



**6th Working Group
Consumer Centric Market Design**

Elia – 23rd June 2023

Wifi Access

Username: usersgroup@elia.be

Password: 90JbgZm!

Agenda

Go-Live 2023

- Overview of Regulatory and contractual framework updates
- Overview of the detailed process for explicit flexibility

New CCMD Product

- MPx - Direct Access to Market

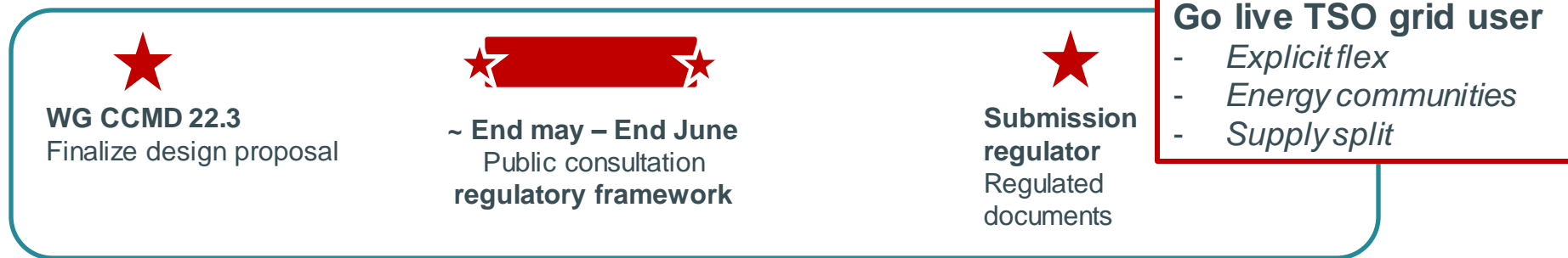


Go-Live 2023 Regulatory and contractual framework updates

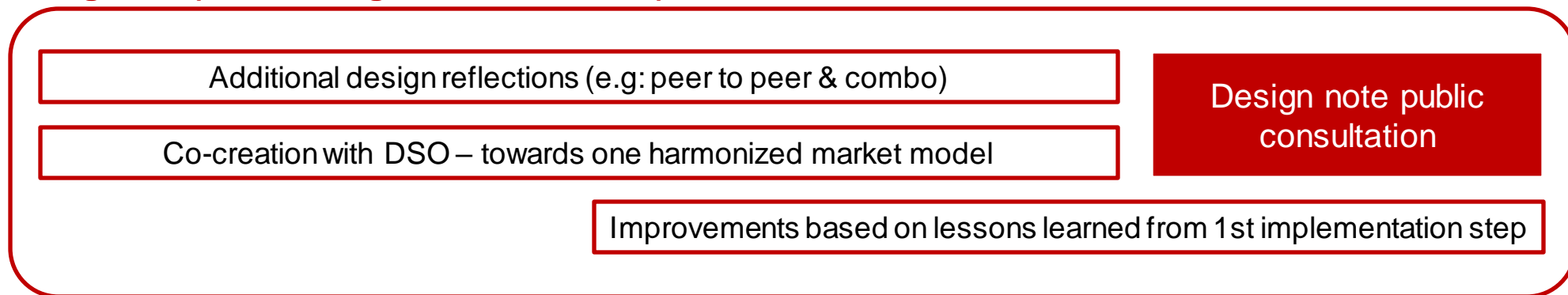
Reminder – CCMD design in 2023



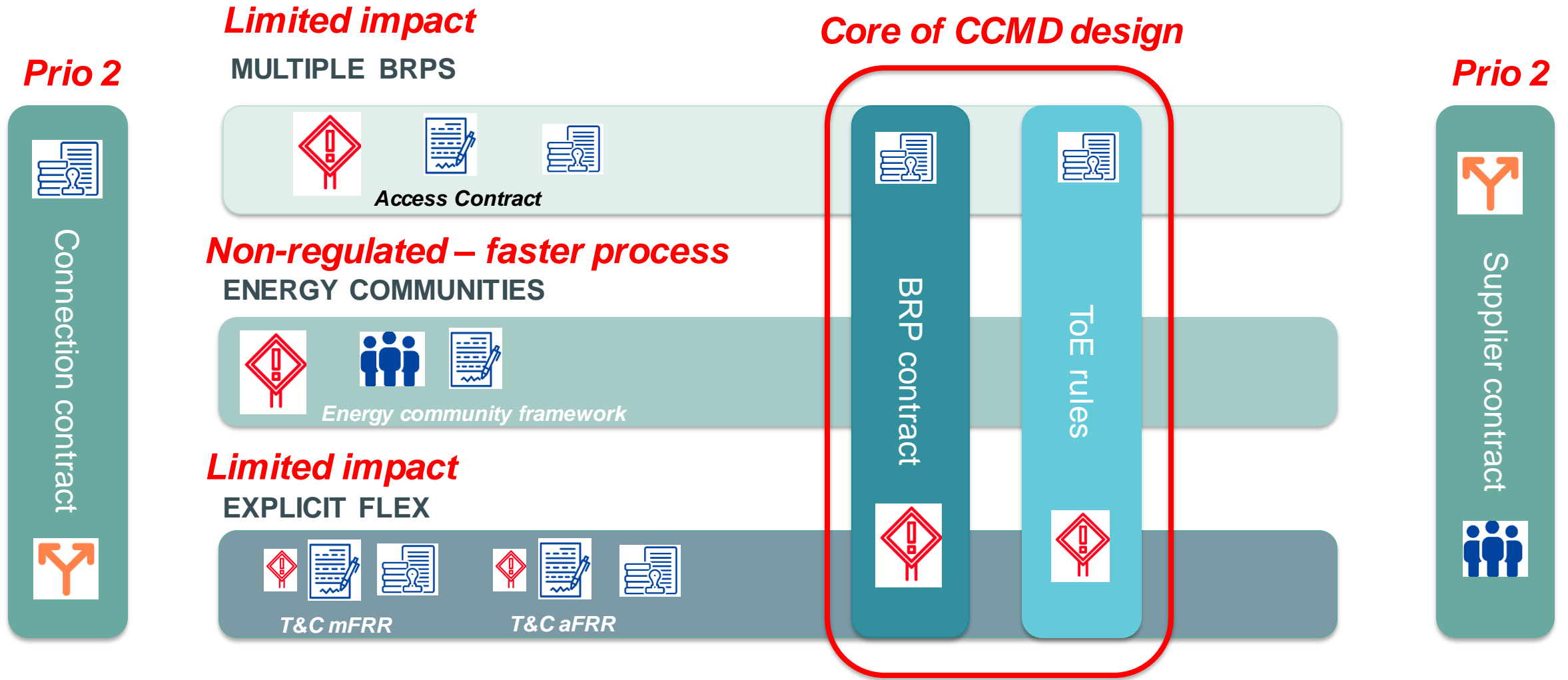
Design 1.0 (focus 1st go-live TSO connected – end 2023)



Design 2.0 (Focus 2nd go live – end 2024)

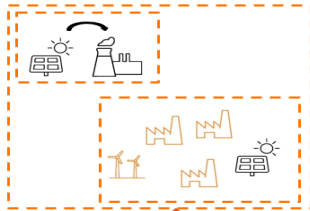
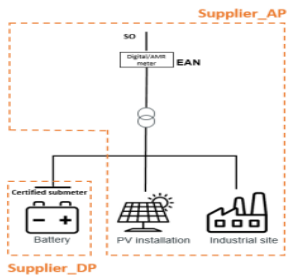


Regulatory framework evolutions required to reflect CCMD design 1.0



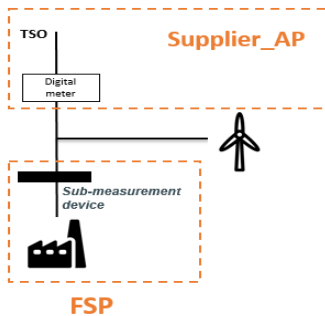
Prios 1 – Core of CCMD design will be translated into T&C BRP & an evolution of ToE framework

Regulatory framework evolutions required to reflect CCMD design ToE rules



Multiple BRP/
Suppliers

Energy
communities



Explicit flex to open to individual
Correction model

Planning

Pub. Cons. After summer

Submit to CREG ~ Mid Oct 23

Go live End Q4 2023

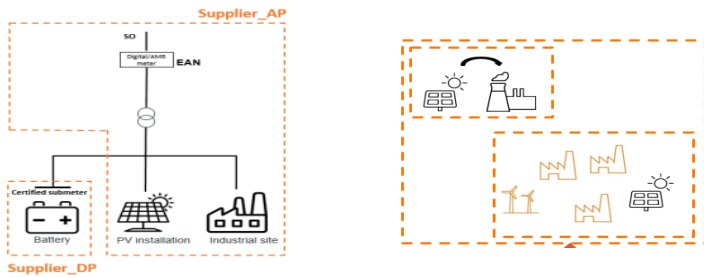
Content

ToE rules v2 *ELIA → CREG*
CREG → Regional authorities
Scope: ToE as today; + individual correction for TSO

Energy sharing rules *ELIA → CREG*
Scope: Energy communities, multiple BRP & multiple supplier for TSO

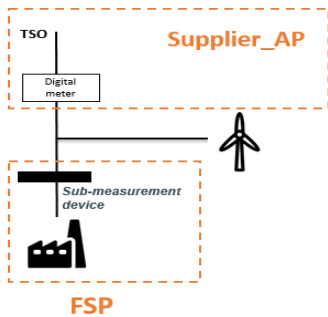
Cross SO communities *ELIA + DSOs → CREG + regional authorities*
Scope: energy communities cross system operators + individual correction to DSO DP (for explicit flex)

Regulatory framework evolutions required to reflect CCMD design BRP contract




Multiple BRP/
Suppliers

Energy
communities



Explicit flex to open to individual
Correction model




Pub. Cons. After summer

Submit to CREG ~ Mid Oct 23

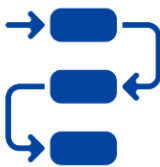
Go live End Q4 23


Planning




- Allocation process (to consider multiple BRP behind AP)
- Correction BRP perimeter (art. 20) in case of energy transactions
- Losses (due to multiple BRP)
- Additional notifications (informal layer) in case of explicit flex / Energy communities
- Nomination process in case of multiple BRP

Content






Process to designate BRP/Supplier on DP



Description of individual correction model



Choice of correction model

Access contract

↔

ToE Rules v2 + Energy sharing rules

↔

T&C a/mFRR

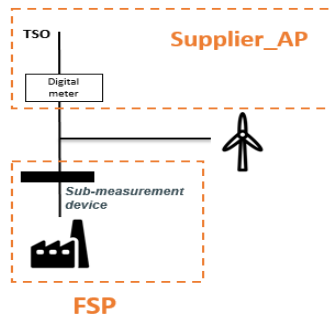
Dependencies

6th WG-CCMD 23-06-2023

8


Prios 1 – Limited changes required

Regulatory framework evolutions required to reflect CCMD design T&C mFRR



Explicit flex to open to individual Correction model


Planning



Pub. Cons. **End Q2 2023**
Submit to CREG **After summer**

Go live **End of 23**

Content



- Give the option to choose between individual correction & ToE for TSO DP
- Extend the rule on ToE to cover option with individual correction model
- Clarify how individual volumes are calculated (input to indiv. Correction model)

