap WG BG 2024
   - 5.3 Dates 2024

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Flexibele toegang

Consultatie & next steps

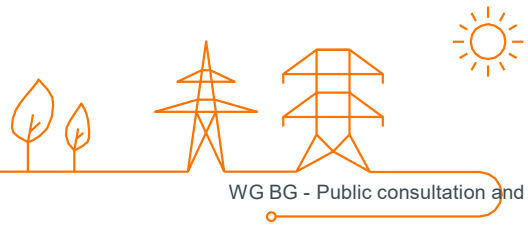
Public Consultation and Incentive on Flexible Access

WG Belgian Grid– 07/12/2023

07.12.2023 | A. Weynants, B. Hoet, S. Stas, F. De Hoe

Agenda

1. Introduction : initiatives related to connections with flexible access
2. Incentive on flexible access
3. Public consultation on the design note flexible access
4. Planning & Next Steps



1. Introduction

Initiatives related to connections with flexible access

What are the initiatives linked to flexibility that were initiated in 2023 and/or will continue in 2024

Public consultation on flexible access

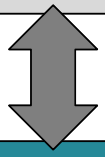
Goal of public consultation

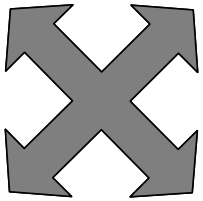
- Describe our current way of working wrt GU with flexible access
- **Get the feedback of Grid Users**
- Proposed Short term modification in the Code of Conduct

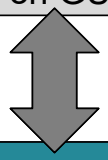
GUFlex4CM

Elia **project** aiming at

- Develop a **vision** on how to **integrate GU flexibility** for **congestion management** in our process (LT grid planning, client connection studies…) in order to **minimize total cost for society**
- Develop **solution and products** for congestion management based on GU flexibility







Review of Code of Conduct

Objectives

- Adapt and simplify the process of granting a connection with flexible access to Grid Users
- Redaction of a “Process & criteria” document to justify the proposal of connection with flexible access

CREG incentive on flexible access

Objectives

- Ensure **transparency** on **flexibility activation**
- Develop a **CBA methodology** for integrating **GU flexibility** in the context of **client connection studies**
- Develop a **vision and roadmap** on the role of connection with **flexible access** in **Grid Planning**

2. Incentive on Flexible access

CREG Incentive 2024 : “Vision et Roadmap sur la flexibilité pour la gestion des congestions et communication transparente sur l’activation de la flexibilité dans le cadre des contrats avec accès flexibles”

3 Objectives

Assurer la transparence des activations des installations raccordées avec accès flexible en cas de congestions (Scope **= activation des raccordements avec accès flexible**, hors scope: redispatching)

- **Pour les clients Elia**: publication des activations (MW, durée, MWh) et comparaison avec les valeurs contractuelles
- **Pour les clients DSO**: publication des consignes de limitation de puissance au point d’accès DSO (MW&durée)

Développer une vision et méthodologie pour intégrer la flexibilité dans les CBA supportant les variantes de raccordement proposées aux UR dans le cadre des EOS/EDS

- Méthodologie pour le **calcul de la capacité flexibilisée** et leur **valorisation**
- Principes pour **allouer les coûts d’investissement pour le raccordement/renforcement du réseau**
- Méthodologie pour **intégrer la flexibilité dans les analyses coûts-bénéfices des variantes de raccordement au réseau et** Identification des **éléments à modifier dans le cadre régulatoire existant**

Vision et roadmap sur le rôle de la flexibilité des raccordements avec accès flexible dans le développement du réseau (objectif: optimum technico-économique)

- Rôle des raccordements avec accès flexible dans l’optimalisation du développement du système électrique
- Trade-off entre capacité d’hébergement suffisante et le risque de stranded assets

→ **Incentive focus on Vision and Concepts**

→ **Co creation** between **Elia** and **Market Parties**

→ **Organization : dedicated workshops** to be planned and recurring **follow up** in **WG BG**

3. Public consultation on the design note on connection with flexible access at the federal grid

Design Note on Connections with Flexible Access on the Federal Transport Grid : content

1. The **Criteria** justifying a **limitation in guaranteed/permanent connection capacity**
2. The **methodology and assumptions** used by Elia in estimating the **curtailed energy volumes**
3. The **impact** (if any) of the estimated **curtailed volumes** on **the business case** of the **grid user**
4. The **operational and financial modalities** of a **flexible access** for the grid user, including the practical and technical modalities to limit the power in production or offtake by Elia, possible compensation modalities, possible impact on the BRP perimeter and possible impact on grid tariffs;
5. The **criteria justifying a restriction in access** in the operational phase, taking into account the objective of guaranteeing grid security at the lowest cost at system level and thus the principle of efficiency;
6. **The rights and obligations** of the **grid user towards Elia**, on the one hand, regarding, for example, the follow-up of a shutdown request; and **those of Elia towards the grid user**, on the other hand, regarding, for example, reporting or justification, following the use of the possibility to restrict access.

Public consultation wrap-up

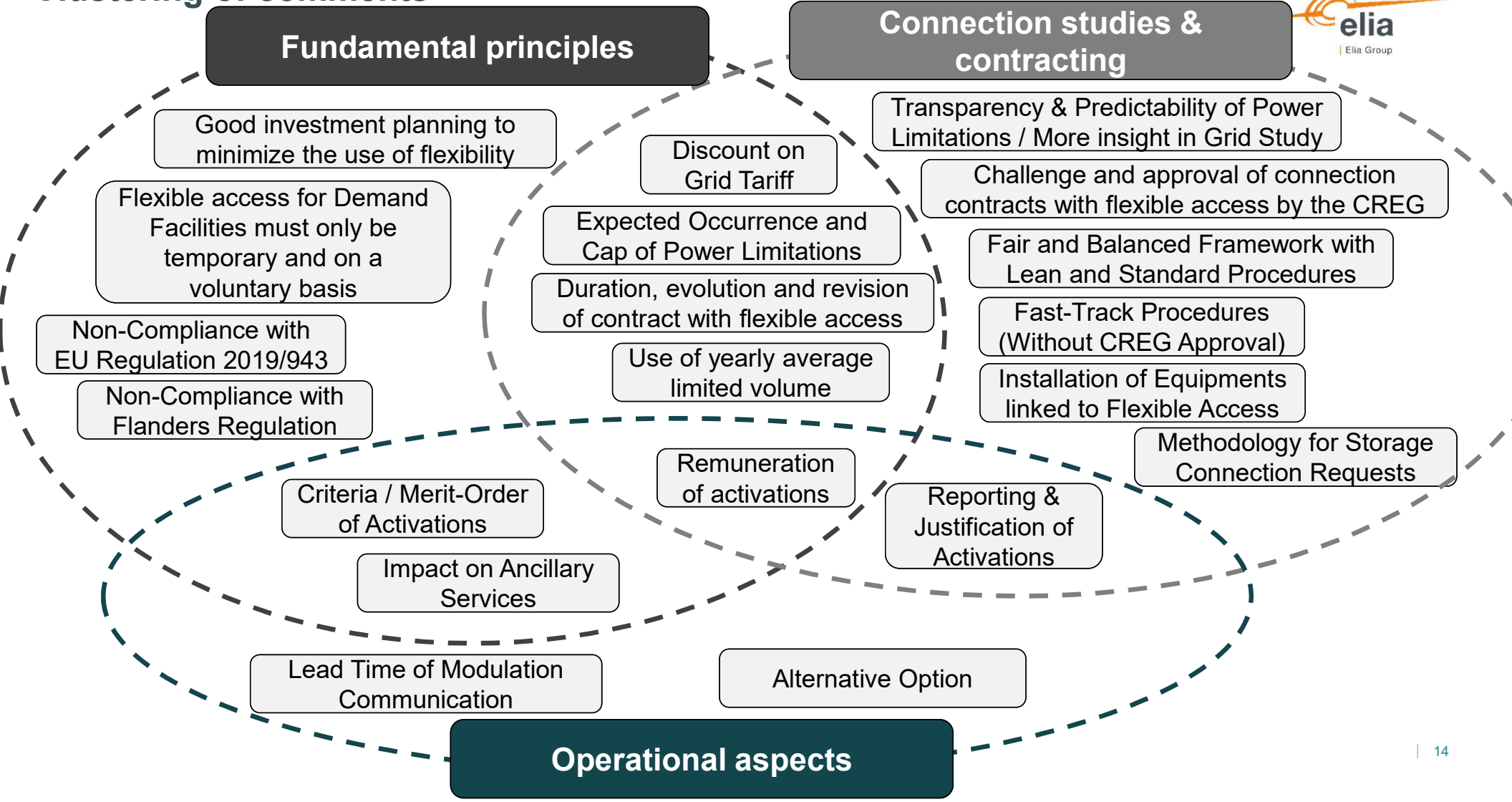
Goal of the Public Consultation :

- Describe our current way of working w.r.t. client with flexible access at Federal Grid Level (e.g. EOS/EDS, contract, flex activation…)
- Identify short/mid term adaptation needs in the Code of Conduct

Duration of the Public Consultation and received answers

- The Public Consultation took place from 14/07/2023 to 18/09/2023
- 5 Market Players reacted (Febeliec, FEBEG, Bnewable, BSTOR, ODE)

Clustering of comments



Public Consultation on the Design Note on Connections with Flexible Access on the Federal Transport Grid : Fundamental principles

Good investment planning to minimize the use of flexibility

Elia should remain sufficiently incentivized to increase grid hosting capacity and plan grid investment in order to minimize the use of the flexible access contract and ensure that the application of a connection with flexible access should remain exceptional and temporary.

Flexible access for Demand Facilities must only be temporary and on a voluntary basis

Demand Facilities should only accept on a voluntary basis a **temporary flexible access with clear timetable – unless** otherwise **explicitly agreed by the Grid User**

Non-Compliance with EU Regulations 2019/943

The proposed approach is not compliant with EU Regulation 2019/943 which states that congestions problems should be addressed with Market Based solutions and that market participants must be compensated if they are constrained in capacity

Non-Compliance with Flanders regulation

There is discrimination between production connected to the transmission or distribution grid since in Flanders the grid operator owes a fee to the GU of the installation when adjusting production

Public Consultation on the Design Note on Connections with Flexible Access on the Federal Transport Grid : Fundamental principles / Contracting

Discount on Grid Tariff

Grid Users with a **flexible access** should a get a **discount on the access tariff.**

Remuneration of activations

The **activation of flexibility** / power limitations should be **remunerated**

Expected Occurrence and Cap of Power Limitations

Instead of giving an indicative information, Elia should give a **binding cap** to the **power limitations/flexibility activations** so that the **Grid Users** can **assess the viability** of their **Business Case**

Duration, evolution and revision of contract with flexible access

The **duration** of a **flexible access** should be **limited in time** and **Grid Users** should get a **permanent access after** the **realization of the reinforcement projects**

Use of a yearly average limited volume

Working with an annual average volume tuned over the duration of the flexible access can be problematic for the GU since it does not contain any guarantee of the volume that can effectively be tuned in one specific year.

Public Consultation on the Design Note on Connections with Flexible Access on the Federal Transport Grid : Contracting & Connection studies

Transparency and Predictability of Power modulation, More Insight in Grid Connection Study

More **transparency** and **predictability** on the **expected usage of flexibility** are needed so that **Grid User** can **evaluate their Business Case** (e.g seasonal effect, grid status (N, N-1, maintenance…) import/export, high wind production…)

Challenge and approval of connection contracts with flexible access by the CREG

The CREG should challenge and approve the proposal of contracts with flexible access

Fair and Balanced Framework with Lean and Standard Procedures

There should be a fair and balance framework with clear procedures in order to speed-up the process of attribution of a flexible connection

Fast-track Procedure (without CREG Approval)

A **fast-track procedure** (granting a connection with flexible access without approval from the CREG) should **only be possible** if it is explicitly **requested** by the **GU**.

Installation of Equipments linked to Flexible Access

Who must bear the costs of the devices needed in the context of a connection with flexible access ?
(back-up system for automatic disconnection, communication set-up and RTU)

Methodology for Storage Connection Requests

Elia should review his methodology for storage connection studies

Public Consultation on the Design Note on Connections with Flexible Access on the Federal Transport Grid : Operational aspects

Criteria/Merit-Order of Activations

Market Parties have **concerns** regarding the **merit-order** of **flexibility activations,** which should **include other criteria** than only **technical efficiency**

Impact on Ancillary and Flexibility Services

The **timing** of **flexibility activations** and **notification** should be **aligned** (or at least consistent) with the **planning** of the **balancing services** in order to avoid that GU will not participate in market by fear of penalties (for not being able to deliver the services) or bid higher (to cope with this risk)

Lead Time of Modulation Communication

There should be a **sufficient notification period before a flexibility activation**

Alternative Option

Elia should propose an **option** where the **flexibility** is only **activated curatively**. There should be **3 types of access** : **full permanent access**, **flexible access**, **flexible access** only **instantaneously** and **curatively activated**

Reporting and Justification of Activations

The **periodic reporting** on the **justification** of flexibility **activations** should not only be shared with the regulator but also **with the GU** as their operations will be greatly impacted with cost implications

Thank you.

