



# “Real Time Balancing Platform”

Kick-off presentation for UG 27-09-2012

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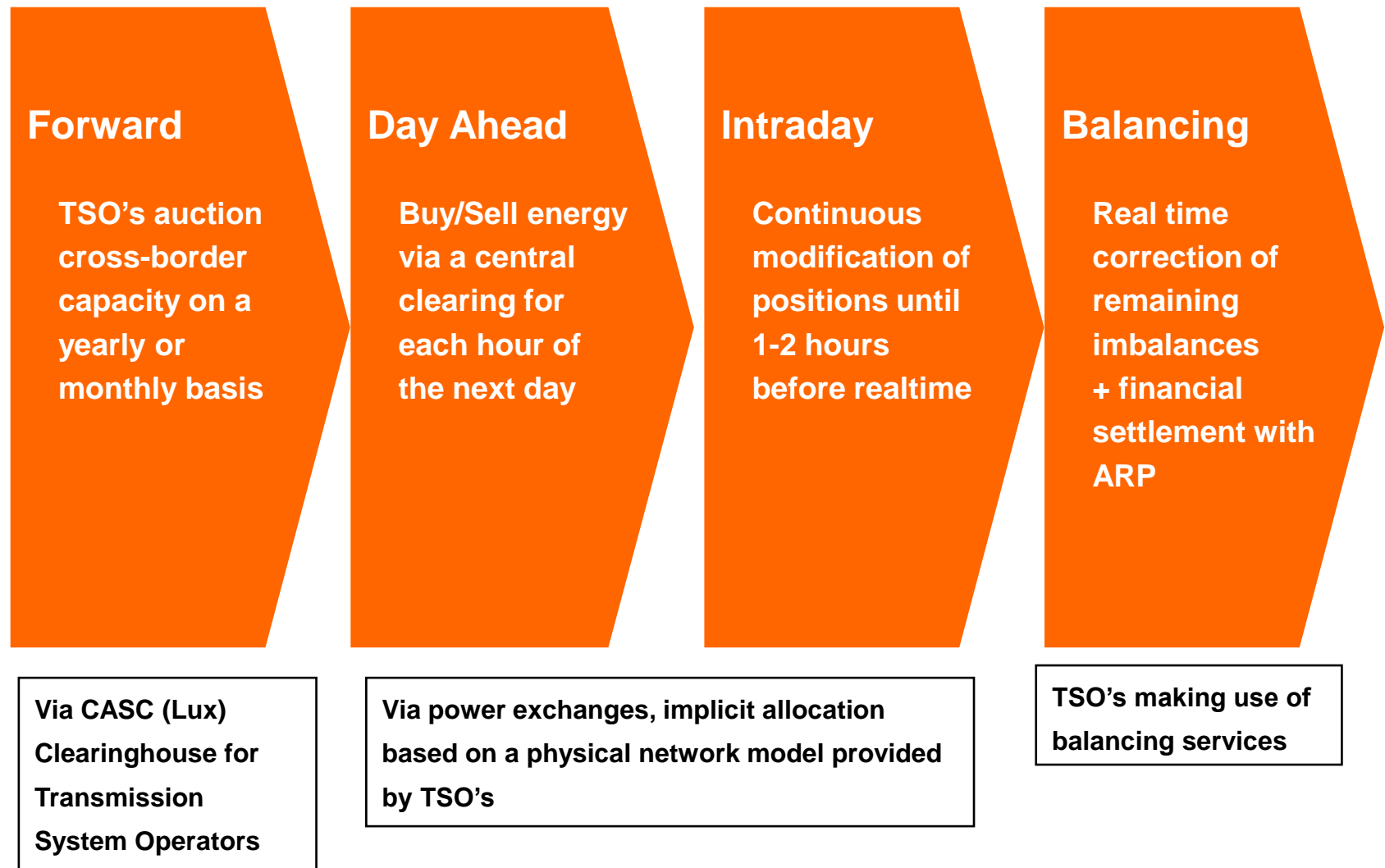
27.09.2012



