

Feedback Task Force Balancing

Users'group meeting 17/03/2016

FCR Roadmap

As Is

R1 product type	CIPU		Non CIPU	
	TSO	DSO	TSO	DSO
Asym up / down	R1 down	NA*	R1 down	R1 down
	R1 up (NA)*	NA*	R1 up	R1 up
Sym 100 / 200 Mhz	R1 sym	NA*	R1 Sym	R1 sym

- WKK @ TSO can deliver R1 down & R1 100 mHz
- 30-35 MW of R1 down from biogas & biomass units
- 10 – 15 market players have already contacted Elia to get more information on R1 requirements for batteries. Batteries are profitable and are starting to deliver Rx @ European level (NL, GE, CH...)

To Be
End 2016

R1 product type	CIPU		Non CIPU	
	TSO	DSO	TSO	DSO
Asym up / down	R1 down	NA*	R1 down	R1 down
	R1 up (NA)*	NA*	R1 up	R1 up
Sym 100 / 200 Mhz	R1 sym	NA*	R1 Sym	R1 sym

- + Q3 2016: R1XB with DE**
- Weekly auction organized in 2 rounds
 - Local combined R1/R2 tender (STAR) with XB divisible bid at **forecasted price (max 70 % of FCR volume)**
 - Common XB FCR tender for remaining volume
- Allow Belgian providers to sell FCR product to other countries
- Increase of overall competition & volume liquidity

- + 2017: R1 new technologies (e.g. batteries)**
- + 2018/19: Generic FCR product**

* NA because a CIPU holder can participate to R1 product DSO using an Non CIPU R1 contract as soon as the product is open for the Non CIPU

mFRR Context and constraints

- Historical mFRR architecture built around 4 products (R3 Prod, ICH, R3DP and Free Bids) that are:
 - Very different
 - Each designed for different players (R3 Prod + Free Bids = CIPU units, ICH = TSO GUs and R3DP = Aggregators)
- Evolution in supply contracts is affecting the availability of ICH reserves
- SDR becomes 0 at end of winter
- NC on EB/Stakeholders request product evolution:
 - Harmonization / simplification
 - Level playing field for different technologies
 - Short term sourcing to increase competition (load, RES and decentralized unit participation)
 - Free activation prices, MO activation and marginal pricing

Approach to develop mFRR market

up till 2016 : a stepwise yearly approach

BUT... GL on EB

- Requirements for fundamental changes – implementation needs to be done over several years (evolution no revolution)
- BE mFRR market need to be made gradually “ready” for XB integration (products, algorithms, functions, processes still under discussion)
- Evolution to standard mFRR products open to all providers & technology

On the same time: stakeholders state that there are too many changes on a short time notice

From 2016 onwards : multi-year approach

- Realistic (yet ambitious) for Elia and stakeholders

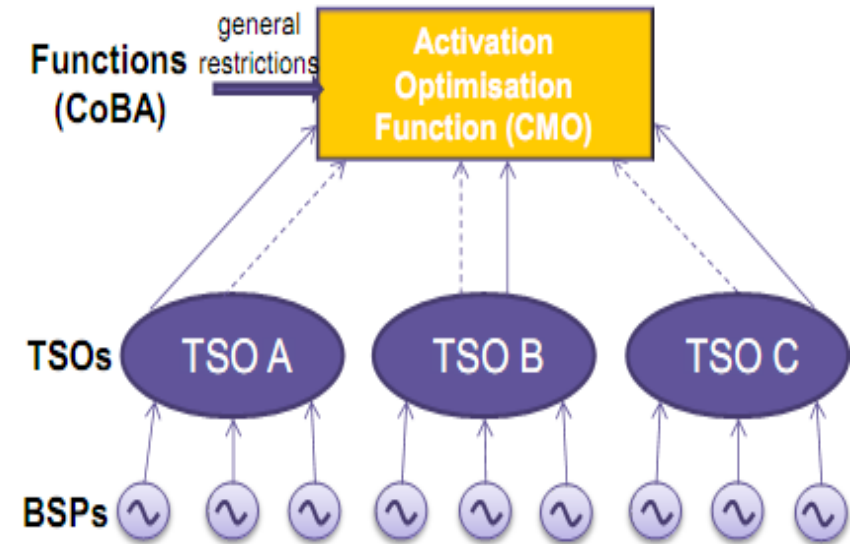
Drivers for Change – NC on EB

Requirements ...

