Balancing Taskforce n°7

23/09/2013

Elia ENMAN

Agenda

1. Welcome

13h30

2. Validated Meeting minutes dd 27-06-2013

13h40

3. Various
   - Status of ARP-Contract
   - iGCC: Status of implementation new optimization module
   - Dow Jones ZIG index => Platts Day Ahead Zeebrugge gaz price assessment

14h00

4. Status of Tendering Rx 2014

14h15

5. Final design proposal bid ladder platform

15h00

6. Pauze

15h15

7. Short Term Sourcing: Status, process, timings and test.

15h45

8. Network Code Balancing – Introduction of principles

16h15

9. Status "Ontwerpverslag 18 maanden"

16h45

10. Questions – Remarks - Next steps - next meeting date

16h45

Validation of Meeting minutes
⇒ Balancing Taskforce 24/05/2013

Minutes of meeting
Balancing Taskforce 27/06/2013

Remarks on these minutes could be sent to filip.carton@elia.be

- **Comments received from FEBEG**

Point 4:

- **FEBEG asked whether Elia would also publish the flows between DSO's. Elia replied it didn't had the intention to publish these.**

Point 5:

- **Elia confirmed it has the intention to switch asap – as soon as the criteria are met – from monthly to weekly products.**

Point 6:

- **Elia explained it will only use Slow Standard Products when the Fast Standard Products are saturated or when there's a structural imbalance.**
- **Implementation of Slow Standard Products leads to overlap with the intraday market: Elia is discussing with Belpex how to deal with this. Elia will provide some feedback in the TF 'Balancing'.**
- **Elia will put incentives in place in order to encourage flexibility suppliers to move towards Fast Standard Products.**

=> Validated Minutes will be published on our web-site

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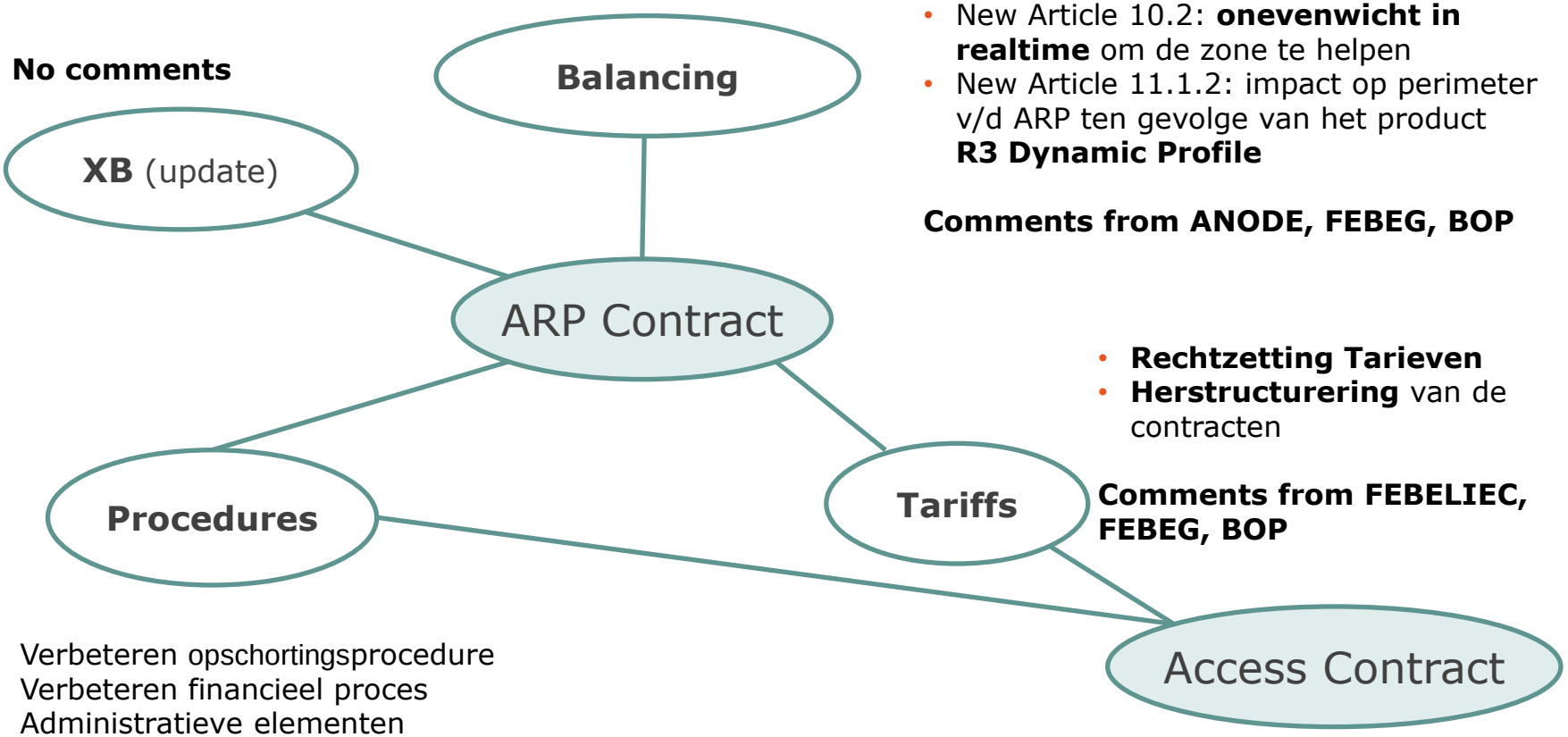
Various: Proposal for Modifications on ARP contract
=> Consultation UG - Comments



No comments

- New Article 10.2: **onevenwicht in realtime** om de zone te helpen
- New Article 11.1.2: impact op perimeter v/d ARP ten gevolge van het product **R3 Dynamic Profile**

Comments from ANODE, FEBEG, BOP

- **Rechtzetting Tarieven**
- **Herstructurering** van de contracten

Comments from FEBELIEC, FEBEG, BOP

- Verbeteren opschortingsprocedure
- Verbeteren financieel proces
- Administratieve elementen

Comments from FEBELIEC, ANODE, FEBEG

Various: Proposal for Modifications on ARP contract => DRIVER « BALANCING »

Nieuw Artikel 10.2

- Art. 2 ARP contract ? *No change needed on Art. 2*
- Principe van onevenwicht in realtime op Art. 157 FTR bijsturen *=> OK but out of the contract*
- Impact van het Elia prijssignaal op de onevenwichtsmarkt, terwijl ze niet gegarandeerd zijn (Welke aansprakelijkheid ? Quid herziening prijsindicator?)
  - *General disclaimer on website data*
  - *Imbalance price 'indicator' in real time can be different than applied imbalance price (in case of IT discrepanties): issue out of the contract*

Artikel 11.1.2

- Initiatief aanvaardbaar op bepaalde voorwaarden (door FEBEG):
  - Geen negatieve financiële impacts op gepacteerde ARP
  - Geen enkele aansprakelijkheid voor ARP voor schade en/of impact van R3 DP; aansprakelijkheid bei de derde doorstellen
  - Op tijd & voldoende informatie voor ARP (counterbalancing vermijden, forecasting, sourcing-strategie…)
- Pilootproject R3DP voor 2014-2015: artikel 11.1.2 kan niet definitief zijn => geldigheidsduur van het artikel duidelijk beperkt tot 2014-2015
  - *OK for the principle; to be discussed on the way to do it*

Wijzigingen:
ARP-contract: artikelen 1, 10.2 (nieuw) en 11.1.2 (gedeeltelijk nieuw)

Launch of a new optimization tool which allows a more optimal use of cross-border capacities (increase iGCC potential).

- Current optimization tool:
  - Germany functions as a HUB.
  - The first 300MW of the border capacity for iGCC on the border NL-GER is for TenneT NL, the rest for Elia.

- Future optimization tool:
  - No HUB anymore, all borders / TSO's will be taken into account
  - Direct exchanges between Elia and TenneT NL possible
  - Pro rata split of the border capacity based on the demand.

When: Go-live planned 09 October 2013

Various
=> Platts Day Ahead Zeebrugge gaz price assessment

For several of our ancillary service contracts we use the Dow Jones Zig index as a reference for the day-ahead gas prices.

- This index seems to be no longer published by DJ as of 16 September.
- The Dow Jones Zig index is used in:
  - Annex 6 [Fuel Price References] of the CIPU contract, for calculation of the Day-Ahead Fuel Cost.
  - Annex 11 [Calculation of penalties for Missing MW] of the primary AND secondary control contract, for calculation of the Clean Spark Spread for a standard (50%) CCGT ("$CSS_{50\%CCGT}$")
    - Please note that the same $CSS_{50\%ccgt}$ is also used in Annex 7 [Rules for the exchange of information by The Parties] of the secondary control contract, for calculation of the price cap of bids for upward regulation.

We are currently investigating to switch towards a similar reference AALKK00 [Day Ahead Belgian Zeebrugge gaz price assessment, in €/MWh] with Platts:

Platts European Gas Midpoints

	p/th	$/MMBtu	eur/MWh
Belgian Zeebrugge			
Day-Ahead	AADON00	GZBWD00	AALKK00
M + 1	AADOS00	GZBWM10	AALKQ00

After alignment with producers concerned we will modify contracts, processes and tools accordingly.

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Status of tendering Rx 2014
=> Tendering calendar

- April 10th — Pre-design Freeze
- April 17th — Consultation of market during balancing taskforce
- May 17th — Tendering R1-R2-R3 launched for 20 working days
- June 14th — Tendering R1-R2-R3 results
- July 1th — Tendering ICH and “R3 Dynamic Profile” launched
- July 2nd — Elia sent report to CREG and Minister on R1-R2-R3 Volumes & prices
- **September 11 — CREG assessed selected offers as reasonable => no Royal Decree**
- 23 September — Tendering offers for ICH and “R3 Dynamic Profile”
  - Prequalification = closed and today = last day to receive ICH and R3-DP offers
  - Lessons learned for R3_DP will be subject of a next expert WG
- December — Short term sourcing for remaining % of 2014 R1/R2 volumes
  - First GCT1 = 12hrs, Tuesday 10 December;
- 01/01/2014 — Start of delivery for contracted products.

Status of tendering Rx 2014
=> Volumes 2014

For 2014, CREG approved (Decision (B)130626-CDC-1248) the following volumes:

	2013	2014
Primary Reserve s (R1)	91 MW	96 MW (became 81MW, to be confirmed end October by entso-e)
Secondary Reserves (R2)	140 MW	140 MW
Tertiary Reserves (R3)	661 MW for imbalance management off which • 400 MW R3 Production • 261 MW Interruptible Load	661 MW for imbalance management off which • From 350 to 400 MW R3 Production • Max 50MW for R3 Dynamic Profile • 261 MW Interruptible Load

Status of tendering Rx 2014
=> Balancing Rules 2014

For 2014, CREG approved (Decision (B)130704-CDC-1252) following modifications of the balancing rules:

- **R3 Production**
  - New activation price and penalty mechanism
  - Introduction of a Secondary Market

- **R3 Dynamic Profile**
  - New product to access the available flexibility on distribution level
  - Max 50 MW; Limited to 2014-2015

- **Short Term Sourcing (applicable only for 2014)**
  - Contracting of 20% - 30% of R1(symmetric 100mHz) + R2
  - Short term = period of max 1 month
  - The final proportion of short term sourcing will depend on the yearly tendering

- **IGCC, new optimization module to be deployed, principles are :**
  - The share between TenneT NL and Elia of the capacity on the NL-DE border will be allocated prorata
  - An exchange will be possible between TenneT NL and Elia when the capacity on the NL-DE border is zero

More info on the Internet : Product & Services → Balance → Balancing Mechanism

Status of tendering Rx 2014
=> Remaining Short Term Volumes

1. Cfr previous slide, the final proportion of short term sourcing will depend on the yearly tendering result.
2. 11-09-2013 Elia received CREG advise regarding their assessment on reasonability of selected offers for the yearly tendering of R1-R2-R3.
3. Short Term Volumes can thus be confirmed, the only remaining variable that could still influence (according to our estimations max ±1-2MW) is the confirmation of entso-e about the 81MW of primary control required by BE.

- **2014, Short Term, R1 Symmetrical 100mHz = 26,5MW**
- **2014, Short Term, R2 Short Term = 20MW**

- This represents 28% of total $R1_{100mHz}$ and R2 volumes (within 20-30% range)
- In order to make this a success it's critical that all resources (including those not running for provision of reserves) technically able to provide $R1_{100mHz}$ and R2 Up or Down offer their available capacity on the short term market!

