

Expert Working Group “Bid Ladder”: Kick-off

10 May 2016

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Overview



- **Objectives, Calendar, Practicalities – 15 min**

- **Design presentation – 1h35mins**
 - Design Principles
 - BidLadder
 - Overall: Process overview, Timeline, eligibility – in a nutshell
 - Zoom on high-level contractual framework
 - Zoom on BidLadder platform & bid characteristics
 - Zoom on Activation, real-time information exchange and congestion management
 - Zoom on principles for imbalance adjustment

- **Wrap-up & next steps – 10 mins**

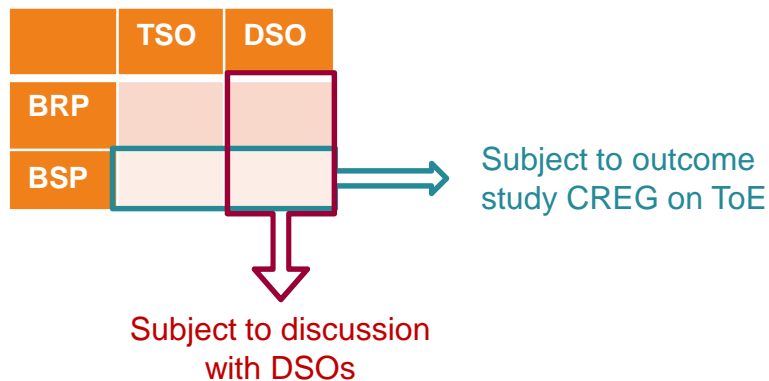
Objectives, Calendar, Practicalities

Objectives & Calender

This Expert Working Group aims to discuss with all concerned stakeholders the design of a BidLadder market platform.

In a first stage, a Pilot BidLadder is envisaged.

- Scope limited to the Balancing timeframe
- Eligibility subject to several factors:



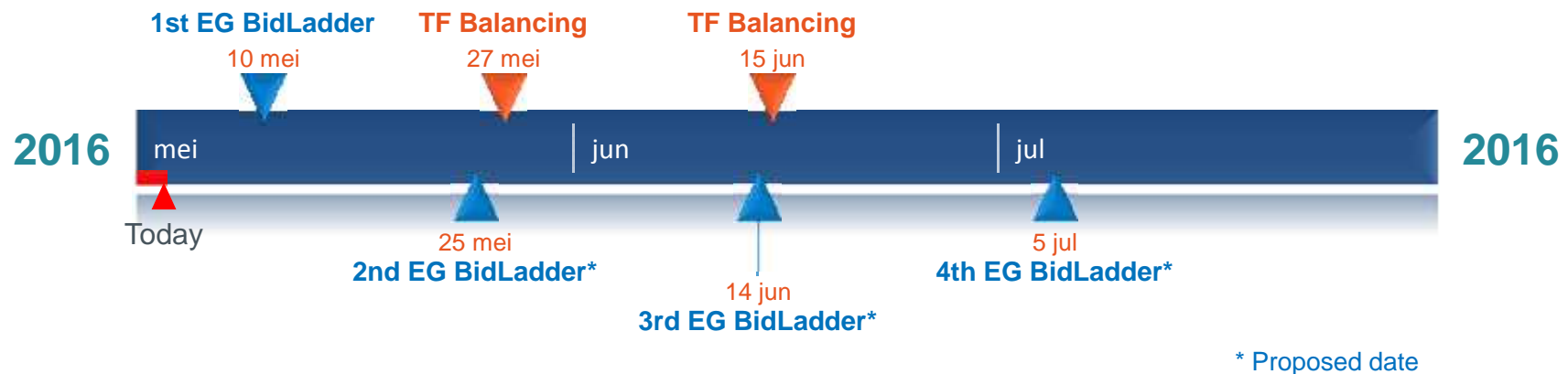
The planned meetings (cf. next slide) focus on the Pilot BidLadder

In a later stage, the BidLadder platform could evolve further:

- E.g. Taking into account evolutions on reserve products
- E.g. Considering other timeframes
- E.g. Aligning with implementation of the EU network codes

Objectives & Calendar

Objective: Deliver a concept note



Note:

The meetings foreseen in this planning do not yet consider contract amendments (e.g. BRP-contract), balancing rules amendments, etc. Such aspects will be discussed during later meetings of the Expert Working Group BidLadder and/or meetings of Task Force Balancing.

Practicalities

- Expert Group reports to TF Balancing
- Convenor: H. Vandenbroucke, Secretary: P. Buijs
- Slides and MoM: English
- Discussions and interactions: English, French, Dutch
- All presentations and other material will be made publically available via the website of the Users' Group on a dedicated page for this Expert Working Group



Design Pilot BidLadder

Design principles

BidLadder Pilot Design Principles

- Facilitating competition by contributing to a level playing field
 - Limiting complexity and entry barriers to a minimum
 - Respecting roles and responsibilities
 - Respecting balancing market design principles
 - Respecting confidentiality between different parties
-
- It remains a Pilot, which is to be evaluated and which can be incrementally improved.