Dependencies

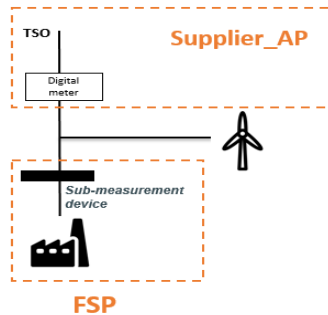


Description of individual correction model


ToE rules v2

Regulatory framework evolutions required to reflect CCMD design

T&C aFRR



Explicit flex to open to individual Correction model




Planning

Pub. Cons. **Q4 2023**

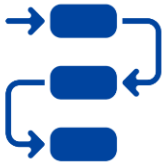
Submit to CREG **Feb 24**

Go live **Q2 2024**




Content

- Give the option to choose between individual correction & ToE
- Describe combo ToE / individual correction model
- Clarify how individual energy volumes are determined



Dependencies



Description of individual correction model

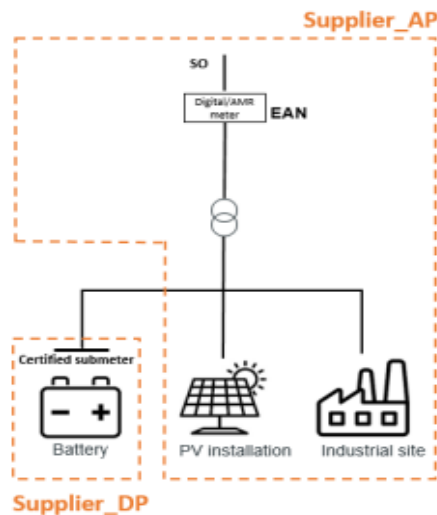
ToE rules v2

Regulatory framework evolutions required to reflect CCMD design

Access contract



Why?



Multiple BRP/ Suppliers

Planning

Pub. Cons. **To be confirmed**

Submit to CREG **After summer 23**

Go live Q4 23

Content

- Definition of Delivery Point
- New Annex (3 quarter) to designate BRP/Supplier at DP level
- Rules (art 18 → 23) related to BRP/Supplier designation
 - Supplier – ELIA contract needs to be signed
 - BRP at DP level only possible if 1 BRP at AP
 - Fall back if no more BRP at DP level
 - ...

Dependencies

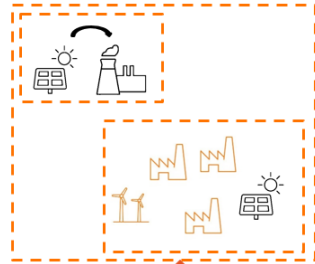
Access contract ↔ BRP contract

Process to designate BRP/Supplier on DP

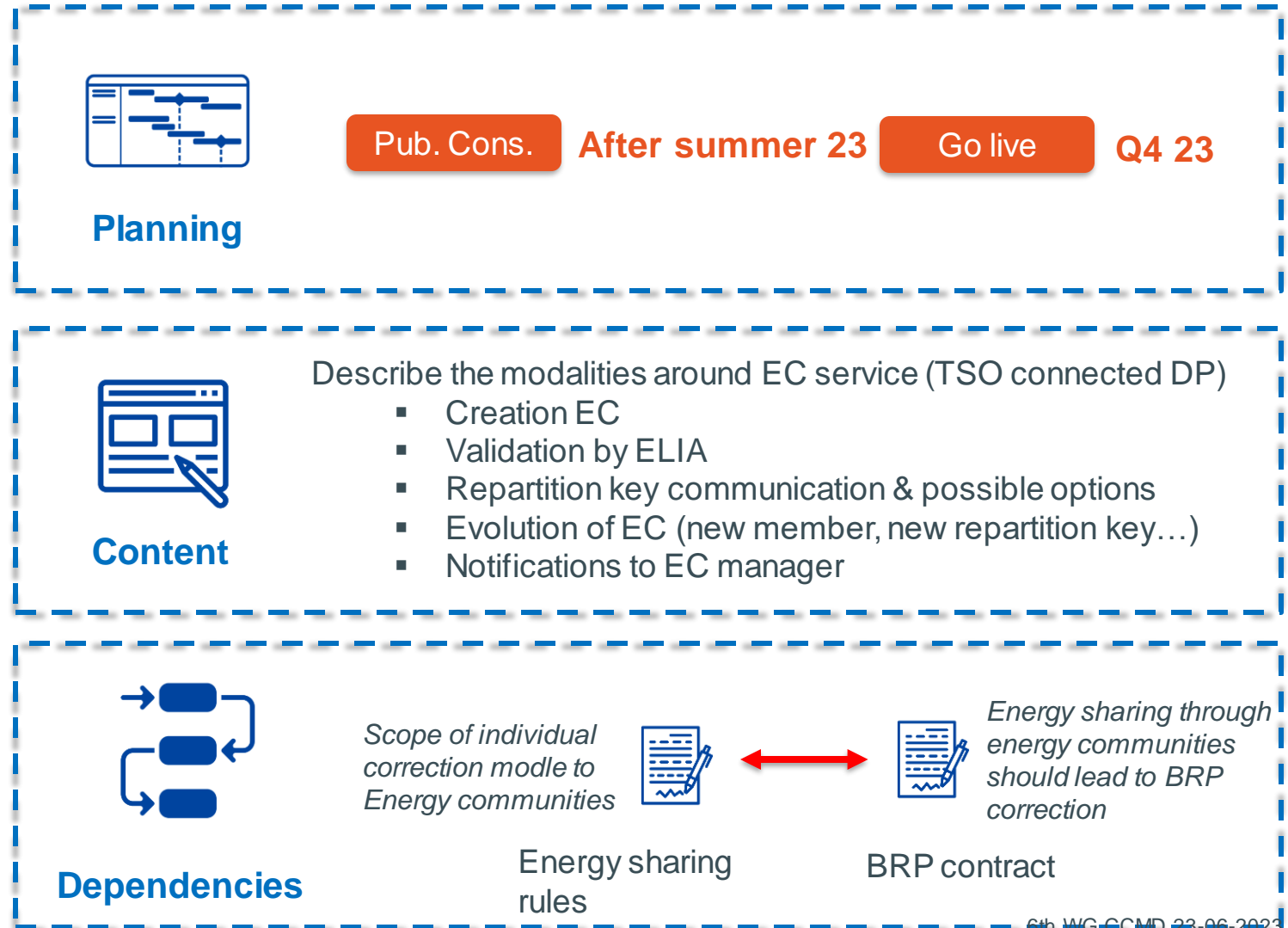
Allocation process taking into account multiple BRP

Regulatory framework evolutions required to reflect CCMD design

Energy community contract



Energy communities



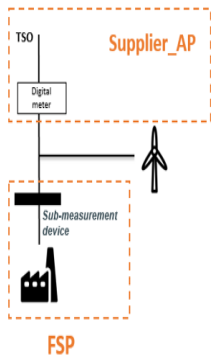
Prios 2 – Relevant but not a pre-requisite to go live end of 2023

Regulatory framework evolutions required to reflect CCMD design

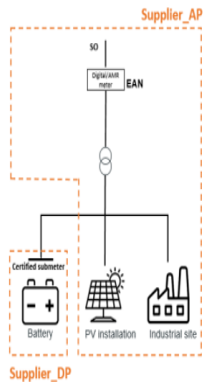
Connection contract



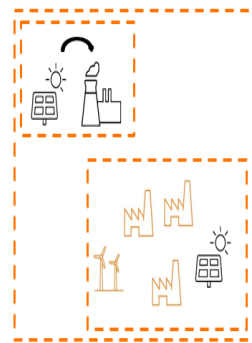
Why?



Explicit flex



Supply split



Energy com.



Planning

Pub. Cons.

Following planning of connection contract

Submit to
CREG

End of 2023

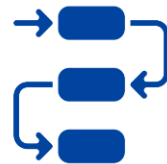
Go live

Q1 2024



Content

Describe the delivery point creation process



Dependencies

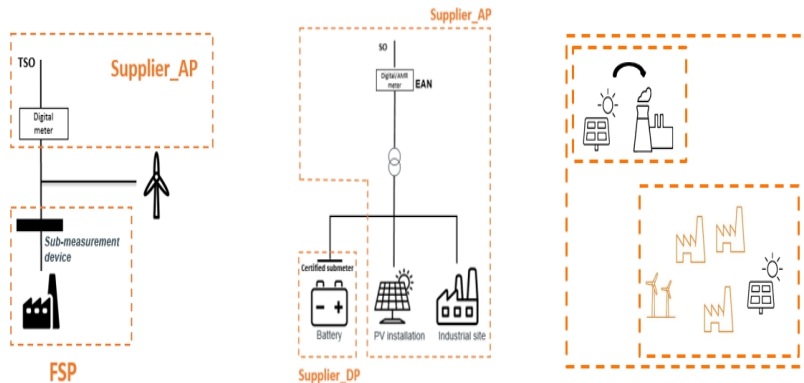
All services using the notion of delivery point may refer to the connection contract for the DP creation process

Regulatory framework evolutions required to reflect CCMD design

Supplier – ELIA contract



Why?



Explicit flex

Supply split

Energy com.



Planning

Pub. Cons.

Start Q1 2024

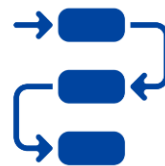
Go live

Q2 2024



Content

- Details on data exchange needed in the context of individual correction model
 - Ex-ante informal communication at service registration
 - Ex post informal communication – energy transaction

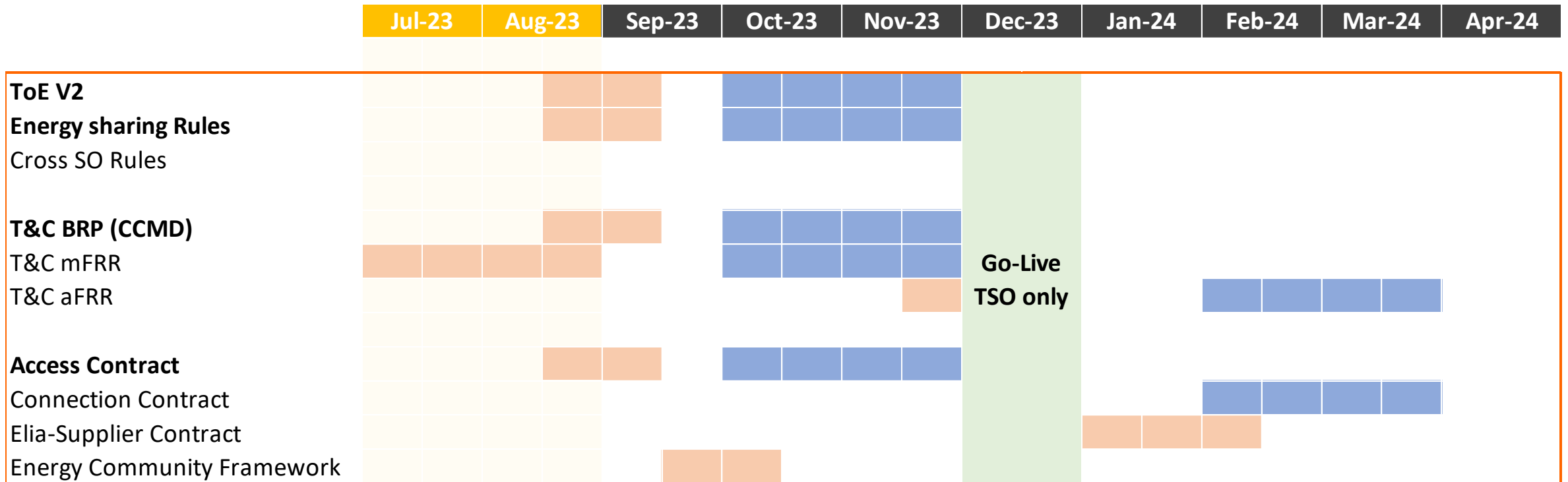


Dependencies

All services using the **individual correction model**

Conclusions – overview of changes required in the regulatory framework because of CCMD