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Content

- The bid ladder platform project: goal, history & context
- Proposal for design
  - Balancing energy products
  - Bid characteristics
  - Technical prequalification
  - Bidding process
  - Congestion management
  - Activation
  - Settlement
- Next steps

Bid ladder platform: goal

The goal of the bid ladder project is to set up a platform where Market Players can bid in all available flexibility. In contrast to the current CIPU-process the new platform should:

- Allow bids from flexibility not covered by a CIPU-contract;
- Allow bids from load and RES flexibility;
- Allow bids from flexibility connected to the distribution grid.

But avoid the creation of additional local congestions

The objectives of capturing all available flexibility and avoiding local congestions might be both achieved by one single process;

Explicit portfolio bidding with locational information

What does this mean?

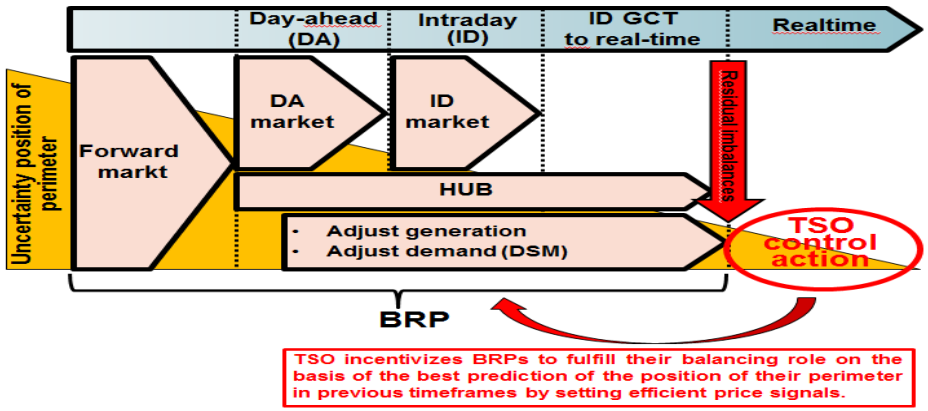
1. Explicit: Bids will consist of a price and a volume (& other parameters).
   - » Vs. today the volumes are derived from schedules send by BRP
2. Portfolio: Bids may aggregate flexibility
   - » Vs. today the bidding is only allowed per power units or aggregated power plant
3. Locational information: Bids should have locational information about the flexibility of which the bid is composed (level of detail to be decided)
   - » Vs. Today implicit required as volumes are derived from production schedules

Bid ladder platform; history

- 2012 June: start internal discussions
- 2012 September: announcement Users 'group
- 2012 November: 1st TF Balancing – introduction bid ladder platform project
- 2013 January: 2nd TF Balancing – feedback expectations stakeholders
- 2013 March: 3th TF Balancing – Portfolio bidding/ Congestion management
- 2013 May: 5th TF Balancing – Definition of balancing energy products – announcement launch survey
- 2013 May: launch survey bid ladder design including initial design proposal
- 2013 June: feed back survey – first modifications to the design
- 2013 September; final proposal sent out to stakeholders
- 2013 September 23th: TODAY

Context Bid Ladder platform

- In a first stage the bid ladder platform will only deal with the non-contracted reserves. On the long run possibly also the bids from pre-contracted reserves shall be offered on the bid ladder platform.
- The balancing actions of a TSO in a re-active balancing market consist of fast reserves with short activation durations. Balancing energy is requested in function of the actual ACE and not in function of the expected imbalance



- The upcoming years – due to cross-border harmonisation – the bid and activation rules of the bid ladder platform will be modified in order to stay compliant with the European standards. Hence the platform will be developed in such a way that it will be possible to perform the required modifications in a flexible way.

Content

- **The bid ladder platform project: goal, history & context**
- **Proposal for design**
  - **Balancing energy products**
  - **Bid characteristics**
  - **Technical prequalification**
  - **Bidding process**
  - **Congestion management**
  - **Activation**
  - **Settlement**
- **Next steps**

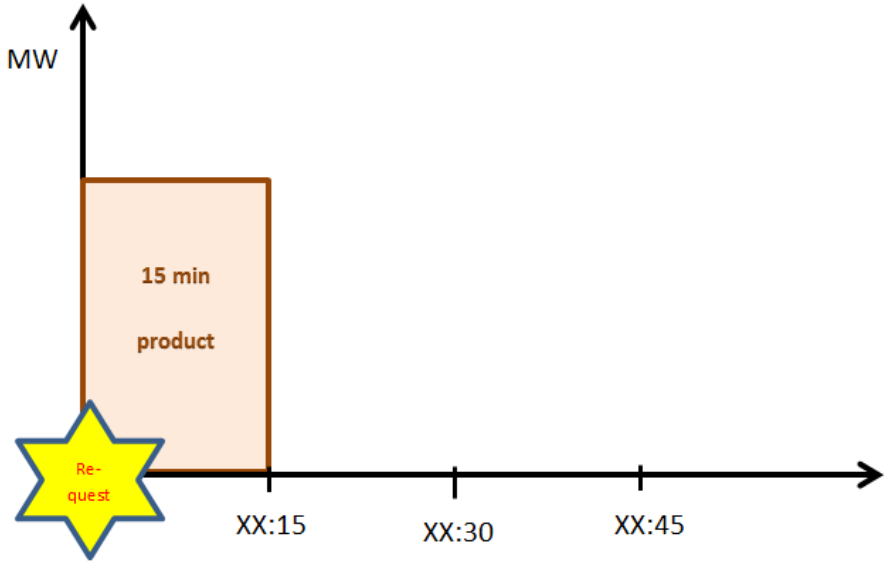
Balancing energy products

- The bid ladder platform shall allow the submission of 3 different kind of balancing energy products to Elia:
  - A fast standard product;
  - Slow Standard products;
  - Emergency products.
- All types of products shall be “block”-products which doesn’t reflect necessary the physical constraints of resources. Differences between the product and physical reality need to be considered in the price when offering a product to Elia
- The total activation time of standard products is not exceeding one hour in order to avoid overlaps with ID markets
- As the ID GCT shall gradually move closer to real time, slow standard products shall disappear one by one

Balancing energy products

Fast standard product

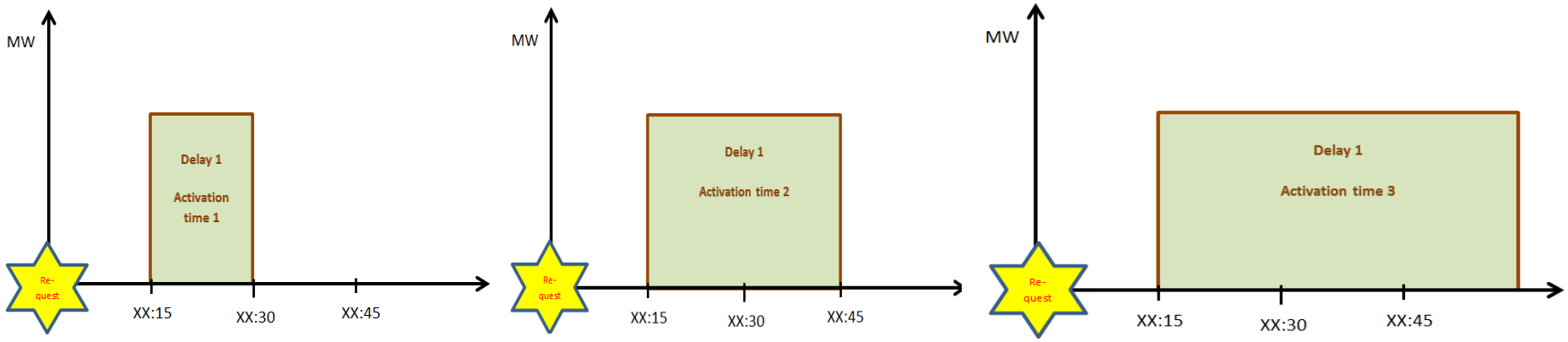
- Fast products are having an activation time of 1*15 min and are having an activation delay of 0*15 Min.
- This product is the most important balancing product as it shall be used prior to the other balancing energy products



Balancing energy products

Slow standard products

- Slow products are having always an activation delay of 1*15 Min and are having different activation times.
- We expect slow products to be transitory as on the long run the Intraday Gate Closure Time shall move closer to real-time.
- Activation of slow standard products is exceptional and subject to specific rules (to be decided in the balancing rules). At least these products shall be used in case there are no volumes available anymore of the fast standard product.



Bid characteristics

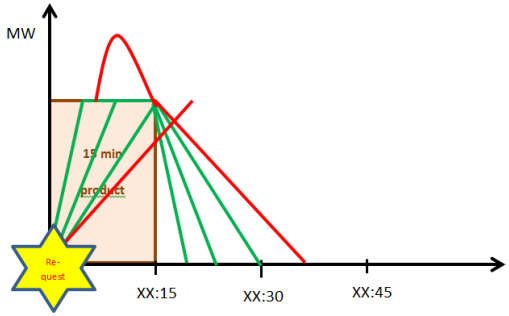
Category	Characteristics	Mandatory	Unit	Values
Product Type	Delay	Yes	15 Min	Integer (0;1;2;3;....)/ multiple of 15 Min
	Activation time	Yes	15 Min	Integer (0;1;2;3;....)/ multiple of 15 Min
Volume offered	Bid Size	Yes	MW	1 decimal (5,0; 5,1;5,2;...;6,0;....) Positive value means produce more of consume less Negative value means produce less or consume more
	Divisibility	No	NA	Yes or No; default value shall be set to Y
Availability	Availability period	Yes	Time	Start time (xx:xx) & End Time (xx:xx) where the minutes are multiples of quarter-hours
	Maximum Activation Time **(NEW)**	No	15 Min	Integer (0;1;2;3;....)/ multiple of 15 Min max value for availability period
	Conditionality	No	NA	Link to other bid n°
Price	Activation Price	Yes	€/MWh	Positive or negative with one decimal
	Prolongation Price **(NEW)**	No	€/MWh	Positive or negative with one decimal
Congestion management	Locational information	Yes	EAN	Mandatory for bids from power units >25MW
	Type of flex	Yes	NA	Load, Production or combination

Technical prequalification (1)

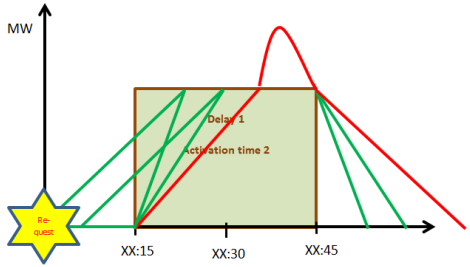
- All potential resources which might be offered to the bid ladder platform need to pass first a technical prequalification
- For all units which are individually able to offer more than 25 MW bids to the platform this prequalification shall be done in a non-aggregated way.
- For units with smaller available bidding volumes the prequalification may be done in an aggregated way.
- Rules for all standard products:
  - A bid shall be based on physical regulation;
  - Once the physical regulation used for the delivery of a bid is at the requested power level, it should be capable to maintain the requested delivery at a stable power level;
  - Once the delivery of a bid is finished, the physical regulation used for the delivery of a bid should be capable of going back to their normal level within 15 minutes and stay there;
- Rule for fast standard product:
  - The physical regulation used for the delivery of a bid should be capable of ramping up to its full offered capacity within 15 minutes from the order;

Technical prequalification (2)

- Fast standard product



Slow Standard product



- All Providers need to ensure that each of their bids is able to fulfil the technical requirements of the bids they are offering. In order to enforce compliancy, a liability clause shall be foreseen in the BSP contract.
- A Balancing Service Provider is not allowed to offer more balancing energy products than the prequalified volumes and can only use resources which participated in the prequalification process
- A Provider shall ensure that –if required - the monitoring of the bids is possible

Bidding processes

- Providers are allowed to submit bids after 18h00 day ahead;
- Bids can be modified, updated & removed up till the Balancing Gate Closure Time which shall:
  - be after the Intraday Cross Border Gate Closure Time;
  - ensure sufficient time for common processing of Balancing Energy Bids
- After the Balancing Gate Closure Time all available bids on the bid ladder platform shall be firm.
- After the Balancing Gate Closure Time the volume and price of Balancing Energy Bids can only be changed by providers upon approval of Elia.
- In the future, when the bid ladder platform will be integrated with a cross border platform, a modification of a bid is only valid once the corresponding bid on the cross border platform has been modified.