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Incentives

Capacity hosting maps – publication website + demo

Roadmap to publication of Hosting Capacity Maps

WG Belgian Grid: 07/12/2023

R. Devolder & J. Sprooten

Context

The main objective of this initiative is

- to pro-actively support the evolution of the Belgian energy mix as well as the electrification of consumption
- by communicating, in a transparent way,
    - the connection points potentially available for new connections or for increased capacities of existing grid users and,
    - the connection points for which an anticipation of the connection request is to be recommended so that the reinforcement of the network can take place before the commissioning of this connection.
- It aims to target generation (of different types), load and storage
- It does not replace the official connection process (EOS/EDS): in this process much more detailed assessments are performed, taking into account an increased set of factors (e.g. spatial/voltage/short-circuit constraints, potentially new infrastructure projects, etc)

Planning and milestones

WG Belgian Grid – 16/02/2023 – 1st stakeholder workshop: Identification of needs, relevant hypotheses & first feasibility assessment

WG Belgian Grid – 17/05/2023 – 2st stakeholder workshop: Proposal of planned development for 2023 "Assumptions & methodology"

WG Belgian Grid – 07/12/2023 – Presentation & publication of Hosting Capacity Maps

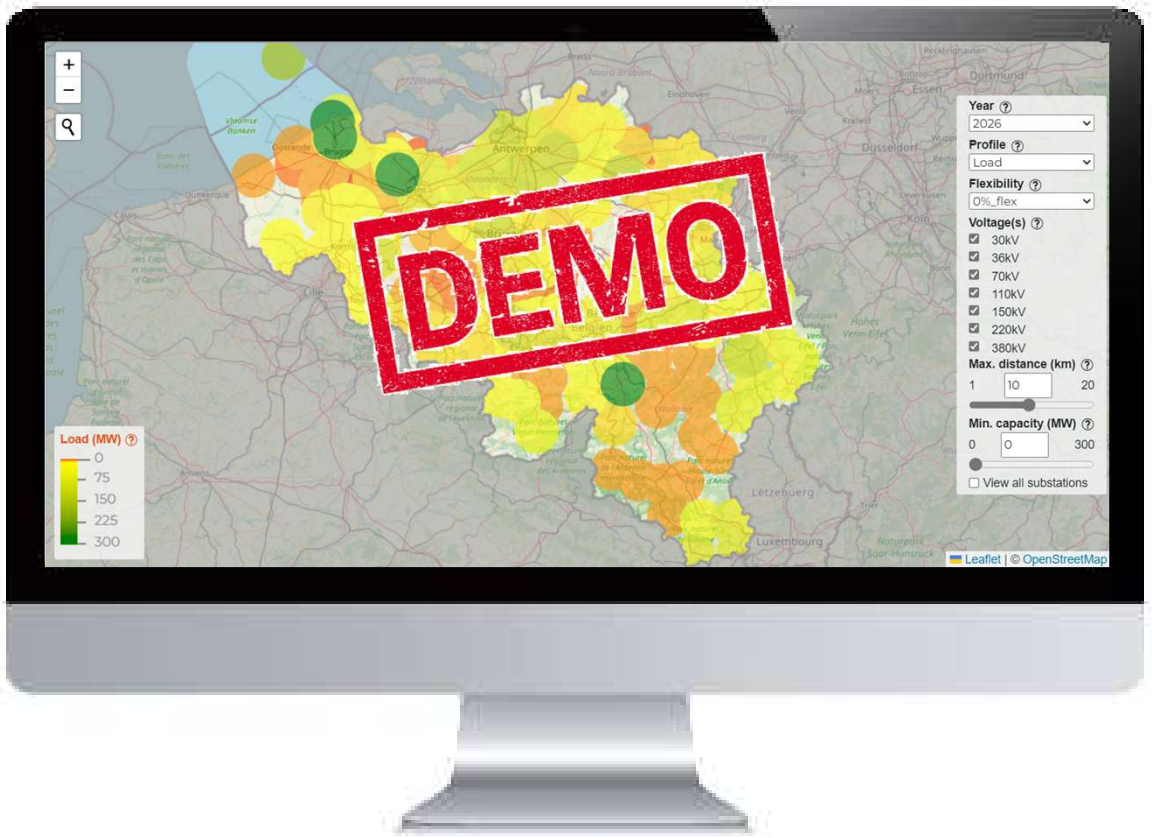
WG Belgian Grid – TBD – Feedback and planned improvement for next yearly publication

Annual publication of Hosting Capacity Maps

Regular alignment meeting with regulators (CREG, VREG, CWAPE, Brugel)

Regular alignment meeting with DSOs/Synergrid

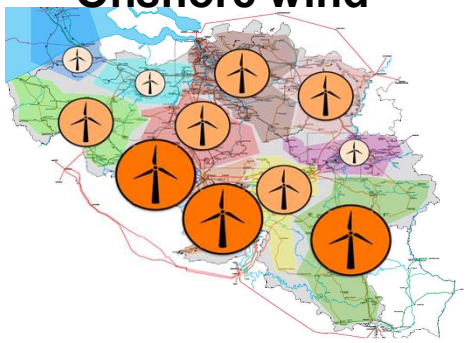
Demo - Hosting Capacity Maps



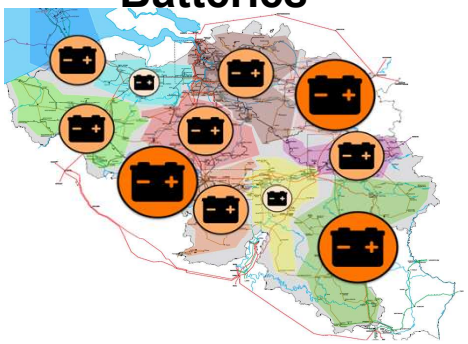
Capacity reservations

Offtake

Onshore wind



Batteries



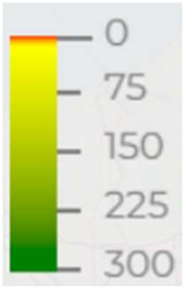
NATIONAL TOTAL		
	Additional capacity taken into account	Current installed capacity
DEMAND FACILITIES	29,0 TWh	82,6 TWh
ONSHORE WIND	1,9 GW	3,3 GW
OFFSHORE WIND	3,5 GW	2,3 GW
SOLAR	3,3 GW	8,3 GW
LARGE SCALE BATTERIES	2,8 GW	0,2 GW

(*) For other types of production units (e.g. gas-fired power plants), the reserved/allocated capacity was also taken into account. The exact values are not shown for confidentiality reasons.

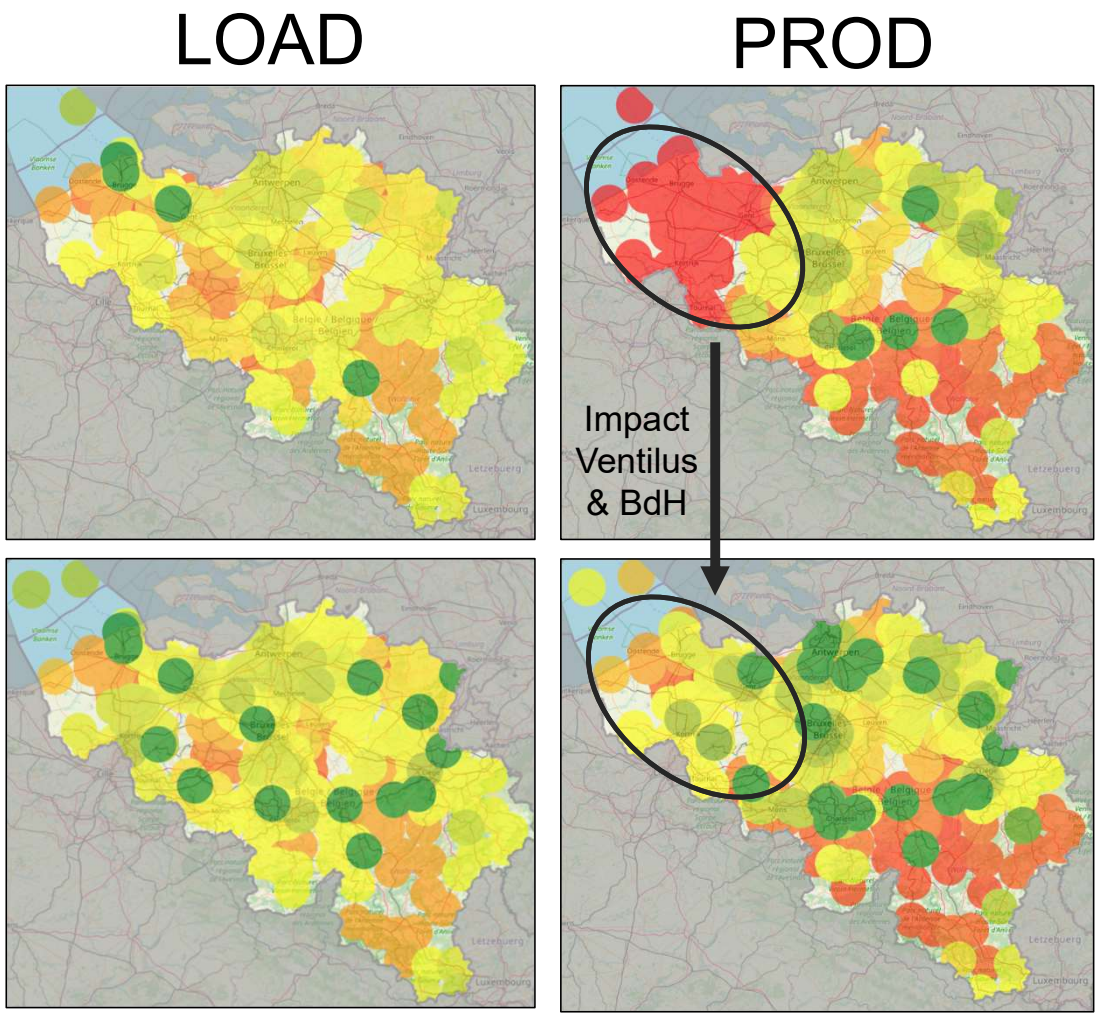
→ The hosting capacity is available **on top of** the abovementioned reservations

Example of results: 0% flex, flat profile, 10km

Hosting capacity (MW)

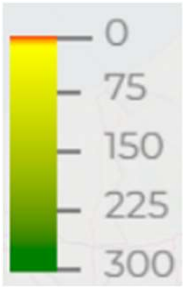


- Locations of interest to various grid users
- Impact of infrastructure project portfolio

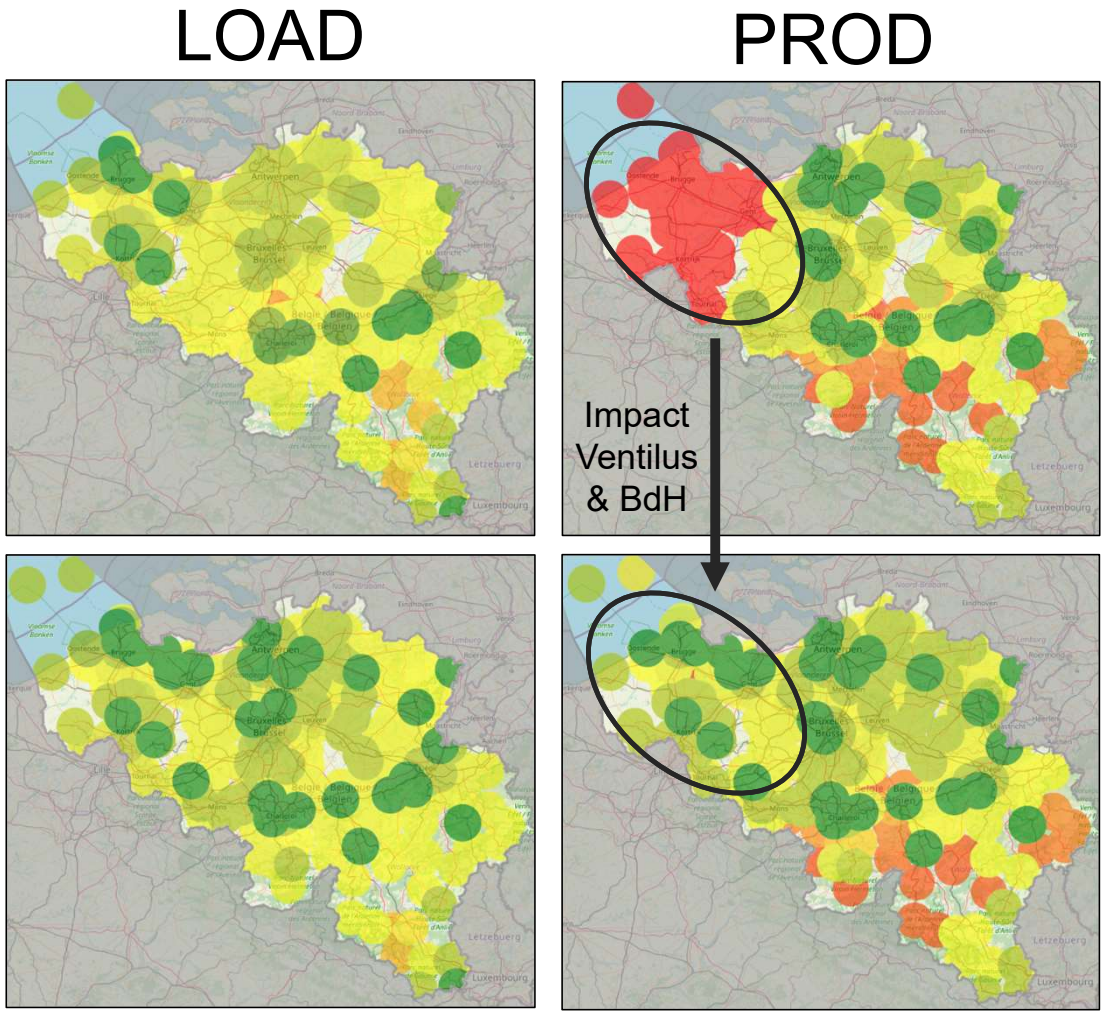


Example of results: 5% flex, flat profile, 10km

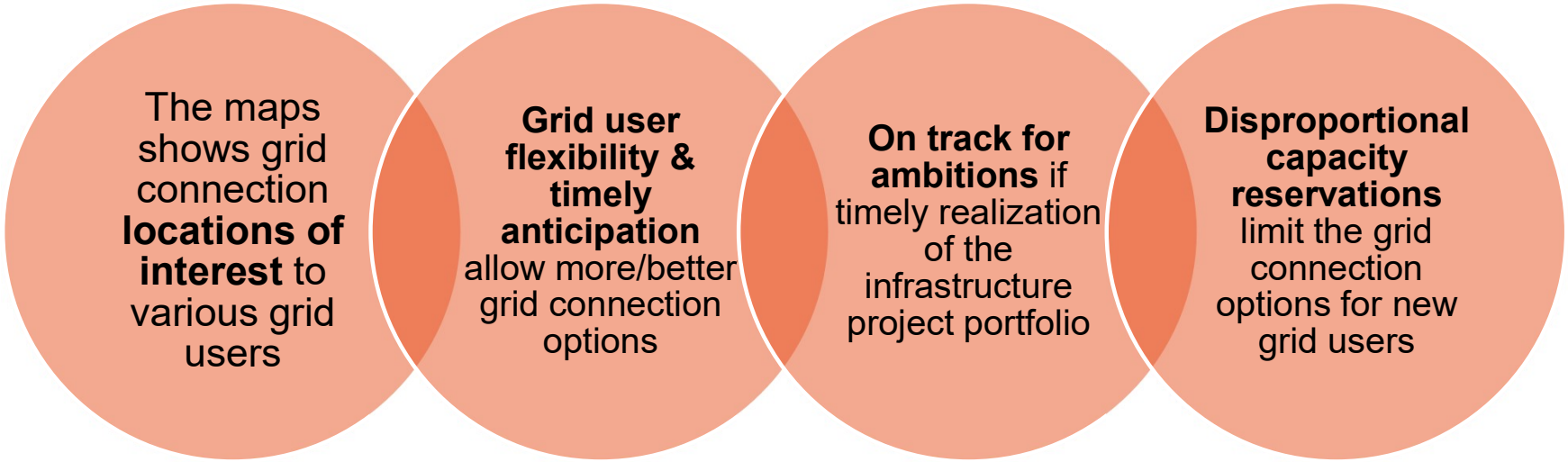
Hosting capacity (MW)



- On average, the hosting capacity **doubles/triples by allowing 5% flex**



Key messages & conclusions



Next steps

- The hosting capacity map will be published on 07/12/2023
- A “Frequently Asked Questions” will be foreseen on the Elia website with more detailed information for our stakeholders
- For any further questions, existing grid users can contact their Key Account Manager. New grid users/others can contact Elia through hostingcapacitymap@elia.be
- A feedback session will be organized in 2024 in the WG Belgian Grid to identify improvements for the next annual publication

Thank you.