Conclusions



 Period CREG Decision

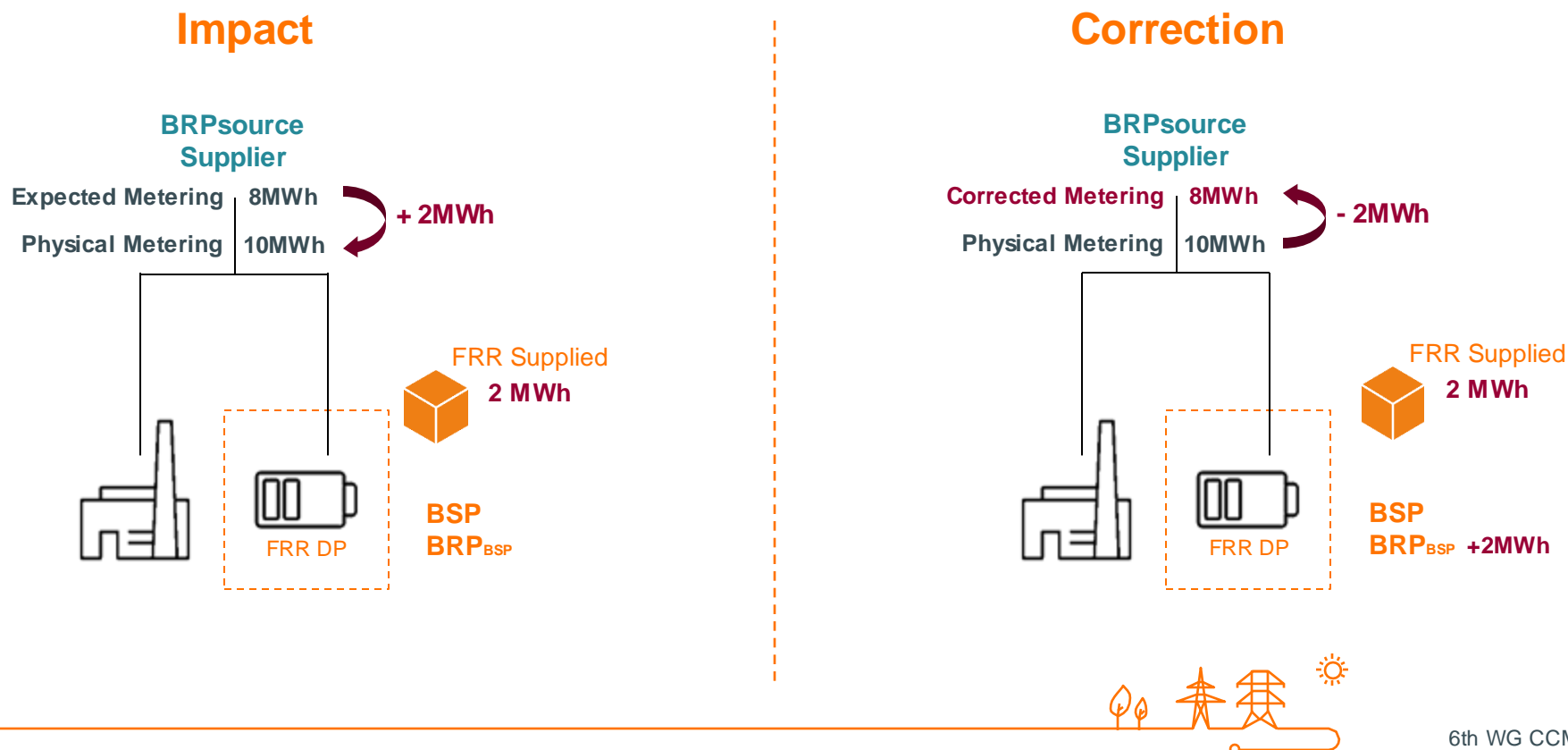
 Elia public consultation



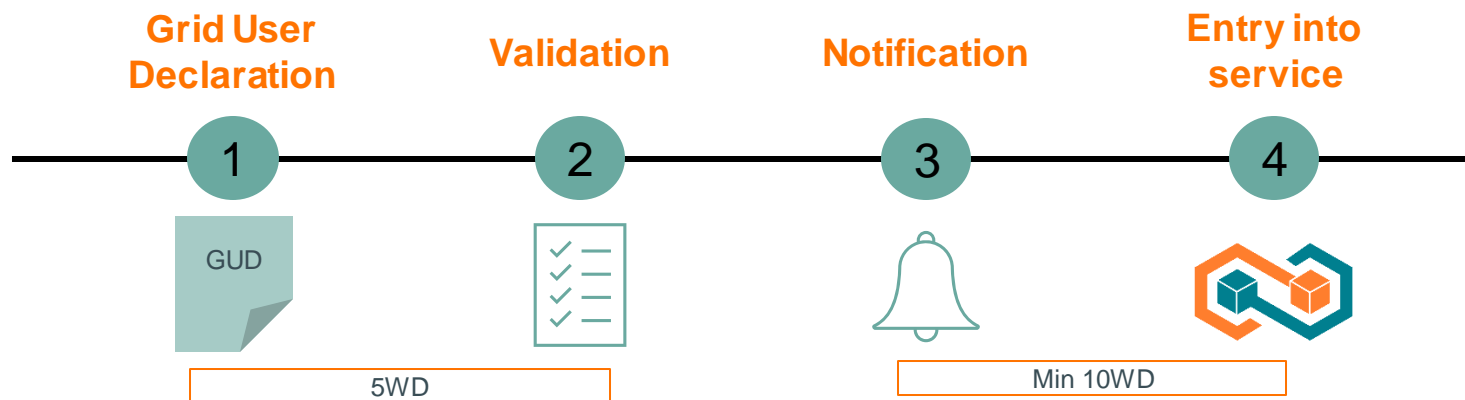
Go-Live 2023 Detailed process for explicit flexibility

Individual correction principle

The individual correction regime corrects the BRP_{source} and the Supplier in case of FRR activations impacting their portfolio.



Registration of a Delivery Point to the service



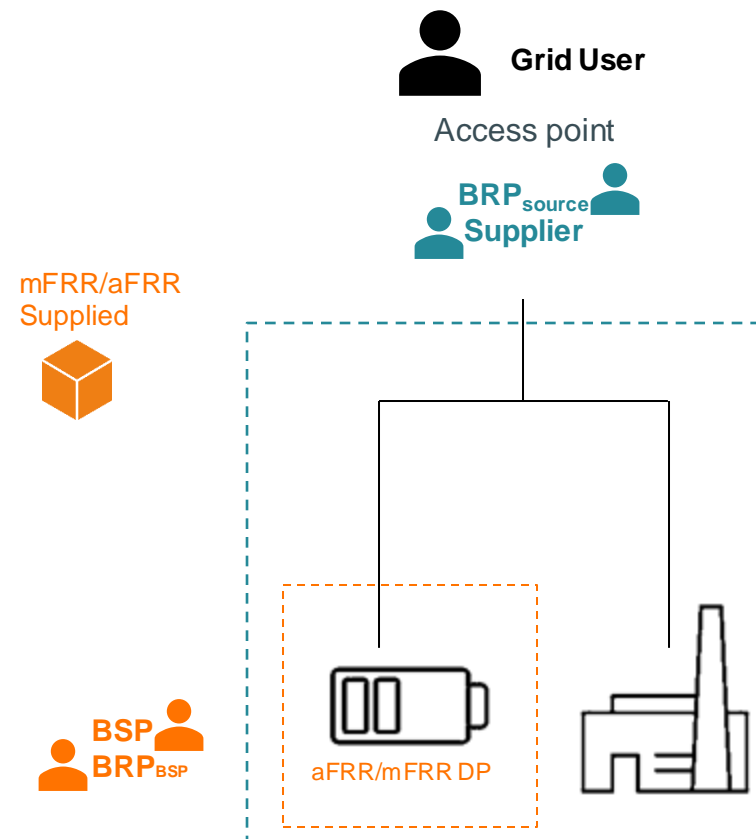
1. The BSP sends a **Grid User Declaration** to ELIA indicating the **choice of the Grid User** to participate to the individual correction model. The GUD must be received at least 15WD before the start date of the modification.
2. ELIA has 5 WD to **validate** the GUD and the registration of the DP to the service.
3. A **notification** is sent to all involved market parties to confirm/inform about the registration to the service. The notification is sent at least 10WD before the start date of the modification.
4. The Delivery Point **enters the service** on the start date indicated in the GUD.



Notification of the service DP registration

The notification is sent to all involved market parties and contains the following information:

- Delivery Point and Access Point EAN
- Service
- Start and end date
- Maximum volume $DP_{FRR,max,up/down}$
- Technology when/if available

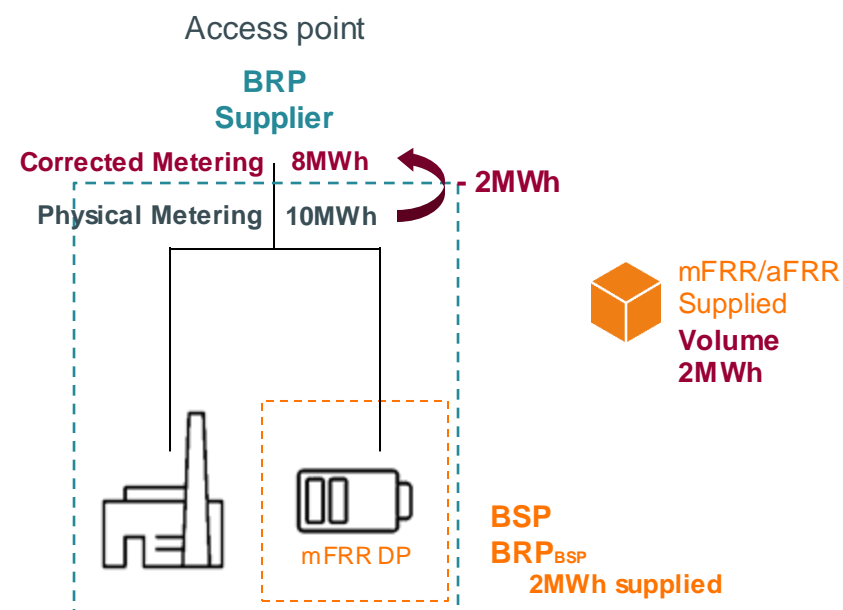


Settlement

When a Delivery Point included in an individual correction model participates to aFRR or mFRR, the following corrections are made:

- The **Access Point** is corrected with the **aFRR/mFRR Supplied** volume.
- **BRP_{BSP} perimeter** is corrected with the **difference between the aFRR/mFRR Requested and the aFRR/mFRR Supplied** volume

The corrections are identical to the corrections done through **Transfer of Energy** except that the **BRP_{source}** is corrected at Access Point level.