Congestion management process (1)

As explained the bid ladder platform shall be based on the following principle:

Explicit portfolio bidding with locational information

Following information shall be used for congestion management:

- Locational information: code indicating the location of resources providing the bid
- Type of flexibility: load, production or combination

Process

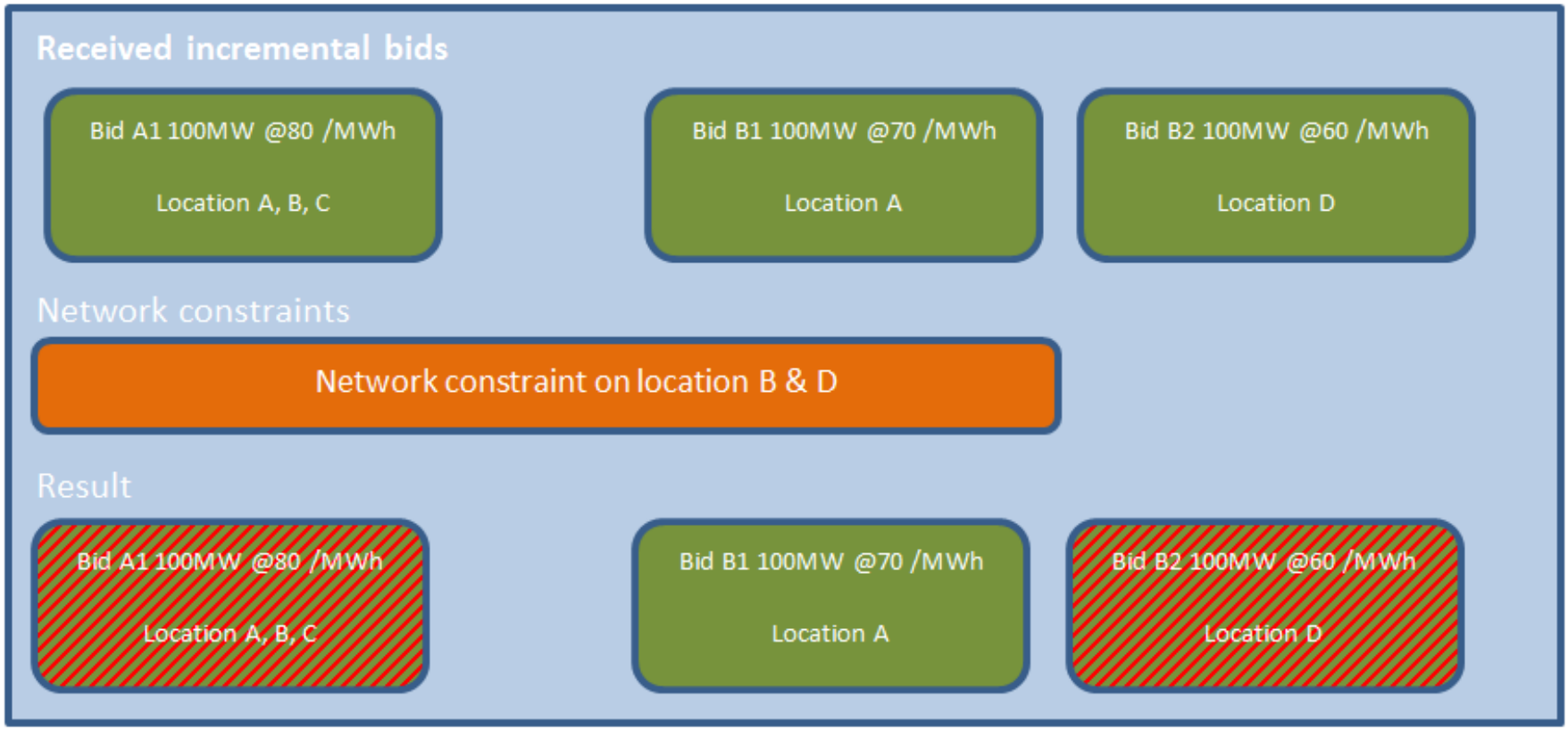
- Bid ladder platform shall consider information regarding network constraints when activating bids in order to avoid new additional congestions.
- Network constraints which are affecting bids shall be published in a transparent way

Step by step approach

- The final solution for all units including those smaller than 25 MW (including flexibility connected to the DSO-grid) is still to be determined.
- All bids sourced from power plants larger than 25MW - the obligation to sign a CIPU contract – shall include locational information from the beginning.

Congestion management process (2)

Example



Other processes

Activation

- After the congestion management filtering, ranking and publication of activable upwards and downwards bids
- All fast standard products activated in priority
- Preferably starting at the beginning of a quarter
- Activation of slow standard products is exceptional and subject to specific rules to be defined
- Skipping of indivisible bids if the regulation curve doesn't meet the Elia's requested volume of regulation
- Ex-post publication of activated bids

Settlement

- Pay as bid that could easily evolve towards another pricing model
- Payment of activated energy based on bids and not on physical reality

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Next steps

- Based on the principles of this note Elia shall start with the implementation process (business requirements => IT requirements => Development => …)
- Heavy IT project: We need to start. Platform will be developed as flexible as possible to allow evolution of products, pricing rules, etc...)

Contractual model

- In the current contractual framework BRPs will be allowed to send bids to the bid ladder platform.
- Elia is currently performing a survey in collaboration with Febeliec & Vito in order to assess the potential of DSM.
- The final contractual model will be determined taking into account:
  - Potential analysis (DSM Survey)
  - Experience feedback from existing initiatives (R3_DP; ICH)
  - The need for a consistent approach (SDR, balancing markets, contracted reserves, etc..)

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Short Term Sourcing – Bidding process
=> Introduction - recap

Some consultation meetings were organized by the Minister's cabinet early 2013 with producers, ELIA, and CREG on the current functioning of the procurement process for R1 and R2 as outlined in art. *12 quinquies* of the Electricity Law, with a special focus on possibilities for contracting those ancillary services on a shorter-term basis.

As part of those consultations, an agreement emerged between participants on the following principles for 2014:

- ✓ ELIA and CREG will define for 2014 a share of R1 & R2 to be covered by short term products (not longer than three months). The range to be covered by short-term products (between 20% and 30%) was proposed by Elia for CREG's approval (in the Balancing Rules).
- ✓ The prices resulting from this short term sourcing in 2014 will be considered as reasonable by CREG and hence be included in the grid tariffs.
- ✓ Based on the experience of 2014, and provided the short term products do not cause significant problems on volume or price level, a more significant range could be decided for 2015 and so on.

Short Term Sourcing – Bidding process
=> Yearly Tendering

Each year Elia launches a quote request to contract, according to transparent non-discriminatory procedures, reserve volumes with potential suppliers in accordance with Article 12 quinquies of the Electricity Act of 29 April 1999 on the organization of the electricity market.

Y-1 (CREG assessed selected offers as reasonable):

The annual selection seeks to minimize the total cost of reservation, taking into account:

- The restrictions on the bids (for primary and secondary control) of a potential supplier which includes offer combinations ('all-or-nothing'), offer exclusions ('may-not-be-combined-with'), divisibility and tariff period validity.
- The minimum and maximum volumes (20% - 30%) that should be covered by short-term products for the year 2014.

Result:

- **2014, Short Term, R1 Symmetrical 100mHz = 26,5MW**
- **2014, Short Term, R2 Short Term = 20MW**

- *the only remaining variable that could still influence the result (according to our estimations max ±1-2MW) is the confirmation of entso-e about the 81MW of primary control required by BE.*

Short Term Sourcing – Bidding process
=> Short Term Auction Platform

Scope of the auction platform under development by Elia (1/2):

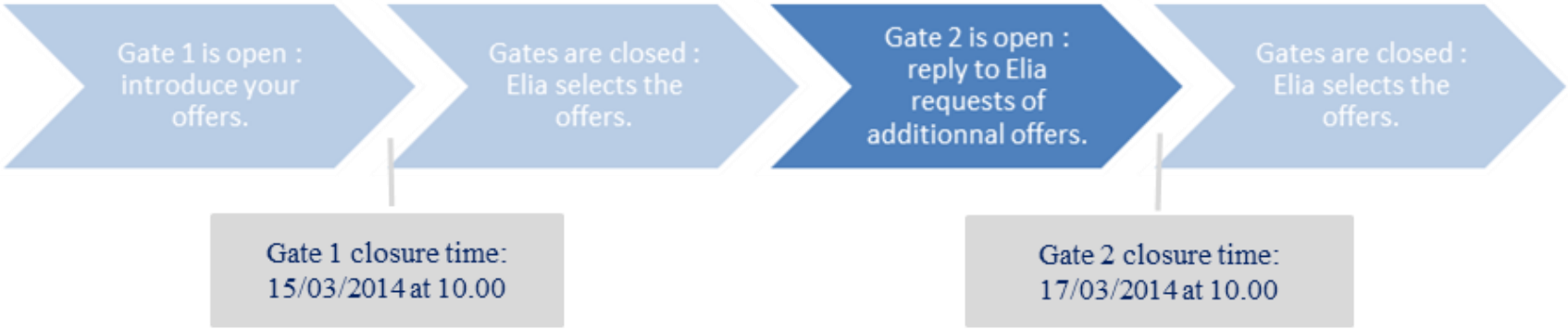
- Allow Elia to determine future delivery periods + formal timings and publish these on the Elia website. Anyone will have access to this page, without password;
- Allow the Suppliers to enter their offers via a password protected external GUI, before gate closure time (GCT1);
- Allow Elia to create offers (“on behalf of a Supplier”) if a Bidder has technical problems to do so;
- Automatically perform some consistency checks on the offers and warn if an offer is not consistent;
- Automatically closing a gate to freeze the offers at GCT1;
- Has a second gate (manually opened) for a potential second auction round. This gate will allow the Bidder to re-offer a new price proposition for a bid requested by Elia (such a request will in general be based on an existing offer but with slightly modified volumes).

Scope of the auction platform under development by Elia (2/2):

- Provide a “comment box” which allows for direct communication between the Bidder & Elia platform operator to facilitate additional clarification regarding the biddings (if needed).
- Presents the offers selected by the solver, some global results and graphics at each auction round (internal Elia only). The graphics will help the Elia operator to understand the order books (OB) of the bidders and they support him in the choice for eventual request in a next round to further increase overall optimality.
- Sends an email to the Bidders when gate 2 opens and/or when the auction ends.
- Show the retained offer(s) to the bidders.
- Performs the computation and publication of global results from all bidders together (e.g. sums, average costs...) on the Elia website to comply with future regulatory transparency obligations. Anyone has access to this page, without password.

Short Term Sourcing – Bidding process
=> Short Term Auction Platform

Auction platform under development by Elia : some first illustrations of the concept



Delivery Period : August 2014

Last Refresh : 07/07/2014 13:45:22 Refresh

Level :

Offer number	R1 symmetrical		R2 Upwards		R2 Downwards		Tariff Period	May not be combined with	Volumes divisible?	Validation Status	Reception Time	Actions
	Volume	Price	Volume	Price	Volume	Price						
												Create
1	10	15	20	5	0	0	Base	2; 3	Yes	Accepted	6/07/2014 10:25:32	Delete
2	0	0	10	15	0	0	Peak	1	No	Received	6/07/2014 10:25:32	Delete
3	0	0	5	20	0	0	Peak	1	No	Received	6/07/2014 10:25:32	Delete

Short Term Sourcing – Bidding process
=> Short Term Auction Platform

Some statuses and definitions (1/2):

- A **bidder** is a Supplier having R1 and/or R2 rights (at least a contract of 0MW).

- An **offer** is characterized by (~LT tendering Y-1):
  - A number [N];
  - A delivery period [Month];
  - A volume [MW] for each product type [R1 100mHz; R2 Up; R2 Down] – combined offers are possible ('all-or-nothing');
  - A unitary price [€/MW/h] for each of the above volumes;
  - Volume Divisibility [Yes/No]
  - A tariff period [BASE, PE, LOP]
  - The number of other offers that may not be combined with this offer = the May Not Be Combined With [MNBCW]

Some statuses and definitions (2/2):

- A **delivery period** is configurable:
  - A standard month is from January to December, starting on the first day of the month at midnight and ending on the last day of the month midnight;

- There is a **validation status** for each offer. Possible values will be:
  - Received: Elia received the offer, which still needs to be treated. Depending on the state of the gates (open or closed), the bidder may modify/delete the offer or not.
  - Accepted: Elia did some checks to detect errors from the bidders, that couldn't be detected automatically by the tool when importing the offer. The checks are ok.
  - Rejected: Elia did some checks to detect errors from the bidders, that couldn't be detected automatically by the tool when importing the offer. The checks are not ok. Depending on the state of the gates (open or closed), the bidder may modify/delete the offer or not.
  - Requested: Elia requests an additional offer based on an existing offer.
  - Retained: The auctioning process is finished and Elia retained the offer.