Overall:

Process overview/Timeline – in a nutshell

BidLadder PILOT

The BidLadder Pilot creates a platform to allow free bids for energy balancing from TSO-connected non-CIPU generation and load offered to Elia by a BSP^(*), i.e. independent aggregators, grid users or BRPs.

** Precise eligibility subject to (1) CREG study outcome on Transfer of Energy and (2) discussion with DSOs*

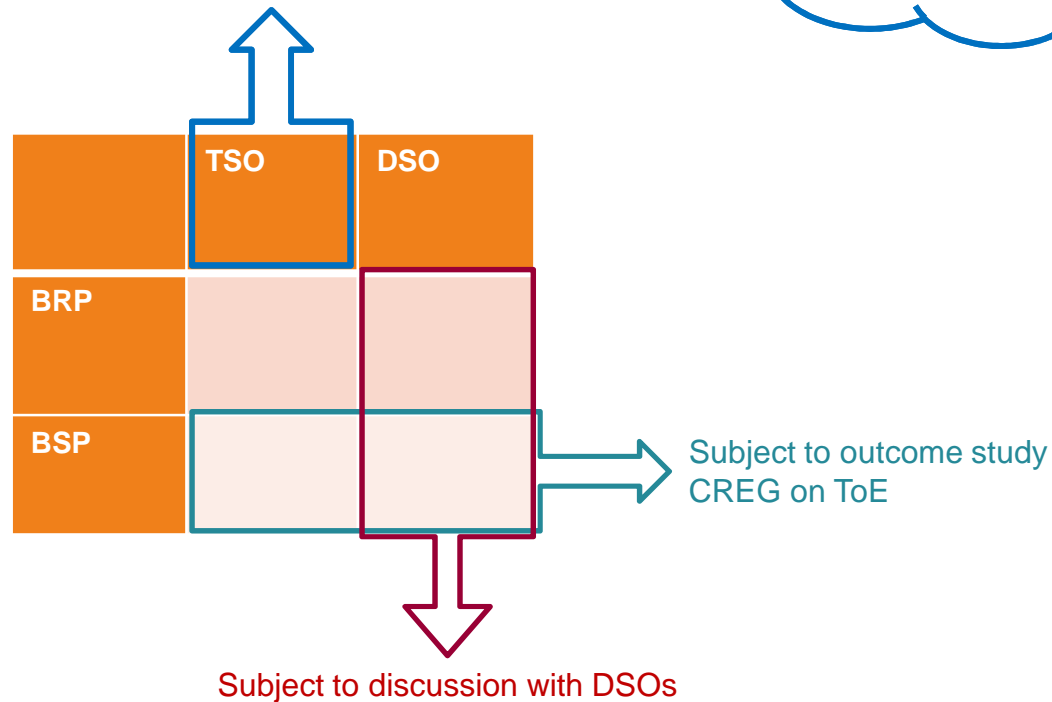
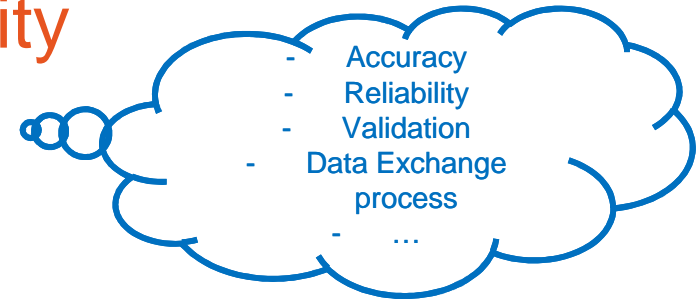
The bigger “balancing” picture:



Today: Free Bids only by BRPs via CIPU
BidLadder Pilot: BSP offering non-CIPU generation and load

PILOT Eligibility

In principle includes TSO-connected CDS & submetering, subject to overcoming some “greenfield” aspects