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- **Context and challenges for balancing**
    - Overall market model
    - Instruments for ELIA to maintain overall balance
    - Plenty of challenges...
    - Combined solution
  - **Real Time Balancing Platform**
    - Goal and Scope
    - Summary of expectations for the “bid ladder”
    - Creation of an “Ad Hoc” Taskforce
  - **Questions**

# Context and challenges for balancing:

## ► Overall market model



# Context and challenges for balancing:

## ▶ Instruments for ELIA to maintain balance



In order to maintain the balance of its control area ELIA has a certain number of contractual (reserved) resources at its disposal:

- **Primary Control Power – R1:**
  - Very fast (seconds) and automatic (based on frequency) activation
- **Secondary Control Power - R2:**
  - Fast (minutes) and automatic (based on imbalance) activation
- **Tertiary Control Power – R3:** Manually activated in less than 15min
  - Contractual R3 = on production units + load shedding of GU's + InterTSO assistance.

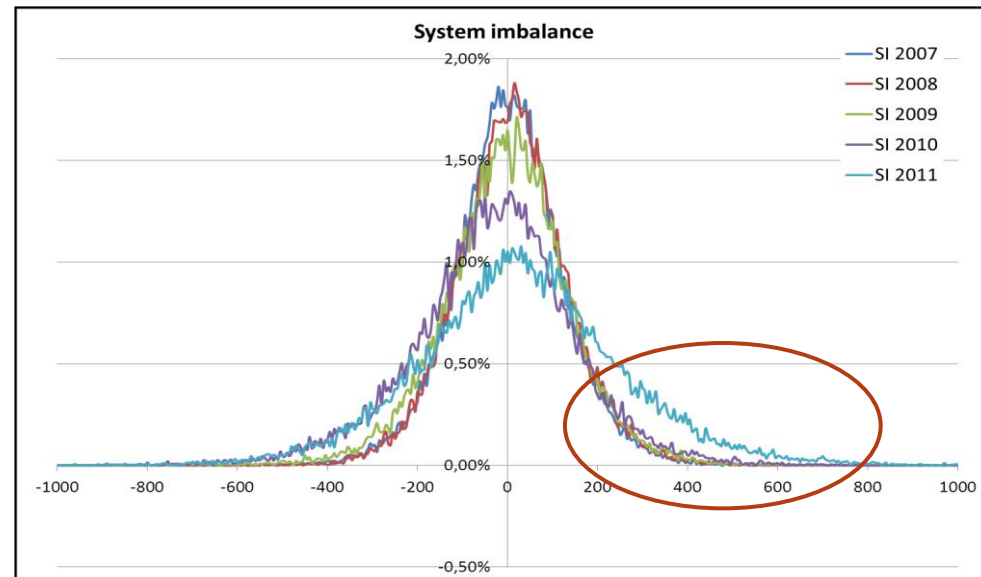
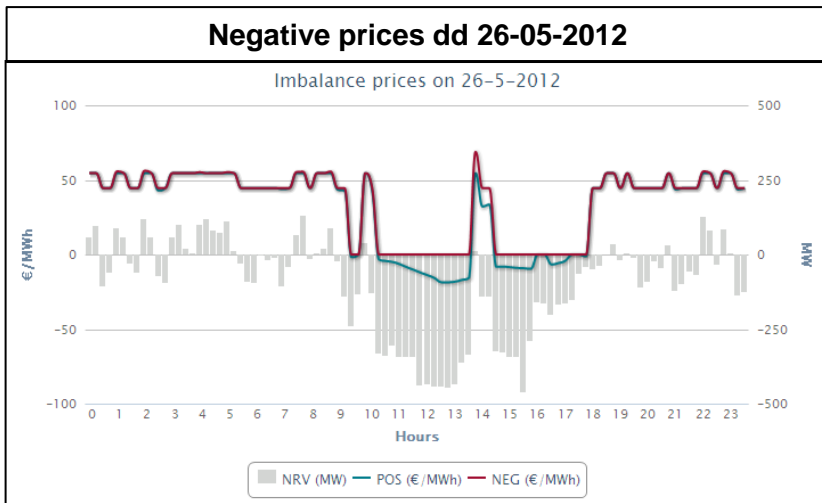
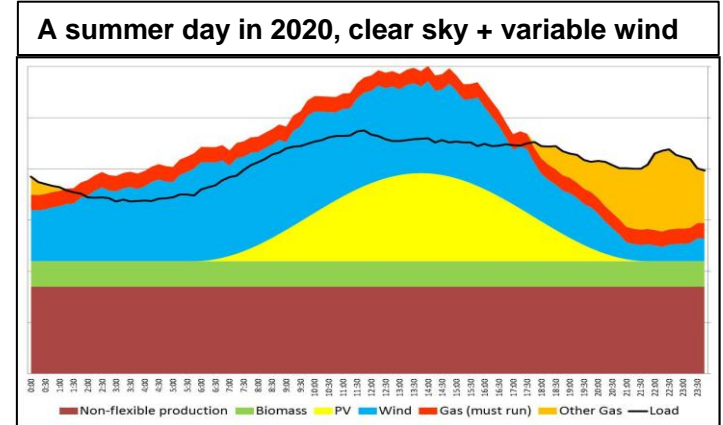
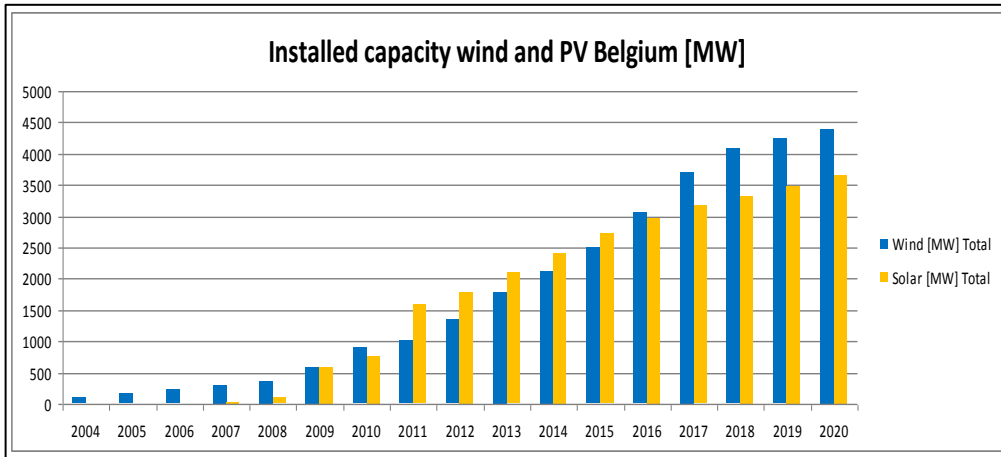
On top of these contractual reserves, so called “free bids” or “CIPU bids” are available:

- Legal obligation for producers to put at ELIA's disposal, remaining margins (upwards or downwards) on each of his production units.
- The prices for activation of these margins are “free bids”.

**=> for load or DER no similar mechanism is available**

# Context and challenges for balancing:

► Plenty of challenges...



# Combined solution:



## ► Projects - Market Design - New Products

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- **Limit balancing needs by reducing System Imbalances at the source (ARP)**
  - New imbalance tariffs (as of 01/01/2012) creating better incentives.
  - Further development of intraday cross-border markets (CWE: foreseen in 2013).
  - Publications of Wind + Solar forecasting data allowing ARP's to reduce forecasting errors.
  - ...
- **International: Collaboration**
  - Currently already collaboration via Inter-TSO assistance contracts (R3)
  - Balancing Framework Guidelines approved by ACER will lead to some ambitious evolutions. => Elia is investigating potential synergies with neighboring TSO's.
  - iGCC: Via this cooperation (as of 01/10/2012) imbalances will be netted with other participating TSO's.
  - ...
- **National: New products or mechanisms**
  - Increase technical flexibility on existing resources (eg CHP's, NU, biomass, ...)
  - Innovative products: e.g. part of R1 can be provided by load (as of 01/01/2013)
  - ...
  - **Real Time Balancing Platform: Set-up a "bid ladder" to allow (on top of producers) industrial clients and aggregators to offer balancing flexibility to Elia.**

## ► Goal and Scope

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### AS IS (existing flexibility):

- Flexibility available for activation by Elia via free bids is limited to CIPU Production Units (not load)
- In general, only those units connected to the Elia grid are listed in CIPU contracts.