Short Term Sourcing – Bidding process

=> Short Term Auction Platform – Process (1/2)

Once previous auction is closed <GCT1

- Elia defines delivery periods and GCT's, permanently published on the Elia website;
- Bidders must offer for the 1st auction before GCT 1;
- Technical prequalification of bids: Automatic checks will be performed each time a new offer is received. The user gets an error message if the offer is not conform. After a manual control, Elia will change the validation status of an offer to "Accepted";
- New offers/updates/deletes could arrive at any time until first gate closure;

GCT1

- Once Gate 1 is closed, it is not possible to introduce/modify or delete offers anymore;
- Elia runs a solver (unambiguous criteria = minimize total cost) with the accepted offers and if the results are satisfying, auction will be closed;
- In exceptional cases, the Elia operator will identify offers that could be modified and give better optimization result. For those offers, he asks the bidders to make additional offers. When he is ready with all the requests, he opens the Gate 2.
- Gate 2 is open and responses at Elia's demand or other new offers may be introduced. bidders are not allowed to modify or delete previously accepted offers;

Short Term Sourcing – Bidding process
=> Short Term Auction Platform – Process (2/2)

GCT2

- Once gate 2 is closed, it is not possible anymore to introduce new offers, modify or delete an existing one. Elia runs the solver with only the accepted offers.

>GCT2

- Validation (Elia) of retained offers – confirmation (bidders) and publication (public) of results;

Short Term Sourcing – Bidding process

=> Status & next steps

- Internal status:
  - ✓ **IT-development & testing** on-going; Elia business testing expected October-November
  - ✓ **Tendering calendar** proposition & **internal process flow** preparation (availabilities, timings, …)
  - ✓ **Transparency publications** on procured LT/ST R1/R2 volumes & prices – business /legal needs analysis

- Training sessions:
  - ✓ After internal Elia testing, training session(s) will be organised by Elia to allow ST-bidders to learn how to **operate the platform (B2C-testing)** & how to **perform the bidding**
  - ✓ LT & ST bidding forms are identical, nevertheless need to be explained to **avoid faulty bidding,** especially for sole ST-bidders
  - ✓ A **doodle request** will be communicated to the ST-participants; training information will be distributed afterwards. Most likely **between 15 – 31 November.**

- STAR-platform communication organisation:
  - ✓ The bidding platform will allow **direct communication ("chatbox")** between Elia & bidders to provide additional clarification, request additional bids in a potential second auction round to improve overall optimality, …
  - ✓ All **communication will be logged**, to prevent discussion afterwards
  - ✓ Ideally the bidders need to foresee **live-support between GCT1 & GCT2** (+/- 2 workdays) to answer Elia's requests

Short Term Sourcing – Bidding process

=> Tendering calendar 2014 : proposition

Delivery Period Name	Starts on	Ends on	GCT1	GCT2	Auction Status
January '14	1/01/2014	31/01/2014	10/12/2013 12:00	12/12/2013 12:00	Ended
February '14	1/02/2014	28/02/2014	14/01/2014 12:00	16/01/2014 12:00	Ended
March '14	1/03/2014	31/03/2014	11/02/2014 12:00	13/02/2014 12:00	Open
April '14	1/04/2014	30/04/2014	11/03/2014 12:00	13/03/2014 12:00	Unopend
May '14	1/05/2014	31/05/2014	15/04/2014 12:00	17/04/2014 12:00	Unopend
June '14	1/06/2014	30/06/2014	13/05/2014 12:00	15/05/2014 12:00	Unopend
July '14	1/07/2014	31/07/2014	10/06/2014 12:00	12/06/2014 12:00	Unopend
August '14	1/08/2014	31/08/2014	15/07/2014 12:00	17/07/2014 12:00	Unopend
September '14	1/09/2014	30/09/2014	12/08/2014 12:00	14/08/2014 12:00	Unopend
October '14	1/10/2014	31/10/2014	16/09/2014 12:00	18/09/2014 12:00	Unopend
November '14	1/11/2014	30/11/2014	14/10/2014 12:00	16/10/2014 12:00	Unopend
December '14	1/12/2014	31/12/2014	10/11/2014 12:00	13/11/2014 12:00	Unopend

Remarks:

- ✓ Opening of the gate 2 is a manual decision, based on satisfaction of the selection in Auction 1
- ✓ GCT1 & GCT2 might be altered and will be published ex-ante + are always publicly available on Elia's website
- ✓ In function of satisfactory results in first months, monthly procurement might evolve towards weekly sourcing

Short Term Sourcing – Bidding process

=> Publication requirements – procurement of AS volumes & prices

Transparency Requirements cfr. Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets

- **What to publish?**
  - Contracted (not offered) volumes per reserve type (R1,R2,R3-DP,R3-PROD,ICH)
  - Average prices (marginal prices not mandatory)
  - Load or generation
  - Up/Down or symmetric
  - Delivery period (LT/ST)

- **When to publish?**
  - At least 2 hours before the next procurement cycle
  - Official deadline for publication start of ST & LT reserve tenderings = Jan/2015

- **Where to publish?**
  - Data should be automatically sent to ENTSO-E
  - Data will also be published on Elia-website

⇒ **Elia will align with CREG before publishing such data on it's website, however, your inputs are more then welcomed (PieterJan.Marsboom@elia.be)**

Short Term Sourcing – Bidding process
=> Short Term Auction of Reserves = STAR

Illustration of access to STAR-platform, results & calendar

EXTRANET FOR CUSTOMERS

These extranet tools allow Access Responsible Parties, access holders and grid user's to enter and view data and to exchange it with Elia in a secure environment.

To access these applications, you need a user ID and password (assigned after a contract is signed).

Before using the applications, please read the provisions of Elia's extranet disclaimer carefully.

The following tools can be used by people who have been assigned a user ID and password:

- Nominations
- Subscription
- Metering
- ProBid
- Contract Viewer
- Sesane
- Smart

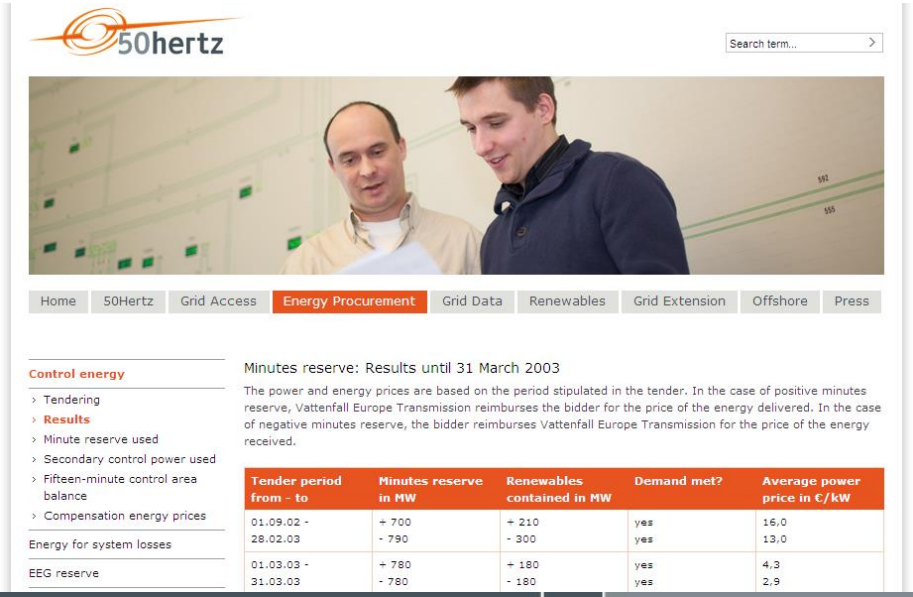
> STAR

>> Tendering Calendar

>> STAR Platform

>> STAR Auction Results

>> Framework Guidelines // Bidding instructions



Short Term Sourcing – Bidding process

=> Short Term Auction Platform – Key messages

Market actors:

- Feedback on these slides and proposals are more than welcome

Elia < 11/2013:

- IT development & business testing of Rx auction platform & solver
- Tendering Calendar proposition
- Training sessions on functional use of STAR + follow-up in future TF's Balancing

Elia & Market actors <10/12/2013:

- B2C testing of Rx auction platform in a training session
- Doodle request will be sent out asap
- Availability will be necessary between end of November – start of December

Attention Suppliers: First operational use envisioned for 10/12/2013:

- First GCT1 = 12hrs, Tuesday 10 December;
- First GCT2 = 12hrs, Thursday 12 December;
- First Delivery Period = 0hrs 1st January until 0hrs 1st February

Agenda

1. Welcome	**13h30**
2. Validated Meeting minutes dd 27-06-2013	**13h40**
3. Various - Status of ARP-Contract - iGCC: Status of implementation new optimization module - Dow Jones ZIG index => Platts Day Ahead Zeebrugge gaz price assessment	**14h00**
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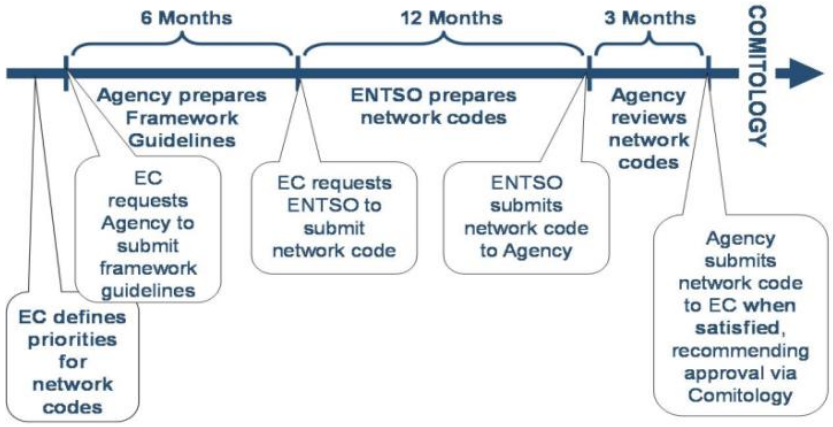
6. Pauze	**15h15**
7. Short Term Sourcing: Status, process, timings and test.	**15h45**
8. Network Code Balancing – Introduction of principles	**16h15**
9. Status "Ontwerpverslag 18 maanden"	**16h45**
10. Questions – Remarks - Next steps - next meeting date	**16h45**

Network Code Balancing – Introduction of principles
=> Content

- **Introduction**
- **Concepts/terminology**
- **Timing**
- **Important dates**

Network Code Balancing – Introduction of principles
=> Context

- Europe aims at providing harmonized rules for balancing markets stipulated by a binding European Networkcode on balancing
- The drafting of those documents involves the European Commission, ACER and ENTSO-E.
- The process for the adoption of the framework guidelines and the network codes is the following:



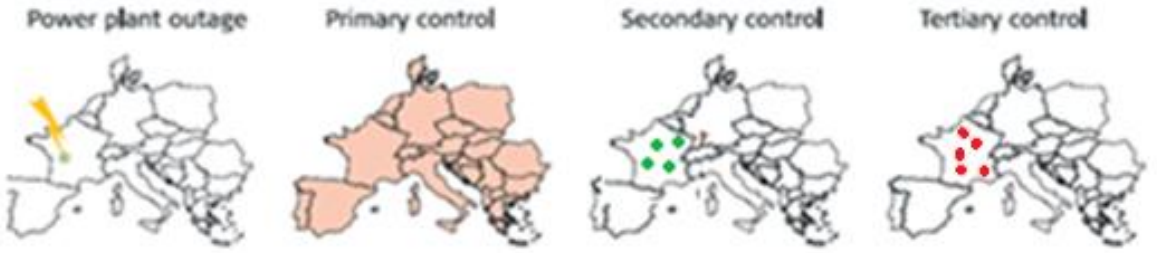
- Important milestones:
  - Summer 2013 Public consultation on draft NC on balancing
  - End of 2013 Final draft of NC on balancing
  - 2014 Start commitology process
  - **2015 NC enters in to force (??)**

Network Code Balancing – Introduction of principles
=> Objectives

- The core goal of the Framework Guidelines is to establish an European wide integrated cross-border balancing market where TSOs balance the system in a coordinated way in order to use the most efficient balancing resources taking into account transmission capacities.
- Current way of balancing

R2 requested by RTE

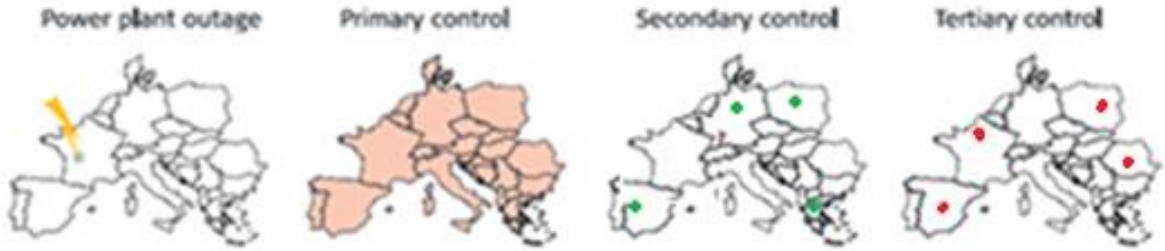
R3 requested by RTE



- Future way of balancing

R2 requested by RTE

R3 requested by RTE



Network Code Balancing – Introduction of principles
=> NC LFC vs NC on Balancing

Technical

NC LFC&R:

Determine required **volumes** and **distribution of reserves** to ensure operational security

- Dimensioning of reserves.
- Technical limits for exchange, sharing and cross-border activation of reserves.