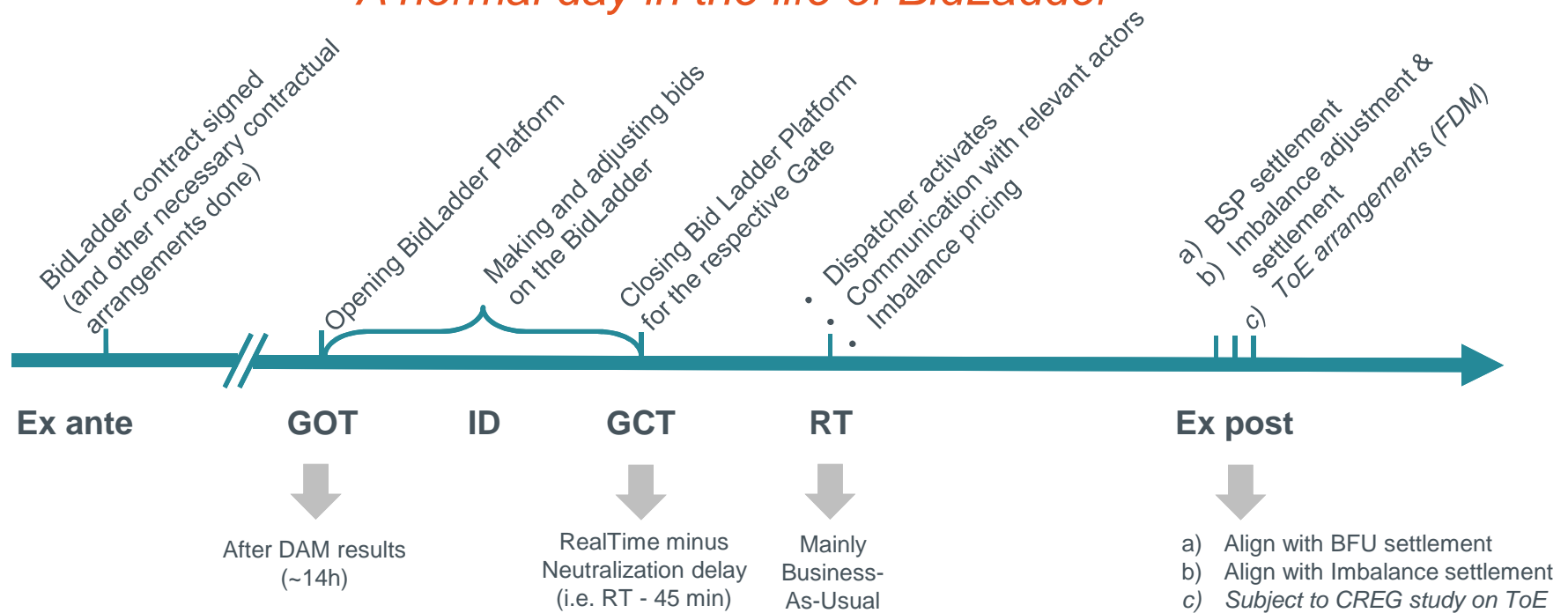


Note: Mutual exclusivity with respect to any other product for delivery points participating on the BidLadder

The PILOT eligibility is bound by external factors (DSO/CREG) and finding of practical solutions (CDS, submetering).

BidLadder Pilot Timeline

« A normal day in the life of BidLadder »



In this session, we will further zoom on:

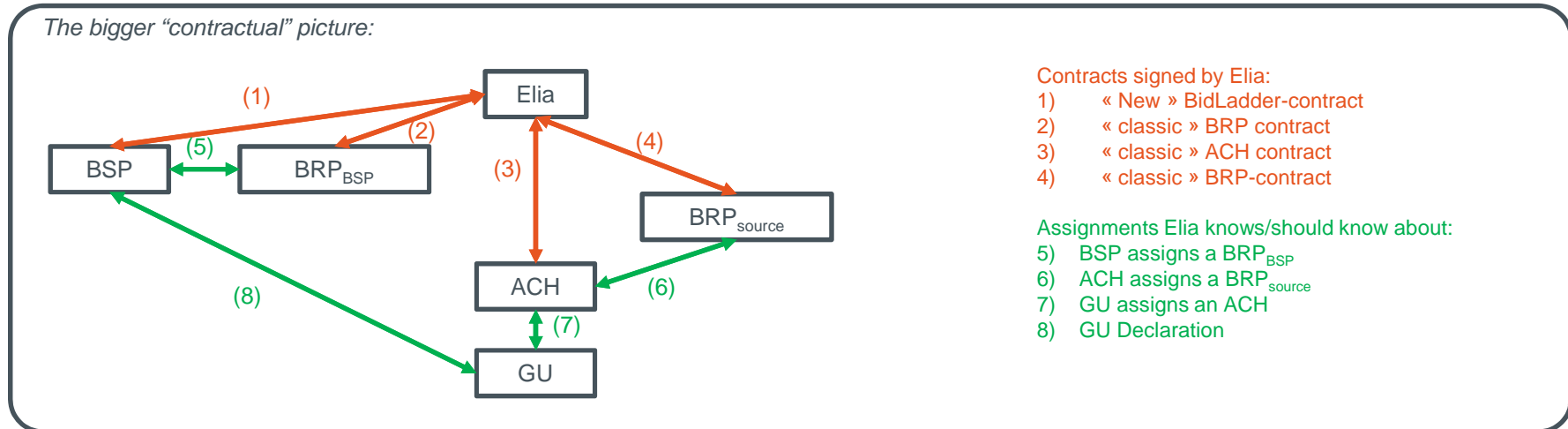
1. High-level contractual framework
2. Product/Bid requirements & Bidding Platform
3. Activation, real-time information exchange and congestion management
4. Principles for imbalance adjustment