Incentives

CBA for generators - update

Cost benefit analysis on Requirements for generators applicable on existing and new generating units between 1 and 25 MW

Meeting Usersgroup

07/12/2023 | N. Bragard, O. Bronckart, C. Hoedenaeken, S. Temtem

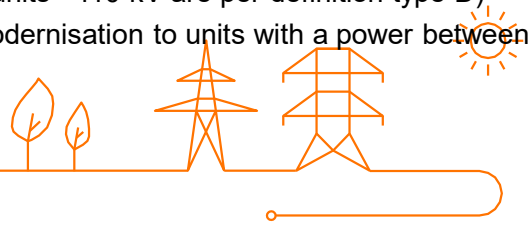
Objective of the incentive

The objective of the incentive is to :

- Identify the differences between the prescriptions applicable to existing and new PGMs between 1 and 25 MW (not included) and connected to Elia grid (Belgium).

- Perform a cost-benefit analysis :
    - Focused on the PGMs with a power between 1 and 25 MW
    - on the possible application on existing PGMs of requirements applicable to new PGMs
    - by applying the methodology described in the EU code RfG (art 4, 38 & 39)

- The outcomes of the CBA will be used as an input for:
    - Application of Art 4.1b of the EU code RfG (application of some new requirements on existing units by the regulatory authority)
    - Possible prolongation of the derogation from the application of the principle of substantial modernisation for PGMs of type D with a maximal installed capacity lower than 25 MW and > 110 kV (all units >110 kV are per definition type D)
    - Evaluate the opportunity to extend the concept of substantial modernisation to units with a power between 1 and 25 MW (currently substantial modernisation is only applicable to type C & D units)



Results of the first part of the incentive : Qualitative CBA done by Elia

			Frequency vs voltage vs current		Normal state vs Emergency		Be robust vs give robustness		Impact/benefit	Costs	Results of the CBA
Sub category	GAP analysis	Eligible for incentive	Classification	Benefit	Classification	Benefit	Classification	Benefit			
Models	More stringent	X	Other	Nice to have	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	LOW	positive CBA
Rate of change of frequency (ROCOF)	More stringent	X	Frequency	MUST	Emergency	MUST	Be robust	MUST	HIGH	LOW	positive CBA
LFSM-O	More stringent	X	Frequency	MUST	Emergency	MUST	Give robustness	Nice to have	HIGH	LOW	positive CBA
Voltage withstand capability	More stringent	X	Voltage	Nice to have	Normal	Nice to have	Be robust	MUST	MEDIUM	HIGH/LOW	CBA to be performed
Voltage control (SPGM)	More stringent	X	Voltage	Nice to have	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	LOW	positive CBA
Reactive power capability	More stringent	X	Voltage	Nice to have	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	HIGH/MEDIUM	CBA to be performed
Fault current & dyn. Voltage support (PPM)	More stringent	X	Voltage	Nice to have	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	HIGH/LOW	CBA to be performed
Post-fault power recovery (PPM)	More stringent	X	Frequency	MUST	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	HIGH/LOW	CBA to be performed
Information exchange	More stringent	X	Other	Nice to have	Normal	Nice to have	Give robustness	Nice to have	MEDIUM	MEDIUM	CBA to be performed
Remote control reductions	More stringent	X	current	Nice to have	Emergency	MUST	Give robustness	Nice to have	MEDIUM	MEDIUM	CBA to be performed
Automatic connection	More stringent	X	Frequency	MUST	Emergency	MUST	Be robust	MUST	HIGH	LOW	positive CBA
Automatic reconnection	More stringent	X	Frequency	MUST	Emergency	MUST	Be robust	MUST	HIGH	MEDIUM	positive CBA

Key findings :

- Requirements with a **HIGH impact/benefit** and a **NON-HIGH Costs** have a positive CBA
- Requirements with a **MEDIUM impact/benefit** and **LOW costs** have a positive CBA
- **Other requirements should be further investigated through a quantitative CBA**

Call for inputs from market parties :

- confirm the categories of costs (low/medium/high)
- give detailed costs estimations for the quantitative CBA to be performed

Feedback from the Market Parties collected on 03/07/23 and via a questionnaire (21/08 – 22/09)

The objective of the workshop was to :

- Validate the high-level cost assessments done by Elia during the first part of the incentive
- Identify how to collect input from market parties concerning the costs (quantitative evaluation)

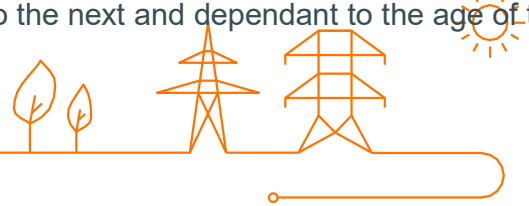
Key numbers on the answers to the questionnaire :

- 8 answers of 6 different stakeholders (5 customers and 1 association of federetions)
- 2 answers are only general feedback on the exercise
- 6 answers challenging/confirming the high level cost assessment
- Quantitative cost assessment (with €) by only 2 customers (Aspiravi and Katoen Natie) for some requirements

Findings:

- Case-by-case quantitative CBA analysis is not possible based on the few quantitative inputs received and the specific situation of each existing PGM
- No generalisation possible to all existing type B units based on the received inputs to all type B (requirements considered as impossible to implement may differ from one answer to the next and dependant to the age of the unit)

→ Proposal to perform a "**qualitative +**" CBA analysis



CBA qualitative +

Category of requirements	Sub category	GAP analysis	Impact/benefit	High-level cost assessment by Elia	High-level cost assessment by market parties	New result of CBA after assessment of market partie
Data questionnaire & Models	Models	More stringent	MEDIUM	LOW	LOW (2) / MEDIUM (3)	No garanty that CBA will be positive
Voltage & frequency requirements	Rate of change of frequency (ROCOF)	More stringent	HIGH	LOW	LOW(2) / MEDIUM (1)	positive CBA
	LFSM-O	More stringent	HIGH	LOW	MEDIUM (4) / HIGH (2)	positive CBA **
	Voltage withstand capability	More stringent	MEDIUM	HIGH/LOW	LOW (2) / MEDIUM (3) / HIGH (1)	No garanty that CBA will be positive
	Voltage control (SPGM)	More stringent	MEDIUM	LOW	LOW (2) / MEDIUM (3)	No garanty that CBA will be positive
	Reactive power capability	More stringent	MEDIUM	MEDIUM (SPGM) HIGH/MEDIUM (PPM)	LOW (4) / MEDIUM (1)	positive CBA
	Fault current & dyn. Voltage support (PPM)	More stringent	MEDIUM	HIGH/LOW	MEDIUM (1)	No garanty that CBA will be positive
Information exchange / Telecom requirements	Information exchange	More stringent	MEDIUM	MEDIUM	LOW (5) / MEDIUM (1)	positive CBA*
Balancing/congestion man. requirements	Remote control reductions	More stringent	HIGH	MEDIUM (SPGM) HIGH/MEDIUM (PPM)	LOW (1) / MEDIUM (3)	positive CBA
Emergency & restoration requirements	Automatic connection	More stringent	HIGH	LOW	LOW (2) / MEDIUM (2)	positive CBA
	Automatic reconnection	More stringent	HIGH	MEDIUM	LOW (2) / MEDIUM (1)	positive CBA
						* With hypothesis that the costs for bringing the signal to the PGM are limited
						** to check (answers with high costs mention that further investigation on technical capability should be performed)

Response of market parties :
Costs underestimated by Elia
Costs slightly underestimated by Elia
Costs assessed correctly or overestimated by Elia

Conclusions of the exercise (Elia) :

- 1) we were able to identify requirements that might have a positive CBA based on a “qualitative +” analysis. **This should not lead to a retroactive application of the requirements to the existing PGMs without the identification of a specific need in the grid.**
- 2) it was not possible to perform a quantitative CBA due to the lack of detailed cost estimates and the fact that costs may strongly differ from existing PGM to the next. This is not in favor of a generalized quantitative CBA.
- 3) Performing a quantitative CBA analysis on certain requirements makes more sense if a specific need is identified in the grid.
- 4) extending the scope of the substantial modernisation to existing type B PGMs does not make sense if no need to do so has been identified in the grid.
- 5) If a need on the grid was identified, the requirements with a positive quantitative CBA might be good candidates for the scope of an extension to the substantial modernisation to existing type B PGMs as long as the concept of “limiting elements” is taken into account
- 6) This exercise allowed us to broaden our knowledge of how to perform qualitative CBAs and confirm the complexity to perform quantitative CBAs

Insigths on the results of the public consultation

- Answers received from : ODE Vlaanderen, FEBEG/FEBELIEC, FEBEG, 1 grid user (confidential)
- Appreciation of the work done and the consultation of market parties
- Specific comments :
  - ODE Vlaanderen:
    - Great variety of renewable electricity production (age, technical properties) so not possible to generalise qualitative or quantitative CBAs for all PGMs
    - Complexity of technical updgrades is underestimated
    - Invetments costs to comply could be sometines too high causing existing PPMs to leave the market
  - FEBEG/FEBELIEC:
    - Study and huge effort to perform the study shows that CBA is extremely complex and time consuming

Insigths on the results of the public consultation

- FEBEG/FEBELIEC:
  - Are strongly against any ex-post implementation of grid code requirements as this would create legal uncertainty and create a precedent for other reatro-active changes to grid codes in the future
    - Vastness of scope , number of PGMs and complexity could lead to unreasonable costs and unwanted closure of PGMs
    - Benefits are not sufficiently quantified and unlikely that these would be higher than the costs and could give negative market signals
  - If a clear need would be identified, a “substantial modernisation” approach based on on a case by analysis could be accepted excluding cases where costs related to applying new requirements make no sense
  - Agree with following Elia’s conclusion:

    “*Extending the scope of the concept of substantial modernisation to existing type B PGMs does not currently make sense if no need to do so has been identified on the grid. However, if such a need were identified, the list of requirements with a “quantitative +” CBA might be good candidates for the scope of the substantial modernisation as long as the concept of “limiting element” is taken into account. This concept would protect eligible PGM owners from excessive upgrading costs as long as they can demonstrate that the cost of the required upgrades would exceed the costs of the initial project by X%. “*

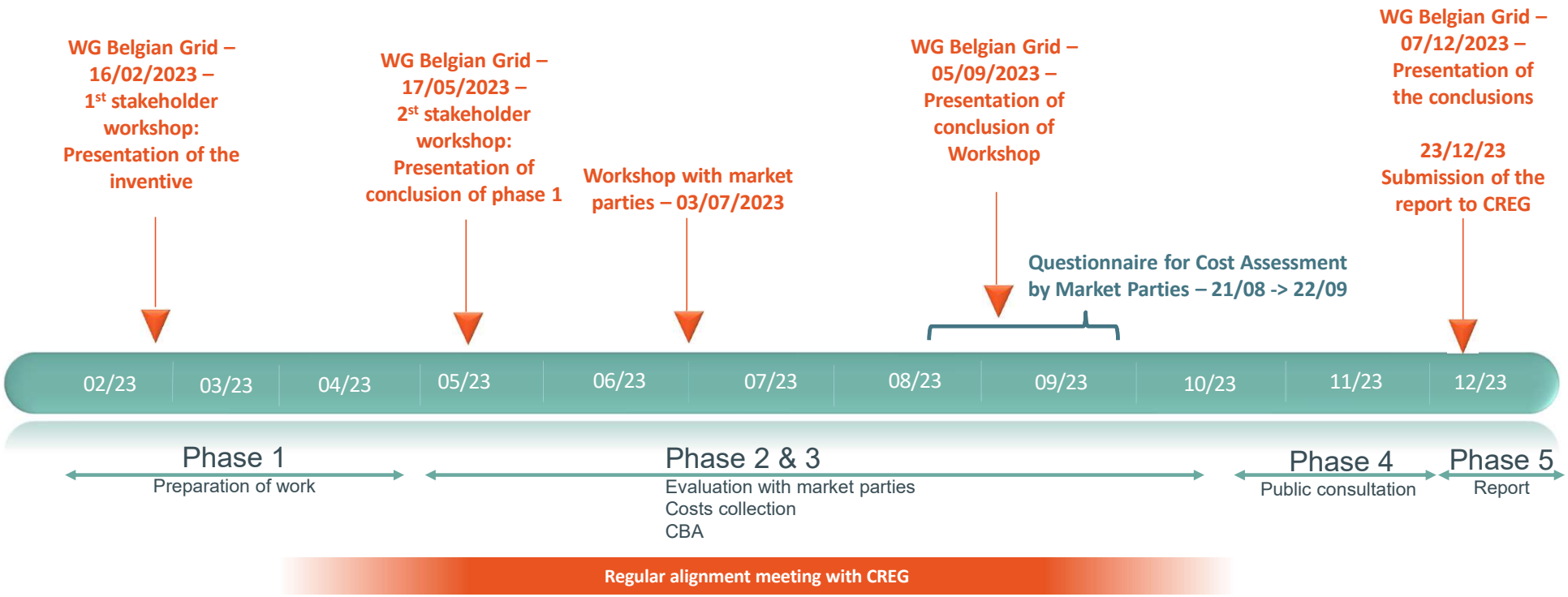
Insigths on the results of the public consultation

