

RR Platform – Implementation Framework

The Electricity Balancing Guideline ('EBGL') requests to the establish an European platform for **R**eplacement **R**eserves pursuant to its Article 19(1) and develop a proposal under an implementation framework:

- This proposal was submitted 6 months, after the guideline entered into force
- The platform is expected to Go-Live by end of 2019

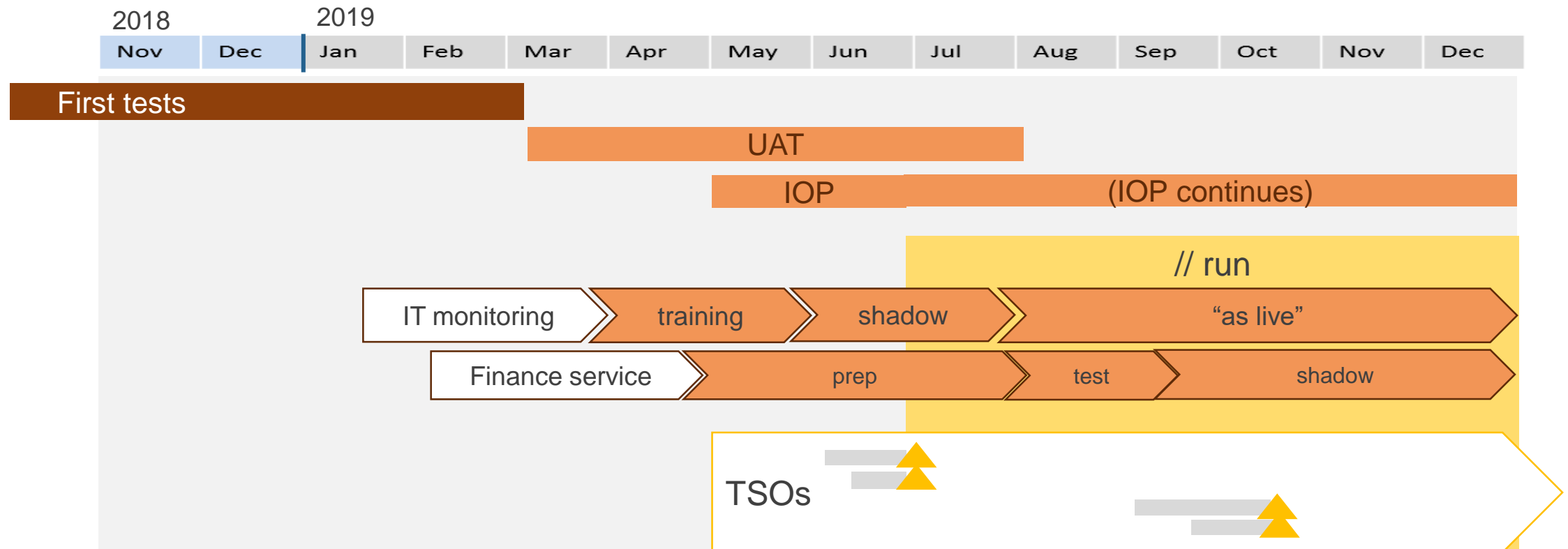
Main points from the RR – Implementation framework:

- The TSOs that are part of this methodology are: National Grid, Swissgrid, REE, REN, TERNA, Transelectrica, RTE, PSE and CEPS
- Definition of the RR Standard Product characteristics
- BSP and TSO Gate closure time
- Types of the bids accepted and formation of the CMOL
- Functions that will cover the platform

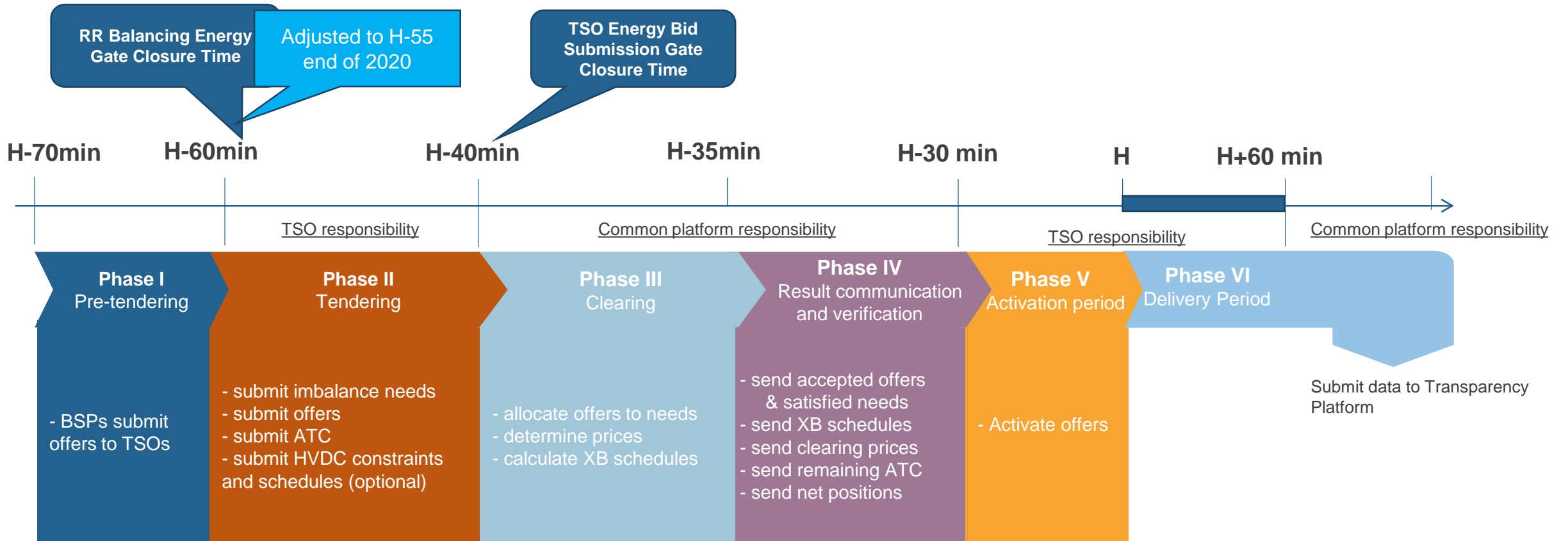
The final proposal was approved on 4th December 2018 by the relevant NRAs