Zoom:

High-Level Contractual Framework

High-Level Contractual framework

Note: The scheme *only* provides an overview of the most relevant contracts in the context of the BidLadder and it *excludes* at this stage the necessary arrangements linked to the Transfer of Energy



In practice, several "simplifications" / "configurations" are possible:

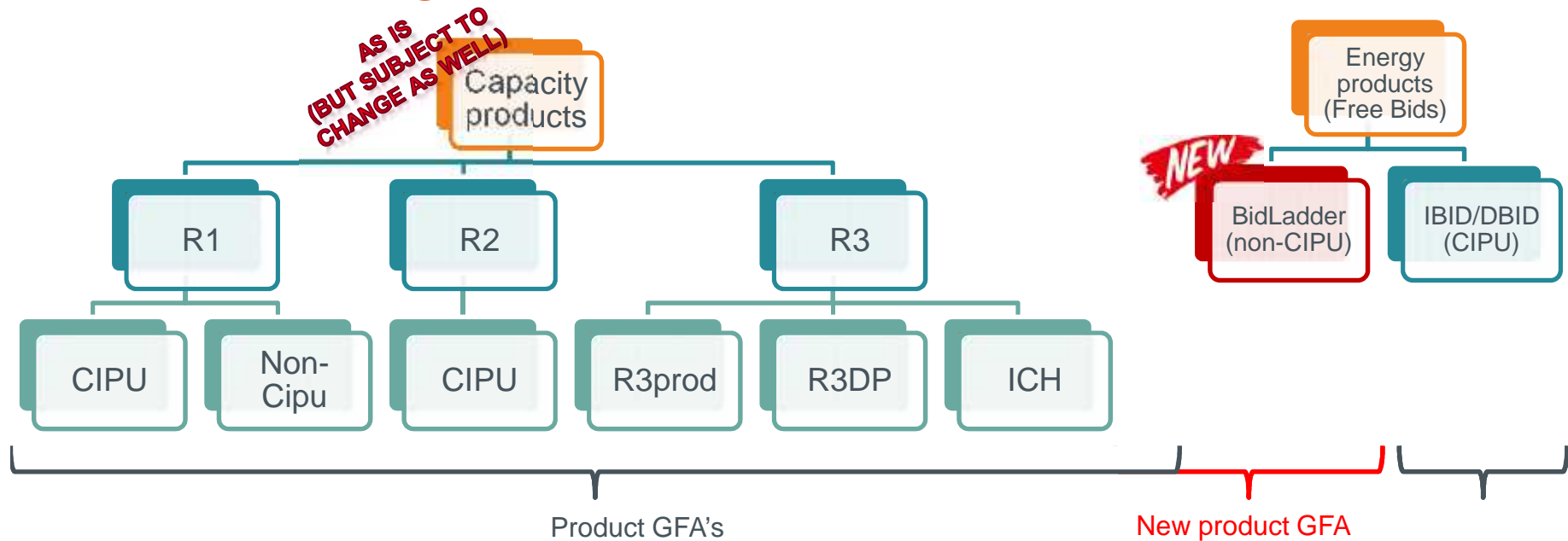
- $BRP_{BSP} = BRP_{source}$ (but BSP)
- $BSP = BRP_{BSP}$ (but BRP_{source})
- $BSP = BRP_{BSP} = BRP_{source}$
- $GU = BSP \quad BRP_{source} \quad BRP_{BSP}$
- $GU = BSP = BRP_{BSP}$
- ...

➔ But each time all roles in the above scheme are taken by someone

However, one distinction is particularly relevant:

- $BRP_{BSP} = BRP_{source}$ ➔ No Need for a ToE-solution
- $BRP_{BSP} \neq BRP_{source}$ ➔ Need for a ToE-solution

High-Level Contractual framework



→ Governed by:

- Balancing rules
- CIPU Contract (where applicable)
- BRP contract

Proposal for Pilot BidLadder:

- Create a new product-contract, i.e. a **GFA BidLadder**, like already the case for other products (inspired by R3DP-contract)
- All BidLadder market participants sign a GFA BidLadder (i.e. aggregators, grid users, BRPs)
- **BRP-contract** has to be amended
- **Balancing rules** have to be amended
- **BidLadder Market Rules** to be foreseen as Annex to BidLadder-contract

Zoom:

