Balancing Taskforce n°7

23/09/2013

Elia ENMAN
1. Welcome

2. Validated Meeting minutes dd 27-06-2013

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

4. Status of Tendering Rx 2014

5. Final design proposal bid ladder platform

6. Pauze

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


9. Status “Ontwerpverslag 18 maanden”

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

Presenter: Filip Carton
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
Agenda

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6. Pauze 15h15
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8. Network Code Balancing – Introduction of principles 16h15
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Various: Proposal for Modifications on ARP contract
=> Consultation UG - Comments

ARP Contract

Balancing

- 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

Procedures

- Verbeteren opschortingsprocedure
- Verbeteren financieel proces
- Administratieve elementen

Comments from FEBELIEC, ANODE, FEBEG

Tariffs

- Rechtzetting Tarieven
- *Herstructurering* van de contracten

Comments from FEBELIEC, FEBEG, BOP

Access Contract

No comments

XB (update)
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? Quod herziening prijsindicator?)
  - *General disclaimer on website data*
  - *Imbalance price ‘indicator’ in real time can be different than applied imbalance price (in case of IT discrepancies): 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…)
  - *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
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 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\textsubscript{50\%CGT}”)
    - Please note that the same CSS\textsubscript{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:

<table>
<thead>
<tr>
<th>Belgian Zeebrugge</th>
<th>p/th</th>
<th>$/MMBtu</th>
<th>eur/MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-Ahead</td>
<td>AADON00</td>
<td>GZBWD00</td>
<td>AALKK00</td>
</tr>
<tr>
<td>M + 1</td>
<td>AADOS00</td>
<td>GZBWM10</td>
<td>AALKQ00</td>
</tr>
</tbody>
</table>

After alignment with producers concerned we will modify contracts, processes and tools accordingly.
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Presenter: Filip Carton

Balancing Task Force – 23/09/2013

Presenter: Filip Carton
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.
For 2014, CREG approved (Decision [(B)130626-CDC-1248](#)) the following volumes:

<table>
<thead>
<tr>
<th>Reserves Type</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve s (R1)</td>
<td>91 MW</td>
<td>96 MW (became 81MW, to be confirmed end October by entso-e)</td>
</tr>
<tr>
<td>Secondary Reserves (R2)</td>
<td>140 MW</td>
<td>140 MW</td>
</tr>
<tr>
<td>Tertiary Reserves (R3)</td>
<td>661 MW for imbalance management off which</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 400 MW R3 Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 261 MW Interruptible Load</td>
<td>661 MW for imbalance management off which</td>
</tr>
<tr>
<td></td>
<td>- From 350 to 400 MW R3 Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Max 50MW for R3 Dynamic Profile</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 261 MW Interruptible Load</td>
<td></td>
</tr>
</tbody>
</table>
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
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 $R_{100mHz}$ 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 $R_{100mHz}$ and R2 Up or Down offer their available capacity on the short term market!
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   - 15h45

   - 16h15

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• 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
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 (and 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.
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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

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

Received incremental bids

- Bid A1 100MW @80 /MWh
  Location A, B, C
- Bid B1 100MW @70 /MWh
  Location A
- Bid B2 100MW @60 /MWh
  Location D

Network constraints

- Network constraint on location B & D

Result

- Bid A1 100MW @80 /MWh
  Location A, B, C
- Bid B1 100MW @70 /MWh
  Location A
- Bid B2 100MW @60 /MWh
  Location D
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 Febelieec & 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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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.
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.
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.
Auction platform under development by Elia: some first illustrations of the concept

- **Gate 1** is open: introduce your offers.
  - Gate 1 closure time: 15/03/2014 at 10.00

- **Gates are closed**: Elia selects the offers.

- **Gate 2** is open: reply to Elia requests of additional offers.
  - Gate 2 closure time: 17/03/2014 at 10.00

**Delivery Period**: August 2014

<table>
<thead>
<tr>
<th>Offer number</th>
<th>R1 symmetrical</th>
<th>R2 Upwards</th>
<th>R2 Downwards</th>
<th>Tariff Period</th>
<th>May not be combined with</th>
<th>Volumes divisible?</th>
<th>Validation Status</th>
<th>Reception Time</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>5</td>
<td>0 Base</td>
<td>Yes</td>
<td>Accepted</td>
<td>6/07/2014 10:25:32</td>
<td>Delete</td>
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<td>10</td>
<td>15</td>
<td>0 Peak</td>
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<td>Received</td>
<td>6/07/2014 10:25:32</td>
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<td>5</td>
<td>20</td>
<td>0 Peak</td>
<td>No</td>
<td>Received</td>
<td>6/07/2014 10:25:32</td>
<td>Delete</td>
</tr>
</tbody>
</table>
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.
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;
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**

<table>
<thead>
<tr>
<th>Delivery Period Name</th>
<th>Starts on</th>
<th>Ends on</th>
<th>GCT1</th>
<th>GCT2</th>
<th>Auction Status</th>
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<td>January '14</td>
<td>1/01/2014</td>
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<td>14/01/2014 12:00</td>
<td>16/01/2014 12:00</td>
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<td>31/03/2014</td>
<td>11/02/2014 12:00</td>
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<tr>
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<td>13/03/2014 12:00</td>
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</tr>
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<td>1/06/2014</td>
<td>30/06/2014</td>
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<tr>
<td>August '14</td>
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<td>1/09/2014</td>
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<td>1/10/2014</td>
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<td>18/09/2014 12:00</td>
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<td>November '14</td>
<td>1/11/2014</td>
<td>30/11/2014</td>
<td>14/10/2014 12:00</td>
<td>16/10/2014 12:00</td>
<td>Unopend</td>
</tr>
<tr>
<td>December '14</td>
<td>1/12/2014</td>
<td>31/12/2014</td>
<td>10/11/2014 12:00</td>
<td>13/11/2014 12:00</td>
<td>Unopend</td>
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</tbody>
</table>