### TO BE (new flexibility):

Set up a simple and powerful “balancing platform” to create the opportunity for market players to offer, on top of production units, balancing flexibility on load connected to the Elia or distribution grid.

- As a minimum via the ARP to start with, but independent “BSP” offers not excluded.
- Incremental and/or Decremental bids, offered, on generation or load.
- Connected to the Elia or distribution grid.
- With a certain degree of geographical info where needed for congestion mgmt, otherwise on a portfolio basis.
- Without guarantees for volumes to be offered, but activation prices will be free.
- The actual (CIPU) offers have to remain available for activation as is today (legal obligation to offer) meaning any new type of volumes offered would create additional liquidity compared to today.

## ► Why and how?

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### Why now?

- The amount of flexible production units is decreasing, while at the same time the needs for balancing will increase in the coming years (cfr context)
- Even though there is more potential available in the system, the actual frameworks don't allow this flexibility to be captured or activated (at least not by Elia)

=> the access to existing flexibility is too limited.

- Industrial clients and aggregators are looking for a platform to offer their flexibility.

### How?: Via a “Real Time Balancing Platform”

- A **fundamental change** would be to stop basing our balancing bids on the technical programs of power plants, but instead to organize an I/D bid market via which flexibility can be offered, not only on power plants (as is obliged via CIPU today), but on top of that also on load or even flexibility in distribution (aggregated)
- Design of the criteria for offering bids (with or without ramping rates, timings, delays, GCT, etc...) will have to be done in close collaboration with concerned stakeholders to make sure the criteria are compatible with their constraints.
- Care must be taken to avoid that activation of balancing offers would create congestions.
- ...



# Summary of expectations for the “bid ladder”



► ... To be completed, together with you ...

## Bid ladder expectation

- Increase liquidity available for balancing by extending the possibility to offer free bids towards industrial clients and/or aggregators. As a minimum via the ARP to start with, but independent “BSP” offers not excluded.
- Maintain the actual known (and rather simple) method for correction of ARP imbalance in order to keep “an incentive to execute”, at least for the actual CIPU volumes. However, to allow DER flexibility to be captured without too many barriers (e.g. complexity) Elia is analyzing different “models” in search of a simple mechanism...
- Flexibility offered at free prices on the bid ladder would only be used for balancing purposes, congestion bids will remain CIPU based. However, care must be taken to avoid that balancing bids would cause congestions.
- The bid ladder must facilitate future opportunities for XB-Balancing by using more or less “EU-standard” products.
- Long term evolutions (Framework Guidelines => Network Codes under construction) for balancing must be anticipated.
- Obviously, compliancy with transparency requirements must remain intact.
- Low threshold interfaces with the bid ladder must allow smaller actors to participate without too much IT-developments.

... to be completed, together with you ...

Context

Challenges

#Solutions

Bid ladder

Taskforce

## ▶ Via “Ad Hoc Taskforce”

Elia proposes to set-up an Ad Hoc taskforce under the WG System Operations, to consult and exchange ideas with stakeholders:

- ARP
- Producer
- Industrial client
- Aggregator
- Other ?

### Topics to be discussed:

- Challenge of concept & framework
- “EU Standard” balancing products (activation delay, duration, ramp rate, ...)
- Contractual aspects
- IT-Platform
- Roll-out
- Etc...

## Next Steps

- 1. Confirmation of taskforce creation by UG 27-09**
- 2. Elia will send out an e-mail requesting interested stakeholders/federations to announce their representatives (if any) to participate in this taskforce.**
- 3. Elia will organize a first taskforce around mid November 2012.**
- 4. Important milestones and/or conclusions will be reported to the WG System Operations.**

# Questions?