- FEBEG:
  - Appreciates the in-depth analysis done on the Gap analysis
  - Do not agree with many “high-level” conclusions of the quantitiative assessment by Elia as market parties know best their own assets. Doubts on qualitative analysis if not based on the real life experience, knowledge and technical reality behind the PGMs
  - Market parties identified only one requirement eligible for a retrofit (models) and even modelling could be difficult to obtain due to the lack of information
  - FEBEG agrees with following Elia’s conclusion (page 45):
    “*It is difficult to see a global trend in the answers provided. This stresses the fact that only a case-by-case application where the limiting elements can be provided by the grid users makes sense”*
  - Regarding the lack of information given by market parties, FEGEB stresses that only a case-by-case analysis and no high-level conclusion is possible. An evidence based and reliable cost assessment is practically impossible.
  - To have reliable and accurate estimates of costs, performed by external consultants and experts would be needed for dozens of assets taking several month and leading to high costs in comparison with any potential benefits

Insigths on the results of the public consultation

- Grid user (confidential – chemical sector):
  - Can follow the reasonning to apply more stringent requirements of new generators to existing generators for fuel-based generators that can be steered
  - No sense to apply more stringent requirements to generators linked to chemical processes as the energy of these generators is delivered by chemical process, which is interrupted anyhow during serious voltage dip.
  - These process generators can only comply to the following two requirements :
    - Voltage withstand capacity
    - Reactive power
  - Grid user sees no use of applying other requirements to process generators as these generators depend on chemical processes and cannot be steered.

Planning and milestones



Thank you.

Incentives

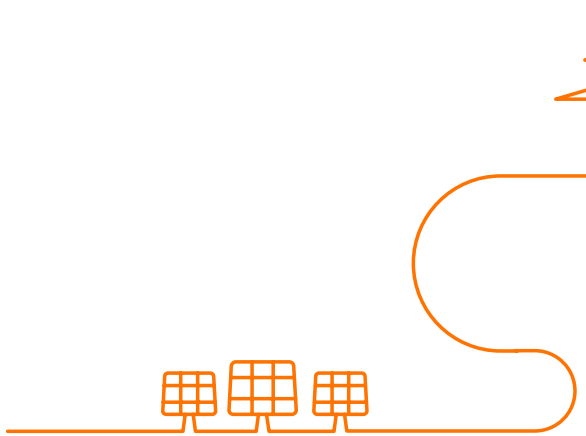
MVAr - implementatieplan

Voltage service - Incentive

WG BG – 07/12

Agenda

1. Incentive description
2. Summary of all proposed changes in the incentive
3. Feedback market parties
4. Implementation plan
5. Next steps



Agenda

1. **Incentive description**
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MVAr service incentive – Summary

Context and goals of the incentive

- Following entry into force of the new design in 2020, some **return of experience** is available
- This study intends to analyze **further possible design improvements** for the voltage and reactive power control service in order to:
  - Optimize the efficiency of the service and the remuneration
  - Increase participation to the service

Content of the study

- Identification of **design improvements** together with market parties and the CREG and proposal of solutions
  - Based on **return of experience** from the current design
  - Including at least a review of the modalities for the penalties

- Realization of a **EU benchmark** concerning the components (fixed or variable) for an **ideal remuneration** of the service

- Specific analysis of the potential improvements that **might facilitate the participation of non mandatory units** (such as demand response) to the service
  - Identification of **evolutions of the market design** to facilitate the participation of non-mandatory units
  - Adequate procurement mechanism for the participation of non-mandatory units
  - Other aspects: type of service allowed/recommended (automatic, manual or other), simplified prequalification/communication process/tools for non mandatory units…

  ➔ This analysis will consider a **ratio between the potential** that represent these units for the voltage and reactive power regulation as well as their added value for the service **compared to the additional costs and complexity**

Agenda

1. Incentive description
2. **Summary of all proposed changes in the incentive**
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MVAr service incentive – Review and recommendations for design optimisations

1. **Continuous** activation control for manual and automatic activation

2. **Penalties** need to be in line with the continuous activation control.

3. **Communication** with Elia
    1. The current communication is done via Revolt and is limited in the type of messages that can be sent.
    2. Option for additional interactions in order to sent more complex messages

4. Indication of the **need for MVAR service**
    1. In order to be able to better estimate the number of activations for a certain unit, the need in a certain area will be better clarified

5. **Price setting** during the tendering process
    1. Introduce the possibility of offering a formula instead of a fixed price

6. Participation of **non active power related assets**

7. Delivery of the **service from an industrial site**

8. **Update the Terms and conditions** of the MVAr service in order to be written more technology-neutral.

9. Simplification of the participation for non-mandatory units

Agenda

1. Incentive description
2. Summary of all proposed changes in the incentive
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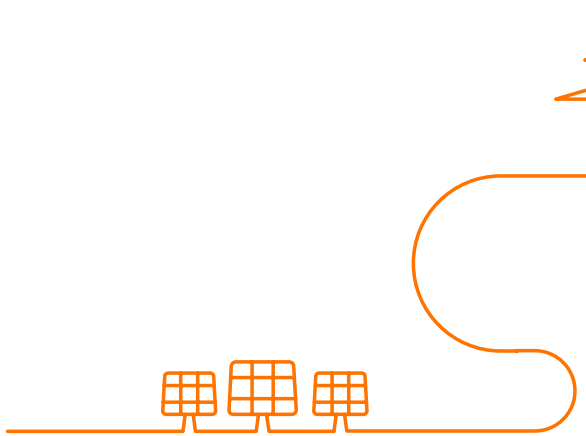


Activation control

MVAr service – Review and recommendations for design optimisations

Proposed new market design

Continuous activation control for manual and automatic activation

Instead of only using a select number of samples, Elia proposes to check all samples.

- This would remove the issues regarding penalizing momentary failures that do not represent the overall delivery of the service.
- This needs to be accompanied by a **revision of the penalties** associated with not delivering the service

Feedback Public consultation:

Next slide

Activation control

MVAr service – Review and recommendations for design optimisations

Feedback Public consultation:

BOP, BASF: Elia proposes to consider a value of zero in case the reactive power values of two successive 30” Reactive Power measurements in the timestep (quarter hour) of a setpoint request are not within the dead band. Since measurement errors and voltage variability may cause slight deviations in the measured Reactive Power as measured at the connection point, the actual measured Reactive Power of two successive 30” measurements should be considered instead of a zero value

Elia: this is to incentivize the market party to achieve the setpoint within the 5mins and should as such be penalized differently than the continuous control

BOP: only considering the second timestep (in case of an overlap between to quarter hours) to check if the setpoint was achieved correctly and on time.

Elia: this is not the intention of Elia; if the setpoint is achieved earlier, this will also count as a correct delivery of the service

Penalty design

MVAr service – Review and recommendations for design optimisations

Proposed new market design:

$$Discrepancy = \ Qrequested - Qmeasured$$

Automatic

$$Penalty = |Discrepancy * 1.5 * priceLastMVArSupplied|$$

Manual

$$Total\ penalty = \sum_{month} |Discrepancy * 1.5 * priceLastMVArSupplied|$$

Feedback Public consultation:

FEBEG, BOP, BASF: apply the penalty scheme only from the tolerance band

Elia: agrees and will modify the proposal

FEBEG: This penalty incentivizes the VSP to deliver the service as close as possible

FEBEG: Level of penalty should not be increased.

FEBEG: penalty factor for overdelivery should be modified to 0,5

Elia: agrees and will take the proposal from the MP into account

BOP: due to the high penalty factor of 1.5, proposal 2 would result in disproportionate penalties compared to the revenues in cases of temporary non-delivery of the service and cannot be supported

Elia: disagrees that this results in disproportionate penalties, also given the fact that the remuneration is the basis for the penalty

Penalty design

MVAr service – Review and recommendations for design optimisations

Proposed new market design:

Automatic

Manual

$$\%Q_{failed} = \frac{\#\ QHs\ not\ compliant\ with\ the\ supply\ conditions}{\#\ QHs\ analysed}$$

- The penalties will be the same for both the manual and automatic service

Feedback Public consultation:

FEBEG: Level of penalty should not be increased. Other penalty scheme preferred.
FEBEG, BOP: if this is selected, a tolerance band should be added.
Elia: there is already a tolerance band on the activation of 7,5%.
BOP: The original penalty system (with the thresholds) should be maintained
Elia: this was only in place because of the usage of samples and not a continuous control. Since the continuous control is now in place, there is no need for this anymore

Communication

MVAr service – Review and recommendations for design optimisations

Proposed new market design

Proposal for additional interactions:

1. Sending the available capacities 24h on beforehand for each quarter hour
   - This allows assets with a variable availability (see later) to participate
   - This has no impact on the obligation to be available when above the Pmin

2. Possibility to provide a reason why a setpoint cannot be achieved
   - This provides a quick and efficient way to identify issues
   - However, the penalty will be maintained

3. The reception of the same setpoint twice can currently lead to issues (linked to 3rdparty setup)
   - Resolve this in the implementation (at market party side)

4. Zerotage communication
   - Allow for Elia to send a zero setpoint while below the Pmin (already in the current market design)

5. Update communication protocol
   - Current technology that is being used has its limitations, so an update is needed

Communication

MVAr service – Review and recommendations for design optimisations

Feedback Public consultation:

FEBEG, BASF: If a new protocol is imposed, sufficient time, assistance and testing possibilities are foreseen for the market parties to implement it. The implementation plan should also be agreed upon with the market parties.

Elia: This will be the case

BASF: Hoe wordt “Zerotage communicatie” (sectie 4.3) opgenomen in dit nieuwe banden-concept?

Elia: The goal is that when assets are not actively delivering the service (below the Pmin), the MVAr production of an asset can be put to zero if they are not starting up or shutting down.

Price formula

MVAr service – Review and recommendations for design optimisations

Proposed new market design 1:

A formula that can be updated on a yearly basis, by the client

1. Most freedom for the client, can propose a fixed price/formula on a yearly basis
2. Need for a yearly tender

Feedback Public consultation:

Febeliec: fears that the complexity makes comparing offers with fixed and variable prices will become complex and costs will increase.

Elia: The cost is known before an activation request, so to most cost-optimal solution can be selected. The comparison between offers will indeed be more complex, but will lead to a more fair remuneration.

FEBEG, BOP: Lead times as short as possible

FEBEG: Happy with the option, but keep fixed prices

Elia: This will be maintained in the design

BOP: Is in favour

BOP: utilization of EPEX spot as a reference

Elia: will consider the proposition, but will investigate if this complexifies the offer comparison too much

Price formula

MVAr service – Review and recommendations for design optimisations

Proposed new market design 2:

A fixed formula per technology, where the client can ask for an update of the factors on a yearly basis. The **structure of the formula is the same for every technology type**, but local differences are possible by adapting certain parameters:

1. Less flexibility for the client
2. However, no need for lengthy process of updating the formula every year
3. Possibility to negate the need for a yearly tender

Feedback workshop:

FEBEG: sees the benefit of such a system, however implementing it will be too complex and will lead to endless discussions.
Elia: understands the position of the market parties.

MVAr activations

MVAr service – Review and recommendations for design optimisations

Proposal to give an indication of the need for MVAR service

In order to be able to better estimate the number of activations for a certain unit, the need in a certain area will be better clarified

1. A map up to the 30KV per area what the needs are for MVArs

2. 3 different levels:
    1. No/low need (+- X% of activations)
    2. Medium need (+- X% of activations)
    3. High need (+- X% of activations)

Feedback Public consultation:
FEBEG: Confidentiality is very important (size of the assets should not be deducible)
FEBEG, BOP: The more detailed info can be provided, the more useful the map will be
FEBEG: Concrete project should get more accurate numbers.
Elia: This is certainly possible; Elia invites all stakeholders with concrete reactive power projects to contact us.

Availability

MVAr service – Review and recommendations for design optimisations

Proposed new market design

Allow for non-mandatory non-active power related assets to declare their hourly availability on beforehand (24h) via revolt, which enables their participation to the voltage service

- This resolves the issue that they need to have full availability at all times, whilst leaving sufficient time for Elia to consider their activation
- Their participation will only be feasible from the moment that the communication system has been updated

Feedback Public consultation:
FEBEG: Other technologies should also have the option to declare unavailability's
Elia: This will be possible, however as long as they are above Pmin, they will be expected to be available.