Technical requirements to ensure **safe exchange / sharing / cross-border activation of reserves**

- Need for available transmission capacity.
- Fall-back solutions.

Market

EB NC:

Provision of required reserve volumes (within the limits for distribution set by NC LFC&R)

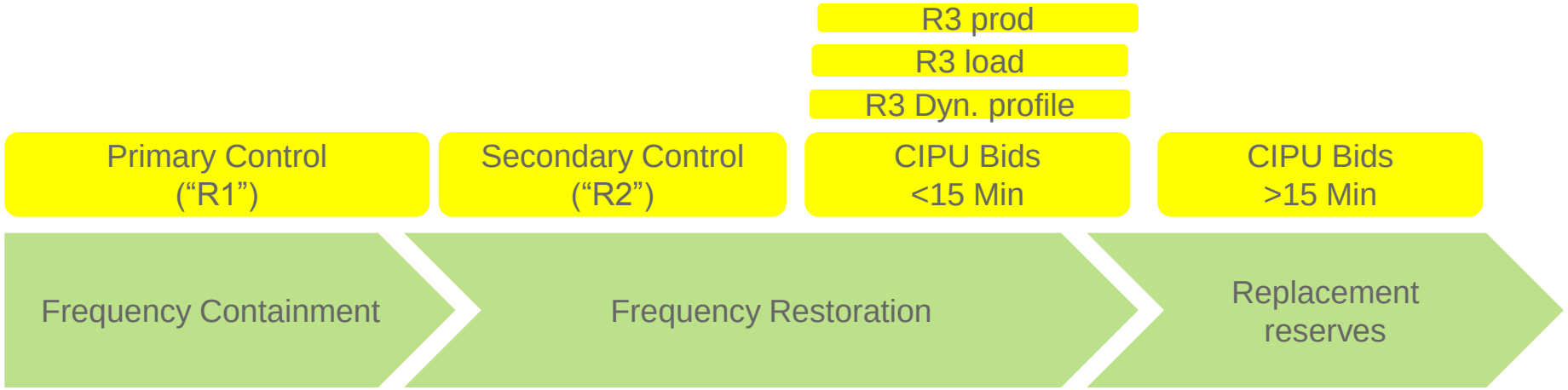
Optimised activation of reserves (energy) available in the system.

Mechanisms to ensure the **available transmission capacity** for exchange/sharing/cross-border activation of reserves

Network Code Balancing – Concepts/Terminology
=> Control processes LFC code: FCR/FRR/RR NC

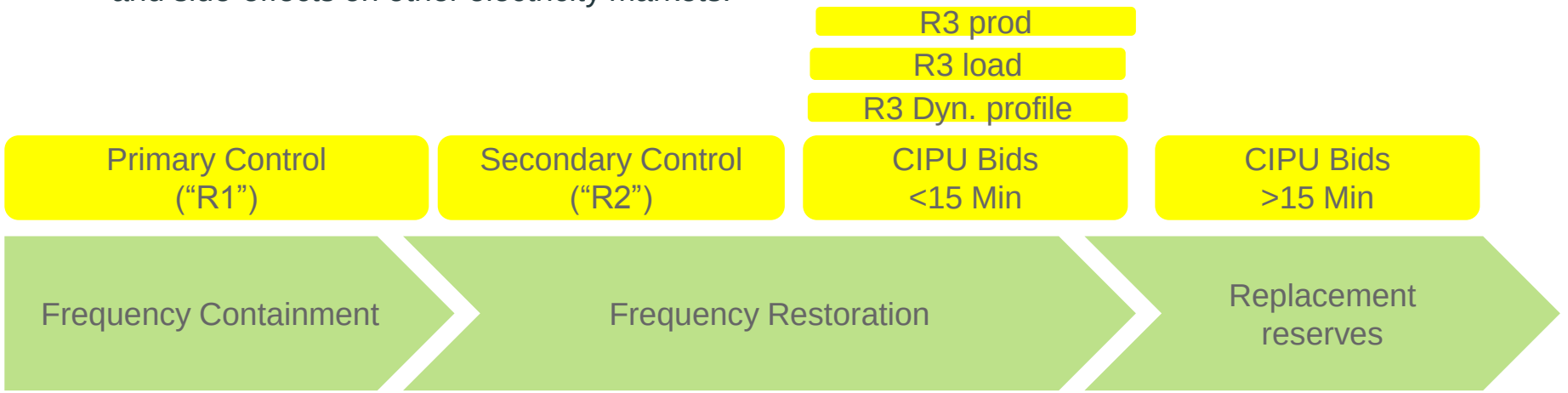
New terminology for balancing energy products

- **Frequency Containment Reserves (FCR):** stabilize frequency after imbalance to value different from 50 Hz
  =~Primary control (R1)
- **Frequency Restoration Reserves (FRR):** restore the balance of the Control Area within 15 minutes. Distinction between
  - Automatic FRR (aFRR) **=Secondary control (R2)**
  - Manual FRR (mFRR) **= R3 production, R3 load & CIPU bids with activation time <15 min**
- **Replacement Reserves:** free-up FRR to cope with future imbalances/incidents
  = CIPU bids with activation time >15 min



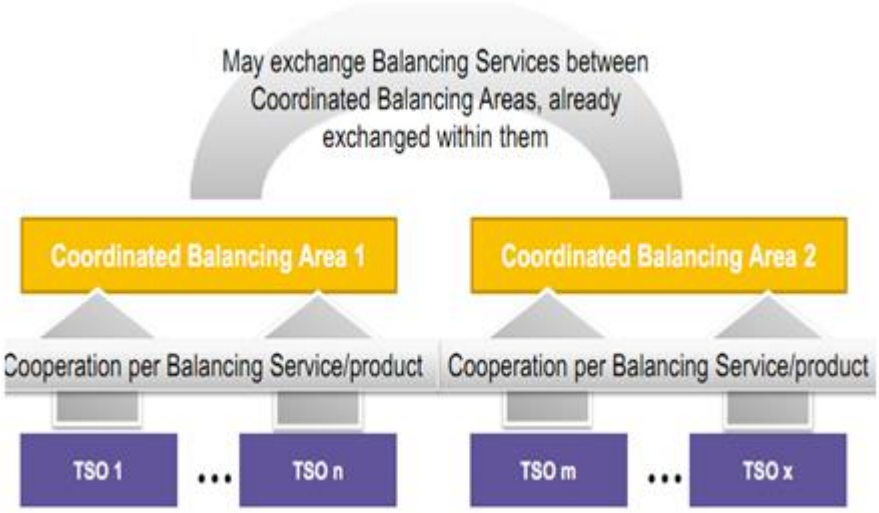
Network Code Balancing – Concepts/Terminology
=> Standard products

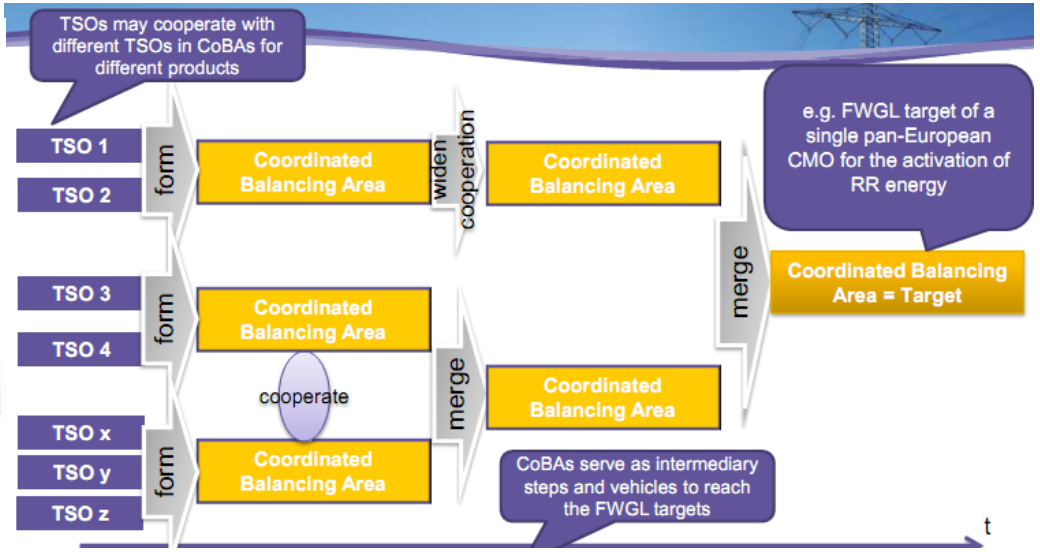
- No later than twelve months after entry into force of this Network Code, all Transmission System Operators shall prepare a common initial proposal for standard Balancing Reserve and Energy products.
- Specific *balancing energy* and *balancing reserve* products are allowed if:
  - Resources from standard products would not be sufficient to balance the system
  - Specific products does not create significant inefficiencies and distortions in national or cross-border adjacent markets.
  - approval of the relevant *NRAs*.
  - analyse in the *annual report* the costs and benefits and the possible inefficiencies and distortions of having these specific products in terms of competition and market fragmentation, facilitation of *demand response* and participation of renewable energy sources, integration of *balancing* markets and side-effects on other electricity markets.



Network Code Balancing – Concepts/Terminology
=> Coordinated Balancing Area (CBA)

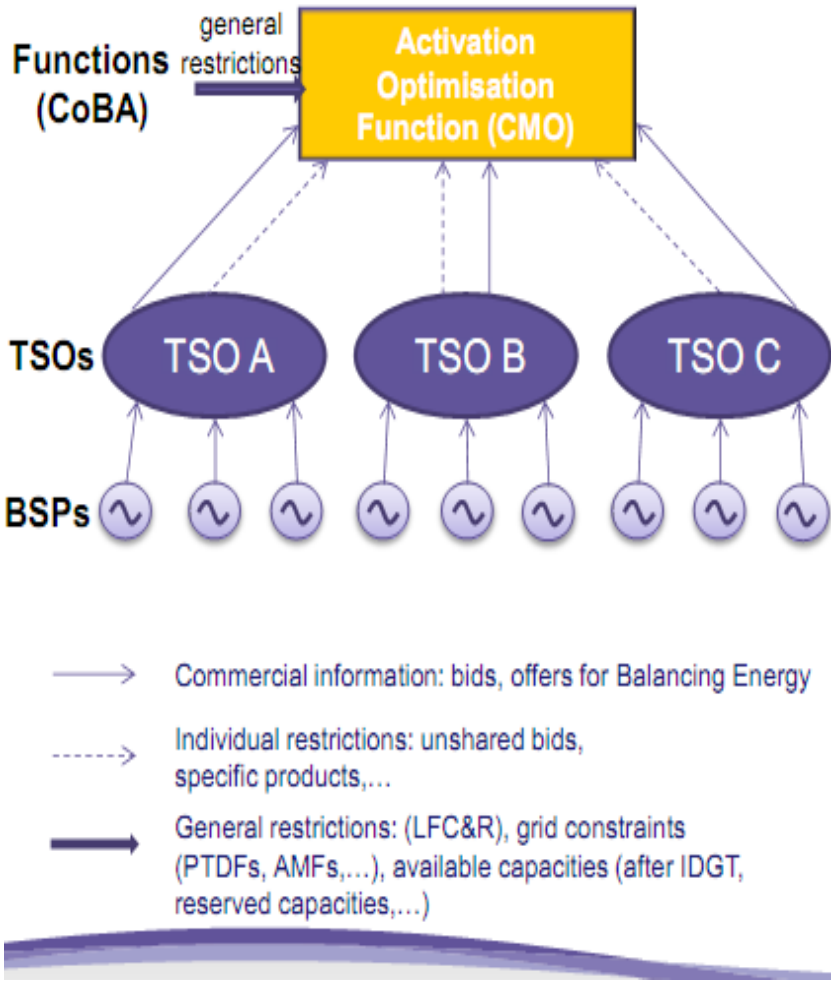
- TSOs shall be obliged to cooperate in a so called Coordinated Balancing Area (CoBA) with one or more TSOs.
- Each CoBA includes the exchange of one (or more) Standard Product(s) and Imbalance Netting, exchange of reserves is optional
- Functions are performing central tasks; Counteracting Activation Minimisation Function, Reserve Procurement Optimisation Function, TSO-TSO Settlement Function, Activation Optimisation Function, Transfer of Reserve Optimisation Function
- CoBa's shall be merged until there's one big coordinated balancing area" across Europe.