Calculation of aFRR Supplied per DP

The aFRR Supplied of a Delivery Point is calculated as follows for each QH for which:

- the Delivery Point is included in an **aFRR Energy Bid** or **Supporting aFRR Providing Group**
- compliant with Art.II.12.5 of the T&C aFRR contract (**Red Zone/CRI**)

$$aFRR\ Supplied_{DP}(QH) = \sum_{ts\ in\ QH} \frac{aFRR\ Supplied_{DP}(ts)}{900}$$

$$aFRR\ Supplied_{DP}(ts) = DP_{aFRR}(ts) \times (DP_{baseline}(ts) - DP_{measured}(ts))$$

DP_{aFRR}	Binary value indicating whether a Delivery Point is participating to the provision of the aFRR Requested. The value is set to 1 if the Delivery Point participates to the provision of the aFRR Requested and 0 otherwise;
$DP_{baseline}$	Value (in MW) representing the power that would have been measured at the Delivery Point without activation of the aFRR Service per Time Step.
$DP_{measured}$	The net active power, i.e. the difference between gross Offtake and gross Injection measured at a Delivery Point per Time Step.



Calculation of mFRR Supplied per DP

The mFRR Supplied of a Delivery Point is calculated as follows for each QH for which

- the Delivery Point is included in an **mFRR Energy Bid** or **Supporting mFRR Providing Group**
- the Delivery Point is included with a non-zero volume in the **2nd acknowledgment of an mFRR activation**
- compliant with the **Red Zone/CRI filtering** rules

$$mFRR \text{ Supplied per DP}(QH) = \max \left\{ \begin{array}{l} DP \text{ mFRR Baseline}(QH) - DP \text{ measured}(QH) \\ DPmFRR, \text{max} \end{array} \right\}$$

This is the same calculation than for the current Transfer of Energy.

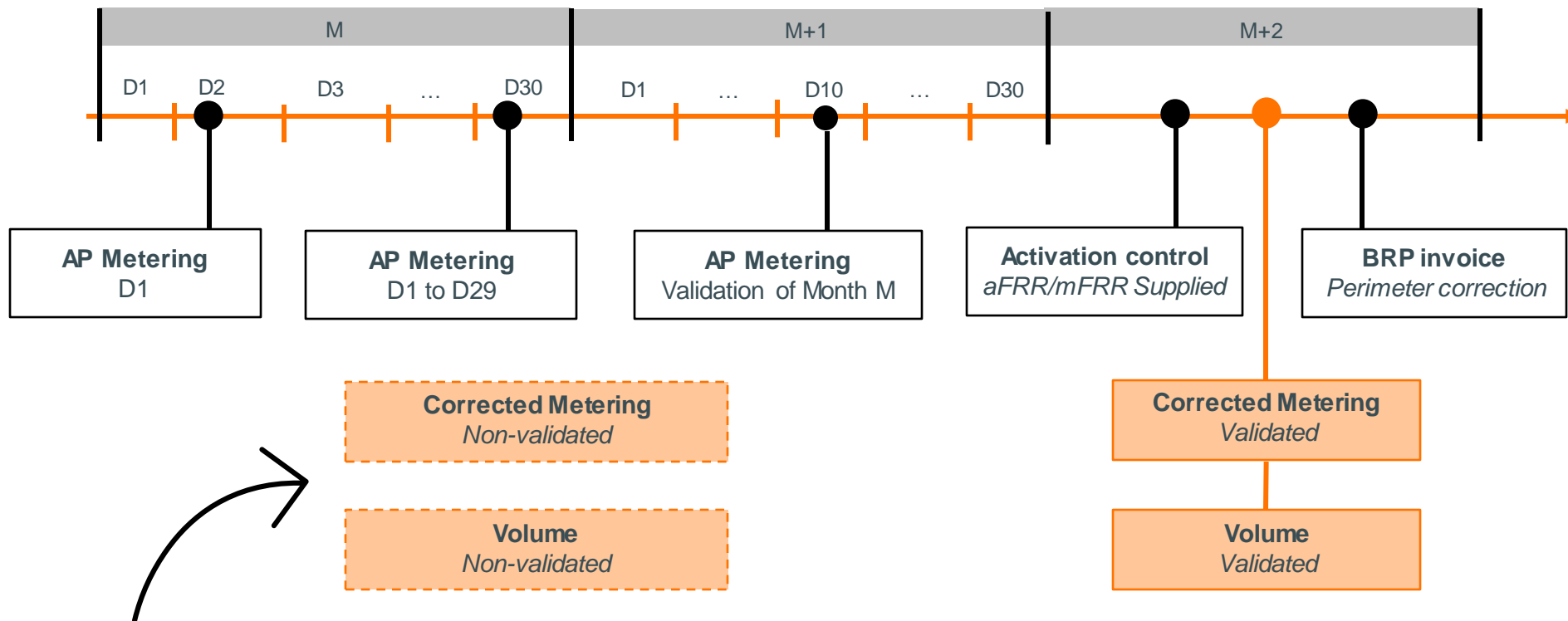


Access to information

Who ?	Volume (aFRR/mFRR Supplied)	Physical Metering	Corrected Metering
Grid User (owner of data)	X	X	X (when available)
BRP _{source} Supplier	X	X (when available)	X
	X	X (when available)	X
BSP	X		
BRP _{BSP}	X		



Access to information - Timeline



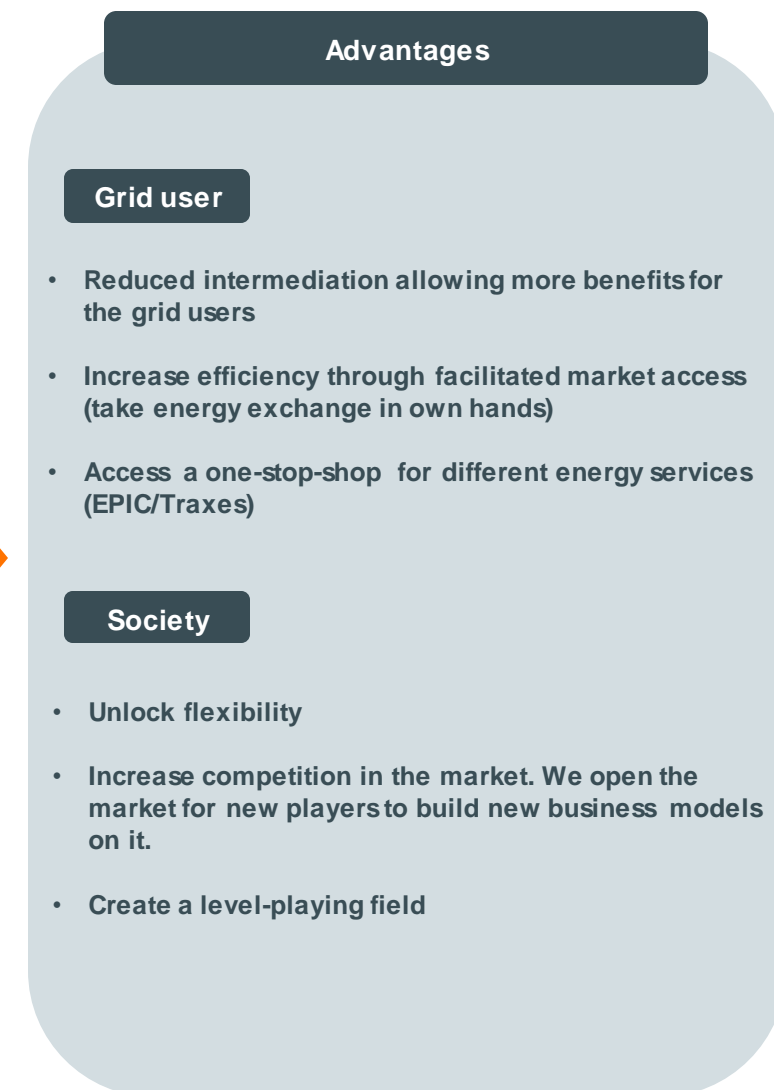
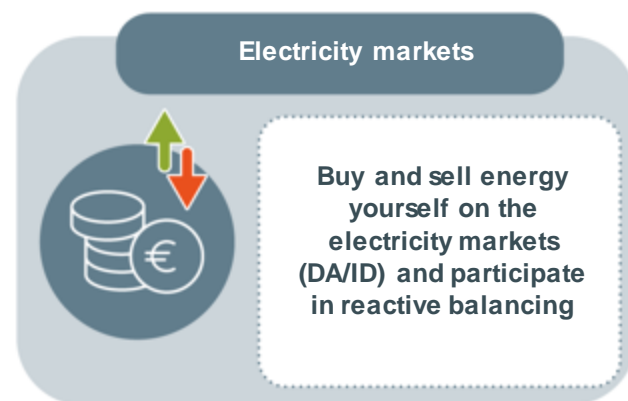
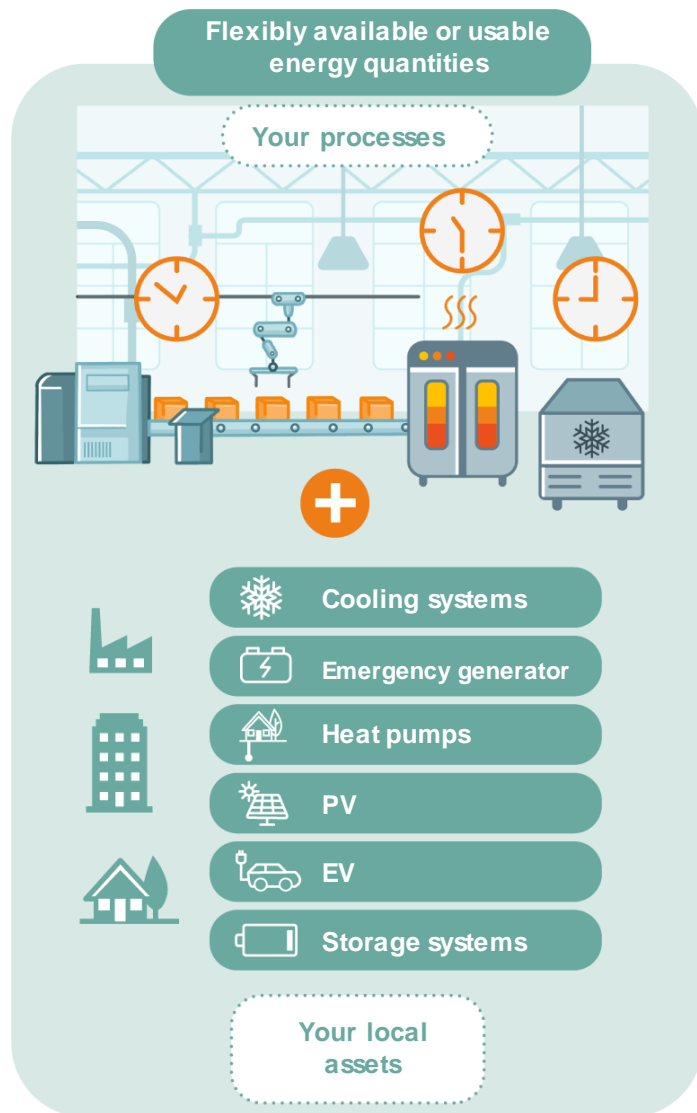
ELIA is still evaluating the timing of the access to non-validated information.