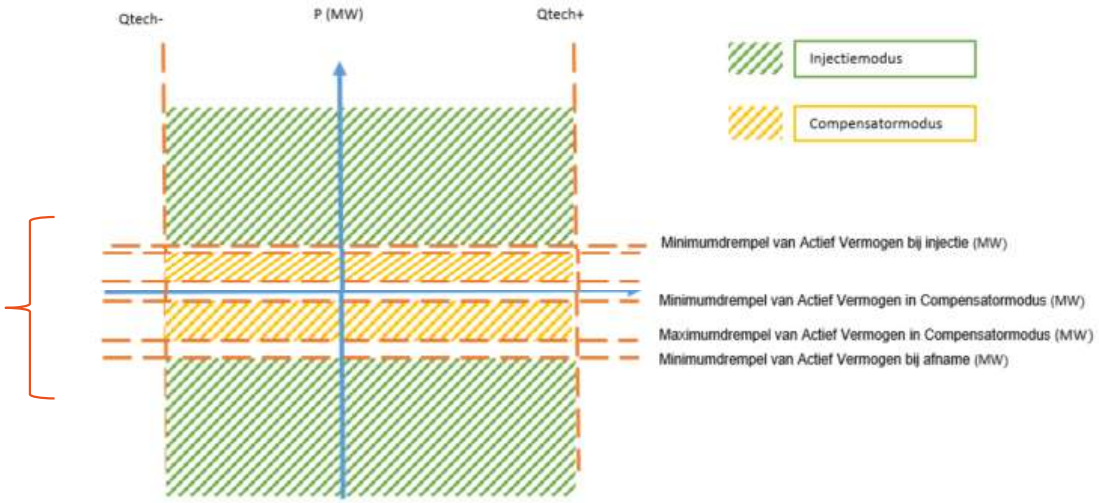
Condensator mode

MVAr service – Review and recommendations for design optimisations

Proposed new market design

Allow for an additional band of compensator modus

2 Bands for compensator modus



Feedback Public consultation:
BOP: welcomes the proposal, which can also be utilized by them

MVAr tariff

MVAr service – Review and recommendations for design optimisations

Proposed new market design

There is a change in the MVAr tariff foreseen in the new tariff proposal. This removes the “butterfly” band, which resolves the issue created by the start-up of generation on the industrial site.

Feedback Public consultation:
FEBEG: agrees that the change improves the situation for sites with both injection and consumption

MVAr tariff

MVAr service – Review and recommendations for design optimisations

Feedback Public consultation:
BASF: gaat niet akkoord met de voorgestelde nieuwe toegangspuntband voor het MVAr tarief (sectie 4.8.2) en blijft bij haar standpunt dat er een strikte scheiding nodig is tussen de VSP en het toegangspunt. Het nieuwe ontwerp is volgens ons niet voldoende uitgedacht, biedt geen oplossing voor de reeds eerder aangehaalde issues (in het bijzonder de noodzakelijke strikte scheiding tussen VSP en het toegangspunt) en leidt bovendien onmiddellijk tot nieuwe problemen:

- De nieuwe toegangspuntband wordt toegepast op de maandpiek van de lopende maand. Aan het begin van de maand is de nieuwe toegangspuntband waarbinnen gebleven dient te worden dus nog niet gekend. Hoe moeten wij op basis van een ongekende nieuwe toegangspuntband ons net opereren en voorschriften opstellen voor de netgebruikers?
- Als de site voor een hele maand evenveel verbruikt als de STEG op onze site levert, zal de netto afname/injectiepiek voor die maand 0MW zijn. Wat leidt tot geen nieuwe toegangspuntband en dus geen (of een heel beperkte hoeveelheid) reactief vermogen dat afgenomen/geïnjecteerd mag worden in het Elia net zonder boete.

In deze situatie kan aan de STEG op onze site worden opgelegd om het reactief vermogen van de site te compenseren (= overbekrachtigd opereren). Maar de STEG zal daardoor in de praktijk niet kunnen deelnemen aan de VSP dienst. Het verlenen van de VSP-dienst levert immers slechts een beperkte vergoeding op die volstrekt niet in verhouding staat tot de boetes op het toegangspunt wanneer buiten de toegangspuntband getreden wordt. Economisch gezien zou het dus beter zijn om niet deel te nemen...
Elia: understands the comment from BASF, but cannot change this via the MVAr service since this regards the MVAr tariff. Elia will follow decision (B)658E/85 of the CREG in the tariff file.

MVAr tariff

MVAr service – Review and recommendations for design optimisations

Feedback Public consultation:
BASF: Hoe wordt deze nieuwe toegangspuntband gekoppeld aan de VSP dienst? Niet, zoals onze wens is, of op basis van de VSP tolerantieband? BASF is in het verleden nooit akkoord gegaan met deze tolerantieband en zal dit in de toekomst ook nooit doen. Wij kunnen aan de hand van voorbeelden aantonen dat het gebruik van de tolerantieband niet geschikt is voor het beoogde doel.

Elia: This point also regards the MVAr tariff. Elia will follow decision (B)658E/85 of the CREG in the tariff file.

Prequalification

MVAr service – Review and recommendations for design optimisations

Simplification for the participation of smaller units

Prekwalificatietest

e) Vóór de aanvang van de Dienstverlening vraagt Elia een Prekwalificatietest om de kenmerken van de levering van de Dienst door elke Technische Eenheid te controleren.

f) Deze test moet minstens de activering inhouden van de Dienst waarin de VSP de Dienst moet verlenen volgens de in dit Contract voorziene voorwaarden. De precieze testmodaliteiten worden beschreven in Bijlage 13.

g) De Prekwalificatietest zal het beschikbaar gestelde Technische Regelbereik van het Reactief Vermogen bevestigen, evenals de meetmodaliteiten en de modaliteiten voor de berekening van Q_{req} (volgens Bijlage 2).

h) De Prekwalificatietest wordt niet beschouwd als een activering van de Dienst.

i) Elia behoudt zich het recht voor de Prekwalificatietest op elk ogenblik af te breken indien hij de veiligheid van het Elia-net in gevaar brengt.

Conformiteit

j) In het geval van niet-conformiteit met een of meer van de verplichtingen in Art. II.3.3, a) tot i), zal de VSP alle nodige maatregelen treffen om zijn conformiteit zo snel mogelijk te herstellen.

Make all operational communication requirements and software/hardware modifications clear from the start:
- Currently multiple interactions are needed between Elia and market parties
- This increases the cost, since multiple interactions with 3 rd parties are required
- By creating a document with the main occurring issues, a large part of these questions can be mitigated

Prequalification

MVAr service – Review and recommendations for design optimisations

Simplification for the participation of smaller units

Feedback Public consultation:
BASF: Wij zijn tevreden met het feit dat Elia de deelname van niet verplichte units wil vereenvoudigen. Het is absurd mochten we voor 20 nieuwe assets van 1MVAr telkens een volledige prekwalificatietest dienen te doorlopen (sectie 4.10).
Elia: agrees and proposes to check the reactive power reaction of the MP at the measurement point during the prequalification test, instead of checking the individual contribution.
BOP: automatic prequalification if the service was delivered the previous year
Elia: confirms that no re-prequalification will be required

Cost

MVAr service – Review and recommendations for design optimisations

Additional simplifications for the participation of non mandatory units

Provide a way to cover the upfront investment cost

- In order to deliver the service, additional investments are needed. To make the service interesting, these would need to be recuperated via the delivery of the service. An additional cost component can be introduced to cover the investment cost for non mandatory units. (mandatory units need to be able to provide the service and are not able to request this)
- These costs will be assessed in order to determine their competitivity with other assets.
- This does require a longer term commitment from the market party to provide the service to Elia

Feedback Public consultation:

FEBEG, BOP consider that this should also apply for mandatory units, as the communication standards are imposed by Elia and may change over time

Elia: mandatory units have an obligation to deliver the service and as such need to comply with the standards (within reason) from Elia. However, Elia understands the position of the MPs and will still investigate alternative solutions

MVAr service – Review and recommendations for design optimisations

Development of KPIs

BOP: In case there is sufficient competition at a certain location/region in the grid (i.e. sufficient amount of reactive power offered compared to the reactive power needed at the location), there is sufficient price competitiveness, and prices automatically converge to reasonable levels. In that case the reasonability analysis by the regulator can be avoided and the procedure can be simplified by avoiding the publication of royal decrees. KPIs per location can be developed (and made public) to determine the required level of competition per location or region.

Response:
The reasonability assessment as such is not impacted by the level of competitiveness in a certain area but assesses on an individual basis if a fair compensation is requested by the MP.
Elia is tasked with a three annual study on the availability of non-frequency related assets, with which the non-frequency related services can be delivered. Elia will investigate the option to add additional KPIs to this.

MVAr service – Review and recommendations for design optimisations

Decoupling of the prices

BOP: While the proposed market design by Elia indicates the price bands will be maintained, it is suggested that the pricing of the lower and upper price bands are de-coupled. In case of operation in price bracket P2, the full volume should be compensated at the Price 2 instead of at Price 1 for the volume up to Q1 and the remainder at Price 2 as is the case in today's market design. As demonstrated by various wind farms in data supplied to the CREG, this decoupling of the price brackets would allow for price formula's which better mirror the actual costs structure to provide the service.

Response:
Elia has no insights into this and proposes to maintain the current remuneration structure since the pricing can take this into account. However, if there is data supporting this proposed design Elia would be happy to receive this as well in order to investigate this proposal.

MVAr service – Review and recommendations for design optimisations

Grace periods

BOP: Please provide some more clarification on the “grace periods” (exemption from the penalties as per T&C) in case you cannot deliver the service, for instance due to a forced outage. For offshore windfarms, a ‘forced outage’ cannot simply be deduced from the power output; as 0MW can occur due to a forced outage or due to a lack of wind. The communication procedure for scheduled or unscheduled unavailability of an asset or the voltage service is unclear. Currently, unavailability declarations happen via e-mail. An availability declaration via a communication protocol will result in extra setup costs. **For the avoidance of doubt, a scheduled voltage service unavailability that is communicated 24 hours in advance has to be excluded from the penalty calculation.**

Response:
The option to declare unavailability's does not detract of the obligation to provide the service. During FO, elia does not expect an MP to be above their Pmin and as such is not expected to be available.
The option to declare unavailability’s is already present. Within the new communication proposal, this would enable the MP to send this via ReVolt.

MVAr service – Review and recommendations for design optimisations

Penalization in the MVAr tariff

BOP: To avoid double penalization, quarter hours for which penalization also occurs via the access tariffs, should be excluded from the continuous activation control. This was the case in the original design and should be kept. Alternatively, the penalization of MVAR in the access tariffs, for units that partake in the automatic VSP services, could be abolished.

Response:
The current design will be maintained.

MVAr service – Review and recommendations for design optimisations

Measurement offsets

BOP: As mentioned above, measurement differences can be an important reason for failed quarter hours. Remuneration and penalty calculations are done by Elia based on their energy meters at the connection point. However, voltage and reactive control on wind farms is done by a park controller, owned by the offshore windfarms and using internal (accurate) measurements. Regardless of the proposed penalty mechanism, we request a possibility to take into account possible offsets between Elia and windfarm measurements and the accuracy of the different meters for the calculation of the failed quarter hours and its tolerance.

Response:

- for the difference in measurements:
  - There is a tolerance in order make sure that small deviations are accounted for
  - Elia expects MPs to be able to take into account the impact of the internal assets between the measuring point and the assets
- For the remuneration, Elia expects the market parties to take all activation costs to deliver the service into account

MVAr service – Review and recommendations for design optimisations

	Condensatorbanken	Drives	STEG
Setpoint	Discreet	Niet-discreet	Niet-discreet
Curve	Nee	Nee	Ja
Technical unit	Non-controlling		Controlling

Name of the service

BASF: Wij vragen met aandrang dat meer aandacht zou worden besteed aan logisch, correct en consequent woordgebruik, zowel op vlak van definiëring van concep-ten/begrippen. Er zijn twee soorten diensten die kunnen geleverd worden: enerzijds het reageren op setpoints (=manual control service) en anderzijds technical units die een curve kunnen lopen en zo actief tegensturen op veranderingen van de spanning in het service measurement punt (=automatic control service). Uit de definities die nu gebruikt worden (manual/automatic control service), blijkt niet welke lading zij precies dekken. Je moet de definities van de begrippen goed kennen om te weten wat er bedoeld wordt. Daarenboven wordt de manual control service vaak niet manueel uitgevoerd (in tegenstelling tot wat de definitie doet vermoeden), maar op een geautomatiseerde wijze om binnen de 5minuten gereageerd te hebben op een gevraagd setpoint. Dit maakt het uiteraard helemaal verwarrend.
Daarnaast kunnen de groep van technical units worden opgedeeld in twee groepen op basis van de aard van het werkingsinterval voor de setpoint controle. Namelijk enerzijds technical units met een discreet werkingsgebied, zoals bijvoorbeeld een condensatorbank van 6MVAr die ofwel 0MVAr ofwel 6MVAr kan leveren, maar niets daartussen, en anderzijds technical units met een niet-discreet werkingsgebied, zoals bijvoorbeeld een generator die van -XMVAr tot +XMVAr kan leveren, maar ook alles daar tussen (mits enige tolerantie).
De groep van technical units kan verder worden opgedeeld in twee groepen afhankelijk of ze al dan niet een curve kunnen lopen en zo actief kunnen tegens-turen op veranderingen van de spanning in het service measurement punt. Er zijn enerzijds assets die dit wel kunnen zoals bijvoorbeeld een STEG gekoppeld aan het 150kV net van BASF. Anderzijds kunnen sommige assets dit niet zoals bijvoorbeeld drives die gekoppeld zijn aan lagere spanningsniveaus en een net ondersteunende eigenschap hebben. Dit wil zeggen dat ze niet actief gaan tegensturen tegen span-ningsveranderingen, maar enkel ondersteuning gaan bieden wanneer de netspan-ning buiten bepaalde banden treedt. Maar ook condensatorbanken kunnen geen curve lopen omwille van hun discreet werkingsinterval.

Dit leidt voor ons tot drie onderscheiden groepen van technical units (zie onder-staande tabel), terwijl Elia maar twee groepen van technical units onderscheidt, namelijk controlling en non-controlling technical units:

Response:
The names of the assets are described from an Elia POV. So, a manual activation is an activation that is done manually by NCC. An automatic activation requires no intervention of the operator. From the perspective of the service delivery, there is no distinction between a discrete and non-discrete asset: there is a request made by Elia to the MP for a certain volume. For a non-discrete asset, this requested volume will need to follow the discrete area of the asset. This distinction will create confusion and complexity and is therefore not maintained.

MVAr service – Review and recommendations for design optimisations

Multiple year contract

BOP: possibility to extend the contract duration in order to reduce the operational burden

Response:
Elia finds the proposal valid will further discuss the possibility with the CREG.