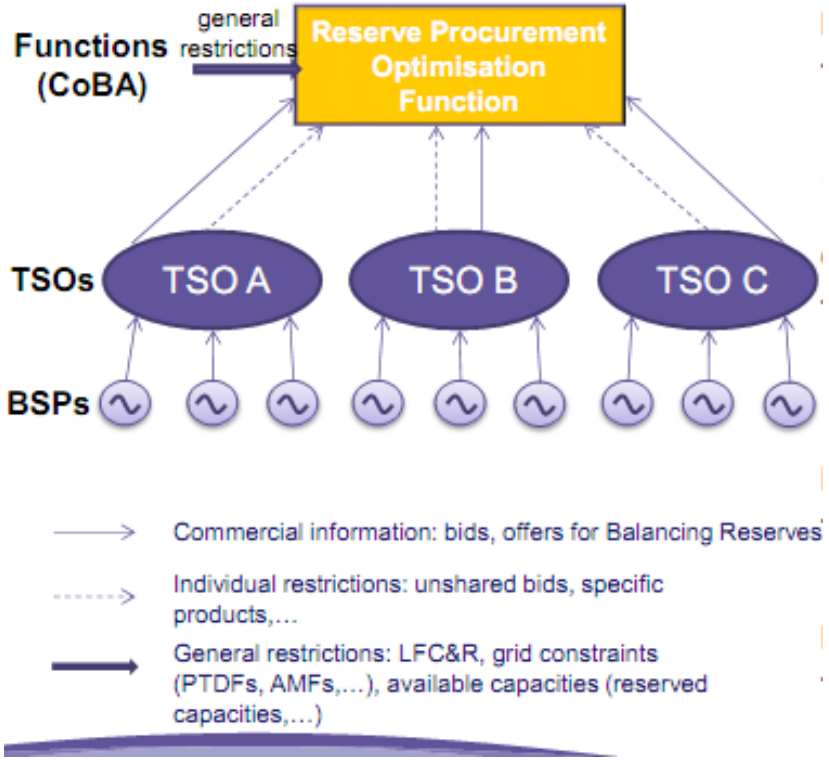
Network Code Balancing – Concepts/Terminology
=> Activation optimisation function for balancing energy

- All balancing bids offered by providers shall be transferred by TSOs to "**the activation optimization function"** of the coordinated balancing area (Coba).
- The activation optimization function of each Coba shall create "**common merit order lists**" of balancing bids per product category.
- In case of system imbalances **TSOs shall request** an activation of balancing energy **to the activation optimization function**
- The activation optimization function shall **activate the cheapest bids on the common merit order list**. Inform the reserve connecting TSO and the reserve requesting TSO.
- The **TSO-TSO settlement function** shall perform the settlement of the activated balancing energy between the reserve connecting TSO and the reserve requesting TSO.



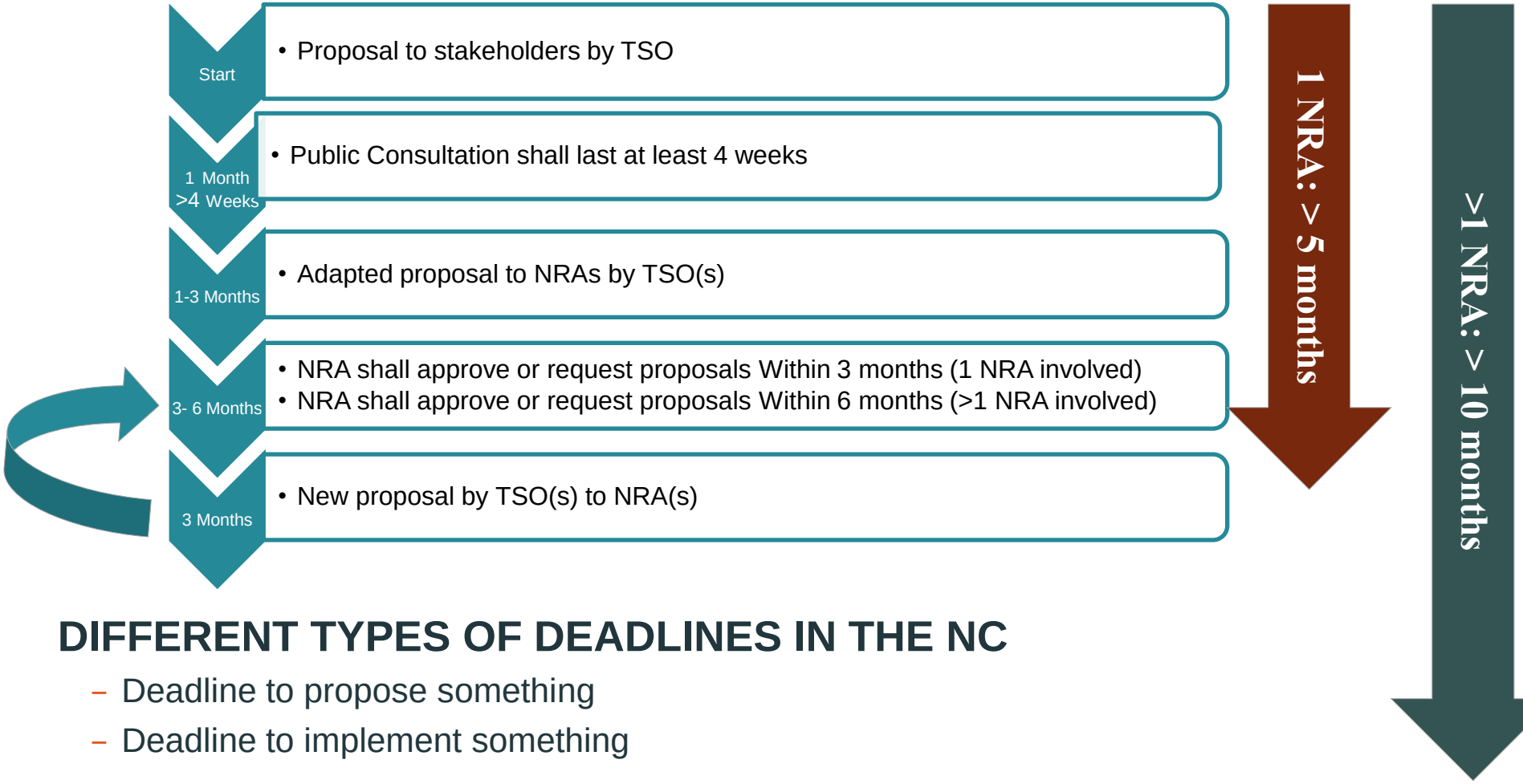
Network Code Balancing – Concepts/Terminology
=> Activation optimisation function of reserves

- The **cross-border exchange of pre-contracted reserves** is **optional** and not imposed. However if this done it should happen by means of:
  - A common procurement process of reserves;
  - Use harmonized reserve products
  - No reservation of cross border capacity is allowed unless a cost benefit analysis is showing the added value
  - In an interim phase a TSO-BSP model is allowed



Network Code Balancing – Timings
=> Approval & implementation process

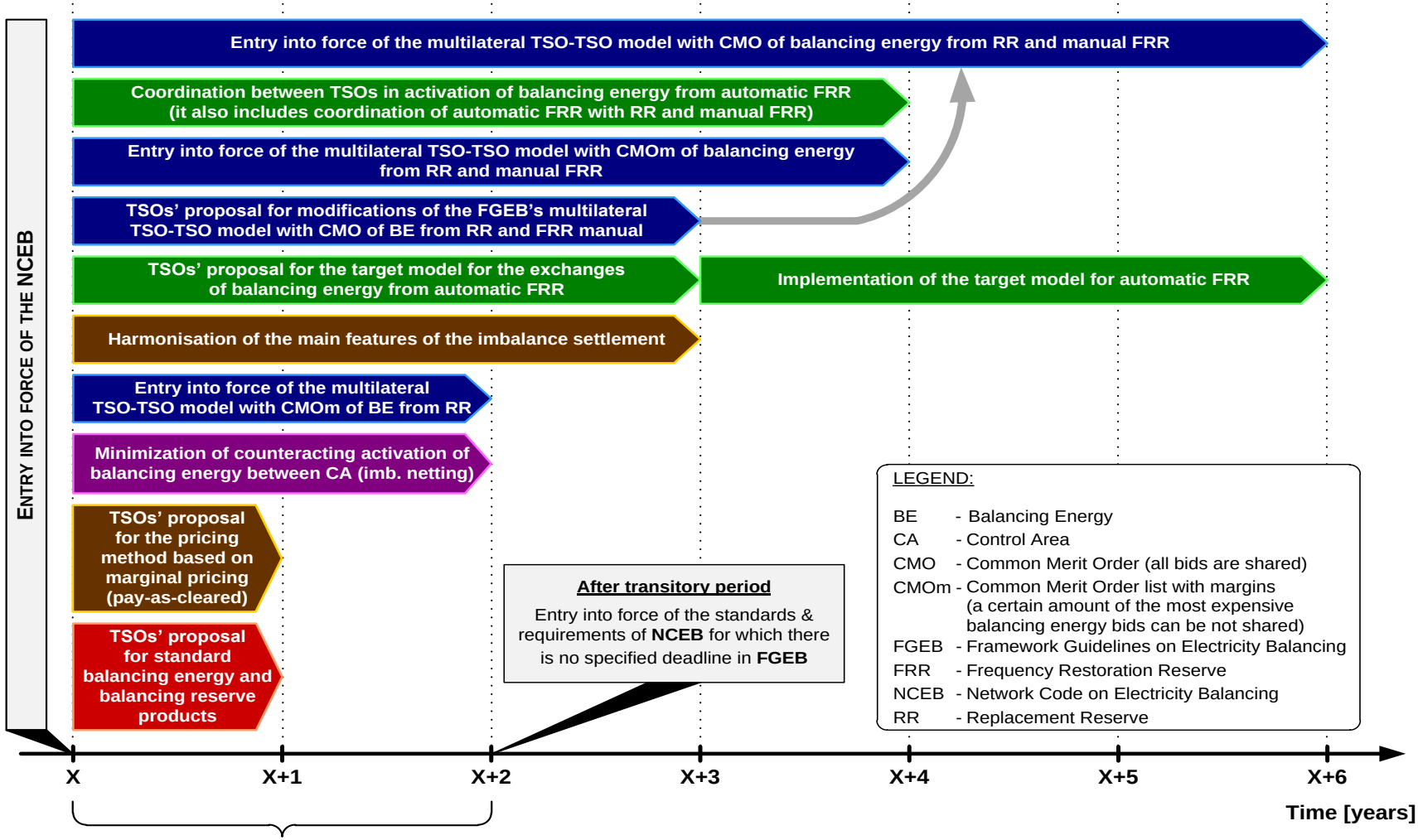
APPROVAL PROCESS



DIFFERENT TYPES OF DEADLINES IN THE NC

- Deadline to propose something
- Deadline to implement something

Network Code Balancing – Timings
=> Deadlines



MAX LENGTH OF THE TRANSITORY PERIOD

The determination of the transitory period shall be subject to consultation with the relevant stakeholders

FGEB foresees **DEROGATIONS** - a maximum period of 2 years when some provisions of the NCEB can be ignored (granted case-by-case)