Bidding Platform & bid characteristics

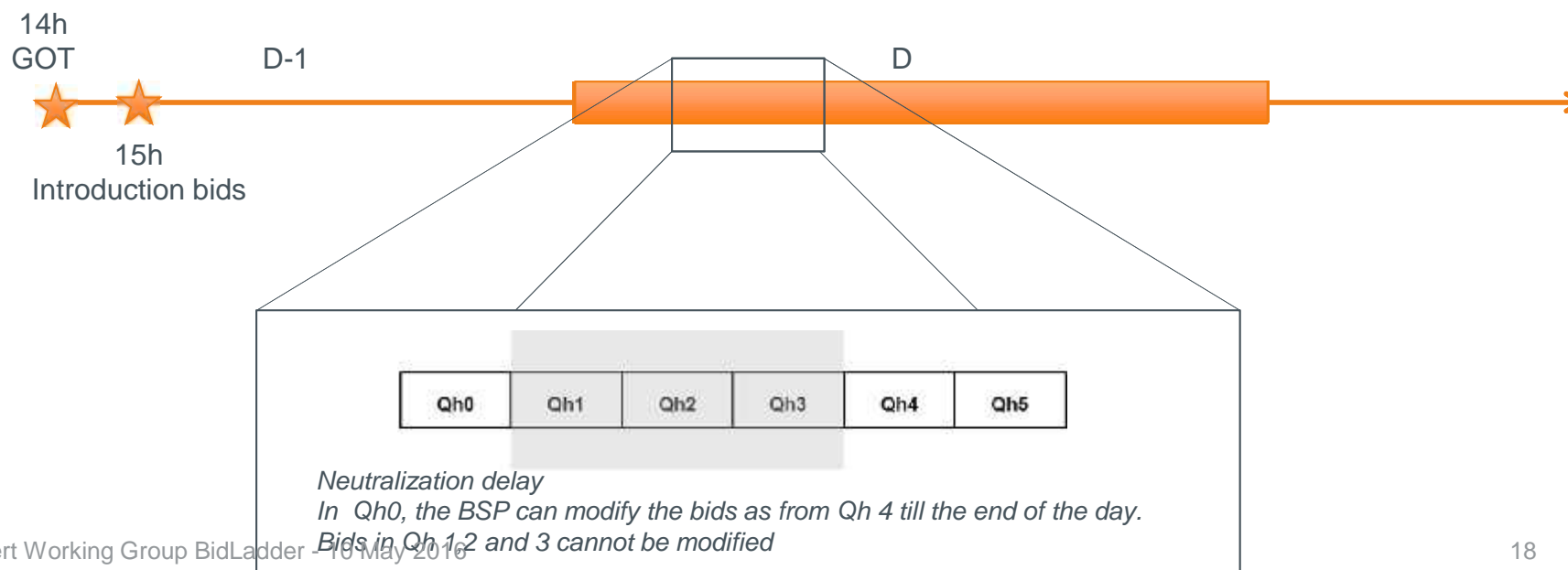
Bidplatform – Introduction of bids

Bids can be introduced, modified and canceled:

- As from 14h00, D-1 (→ Gate opening time, GOT)
- Prior to 15h00 preferred by Elia (can be taken into account for adequacy check)
- Until the neutralization delay (Real-time minus 45 minutes) starts (→ Gate closure time, GCT)

After gate closure time, bids are considered firm.

A supplier can submit multiple bids for a quarter hour.



Bidplatform – Definition of a bid

Bid characteristics:

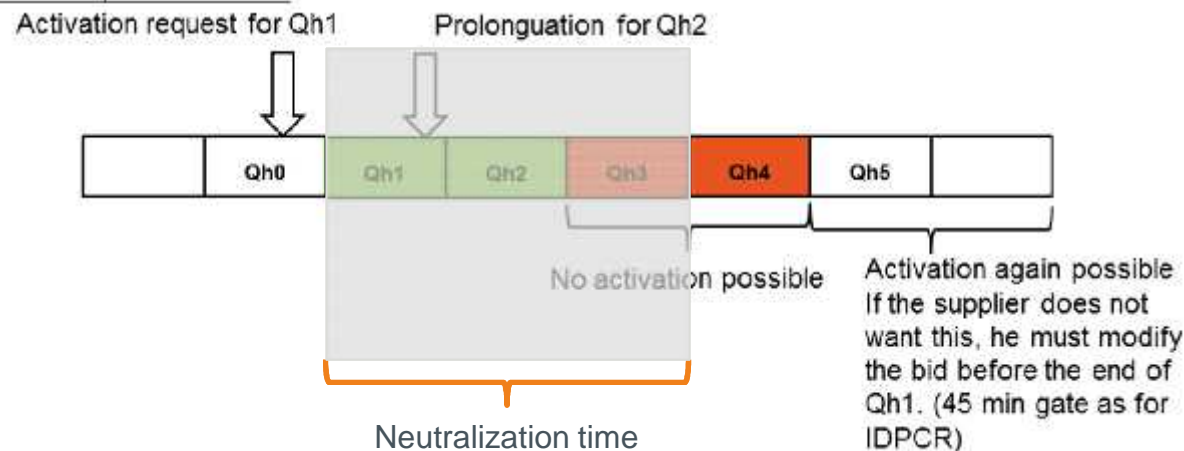
- Applicable quarter hours: the quarter hour in which the bid is applicable, for example 10h00 – 12h00.
- Offered I and D bid volume for the bid with a minimum bid size (1 MW) and bid step (0,1 MW)
 - Volumes are considered divisible
- Activation prices in €/MWh (no separate start prices allowed) for both the I and D bid
- List of delivery points
 - A delivery point can only be included in one bid
- Max activation duration in number of quarter hours for the running hour (1,2,3 or 4) (*cf. next slide*)