MPx - Direct Access to Market

Companies enabled by MPx to expose their flexible assets on the electricity markets



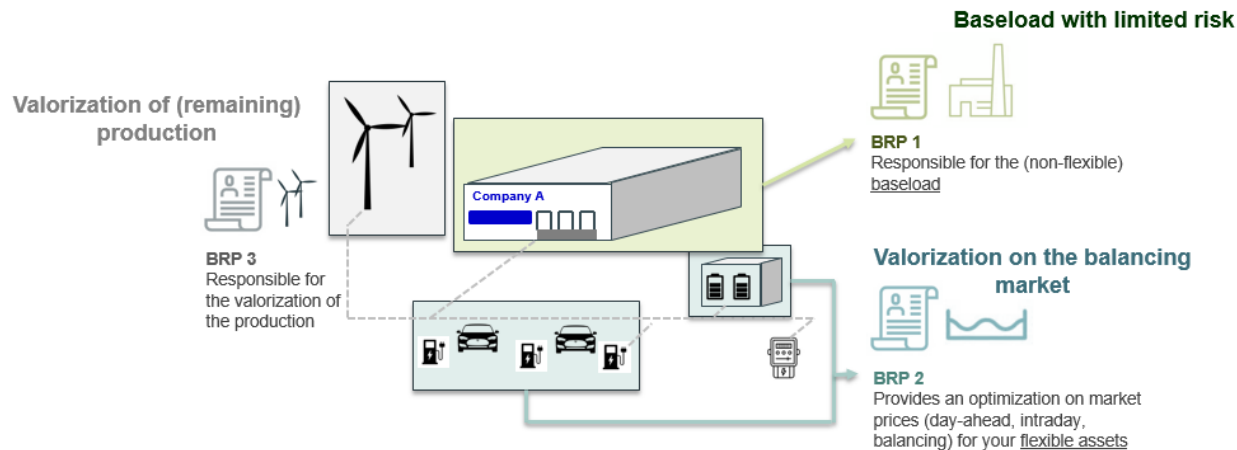
MPx

Letting you handle any power transaction by facilitating BRP, financial and trading services

MPX is building on the possibilities enabled by the Consumer Centric Market Design

Contracting different BRPs by making use of
“Exchange of energy blocks”

Give the right incentive and **benefit from reactive balancing** (real-time price)

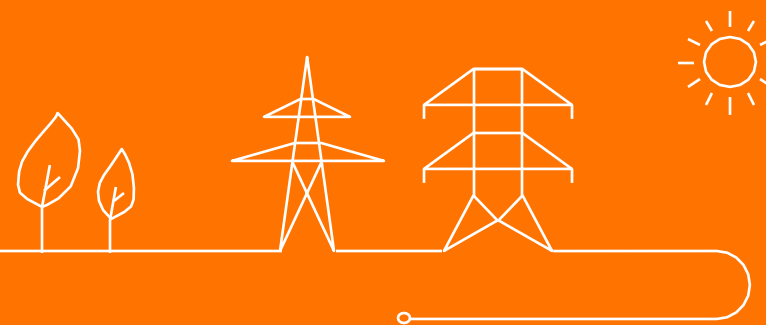


&



MPx allows to expose flexible assets (via the “multiple BRP” service) on the electricity markets and to make a full optimization for these assets making use of the real-time price

Many barriers to overcome



Before starting, we want to clarify the initial scope of MPX

IN SCOPE

- **Only DA & ID & real-time markets**
- **TSO connected assets only**, but aiming at opening to all voltage levels as soon as possible

OUT OF SCOPE

- **No forward market**
- **No balancing**

Three key parties involved in order to get access to the DA, ID and real-time markets

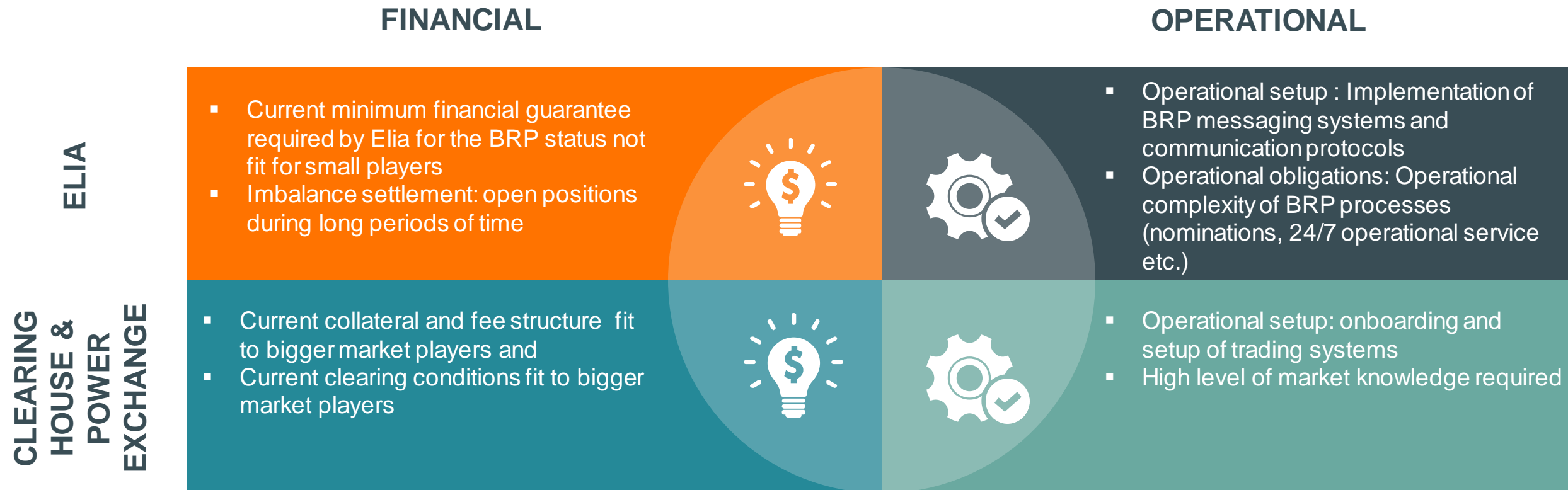
**Transmission
System
Operator**

**Clearing
house**

**Power
exchange**





Key hurdles* for participation to the power exchanges today



*Based on interview feedback with market parties

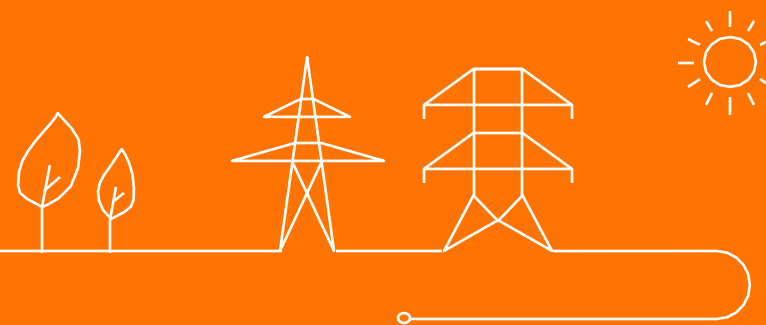
Key hurdles* for participation to the power exchanges today

Focus of today's meeting

	FINANCIAL		OPERATIONAL
ELIA	<ul style="list-style-type: none"> Current minimum financial guarantee required by Elia for the BRP status not fit for small players Imbalance settlement: open positions during long periods of time 		<ul style="list-style-type: none"> Operational setup : Implementation of BRP messaging systems and communication protocols Operational obligations: Operational complexity of BRP processes (nominations, 24/7 operational service etc.)
CLEARING HOUSE & POWER EXCHANGE	<ul style="list-style-type: none"> Current collateral and fee structure fit to bigger market players and Current clearing conditions fit to bigger market players 		<ul style="list-style-type: none"> Operational setup: onboarding and setup of trading systems High level of market knowledge required

*Based on interview feedback with market parties

MPX as the solution



MPX is taking away the BRP hurdles by a combination of facilitation services and updates of the current BRP contract



Contractual update

- Update the rules for the **minimum financial guarantee**
- Update the **invoicing process**



Facilitation services

- **Dynamic e-wallet**
- **Digital onboarding process** for BRP
- Facilitation of **nominations**
- **Insights near real time** (Imbalance position monitoring, metering...)
- **Alert system** (imbalance cost, extreme events...)



Tackling the financial barrier to become a BRP

FROM

- Min. financial guarantee of 93K EUR for new BRPs based on a formula not taking into account your position (min. threshold of 50MW)
- Lengthy settlement process

WHY IS IT A HURDLE?

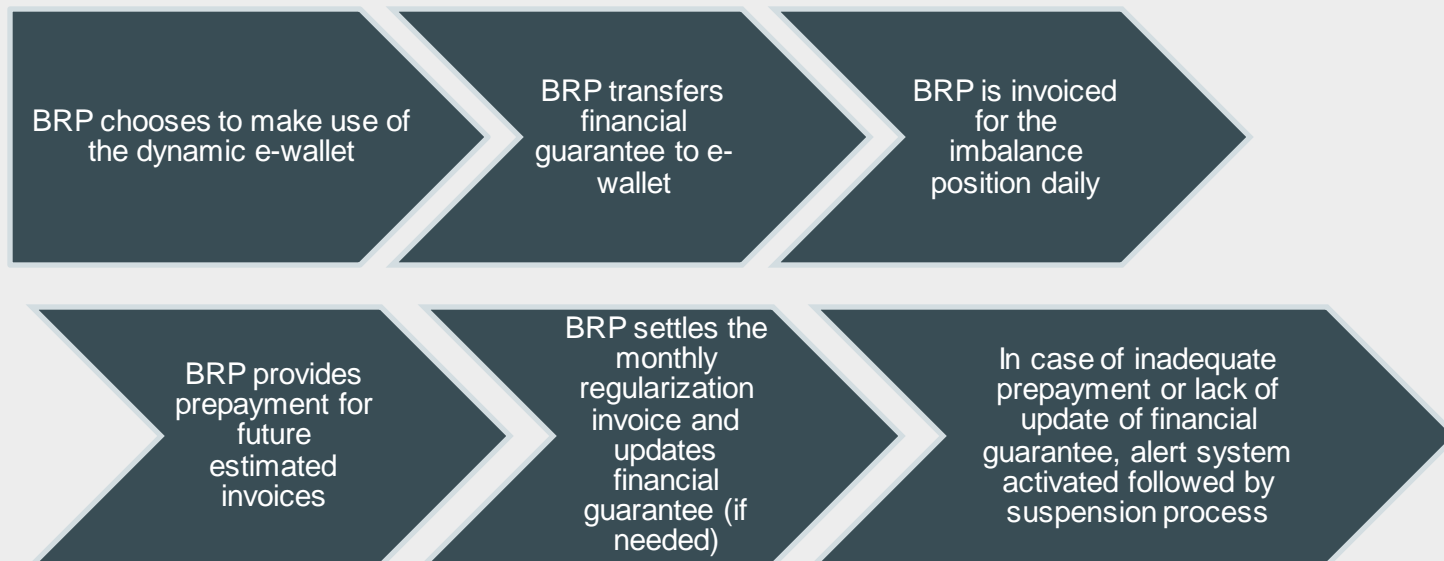
- Minimum bank guarantee could form an unnecessary barrier for small BRPs

WHY IS IT RELEVANT?