Network Code Balancing – Timings
=> Important Dates

Public consultation

Was launched **the 17th of June 2013 &** all interested parties were invited to submit comments **by 16 August 2013** (+/-2200 comments received)

www.entsoe.eu **> NEWS& EVENTS > ENTSO-E Consultations**

Public follow-up Workshop

Will be organised on **23th of October 2013** in Brussels

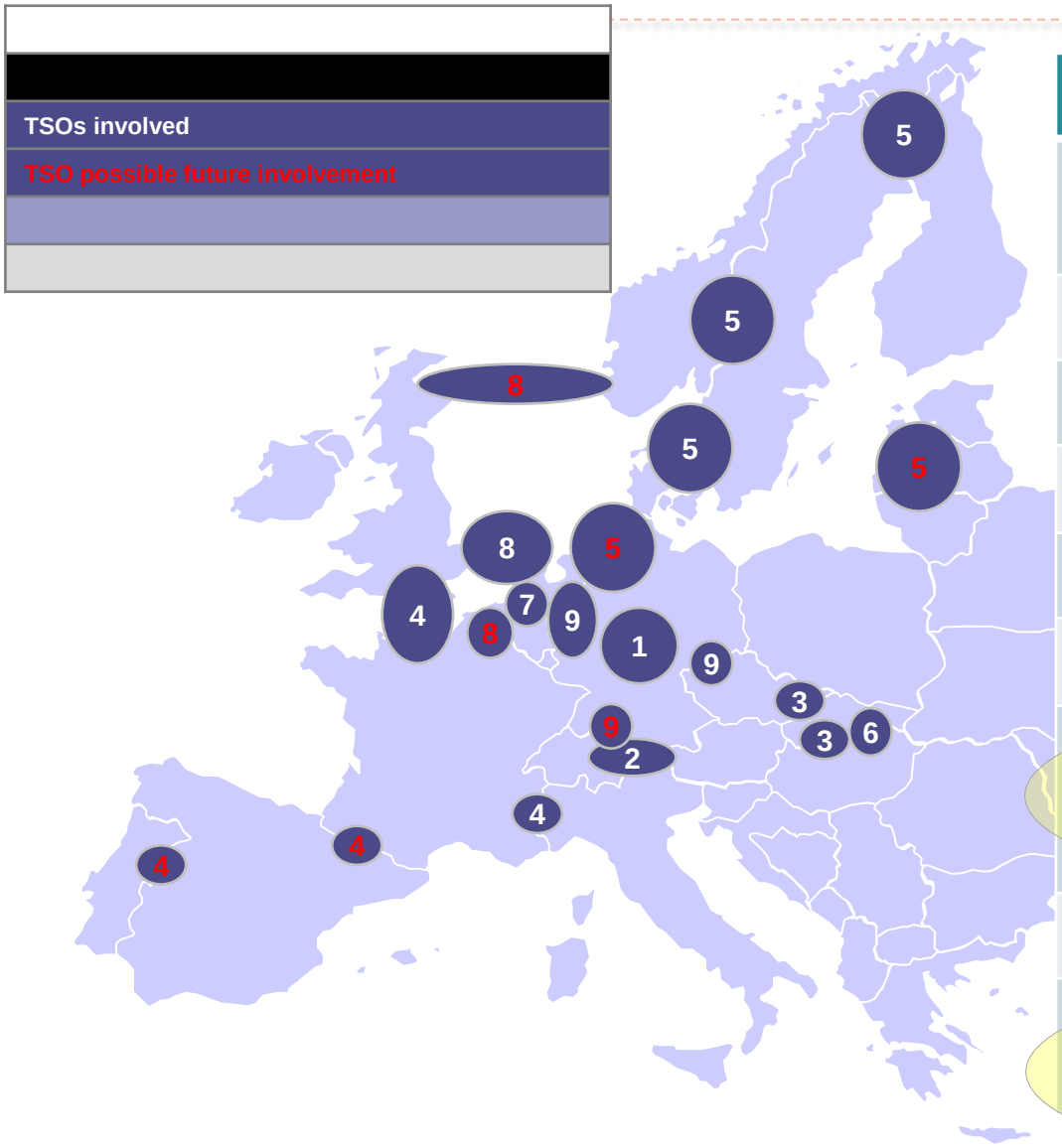
Presentation of a new draft of the NC on balancing & discuss feedback received during consultation

Registration for participation online on ENTSOe

www.entsoe.eu **> NEWS& EVENTS > Events**

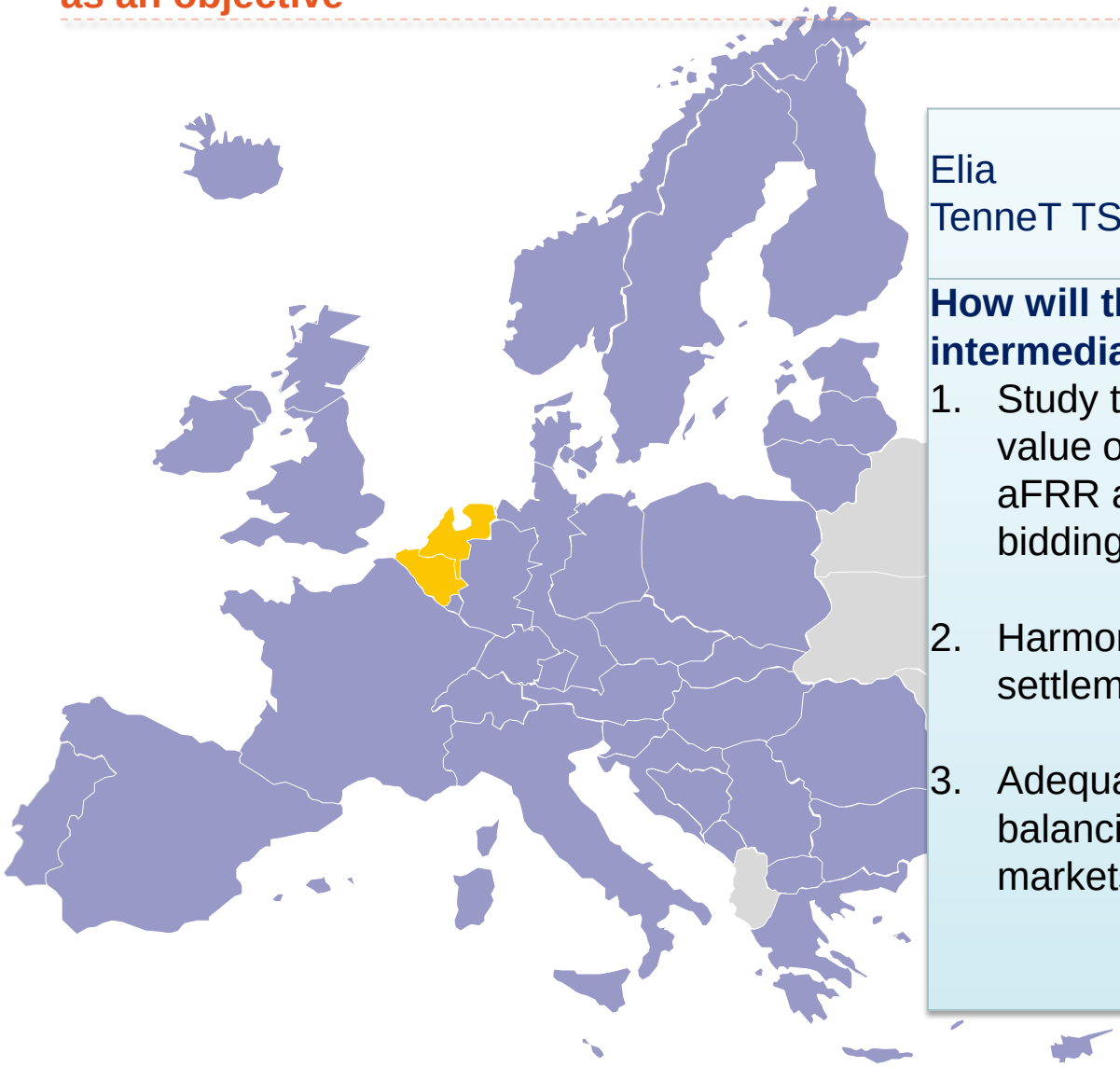
Members of TF balancing are invited so send their comments to their associations

Network Code Balancing – XB Pilot Projects



#	Project
1	CMOs for mFRR and aFRR with real Time Flow Based congestion management
2	Cross-border market for FCR based on TSO-TSO model
3	E-GCC
4	TERRE: Trans-European Replacement Reserves Exchange
5	Development of the Nordic RPM
6	Cross-border balancing market (between SEPS and MAVIR)
7	Design and evaluation of a harmonised reactive balancing market with XB optimisation of Frequency Restoration while keeping control areas, bid zones, and Regulatory oversight
8	BritNed / TenneT / National Grid Balancing Services
9	IGCC aFRR-Assistance and Flow-Based Congestion Management.

Pilot project 7: Cross border exchange of balancing energy from (both automatic and manual) FRR; liquid reactive balancing markets as an objective



Elia
TenneT TSO B.V.

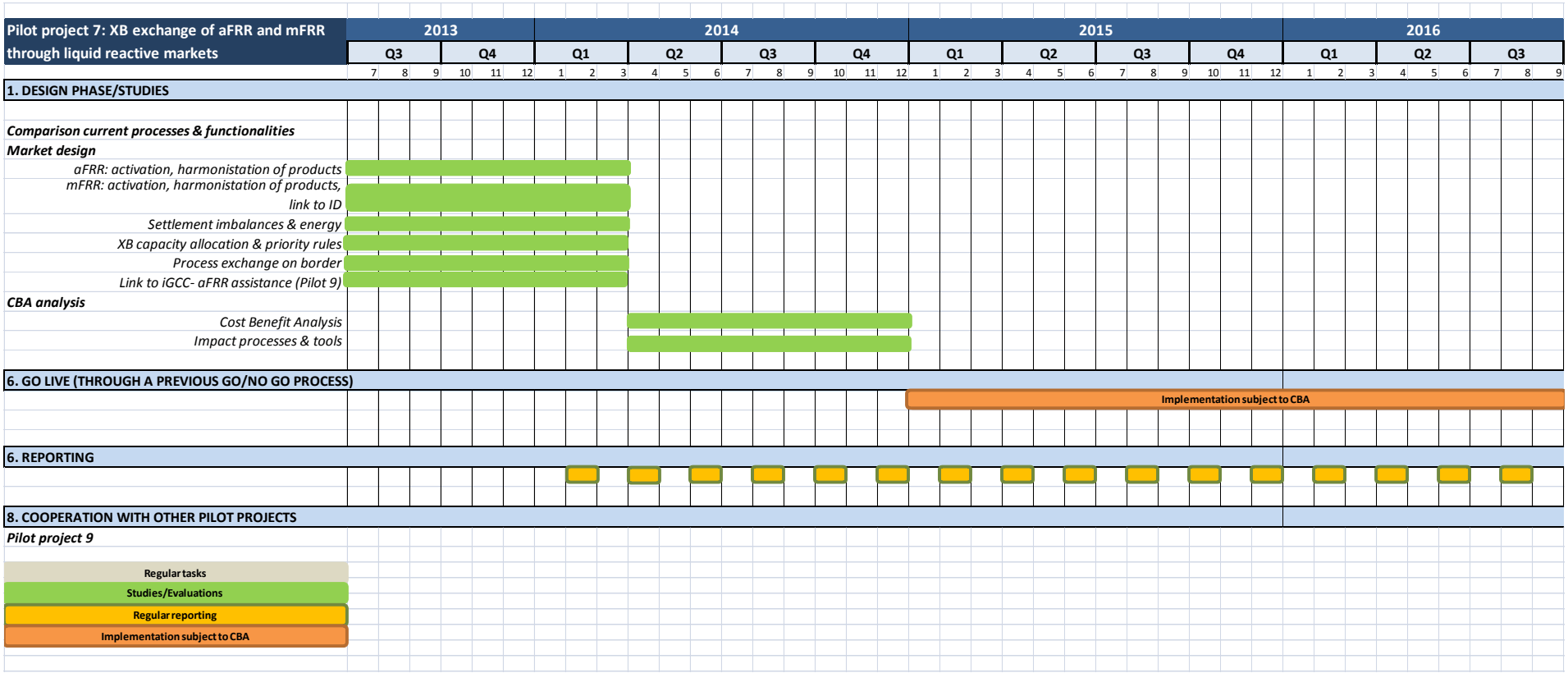
How will this project contribute to the intermediate/final target model?