Bidplatform - Max activation duration

Max activation duration in number of quarter hours for the running hour (1,2,3 or 4)

- A duration of bids can be limited due to buffers (energy, stock,...), contractual agreements or...
- A supplier sends the bid for the whole day and modifies based on the activations (use of the buffer).
- However there is a neutralization time of 45 minutes (cf. level playing field CIPU free bids)
- The Bidladder-user defines in the bid the maximum number of Qh the bid can be activated in one hour.
- Regarding Qh5 and ongoing it's the responsibility of the Bidladder-user to modify the bid. (in Qh0 or Qh1)

Example for a max of 2 quarter hours:



Bidplatform – refusal of a bid

A refused bid = Bids with an error cannot be saved (“Return to Sender”).

(note: this is about refusal in making a valid bid, this is not about refusal upon activation (cf. infra!))

Reasons for refusal:

- Volume check: Cap on volume
 - Offered volume = sum of Rref of selected Delivery Points
 - Offered volume = Prequalified pool-volume per BSP
 - Check for I and D direction
- Price check: Price per quarter-hour (cf. CIPU Free Bids)
 - Max = +4499,99 €/MWh
 - Min = -2999,99 €/MWh

Zoom:

Principles for imbalance adjustment

Principles for imbalance adjustment

Under/Overdelivery

Issue: How are overdelivery & underdelivery (i.e. deviations from the by Elia requested volume) dealt with? Which BRP bears which imbalance?

Proposed solution:

Underdelivery	Overdelivery
→ BRP _{bsp} takes the imbalance in case underdelivery	→ BRP _{source} takes the imbalance in case overdelivery
<ul style="list-style-type: none"> • $BRP_{bsp} = -(Req - Del)$ • $BRP_{source} = 0$ (adjusted with delivered) 	<ul style="list-style-type: none"> • $BRP_{bsp} = 0$ • $BRP_{source} = + (Del - Req)$ (adjusted with requested)

Interpretation:

→ The BSP becomes only balance responsible for what he committed to towards Elia.

→ The overdelivered energy never left the portfolio of the BRPsource.

Imbalance adjustment

Example Over/Underdelivery

Example BidLadder I-Bid

Hypotheses:

- Bid with only 1 delivery point (multiple is analogous)
- Upwards bid (I-bid) of 10 MW by BSP, fully requested by Elia
- $BRP_{source} = BRP_{bsp}$
- Rref(upwards) for this DP = 12 MW, determined at contracting time

Underdelivery: 10 MW requested, only 6 MW delivered

Overdelivery: 10 MW requested, but 13 MW delivered

Underdelivery

- $BRP_{bsp} = Del - Req = 6 - 10 = -4$ MW
- $BRP_{source} = 0$ MW (adjusted by Delivered, i.e. +6 MW)

Overdelivery

- $BRP_{bsp} = 0$ MW
- $BRP_{source} = Del - Req = 13 - 10 = +3$ MW (adjusted by Requested, i.e. +10 MW)

Example BidLadder D-Bid

Hypotheses:

- Bid with only 1 delivery point (multiple is analogous)
- Downwards bid (D-bid) of -10 MW by BSP, fully requested by Elia
- $BRP_{source} = BRP_{bsp}$
- Rref(downwards) for this DP = -12 MW, determined at contracting time

Underdelivery: -10 MW requested, only -6 MW delivered

Overdelivery: -10 MW requested, but -13 MW delivered

Underdelivery

- $BRP_{bsp} = Del - Req = (-6) - (-10) = +4$ MW
- $BRP_{source} = 0$ MW (adjusted by Delivered, i.e. -6 MW)

Overdelivery

- $BRP_{bsp} = 0$ MW
- $BRP_{source} = Del - Req = (-13) - (-10) = -3$ MW (adjusted by Requested, i.e. -10 MW)

Principles for imbalance adjustment

Adjustment at BRP-portfolio level

Issue: When an imbalance adjustment of the BRP_{source} is needed following an activation on the BidLadder, how is this achieved?

Proposal: Elia adjusts the imbalance **at BRP-portfolio-level**, i.e. the necessary volumes are added to the imbalance position of the BRP_{source} . The metering data remain untouched with respect to BidLadder-activations.