- ✓ EU standard products regional exchanged
- ✓ Harmonised settlement rules for balancing energy
- ✓ Merit order activation of balancing bids (contracted and not contracted) with free prices
- ✓ Portfolio explicit bidding
- ✓ Allow aggregators, demand facility, production to become BSP
- ✓ ST procurement of reserves

Work in Progress

- | | |
|---|------------|
| ✓ Definition standard products & algorithms | (ENTSOe) |
| ✓ Pricing rules for balancing energy settlement | (ENTSOe) |
| ✓ Geographical configuration of CoBAs | (ENTSOe) |
| ✓ Common Functions in CoBa | (Regional) |
| ✓ Framework Rules for CoBa | (Regional) |
| ✓ Rules for aggregation | (national) |
| ✓ T&C for BSPs and BRPs | (national) |



- Commercial information: bids, offers for Balancing Energy
- > Individual restrictions: unshared bids, specific products,...
- General restrictions: (LFC&R), grid constraints (PTDFs, AMFs,...), available capacities (after IDGT, reserved capacities,...)

CoBAs for (RR), aFRR, mFRR & Imbalance netting

Drivers for Change – Diversification & XB integration

- **Portfolio bidding**

- enabling DER, RES & Load to participate into the balancing market
- Hence **No link to CIPU** possible for portfolio bidding
- Hence **new availability control** (not relying on CIPU nomination)

- **Short term sourcing**

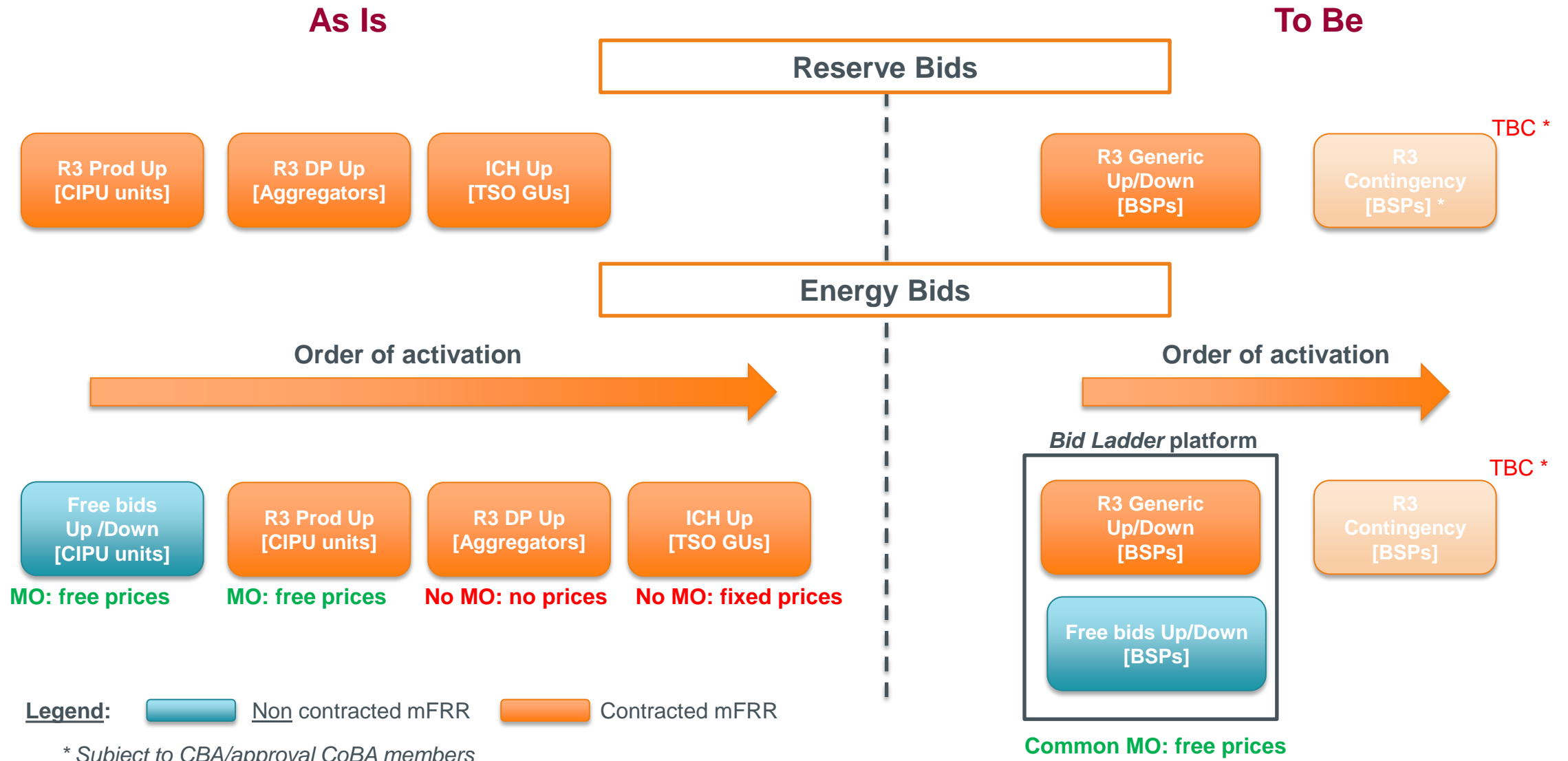
- Allow participation and competition of all technologies with technology neutral products – no restriction on N° of activations/ energy & availability
- Inline with markets with high share of RES (DK & DE)