**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
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
2. Validated Meeting minutes dd 27-06-2013
3. Various
   - Status of ARP-Contract
   - iGCC: Status of implementation new optimization module
   - Dow Jones ZIG index => Platts Day Ahead Zeebrugge gaz price assessment
4. Status of Tendering Rx 2014
5. Final design proposal bid ladder platform
6. Pauze
7. Short Term Sourcing: Status, process, timings and test.
9. Status “Ontwerpverslag 18 maanden”
10. Questions – Remarks - Next steps - next meeting date
Network Code Balancing – Introduction of principles

=> Content

- Introduction
- Concepts/terminology
- Timing
- Important dates
Europe aims at providing harmonized rules for balancing markets stipulated by a binding European Network code 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 comitology process
  - **2015 NC enters in to force (??)**
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
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.

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.
New terminology for balancing energy products

- **Frequency Containment Reserves (FCR):** stabilize frequency after imbalance to value different from 50 Hz
  \( \approx \) 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
• 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.
• 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.
• 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.
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**

- **Start**
  - Proposal to stakeholders by TSO

- **1 Month >4 Weeks**
  - Public Consultation shall last at least 4 weeks

- **1-3 Months**
  - Adapted proposal to NRAs by TSO(s)

- **3-6 Months**
  - NRA shall approve or request proposals Within 3 months (1 NRA involved)
  - NRA shall approve or request proposals Within 6 months (>1 NRA involved)

- **3 Months**
  - New proposal by TSO(s) to NRA(s)

**DIFFERENT TYPES OF DEADLINES IN THE NC**

- Deadline to propose something
- Deadline to implement something
TSOs’ proposal for standard balancing energy and balancing reserve products

Entry into force of the multilateral TSO-TSO model with CMO of balancing energy from RR and manual FRR

Coordination between TSOs in activation of balancing energy from automatic FRR (it also includes coordination of automatic FRR with RR and manual FRR)

Entry into force of the multilateral TSO-TSO model with CMOm of balancing energy from RR and manual FRR

TSOs’ proposal for modifications of the FGE’s multilateral TSO-TSO model with CMO of BE from RR and FRR manual

TSOs’ proposal for the target model for the exchanges of balancing energy from automatic FRR

Harmonisation of the main features of the imbalance settlement

Entry into force of the multilateral TSO-TSO model with CMOm of BE from RR

Minimization of counteracting activation of balancing energy between CA (imb. netting)

TSOs’ proposal for the pricing method based on marginal pricing (pay-as-cleared)

TSOs’ proposal for standard balancing energy and balancing reserve products

MAX LENGTH OF THE TRANSITORY PERIOD
The determination of the transitory period shall be subject to consultation with the relevant stakeholders

Entry into force of the standards & requirements of NCEB for which there is no specified deadline in FGE

After transitory period

Implementation of the target model for automatic FRR

LEGEND:

BE - Balancing Energy
CA - Control Area
CMO - Common Merit Order (all bids are shared)
CMOm - Common Merit Order list with margins (a certain amount of the most expensive balancing energy bids can be not shared)
FGE - Framework Guidelines on Electricity Balancing
FRR - Frequency Restoration Reserve
NCEB - Network Code on Electricity Balancing
RR - Replacement Reserve


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

Presenter: Bob Hebb
### Pilot project 7: XB exchange of aFRR and mFRR through liquid reactive markets

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<td>6. GO LIVE (THROUGH A PREVIOUS GO/NO GO PROCESS)</td>
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<td>8. COOPERATION WITH OTHER PILOT PROJECTS</td>
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**Regular tasks**
- Regular reporting
- Implementation subject to CBA

**Studies/Evaluations**
- Regular studies/evaluations

**Implementation subject to CBA**
- Implementation subject to CBA

---

Presenter: Bob Hebb

Balancing Task Force – 23/09/2013
Pilot project 9: Imbalance netting and aFRR assistance

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: IGCC (Imbalance Netting and Automatic FRR), 4 German TSO’s
CEPS, Energinet, Elia, Tennet NL

<table>
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<tr>
<th>WP1: Operational procedures - harmonize IGCC operation</th>
<th>WP2: aFRR assistance - settlement model, regulatory and market constraints</th>
<th>WP3: Upgrade of IGCC - studies to improve current ATC approach towards Flow Based</th>
<th>WP4: Imbalance Netting - settlement model monitor and social welfare evaluation</th>
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#### 1. DESIGN PHASE/STUDIES

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#### 6. GO LIVE

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<tr>
<th>WP1: Operational procedures - harmonize IGCC operation</th>
<th>WP2: aFRR assistance - step by step implementation (through a CBA analysis GO/No GO)</th>
<th>WP3: Upgrade of IGCC - implementation of Flow Based (through a CBA analysis GO/No GO)</th>
<th>WP4: Settlement model adapting if necessary</th>
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#### 6. REPORTING

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<tr>
<th>WP1: Monitoring and reporting on technical performance and operational experience</th>
<th>WP2: Monitoring and reporting on social welfare</th>
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</table>

- **Studies/Evaluations**
- **Regular reporting**
- **Implementation on a case by case basis**
Thank you for your attention

For more information, contact Elia:

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

   16h15  

9. Status “Ontwerpverslag 18 maanden”  
   16h45  

10. Questions – Remarks - Next steps - next meeting date  
    16h45
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
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)
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 safeguarding system imbalance mgnt:

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 expansion to Phase 2 as part of ENTSO-E pilot project
Questions and/or Remarks?

Next steps & next meeting date

1. Written comments on today’s 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