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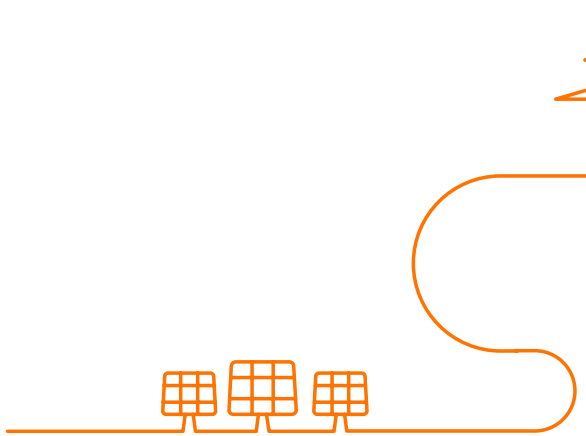


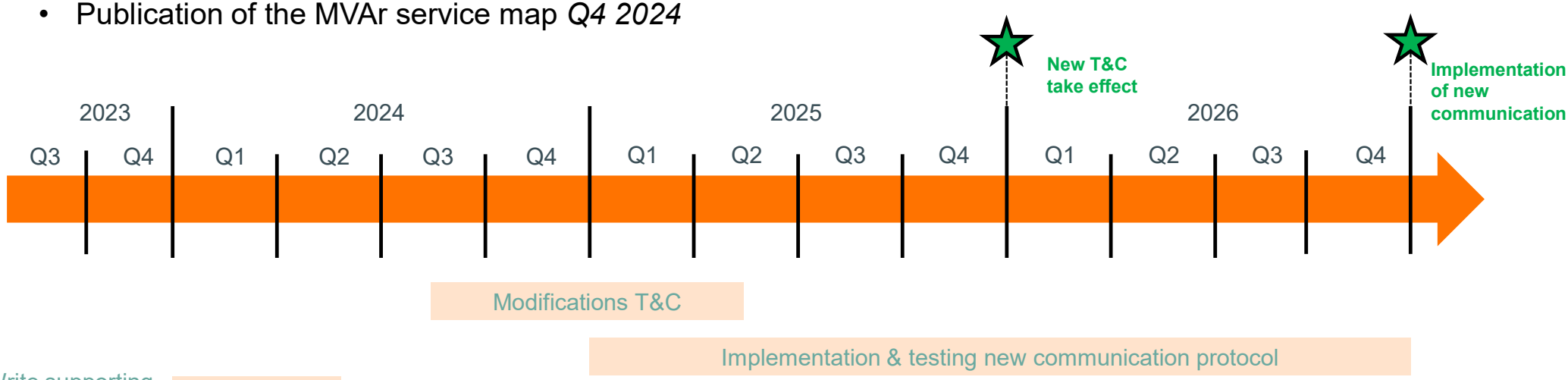
To Be Confirmed

Implementation plan - description

This implementation plan has been made without any assumption on the changes to the regulatory framework

Proposal:

- Implementation of modifications to the MVAr T&C *mid Q3 2024 – mid Q2 2025*
- Implementation and testing of the communication protocol for the MVAr service *Q1 2025 – Q4 2027*
- Write supporting documents *Q1 2024 - Q2 2024*
- Publication of the MVAr service map *Q4 2024*

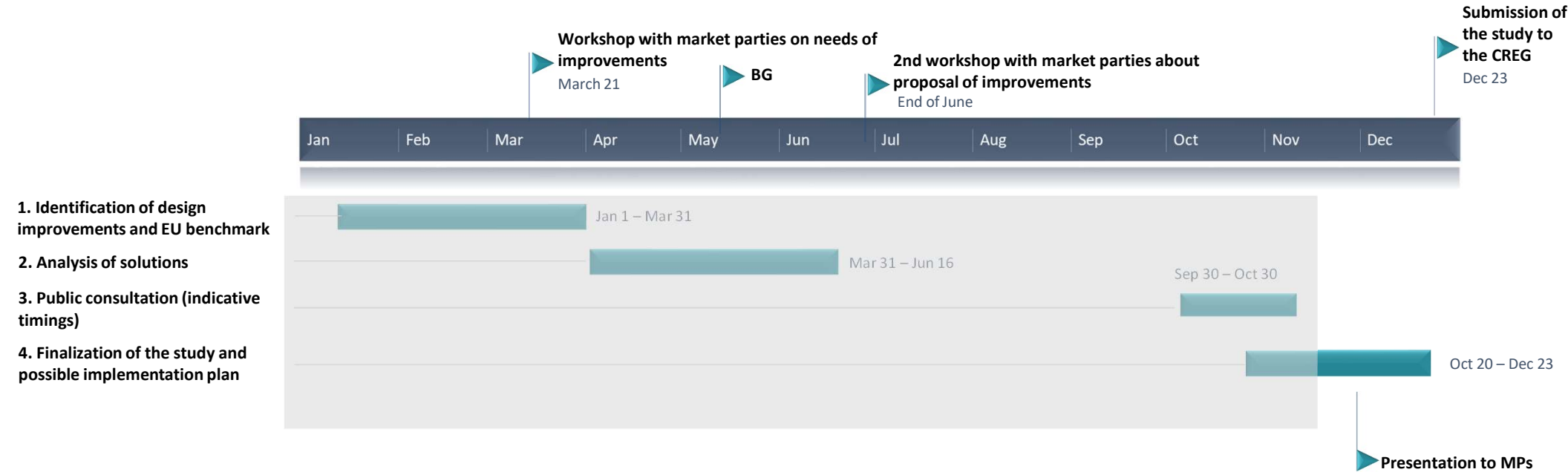


Agenda

1. Incentive description
2. Summary of all proposed changes in the incentive
3. Feedback market parties
4. Implementation plan
5. **Next steps**

MVAr service incentive– Planning

Indicative timeline:



Thank you.

Agenda

1. Flexible access
2. Incentives
   - 2.1. Hosting capacity maps
   - 2.2. Incentive MVAr
   - 2.3. Incentive CBA
3. Process EDS/EOS/reservation capacity
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   - 5.1. satisfaction survey
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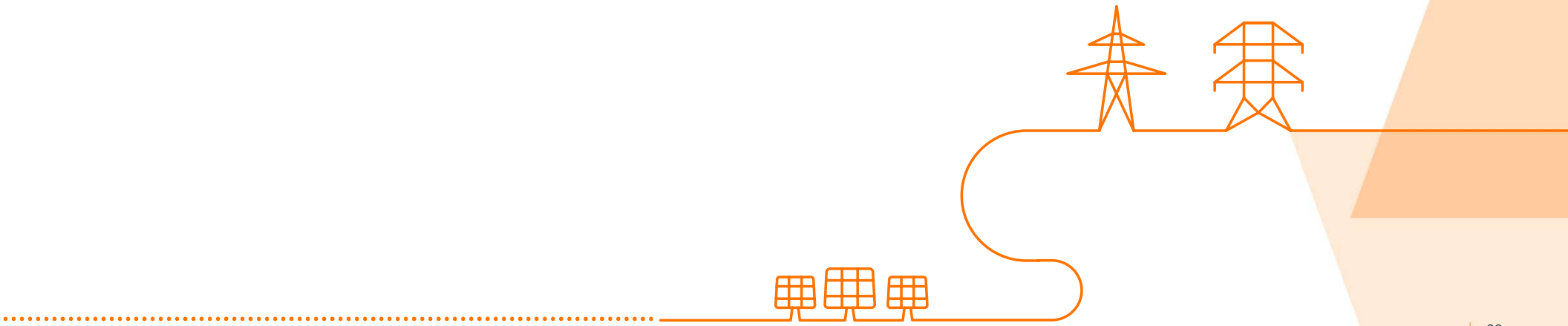
   - 5.3 Dates 2024

Proces EDS/EOS/Capaciteitsreservatie

Brainstorm

Agenda

1. Bestaand EOS proces
2. Bestaand EDS proces
3. Moeilijkheden/aandachtspunten – niet-exhaustief

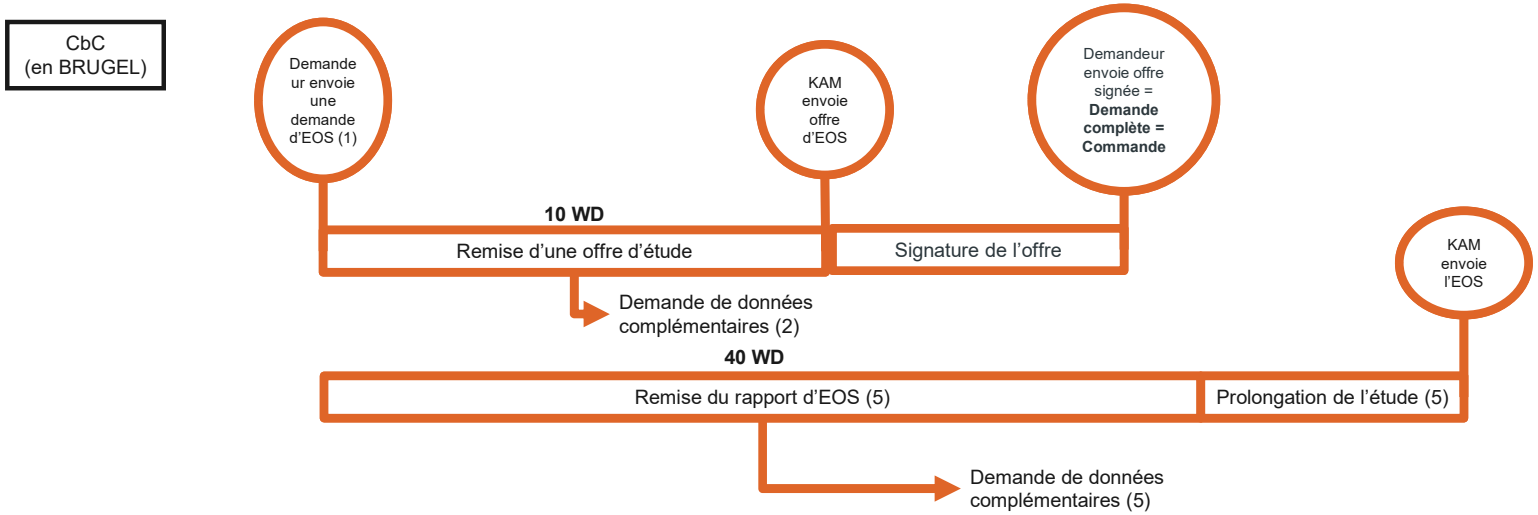


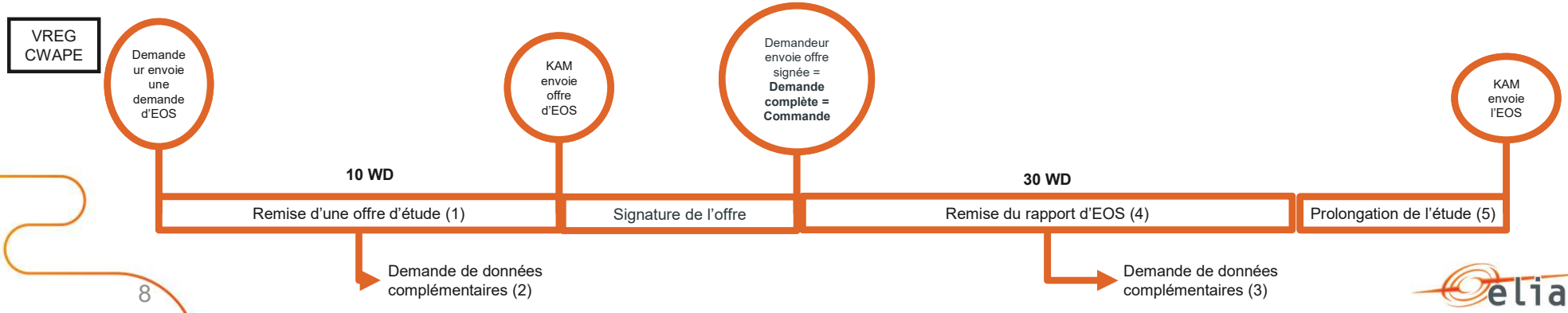
EOS – bestaand proces volgens GdC - hst 2.1.1)

Stappen	Bepaling in GDC	Timing volgens GDC
(1) Aanvraag ingediend door aanvrager	Art. 17 § 1: door wie en waarvoor Art. 17 § 2: prioriteit voor HE/WKK	
(2) Analyse door Elia van de volledigheid	Art. 18: inhoud van de aanvraag Art. 19: Publicatie aanvraagformulier op website Art. 20: vertrouwelijkheid Art. 21: termijn van 10 wd (verlengd indien onvolledig)	10 wd na (1)
(3) Offerte door Elia	**Niet beschreven**	Samen met (2)
(4) Bestelling van de studie door aanvrager	**Niet beschreven**	In functie van de aanvrager
(5) Realisatie van de studie	Art. 22: beoordelingscriteria (+ mogelijkheid tot weigering of flexibele aansluiting) Art. 23: Bijkomende vragen tav aanvrager (aanvrager beschikt over 10 wd om te antwoorden) Art. 25: 40 wd + verlengingen Art. 26: inhoud van de analyse Art. 27-28: indien geen antwoord van de aanvrager binnen een redelijke termijn, kan de NB de aanvraag weigeren	40 wd na (1) + verlengingen igv art. 21 en art. 23 + verlengingen igv flex aansluiting (art.61)
Geen capaciteitsreservatie	Art. 24	

- Uit ervaring zijn er veel verlengingen (art. 21 en 23) door vragen/antwoorden, nog te maken keuzes door de aanvrager, etc. De termijnen van deze verlengingen worden echter niet bijgehouden.
- Art. 27 wordt bijna nooit toegepast, tenzij de aanvrager de studie zelf stopzet.
- Het feit dat de termijn van 40 WD begint te lopen vanaf de aanvraag is niet juist gezien stap 4 enige tijd in beslag kan nemen.