Table 7: Impact of product duration on aFRR capacity potential

	Product duration / product resolution	Base delivery	Peak & long-off-peak	8h blocks	4h blocks
Onshore wind farm	Month	0%	0%	1%	1%
	Week	2%	4%	5%	8%
	Day	25%	34%	50%	65%
BE aggregated offshore production	Month	0%	1%	1%	1%
	Week	3%	6%	7%	11%
	Day	36%	47%	65%	78%

- BE balancing market should be prepared to become “ready” for XB integration
- BE balancing market should adopt existing design features which are a step forward (no regret) and which are requirements for XB integration (harmonisation pre-requisites)
- Only bids from **reserves with 100% availability – unlimited n° of activations – no energy constraints** (except recovery period) can be exchanged on a regional CMO
- **Explicit energy bidding (no link to CIPU)** – offers on regional CMO need to be **firm**

MT mFRR Model – Overview

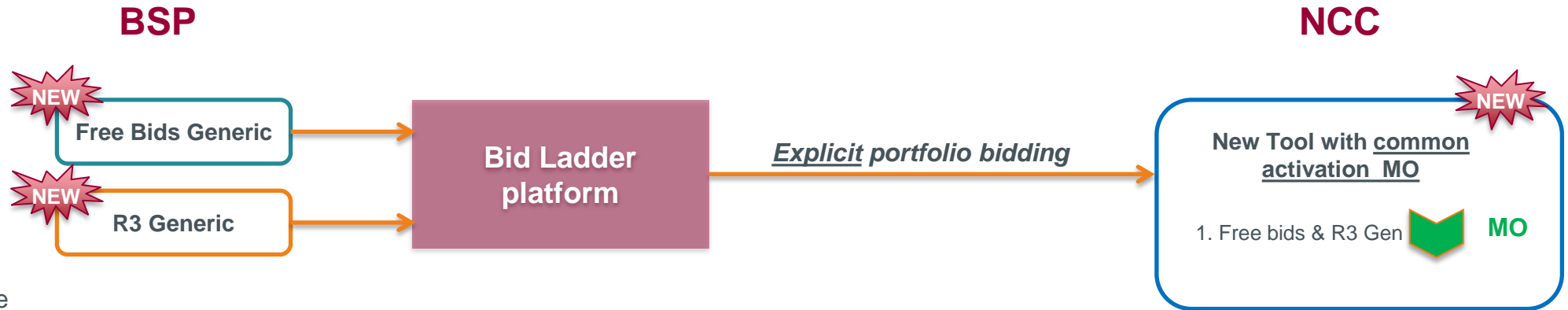


Evolution to target model – Energy flow

**Target
2019
or
2020**

Milestones:

- ★ NEMO go Live
- ★ Start CoBA for mFRR/aFRR (?)

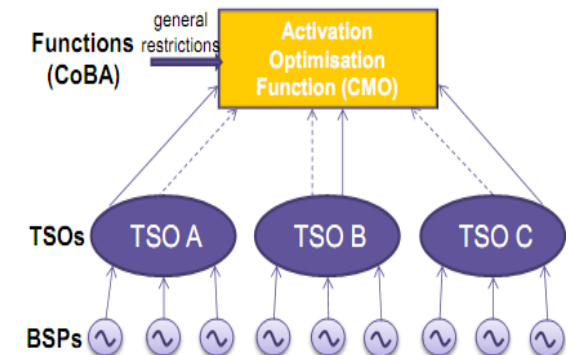


Generic R3 product:

- Free bids generic: standard EU products
- **Daily procurement of block of 4 hours**
- Portfolio biddings (no link with CIPU)
- Rx: liquidity provider on bid ladder platform
- 1 GFA for all providers
- Dynamic dimensioning
- Full Bid Ladder platform
- ...



- **NEW IT architecture**
- **Regional Bal. Markets**



mFRR roadmap

★ EIF NC on EB (?)

★ NEMO go Live

★ Start CoBA for mFRR/aFRR (?)

Step 1: Product opening

2017

Step 2: bid ladder market

2018 - 2019

Step 3 MT model

2019 - 2020

Reserve

- R3 Standard: open R3 Prod to non CIPU