- Facilitate settlement/financial guarantee process by aligning processes with the power exchange processes
- Sensibilization: Faster invoicing and transparency can give incentives to BRPs to reduce their imbalances/support the system

TO

- 1) **Remove minimum position of 50 MW for the calculation of the bank guarantee**
 - The financial guarantee is based on the actual position (without minimum) and the highest invoice.
- 2) **Enable the use of a dynamic e-wallet**



Both 1) and 2) require amendments to the T&C of the BRP contract. The update of the formula is for all BRPs, while the use of the e-wallet is an option in the contract.



2 – Enable the use of a dynamic e-wallet

FROM

- Lengthy settlement process
- Lack of tools to give information on the BRP portfolio itself

WHY IS IT A HURDLE?

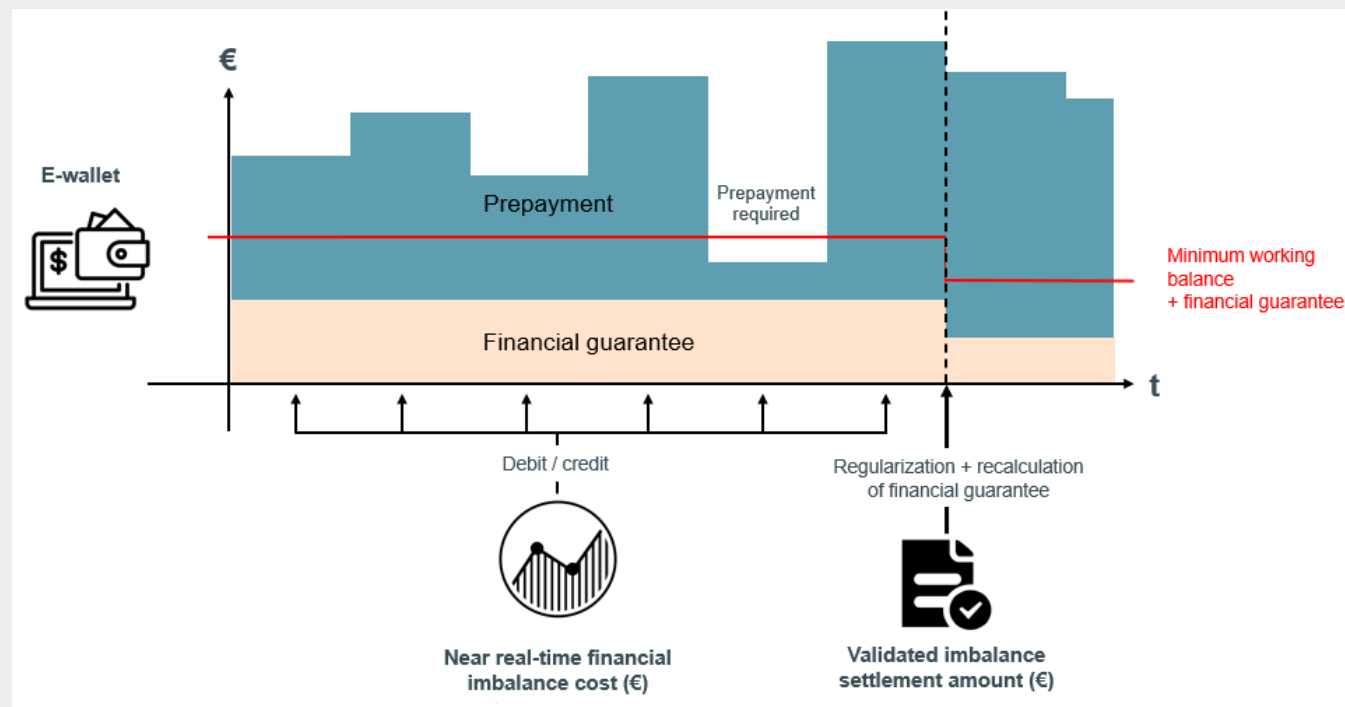
- Long lead time before having transparency on imbalance costs

WHY IS IT RELEVANT?

- E-wallet concept makes the invoicing process more easy (definitely if the e-wallet would also be used for settlement for trading)
- Sensibilization: Via a faster invoicing, there is a direct feedback from (imbalance) prices and the actions taken by the BRP

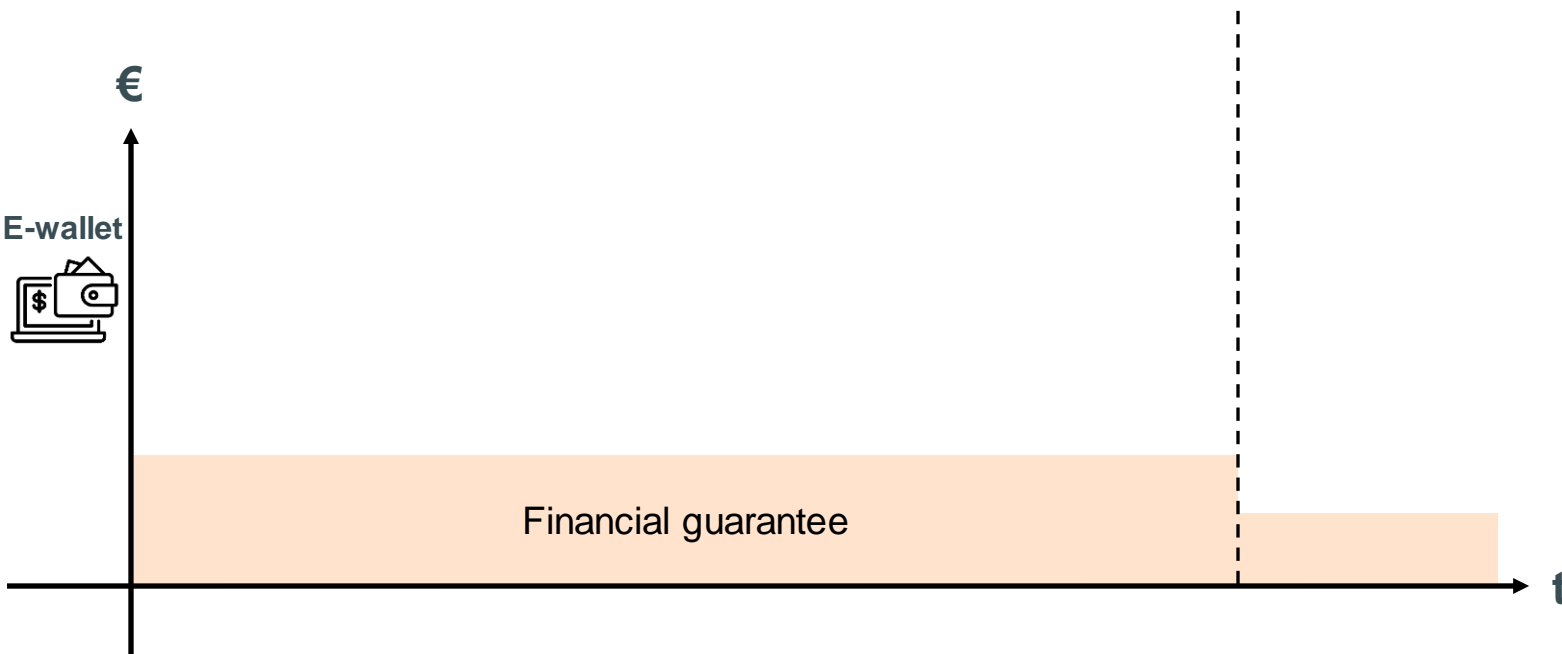
TO

Faster imbalance settlement and improvement of the user experience by creation of a dynamic e-wallet for BRPs