EOS – bestaand proces volgens GdC - hst 2.1.1 *(regionale ter info toegevoegd)*

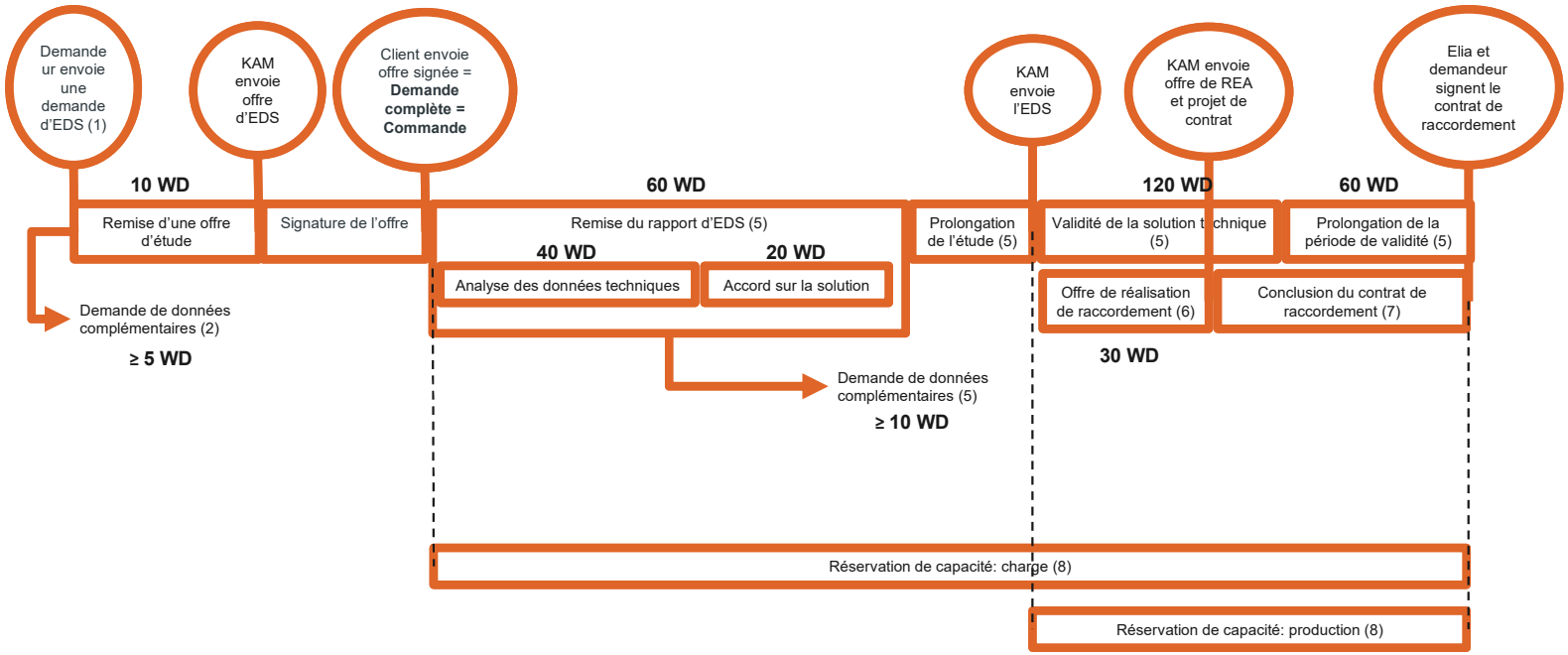




EDS – bestaand process volgens GdC – hst. 2.1.2

Stappen	Bepaling in GDC	Timing volgens GDC
(1) Aanvraag ingediend door aanvrager	Art. 29: door wie en waarvoor + prioriteit voor HE/WKK	
(2) Analyse door Elia van de volledigheid	Art. 30: inhoud van de aanvraag (+ Publicatie aanvraagformulier op website) Art. 31: vertrouwelijkheid Art. 32: termijn van 10 wd (verlengd met min. 5 wd indien onvolledig) + mogelijkheid tot 1malige verlenging van min. 5 wd op vraag van aanvrager, of meerdere keren als Elia het toekent	10 wd na (1) + verlengingen
(3) Offerte door Elia	**Niet beschreven**	Samen met (2)
(4) Bestelling van de studie door aanvrager	**Niet beschreven (wel vermeld in art. 33 over de capaciteitsreservatie voor verbruiksinstallaties)**	In functie van de aanvrager
(5) Realisatie van de studie	Art. 43(/22§1): beoordelingscriteria Art. 44: Vragen tav aanvrager (aanvrager beschikt over min. 10 wd om te antwoorden) Art. 45: Geringe aard van de wijziging: 20 wd na 'behoorlijk ingevulde aanvraag' Art. 46 §1: 40 wd na aanvraag naar behoren ingevuld voor het onderzoek van de technische informatie Art. 46 §3: 60 wd na aanvraag naar behoren ingevuld voor het sluiten van een akkoord over de technische oplossing Art. 46 §4: verlenging mits gezamenlijk akkoord indien complex Art. 46 §2 en §3: mogelijkheid tot weigering en flex aansluiting Art. 47-49: substantiële modernisering Art. 46 §5: geldigheid van de oplossing: 120 wd na (5) + verlenging mits goedkeuring van Elia (eerste kan niet worden geweigerd, voor 60 wd; daarna weigering indien aansluitingsvoorwaarden wijzigen, anders verlenging van 120 wd) → Impact op capaciteitsreservering	40 wd + 20 wd na (1 of 2?) + verlengingen igv art. 46 §4 en art. 32 + verlengingen igv flex aansluiting + verlengingen igv substantiële modernisering
(6) Aanbod tot realisatie door Elia	Art. 50: 30 wd na (5) + verlenging in gezamenlijk akkoord indien complexiteit Art. 35: gedeelde aansluiting: beide detailstudies moeten uitgevoerd zijn en bevestigen	30 wd na (5)
(7) Bestelling door aanvrager en, daarna ondertekening aansluitingscontract	Art. 51: geen termijn	
(8) Capaciteitsreservatie	Art. 33: 10 wd na stap (4) voor verbruiksinstallaties *(= 10dagen na bestelling EDS door aanvrager)* Art. 34: Na stap (5) voor productie-eenheden, opslag, … *(= na verzending EDS door Elia naar aanvrager)* Geringe wijziging niet individueel vermeld – gebruik bovenstaande regels	

EDS – bestaand process volgens GdC – hst. 2.1.2



Bijkomende elementen bemoeilijken het EDS proces

1. Regulatoir kader

– Geringe aard van de wijziging
– Gedeelde aansluitingen
– Substantiële modernisering
– Aansluitingen met flexibele toegang (ook voor EOS)

2. Hogere complexiteit van de studies

3. In bepaalde gevallen – niet beschreven in de gedragscode – is een EOS, voorafgaand aan de EDS, niet noodzakelijk, of wordt onterecht een EDS aangevraagd terwijl de EOS stap noodzakelijk is.

Eerste - niet-exhaustieve lijst – met aandachtspunten:

- Reeds geïdentificeerde lacunes in het regulatoir kader opvullen (offerte, bestelling, EDS ipv EOS)
- Harmonisering van de beschrijving van het EOS en EDS process
- Capaciteitsreservatie:
  - Behandeling van verbruiksinstallaties tov productie-eenheden en elektriciteitsopslagfaciliteiten
  - Coherentie met de geldigheid van de technische oplossing
  - Mogelijkheid om capaciteitsreservatie te verlengen / stop te zetten (door Elia) herbekijken
- First come, first served principe: is dit futureproof ?
- Termijnen voor de realisatie van de EOS/EDS, rekening houdend met de stijgende complexiteit en beschikbaarheid van middelen om deze op te volgen (bvb. Ingeval van bijzonder hoog aantal aangevraagde studies)
- Technische oplossing in EDS: aangeven wat de termijnen zijn om de aansluiting te realiseren, rekening houdend met de middelen
- …

Wat missen we nog?

Agenda

1. Flexible access
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Aansluitingscontract

Opmerkingen marktpartijen

Agenda

1. Why a new Connection Contract?
2. Revisited concepts
3. Impact on Annexes
4. Timelines

1. Why a revised connection contract?

Current version is outdated and not fit for purpose anymore, not adapted to current realities of Network Users

- Regulatory context has evolved:
  - European codes have appeared
  - Multiple evolutions of Law and Regulations on Belgian level
- New concepts have arisen:
  - Delivery point
  - Storage
  - LFDD
  - …
- Ways of working have evolved:
  - Digitalisation of contracts & documentation
  - Management of installations (not interval based anymore)

Matching table – new structure of contract
Deel 3- Specifieke voorwaarden

Old Article ref	New Article Ref
Art 16 – opschortende voorwaarden	Art 16 : omschrijving van de aansluiting
Art 17 Eigendoms & gebruiksrechten	Art 17 : eigendoms- en gebruiksrechten
Art 18 Tot stand brengen & beheer van aansluitingsinstallaties	Art 18 :Tot stand brengen & beheer van aansluitingsinstallaties
Art 19 Tarieven	Art 18,3: administratieve toelatingen
Art 20 Omschrijving van de installaties	Art 19: bescherming van de installaties
Art 21 Metingen en tellingen, power quality, beveiliging	Art 20: Werken, exploitatie, onderhoud,…enz
Art 22 Conformiteit van de Installaties	Art 21: Conformiteit van de installaties
Art 23 Bescherming van de Installaties	Art 22: Metingen en tellingen, power quality, beveiliging
Art 24 Werken, exploitatie, onderhoud,…enz	Art 23 : Gegevensuitwisseling
Art 25 Gegevensuitwisseling	Art 24: Aanwijzing OPA / SA
Art 25.4 Aanwijzing van OPA/SA	Art 25 : tarieven
Art 26 Administratieve toelatingen	

2. Revised concepts & structure

1. Conformiteit en schorsing
2. Beëindiging van het contract
3. Aansprakelijkheid
4. Verhouding Detailstudie – Contract
5. Installaties vs. Installaties van de Medecontractant
6. Medecontractant ←→ achterliggende gebruikers
7. Planning en restitutie
8. Leveringspunt en Marktoegangspunt
9. Low Frequency Demand Disconnection (LFDD)

Conformiteit en Schorsing

- Verwijzing naar FON, ION, EON, aangevuld met de afgifte van het installatiedocument // RFG, DCC, voor de ingebruikname van de nieuwe/gewijzingde aansluiting (nieuw art 18.1)
- Ingebrekestelling Elia niet enkel bij niet-conformiteit te wijten aan full size beheer, maar ook aan light beheer (art 12.1.2)
- Beroepsmogelijkheden uitgebreid tot geval van schorsing contract lastens Elia (art 12.1.2)
- Alle beroepsmogelijkheden bij schorsing/beëindiging overeenkomstig art 14 (art 12.2.2)
- Verplichting tot melden van niet-conformiteit installaties is wederzijds gemaakt (art 21.1.1)
- Sterkmaking

Beëindiging van het contract

– Specifiek geval van art 12.2.4: beëindiging wegens ingebrekeblijven/wijziging juridische/financiële toestand:

⇒ Met / zonder rechterlijke machtiging ?

- CREG stelt vragen bij conformiteit met art 5.93 BW
- Anderzijds: zie motivering goedkeuringsbeslissing 2009

⇒ te trancheren

Aansprakelijkheid (art 7)

- Harmonisatie-oefening

  => Plaats van incident mag geen impact hebben voor de netgebruiker =>gelijkaardige bepalingen

- Kenmerken :

  - Schadebeperkingsplicht
  - Termijn voor melden schadegevallen
  - Geen gedifferentieerd regime gewone- zware fout ; begrip schadeverwekkend feit
  - Vergoeding beperkt tot (materiële en lichamelijke) directe schade
  - Cap bij onderbreking : 300 => 3000€/MWh
  - Cap bij andere schadegevallen => 6000€/MW
  - Totale cap per schadegeval en per jaar (2,5M/(globaal) 5M)
  - Beperkingen gelden niet bij intentionele fout/fraude
  - Indexering bedragen
  - Beperkingen ten behoeve en ten laste van derden (in geval van schade aan andere NG/TH/BRP (miv. hun aangestelden)
  - Doorwerking beperkingen in contracten tussen NG en achterliggende gebruikers

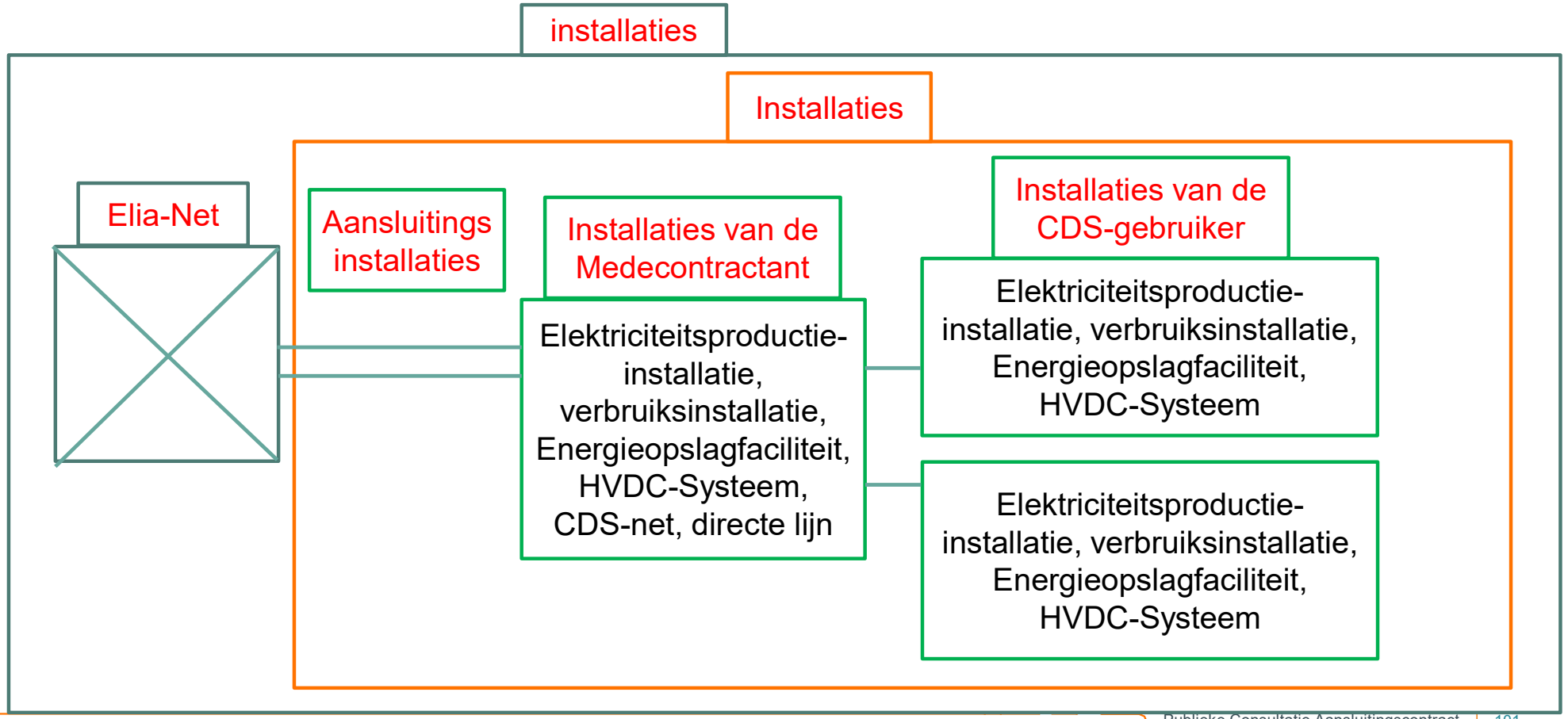
Verhouding Detailstudie - Contract

- Detailstudie (voor zover van toepassing) is het technisch akkoord na een aansluitingsaanvraag
- De detailstudie wordt verwerkt in bijlage 7 bij de ondertekening van het aansluitingscontract.