- R3 Flex : open R3 DP to CIPU
- ICH: no change but facilitate move to R3 Flex

- Possible stop ICH
- R3 Down
- Non CIPU R3 Standard and Flex are liquidity providers on Bid Ladder (ToE)

- Generic R3 & portfolio biddings
- 1 GFA for all providers
- Dynamic dimensioning
- Congestion management

Energy

- Free bids: open to BRP & FSP (Bid Ladder with ToE)
- Keep separate MO activation (free bids then R3)

- Free bids: open to BRP & FSP (Bid Ladder with ToE)
- Act. price for all R3 bids (link TOE)
- Common MO activation (free bids and R3)

- Full Bid Ladder platform
- Standard products

Integration of reserve and energy

Nom & Controls

- No change (CIPU vs non CIPU)

- No change (CIPU vs non CIPU)

- Stop R3 CIPU nom
- New Rx controls

Sourcing

- Monthly except ICH yearly

- Up: Monthly or shorter

- Daily with 4 hours blocks (?)

GFA

- GFA CIPU & GFA Non-CIPU

- GFA CIPU & GFA Non-CIPU

- GFA Generic

TF Balancing 17/03; proposal for R3 2017

RESERVES (01/01/2017)

- Create 2 generic mFRR products –
 - **Standard product**: 8 hours energy availability – 100 % availability – No restrictions in N° of activations
 - **Flex product**: 2 hours energy availability – 100 % availability –restrictions in N° of activations (R3DP)
 - Both products can be offered by CIPU and non-CIPU but No activation price for non-CIPU reserves
- **100 % monthly procurement (tbc)** for the generic reserve products
- **ICH** Yearly sourcing – no modifications – possibly last year

ENERGY (Q2 2017)

- Establish bid ladder pilot
- Open Free bids for all TSO GU (and DSO GU; to be discussed in collaboration with DSOs)

Conclusions – next steps