2 – Enable the use of a dynamic e-wallet

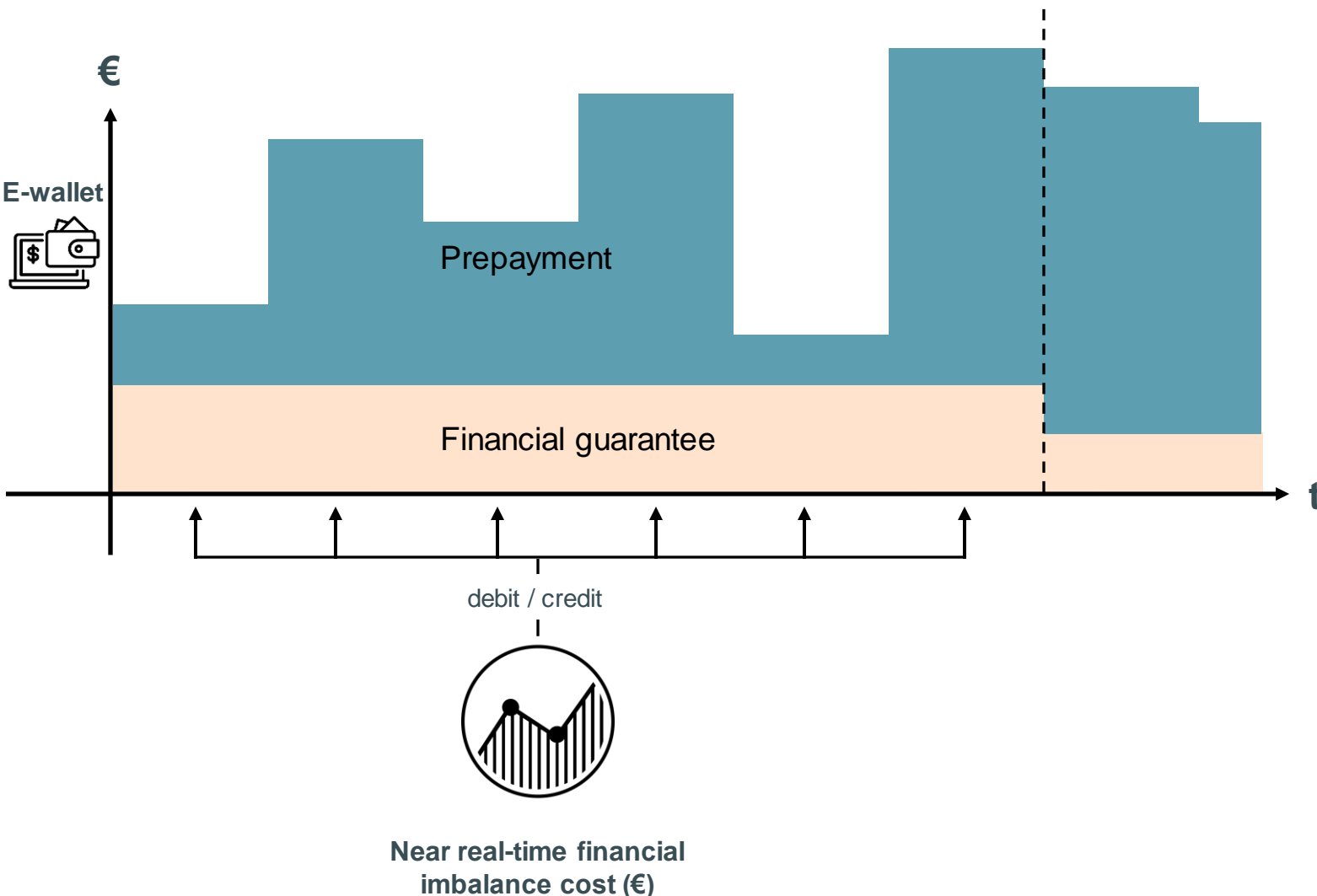


WHAT COULD IT LOOK LIKE

- The financial guarantee must be transferred to the e-wallet when signing the BRP contract or when choosing the dynamic e-wallet.
- The money is blocked in the e-wallet and cannot be used as prepayment for the imbalance invoices.



2 – Enable the use of a dynamic e-wallet

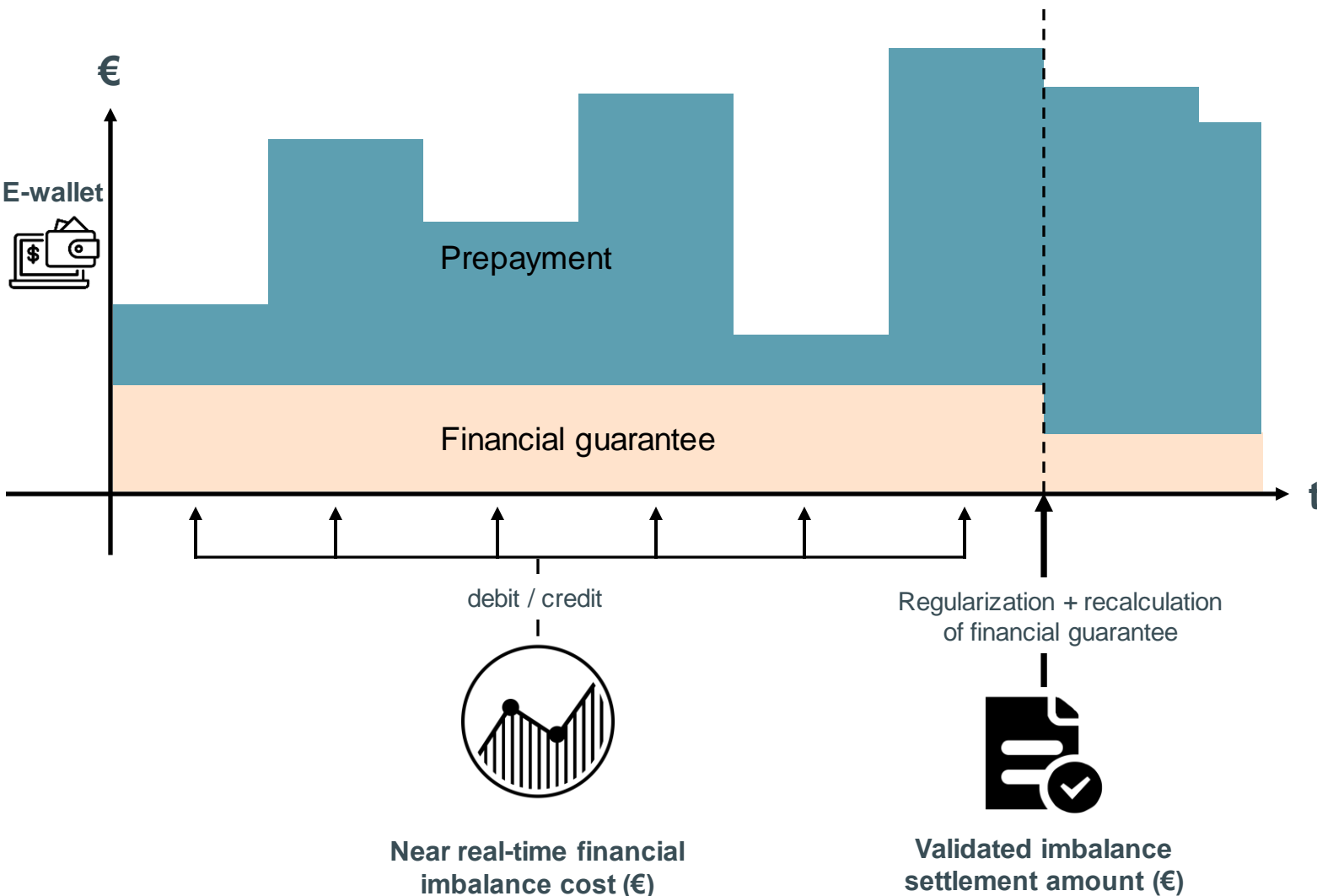


WHAT COULD IT LOOK LIKE

- The BRP receives an estimated invoice/credit note in the e-wallet.
- The prepayments are used to settle daily imbalance invoices based on non-validated data.



2 – Enable the use of a dynamic e-wallet

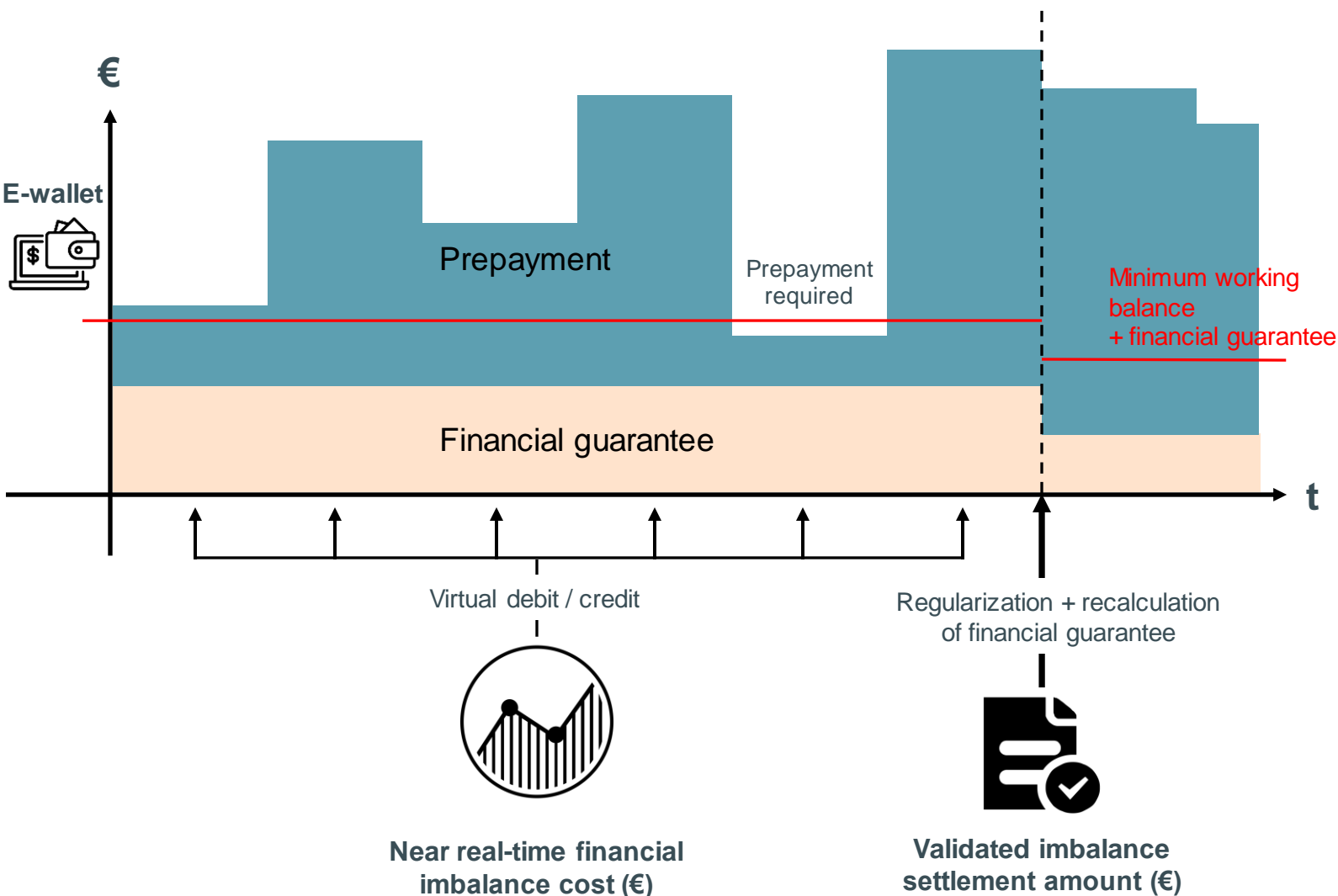


WHAT COULD IT LOOK LIKE

- The regularization invoice is available in M+1. We take into account all validated TSO data and ancillary services activations.
- Regularization invoice is available in the e-wallet. Elia collects the money (invoice) or Elia transfers money (credit note).
- Unchanged: This invoice is the basis to check the need to update of the financial guarantee. This update happens according to current rules (based on position or largest validated monthly imbalance invoice (=cumulative amount of the estimated invoices and the correction) over a period of 12 month).
- Unchanged: It is the responsibility of the BRP to ensure the update of the financial guarantee in a timely manner.



2 – Enable the use of a dynamic e-wallet



WHAT COULD IT LOOK LIKE

- Ensure there is an amount of prepayment in your e-wallet in order to pay the daily invoice, once you become an active BRP/trader.
- It is recommended to have more money in the e-wallet to pay multiple estimated invoices daily in order to not have to update the e-wallet to frequently.
- In case of inadequate prepayment (e.g. prepayment amount insufficient to cover the estimated invoices),
 - Automatic warning to update the prepayment
 - 5 WD to replenish the e-wallet
 - If not, Elia can send registered letter requesting the BRP to meet its contractual obligations (start of the procedure that could eventually lead to suspension of the BRP).
 - In case of multiple BRP, the head BRP is only informed 15 days after official letter is sent to the BRP in trouble (at the start of the actual suspension).
- Unchanged: In case the financial guarantee is not updated after the regularization invoice, current processes are followed.