1. Study to assess the feasibility and added value of the target model; exchange of aFRR and mFRR between 2 different bidding zones

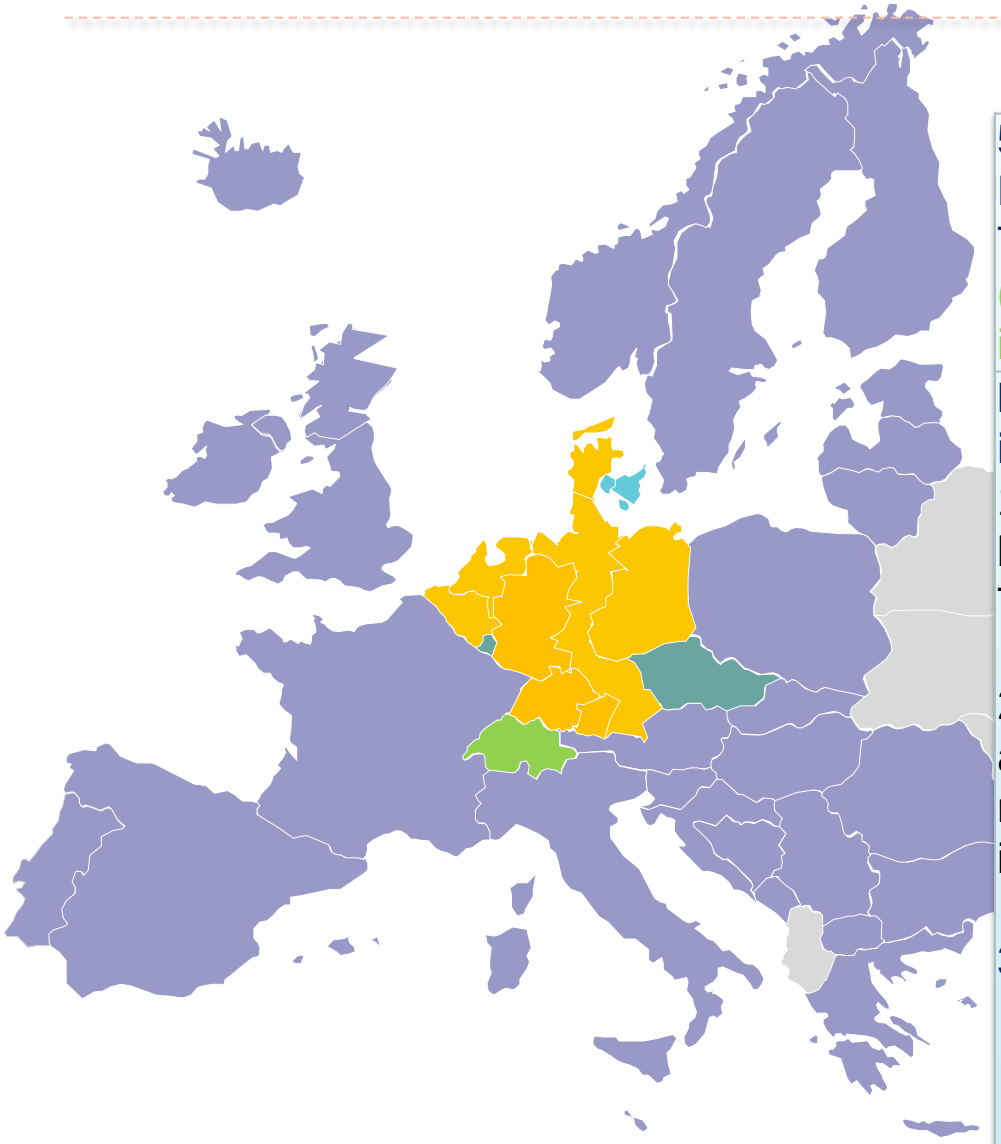
2. Harmonisation of balancing products and settlement procedure.

3. Adequate balancing market design reducing balancing needs and fostering liquid ID markets.

Pilot project 7: Road map



Pilot project 9: Imbalance netting and aFRR assitance



50Hertz Transmission GmbH, Amprion, CEPS, Elia, Energinet.dk, TenneT TSO B.V., TenneT TSO GmbH, TransnetBW GmbH
(Swissgrid as IGCC member, any other interested TSO with a border to the IGCC area)

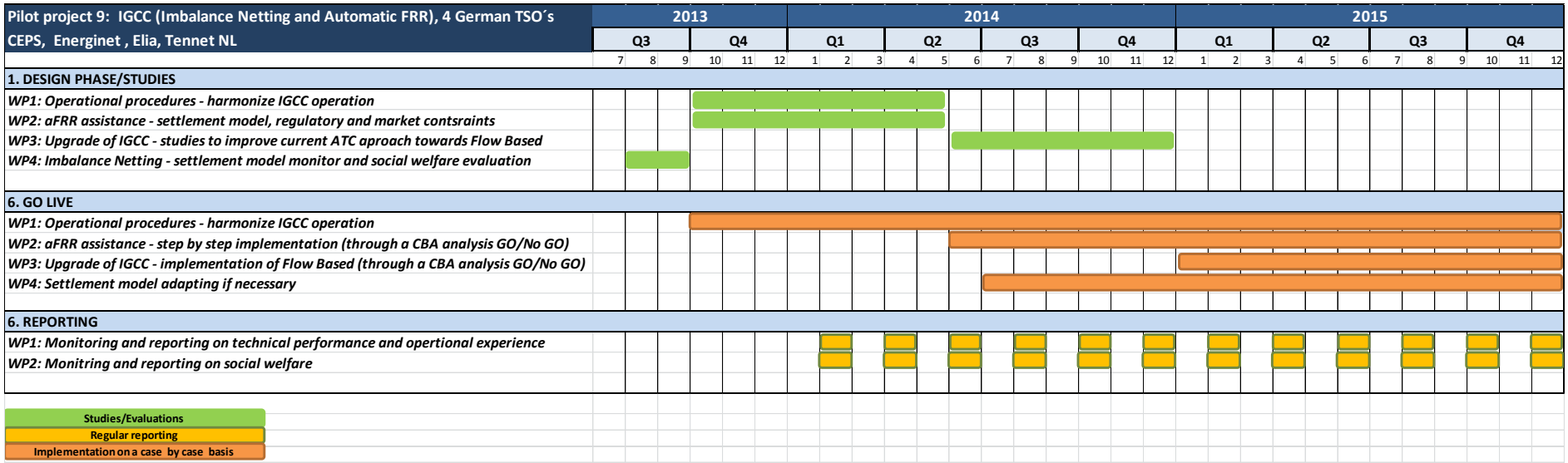
How will this project contribute to the intermediate/final target model?

1. Functioning project for Imbalance Netting will brings experience on operational procedures, TSO-TSO settlement and organisational issues.

2. Flow-based approach for Imbalance Netting, and aFRR - study on regulatory and market related aspects and case-by-case implementation.

3. Bring experiences about aFRR

Pilot project 9: Imbalance netting and aFRR



Thank you for your attention

For more information, contact Elia:

Bob Hebb
Elia – Energy Management
Bob.hebb@Elia.Be

Agenda

1. Welcome	**13h30**
2. Validated Meeting minutes dd 27-06-2013	**13h40**
3. Various - Status of ARP-Contract - iGCC: Status of implementation new optimization module - Dow Jones ZIG index => Platts Day Ahead Zeebrugge gaz price assessment	**14h00**
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Verslag inzake de noodzakelijke voorwaarden om het evenwicht in de ELIA-regelzone te verzekeren // Rapport sur les conditions nécessaires pour assurer l'équilibre de la zone de réglage Elia

Elia ENMAN

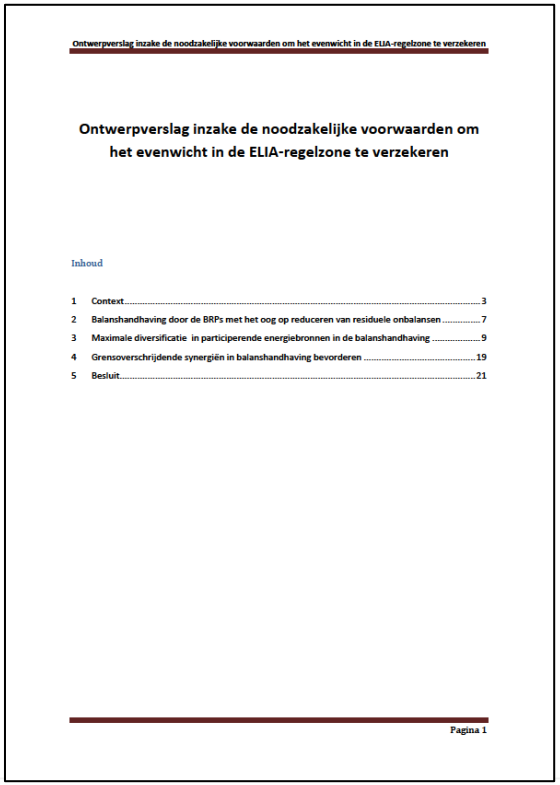
Draft Report (Ontwerpverslag/Project de rapport)

- Who are we?
- Legal framework
- Regulators
- Electricity market players
- Transmission tariffs
- Newsroom
- Publications
- Corporate Governance
- Users' Group
  - Public consultation - Modifications for 2013
  - Plenary Meetings
  - Working Group European Market Design
  - Working Group System Operation
  - Ad hoc taskforce balancing

THE BALANCE IN THE ELIA CONTROL AREA

Please find here the draft report on the necessary conditions to safeguard the system balance in the ELIA grid control area (*in Dutch*) (PDF)

Share



Ontwerpverslag inzake de noodzakelijke voorwaarden om het evenwicht in de ELIA-regelzone te verzekeren

Ontwerpverslag inzake de noodzakelijke voorwaarden om het evenwicht in de ELIA-regelzone te verzekeren

Inhoud

Pagina 1

Context

Legal obligation following art. 8 of E-Law (8/1/2012): *"établir au plus tard dans les dix-huit mois suivant l'entrée en vigueur de la loi (…) un rapport en étapes sur les conditions nécessaire à assurer l'équilibre de la zone de réglage. Après concertation avec les acteurs de marché concernés, il adresse ce rapport à la Fédération belge pour les entreprises d'électricité et de gaz, à la commission et au ministre en y déterminant explicitement les conditions de faisabilité préalables à la mise sur pied de la plateforme visée ci-dessus au point 2° du présent alinéa. »*

- the report is a legal obligation for ELIA to set-up and does not necessarily imply consensus between stakeholders. Many topics of this report have been discussed in the TF balancing and additional concertation on the document was performed by providing the stakeholders the possibility to comment on the document."
  - Published on ELIA website on July 8th
  - Sent to:

    - Minister, CREG and Febeg on July 8th

    - TF Balancing members on July 9th for comments – deadline Aug 30th
  - Announced during UG session of July 18th
  - Comments received from Febeg, Febeliec, ODE, Anode.

Next steps:

- Publication of FR version on website ELIA for comments till 18/10.
- Presentation on next UG of Sep 26th
- Draft final report with non-anonymized comments for submission to Minister, CREG and Febeg.
- Present main comments during UG and TF Balancing for information purposes

Main messages

- **Building on conclusions in "Study Reserves Horizon 2018"**
- **Focussing at 3 segments of conditions that deliver an important contribution to saveguarding system imbalance mngt:**

1. **Key role of BRPs in managing & reducing residual imbalances**
2. **Maximize diversification of participating resources in balancing**
3. **Promote cross-border synergies in balancing (pilot projects)**

Whilst

- **Continuing investments in forecasting are crucial**
- **Development and active participation of flexibility in day ahead and intraday markets is needed**
- **DSOs need to continue efforts in smartmetering and smart profiling (SLP/SPP) thereby facilitating better forecasting by BRPs**

Elements facilitating diversification…

Develop "smart support schemes" enabling VRE (wind, bio, CHP) to participate in ancillary services (FCR, aFRR) and offer flexibility for balancing

- All energy must be subject to imbalance prices
- Offshore wind : introduction of variable Feed In Premium with LCOE ("levelized cost of energy") per wind park on mid-term
- **Loss of support in case of negative prices to be investigated at European level**
- In the long run**: evolution towards capacity based support schemes** (with availability premium) promoting full support of VRE flexibility

Obligation to:

- **Be equipped for providing ancillary services** (FCR, aFRR, voltage control) for all new units (>50MW) connected to ELIA-grid
- **install "active stall pitching"** for offshore wind parks and allow for preventive offshore curtailment
- **provide downward flexibility** to balancing (at free prices)

- Evolution to **short term sourcing** (-> daily) of ancillary services
- Enable **new players** to offers ancillary services (eg aggregators) in close cooperation with DSO for flexibility connected to DSO-grid (DSM)
- Promote **new exploitation methods for pumped storage** facilitating participation in offering ancillary services

Elements promoting crossborder synergies…

Network Code on Balancing

- Promote ID Gate Closure Time as close as possible to real time enabling maximum self-balancing at BRPs using cross-border ID liquidity
- Avoid unnecessary restrictions in sourcing reserves with foreign BSP

Promote cross-border pilot project with TenneT.

→ Elia and TenneT nominated to ENTSO-e a cross border balancing pilot project called ***"Design and evaluation of a harmonised reactive balancing market with XB optimisation of Frequency Restoration while keeping control areas, bid zones, and Regulatory oversight intact*** ". On June 25th the Market Committee accepted and approved the nomination.

Promote ELIA participation in iGCC-initiative (Phase 1) and expension to Phase 2 as part of ENTSO-E pilot project

Questions and/or Remarks ?

Next steps & next meeting date

1. Written comments on todays presentations are welcome!
2. Elia will send meeting minutes (incl all slides) for validation.
3. **Doodle for TF8 will be sent after the meeting**

Thanks for your attention

23/09/2013

Elia