- Confidentiality of activations by BSP is guaranteed. The delivery point is never revealed to the BRPsource.
- The BRP_{source} is correctly treated with respect to its imbalance position and possible imbalance penalties.
- Any metering publications towards BRP_{source} , ACH, GU remain untouched with respect to BidLadder. A stricter separation between imbalance positions and metering.
- Such approach provides most guarantees for a more standardized approach when applying imbalance adjustment to delivery points within CDS and within DSO grids (*without making any supposition at this stage on the actual solution for those cases*).

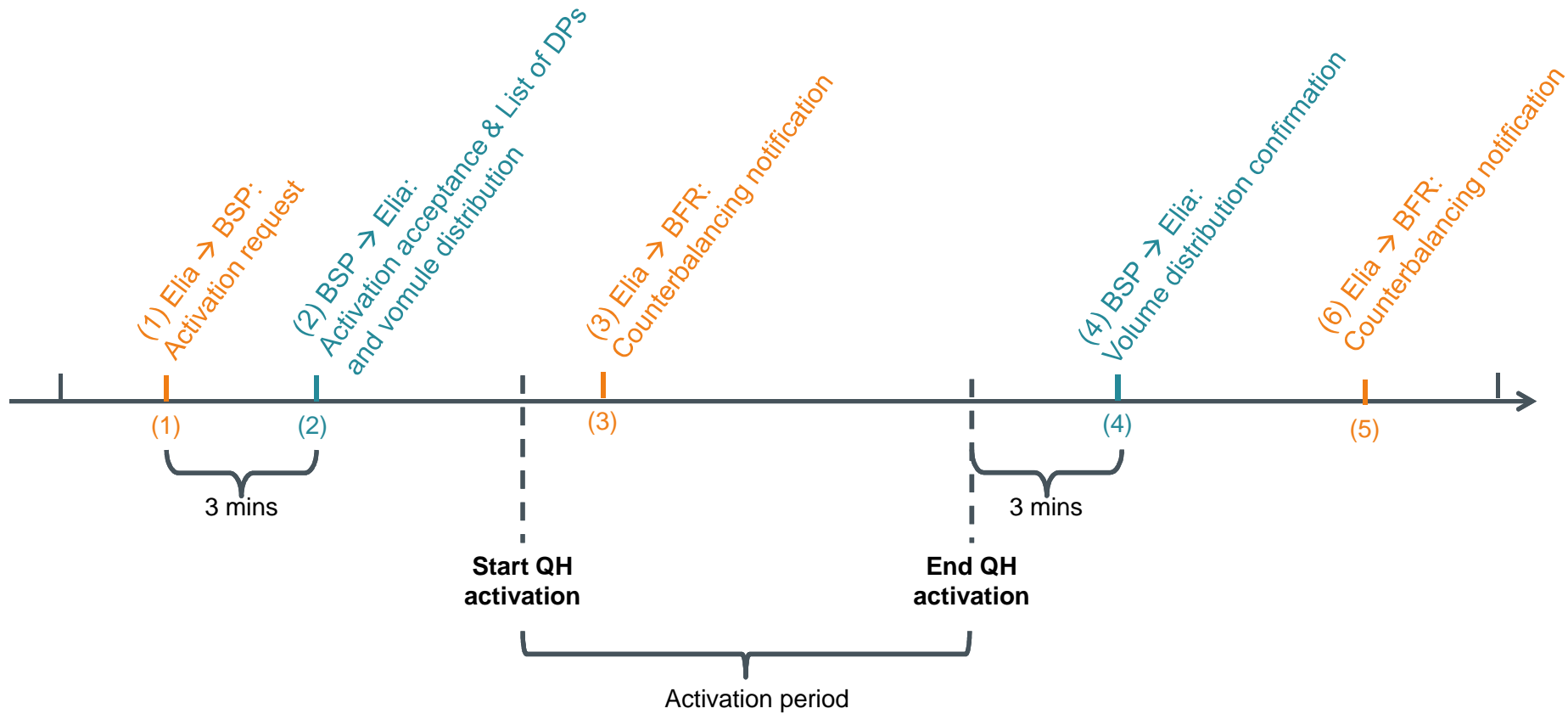
Zoom:

Activation, real-time information exchange and
congestion management

Activation of Bids

“Sequence of events”

(details per step on next slide)