Tackling the operational barriers to become a BRP - onboarding

FROM

- Apply for BRP by sending application
- Application being treated by the KAM
- Check of financial solvency
- Preparation of BRP contract and calculation of financial guarantee
- Review of contract and creating of financial guarantee by future BRP
- Complete contact details
- Sign contract and send it to Elia
- Receive confirmation and login for e-nominations

WHY IS IT A HURDLE?

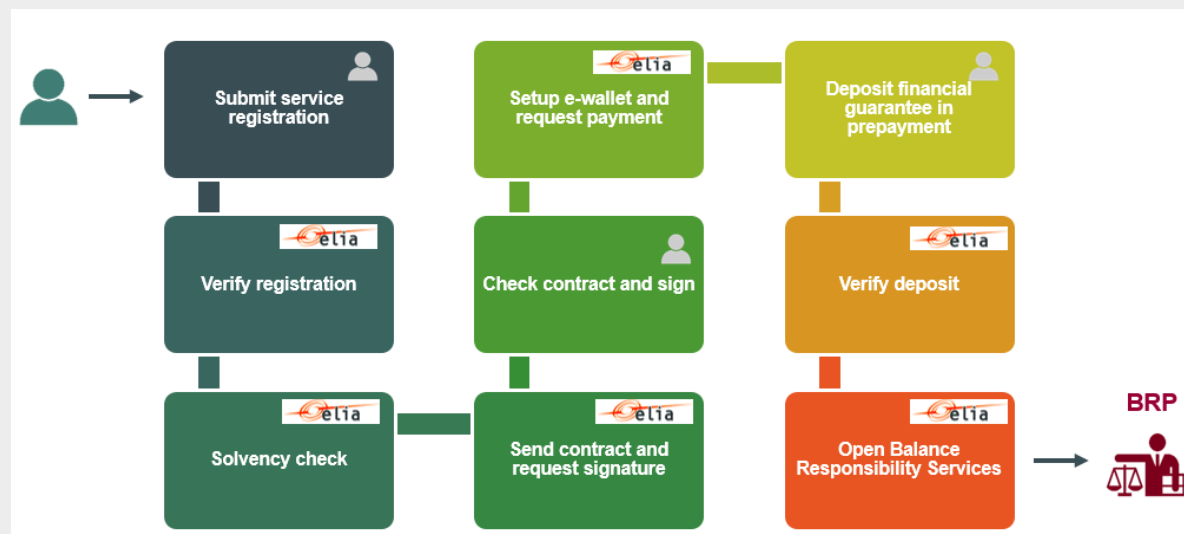
- Manual and lengthy onboarding process

TO



Reduce lead time and improve user experience by creation of a digitalized onboarding process with:

- All information in one place
- Avoidance of hard copies where possible
- Reduction of interaction with KAM where possible





Tackling the operational barriers to become a BRP - nominations

FROM

- BRPs need to set up the communication to Elia in order to send nominations
- BRPs need to send nominations to Elia on a daily basis

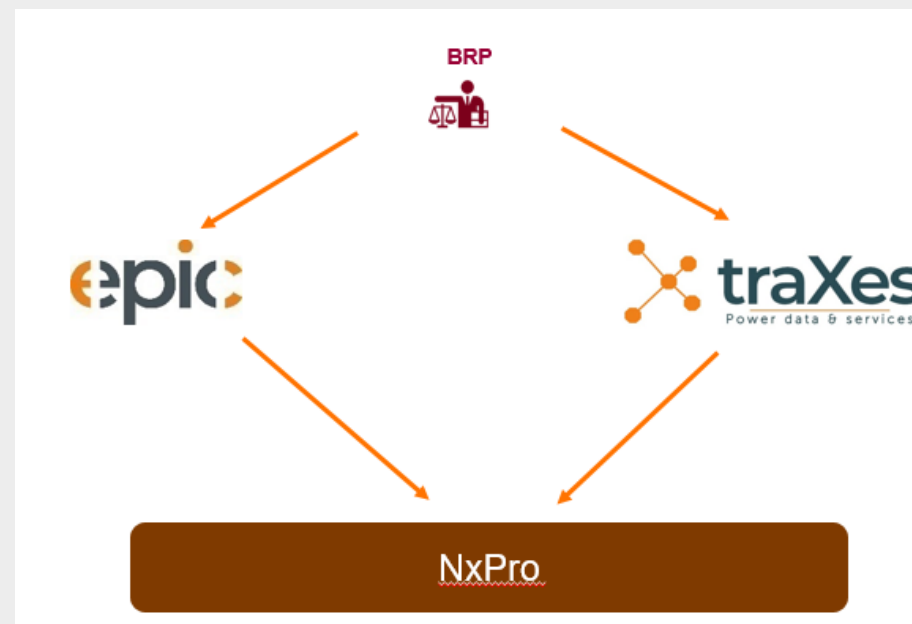
WHY IS IT A HURDLE?

- Requirement of resources
- Setup of daily operational process

*Under investigation

TO

- Provide easy access to our nominations tools (UI & API) via existing portals EPIC and traXes
- Facilitate hub nominations input where possible*
- This will have no impact on current BRPs and their processes.





Tackling the operational barriers to become a BRP – Insights & Alerts

FROM

- Transparency has been promoted by Elia, but lack of tools to give information on the BRP portfolio itself.

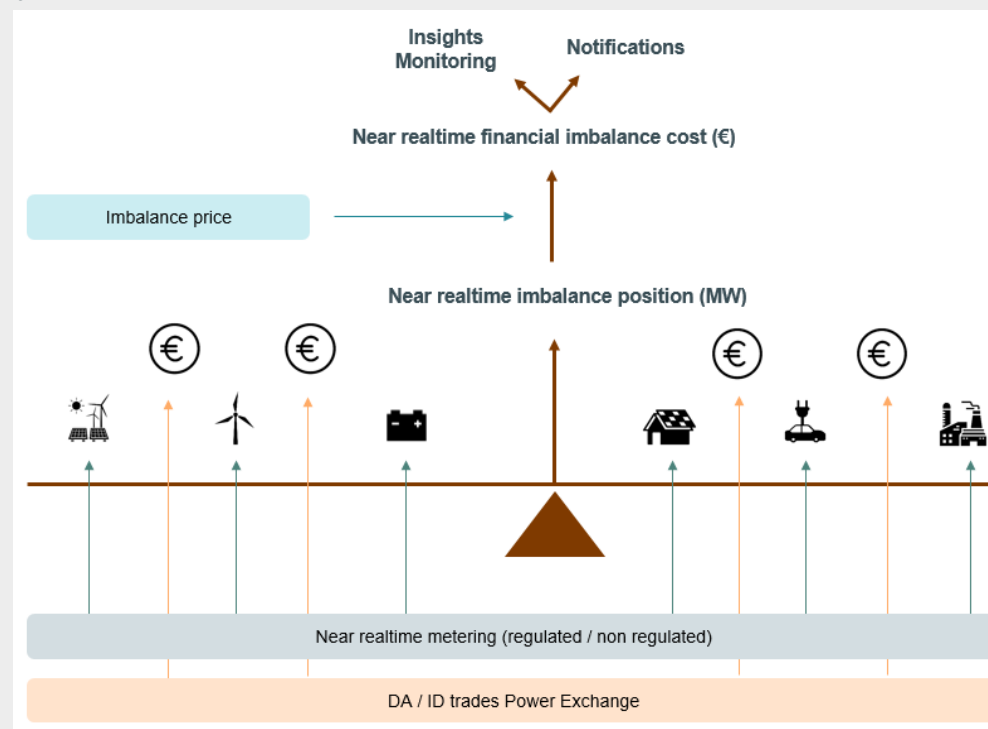
TO

- Provide reporting and standardized analytics on BRP behavior based on close to real-time data* to support BRP in their actions
- Provide alerts on extreme events and imbalance costs to support BRPs in adapting their behavior in line with the needs of the system

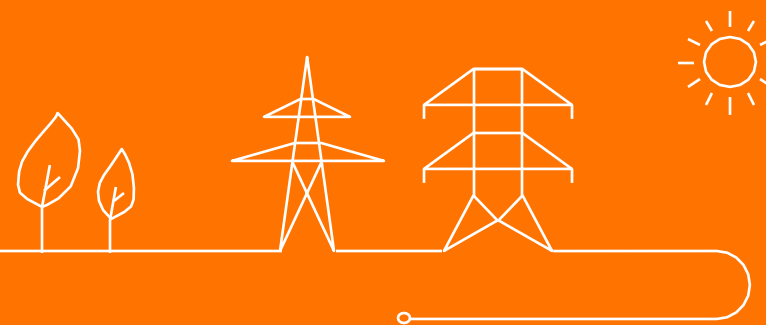
WHY IS IT A HURDLE?

- Smaller players need to be supported as much as possible to take up the role of BRP in a serious way.
- Close to real-time information can be used by the BRP to learn from his behavior and adapt accordingly

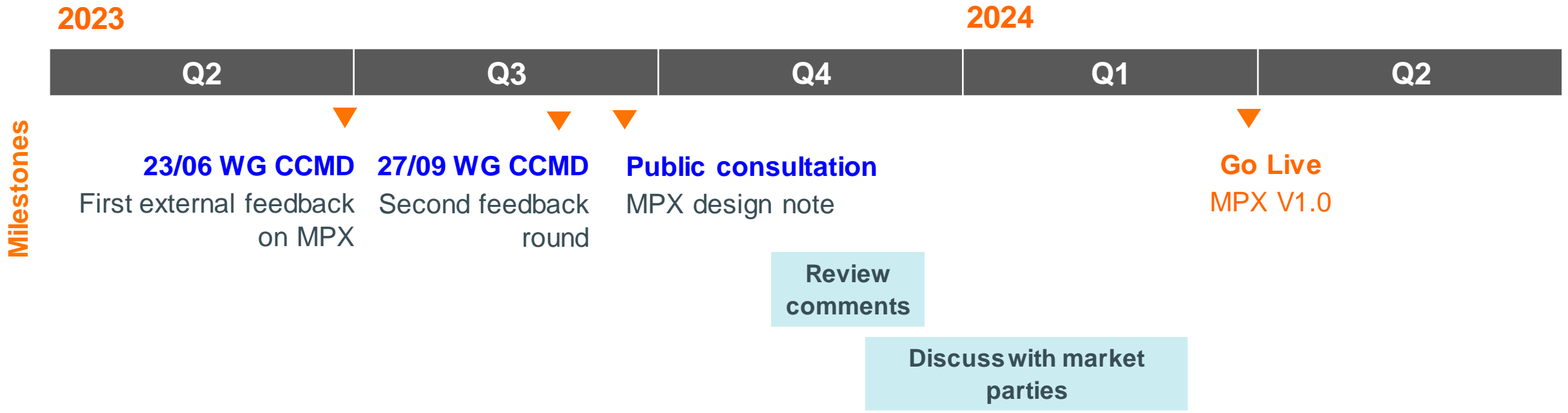
*Use of close to real-time data for TSO clients only. Need for improvement of Atrias and smart meter data to broaden the scope of the project.



Next steps Q2-Q3 2023



MPX – Next Steps



Milestones

Thank you for your participation

Next Working Group CCMD: 27th of September @14h