  Ps: bijlage 7 blijft verwijzen naar de detailstudie (die aldus nog blijft gelden)
- Eens de werken tot aanleg /aanpassing van de aansluiting voltooid zijn en de aansluiting in gebruik wordt genomen

  Dus na EON, ION (en FON) van aan te sluiten productie-, opslag of verbruiksinstallatie, wordt de inhoud van bijlage 7 overgenomen in de bijlage 1, 2, 3, 4, 5, 6, 8 en eventueel de specifieke bijlagen 10 en/of 11.

Installaties vs. Installaties van de Medecontractant



Medecontractant⇔ achterliggende gebruikers

Gegeven:

- impact op het Elia net van installaties van gebruikers verbonden met installaties van de Medecontractant en
- aansluitingscontract afgesloten met Medecontractant:
  - **Verklaring/garantie Medecontractant** dat installaties van achterliggende gebruikers verbonden met zijn installaties conform zijn met wettelijke vereisten: art 4.1.

    Eventuele buitendienststelling van installaties of schorsing contract (na eventuele ingebrekestelling) indien acuut en dreigend gevaar blijkt voor de veiligheid (betrouwbaarheid en/of efficiëntie) van het net/personen/goederen (art 12.1)

  - **Sterkmaking** door Medecontractant voor SGU's die op de installaties van de Medecontractant zijn aangesloten (ook via CDS) om Instructies na te leven in het kader van Europese netcode E&R die betrekking hebben op bepaalde infrastructuur (zie artikel 2 van deze Netcode) die niet altijd toebehoren aan de Netgebruiker met wie Elia een aansluitingscontract heeft afgesloten (en dus medecontractant) (art 8.2).

Planning en restitutie (art 20)

- Principe van overleg blijft overeind,
  - coördinatie van planning van hun werken => beperken onbeschikbaarheid elementen Elia-net/aansluiting (en dus toegang tot net)
  - Vergt informatie-uitwisseling (inclusief backing mbt. achterliggende gebruikers)
  - In bepaalde gevallen kunnen snijdingen echter niet worden vermeden
  - Korte onbeschikbaarheden: geen ingrepen in Elia-Net
  - Lange onbeschikbaarheden: analyse noodzaak onbeschikbaarheid, risico-evaluatie en CBA bij gebreke aan restitutiemogelijkheden (met mogelijkheid van noodscenario)
- Verduidelijking oorzaak van de werken en link met de mogelijke kosten van beperking van onbeschikbaarheidsrisico

  => ten laste van de partij ten bate van dewelke deze maatregelen worden genomen

- Uitblijven akkoord mag geen afbreuk doen aan veiligheid en veiigheid, efficiëntie en betrouwbaarheid van het net

  => mogelijkheid tot eenzijdig opleggen van slot

Leveringspunt en Marktoegangspunt

- Nieuwe definitie **Leveringspunt**
  - *Ligging*: ter hoogte van Toegangspunt of deel uitmakend van Installaties van Medecontractant
  - *Met als doel*:
    - 1. verlenen ondersteunende dienst, dienst voor coördinatie & congestiebeheer of dienst CRM
    - 2. EN/OF aanduiding BRP/SUP (andere dan BRP/SUP op Toegangspunt)

  Randvoorwaarden: o.a. geen creatie na ander Leveringspunt; in een CDS enkel voor levering diensten en stemt overeen met Markttoegangspunt; indien reeds Leveringspunt gecreëerd voor levering diensten wordt de mogelijkheid om dit punt te gebruiken voor een andere ondersteunende dienst of aanduiding BRP/SUP voorafgaandelijk door Elia geëvalueerd.
- Definitie **Markttoegangspunt**

  Toegevoegd (zelfde als in Toegangscontract): een virtueel punt ter bepaling van een deel van of het totaal Actief Vermogen afgenomen op of geïnjecteerd in de CDS door de betrokken CDS-gebruiker.

Low Frequency Demand Disconnection (LFDD)

- LFDD-Verplichting en LFDD-Groep gedefinieerd en bepaling toegevoegd aan Art 8.2.
- Aan deze verplichting kan individueel of op niveau van een LFDD-Groep worden voldaan.
- Welk verbruik: % -zoals bepaald in SBP- van brutoverbruik als af te koppelen nettobelasting.
- Bijlage 11: vastleggen % van verplicht af te schakelen belasting op de verschillende overeenkomstige frequenties
- Bijlage 11bis: te ondertekenen door leden van de LFDD-Groep (Medecontractant en andere Netgebruikers);

bevat individuele bijdragen van elk lid van de LFDD-Groep

4. Impact on Annexes

1. Bijlage 1 - Beschrijving van de installaties
2. Bijlage 7 - Uitvoeringsmodaliteiten nieuwe Aansluiting
3. Bijlage 9 - Gedeelde aansluiting, gezamenlijke behandeling en hoofdelijkheid
4. Bijlage 10 - recht van toegang tot offshore installaties

Bijlage 1 - Beschrijving van de installaties

- Naast de traditionele aansluitingscapaciteit ook flexibele aansluitingscapaciteit toegevoegd
- Beschrijving van interface- en aansluitingspunten op een gestandaardiseerde manier
- Voor productie-installaties en -eenheden, energieopslaginstallaties en- eenheden en verbruiksinstallaties worden meer datageven, zoals bijvoorbeeld Pmin, MWh, uitbatingswijze….
- De glasvezels, telecommunicatie-en/of laagspanningsverbindingen worden explicieter opgenomen in de template

Bijlage 7 - Uitvoeringsmodaliteiten nieuwe Aansluiting

– Informatie over projecten in realisatie worden enkel nog opgenomen in bijlage 7

- Interface- en aansluitingspunten
- Relevante aansluitingscapaciteit , al dan niet flexibel
  - Flexibiliteit:
    - bepaling technische modaliteiten (zie ook bijlage 2)
      - te verwachten maximaal jaarlijks af te regelen energie
      - % flex (tijd)
      - % flex (actieve energie)
      - Bij incident/mogelijkheid van preventieve acties
      - Communicatiemogelijkheden – actiemogelijkheden bij niet opvolging bevel
    - Principiële kostenloosheid, onverminderd toepassing van een mechanisme vastgesteld door bevoegde overheden
- Kosten van de aansluiting en de betalingsvoorwaarden

Bijlage 9 - Gedeelde aansluiting, gezamenlijke behandeling en hoofdelijkheid

Nieuwe Bijlage 9: overeenkomstig Art 40 Gedragscode dient een akkoord te worden gesloten de transmissienetgebruikers, die de aansluiting delen, en de transmissienetbeheerder.
Dat akkoord stelt de rechten en plichten van de partijen vast betreffende de gedeelde aansluiting overeenkomstig de betrokken bijlage in de type-aansluitingsovereenkomst goedgekeurd door de CREG.

Het delen van de aansluiting impliceert een **gezamenlijke behandeling** voor een aantal aspecten (cfr buiten dienststelling in geval van niet-conformiteit van welk onderdeel ook van gedeelde installaties/ gezamenlijke beslissing inzake beheer en coördinatie van werken) geregeld in de Bijlage.

Toepassing van principe van hoofdelijkheid

- De netgebruikers staan hoofdelijk in voor de naleving van de verplichtingen (art 1)
- hoofdelijke aansprakelijkheid voor een fout waarvan niet kan bewezen worden dat ze door één gebruiker van de aansluiting werd gepleegd (art 12)
- Solidaire aanvaarding van de verplichtingen van het aansluitingscontract voor elke bepaling niet behandeld in de Bijlage 9.

Thank you.

Agenda

1. Flexible access
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   - 2.3. Incentive CBA
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Tevredenheidsenquête

Resultaten

1. **UG Survey**: Target group and Sample

- The survey targeted **members** of the **plenary meeting**, the various **working groups** and the **task forces** within the Elia Users' Group.
- Elia provided a **database** with **537** contact persons.
- **33** members completed the online questionnaire (response rate = 6%)

2. **Results**

2.1. The subjects we **scored well on**

2.2. The subjects that need **some improvements**

3. **Suggestions** for improvement

4. **Actions** to respond to suggestions for improvement

2.1. Results - The subjects we scored well on

1. The **competence** of the **Elia experts** and the **chairmen**

2. The **general functioning** of the working groups and task forces

3. The **possibility** and **willingness** to include certain topics on the agenda

4. The practical organization in terms of **drawing up consultation reports** that provide detailed answers to the respondents' comments

5. The **accessibility** of the **website** in terms of the **available material**, incl. reports, presentations and other relevant information

6. The **frequency** and **clarity** with which Elia communicates **about the activities** of the **Working Groups/Task Forces/Plenary Meetings**

2.2. **Results** - The subjects that need some improvements

1. The **impact** that you have as a member of Plenary Meeting/Working Groups/Task Forces

- *"Ik kan me soms niet van de indruk ontdoen, dat de richting van de WG en TF reeds op voorhand in klein committee werd beslist (e.g. met andere stakeholders en/of kabinet) en de "beslissingen" reeds genomen zijn vóór de werkgroepen en/of task-forces hebben plaatsgevonden. Dit geeft natuurlijk een beetje een zure bijsmaak bij het beoogde overleg voor sommige partijen."*

2. The **general functioning** of the Plenary Meeting

- *"Overlopen/documenteren van de belangrijkste gebeurtenissen en incidenten die impact hadden op de marktwerking. Markttendensen die door Elia geobserveerd worden en die impact hebben op de marktwerking en prijsvorming. Plenair moet meer high level worden en visies op lange termijn aan bod laten komen."*
- *"Zelfs onder de nieuwe constellatie blijft het moeilijk een goed evenwicht te vinden in de Elia UG tussen technische en meer high level onderwerpen. Het verband tussen de verschillende werkgroepen wordt ook nog steeds te weinig gelegd."*

3. The **practical organization** od the Working Groups/Task Forces/Plenary Meeting regarding **the provision of the relevant documents** prior to each meeting, **within a reasonable period of time**

- *"Presentations should be shared the day before (and not a few minutes before the start of the meeting)."*
- *"Snellere verslagen."*

3. **Your Suggestions** for improvement

1. Long term vision

- *"Sometimes I feel like we're missing the long term vision: because of the time work/pressure proposals that can't be implemented on short run are sometimes pushed back while they deserve more attention."*

2. Time **for discussions** and **more interaction**

- *"Meer interactie – meer tijd voor discussie."*
- *"Moderation may sometimes happen more actively when some participants do not leave other people speak or get "ad hominem"*

3. **Maintain an overview** and **keep it comprehensible**

- *"De werkgroepen zijn inhoudelijk zeer technisch en specialistisch maar dit betekent niet dat Elia geen moeite moet doen om zaken in begrijpbare taal te proberen uit te leggen. Als dit niet gaat gebeuren dan zullen het altijd dezelfde twee partijen blijven die input kunnen leveren (febeg, febeliec). Nu worden de discussies ook vaak gevoerd over de technische uitwerking zonder dat de principes in vraag gesteld worden of bediscussieerd worden."*

4. Actions to respond to suggestions for improvement

1. Establishment of The Horizontal Electricity System Think Tank

- ⇒ *More time for debate in the Plenary Meeting*
- ⇒ *Focus on long-term events*
- ⇒ *Separate the very technical issues (Working Group related) and the more high level topics*

2. We not longer come with finished products

- ⇒ *Members are involved in the process upfront*
- ⇒ *Always possibility of bilateral consultation*
- ⇒ *Faster ad hoc workshops (incentives, blue print, ...)*

3. Closer follow up of agenda, slides and meeting notes

4. End of the year e-mail with overview Working Groups & Task Forces workplan 2024

- ⇒ *This will give the members an overview of all the available Working Groups and Task Forces*
- ⇒ *This will allow them to decide which Working Groups and Task Forces may be of interest to them*
- ⇒ *usersgroup@elia.be*

Roadmap WG BG 2024

Roadmap WG BG 2024

Contracten

Aansluitingscontract

Toegangscontract
- Alignatie op aansluiting
- Integratie multiple BRP

Ambitie: beide in voege in *2024*

Reglementen

Gedragscode – *Q4 2024*
- Boek 2 aansluiting: process EDS/EOS en capaciteitsreservering

Federaal Technisch reglement - *TBD*
- Technische vereisten: analyse dringende aanpassingen

Europese netcodes

- Grid connection related codes: RfG, DCC, HVDC – momenteel onder revisie, *implementatie Q4 2024*
- Markt related codes: start analyse ‘24
- System operation related codes: start analyse ‘24

Projecten/Incentives

Flexibele toegang – *Q4 2024*

Methodologie berekening Netverliezen

Grid User Flex 4 congestion management

Data 2024

Data 2024

- 26/01/2024 10:00u – 12:30u
- 22/03/2024 09:30u – 12:30u
- 27/06/2024 13:00u – 16:00u
- 01/10/2024 09:30u – 12:30u
- 13/12/2024 09:30u – 12:30u