Activation of Bids

Details on the sequence of events

- (1)
- BSP ← Elia
- Activation-request: Explicit, divisible non-CIPU bids are included in Merit Order with CIPU free bids. Block bid
 - One bid can only be activated once in I or D direction within the 60 minutes (neutralization period + 15 minutes) after the initial activation.
 - An activation request is sent to the Bidladder-user to inform about the selection of its bid and requested volume.
- (2)
- BSP → Elia
- Accept activation: (Request+3min) Although BSP has **no** right to refuse a non-CIPU **explicit** bid, 'accept' is required (entire requested volume should be accepted). A failure of acceptance could lead to ex post investigation and contractual consequences.
 - List delivery points & volume distribution: BSP should answer the activation request with included delivery point codes and how the requested volume is distributed over the DPs. Only delivery points already included in the bid could be used. If the sum of DPs does not meet the requested volume, the bid is rejected. Any significant mismatch could lead to ex post investigation and contractual consequences.
- (3)
- BFR ← Elia
- Indicative impact: During the activation period, Elia sends an Email to BRP_{source} based on the list of DP a potential aggregated impact to avoid counterbalancing actions.
- (4)
- BSP → Elia
- Volume distribution confirmation: Ex post activation (end+3min) information by the BSP detailing the impact in terms of average power/Qh on each delivery point + activated volume/delivery point. (Considered for settlement to determine P_{requested} per DP). Ex post quality check is possible, with potential contractual consequences.
- (5)
- BFR ← Elia
- Impact detail: Ex post activation (end+ max 15min) email sent to BRP_{source} concerning the aggregated impact in the perimeter based on BSP information (indicative, not used for settlement)

Activation of Bids Congestion management

To ensure (1) a secure operation of the grid and (2) a level playing field with CIPU free bids:

- Delivery points with an Rref ≥ 25 MW that are located in a “Red zone”, will not be considered when activating bids.

How it works:

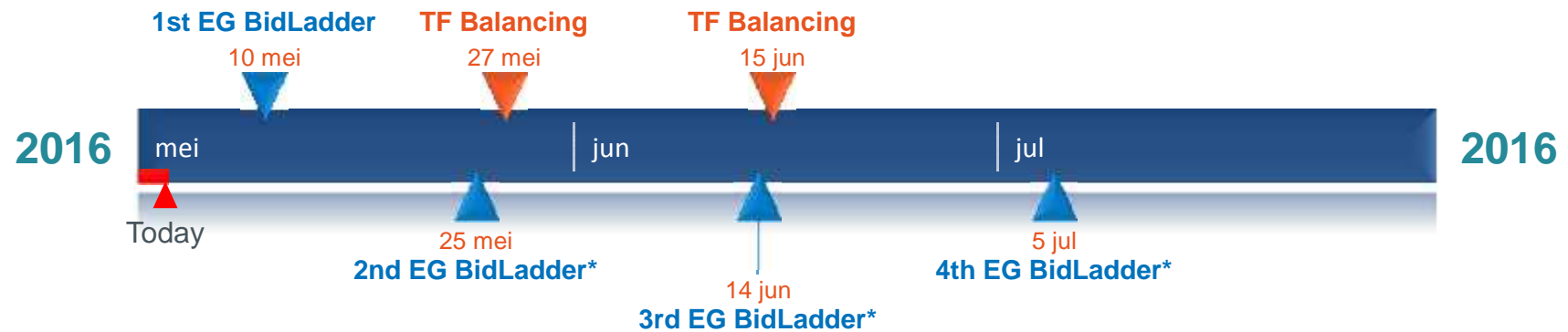
- A BidLadder-user can enter all offers in the bidplatform and chooses the delivery points per bid. Bids can be adjusted until gate closure time.
 - “Red zones” are determined by Elia (i.e. Period/ Electrical zone / Direction (I, D) / MWcap / justification)
 - All “red zones” will also be communicated to BidLadder-users via Probid B2B (xml).
- BidLadder-users have all information and can adapt their bids according to “Red Zones” prior to gate closure time

Wrap-up & next steps

Wrap-up & next steps

- So far, Elia provided an overview of the proposed Pilot BidLadder design with a focus on:
 - The overall picture (design principles, process, pilot eligibility)
 - High-level contractual framework
 - Design aspects of BidLadder Platform, Bid characteristics
 - Activation (incl. congestion management principle) and information exchange sequence
 - Principles for imbalance adjustment
- Several items remain to be discussed and some items may require further detailed discussion, such as (*non-exhaustive*):
 - Transfer of Energy aspects
 - Detailed contractual framework, incl. prequalification
 - Further details on some design aspects
 - Submetering & CDS
- ➔ Elia will continue to prepare proposals, taking into account your feedback, for these aspects to be discussed during the following Expert Working Groups BidLadder
- ➔ However, stakeholders are kindly invited to share their visions (in writing in between EWG meetings, via presentation during EWG meetings).

Wrap-up & next steps



* Proposed date

Proposed Meeting schedule Expert Group Bidladder

10 May 2016, 14h-16h, Elia Emperor

25 May 2016, 10h-12h, Elia Emperor

14 June 2016, 10h-12h, Elia Emperor

5 July 2016, 10-12h, Elia Emperor