RR Platform – LIBRA



RR Platform – timeline



RR Platform – types of bids

1. Full divisible bids

2. Divisible bids

3. Indivisible bids

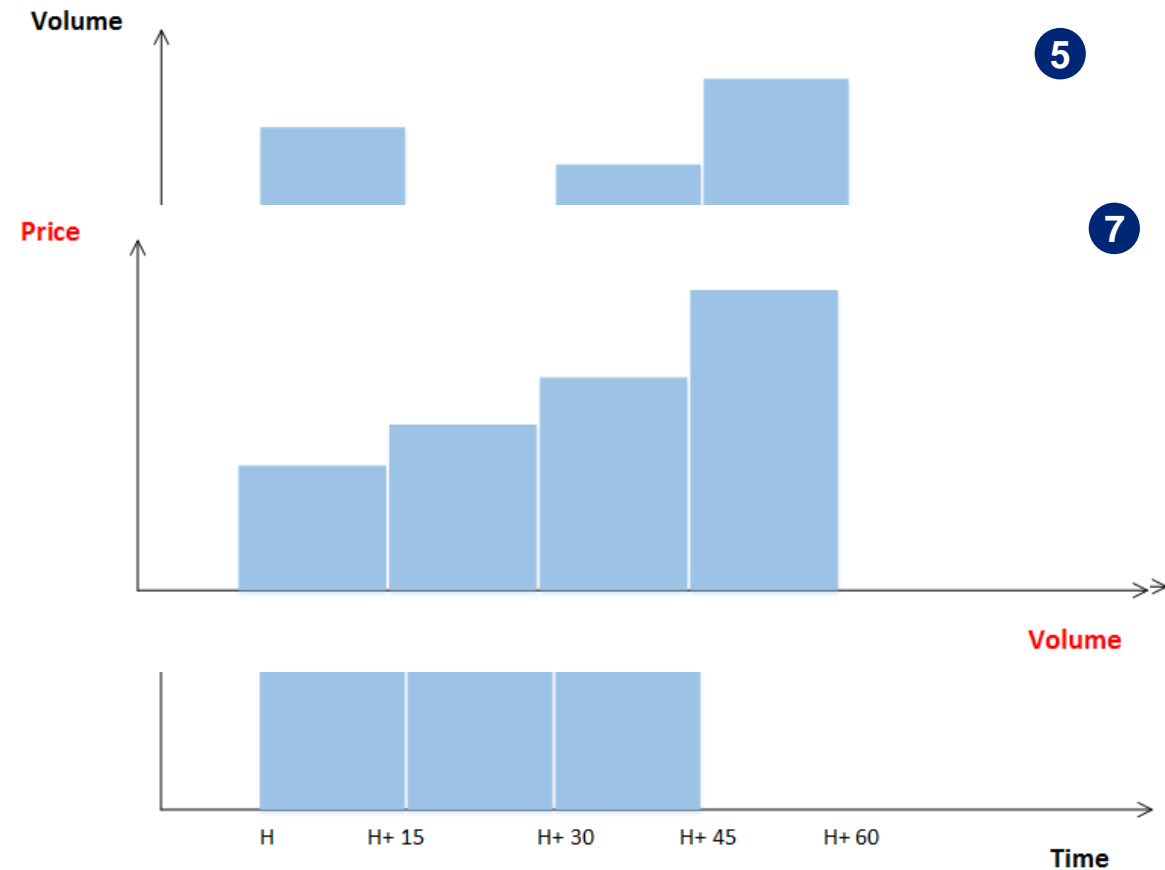
4. Linked bids in time

5. Exclusive bids in volume

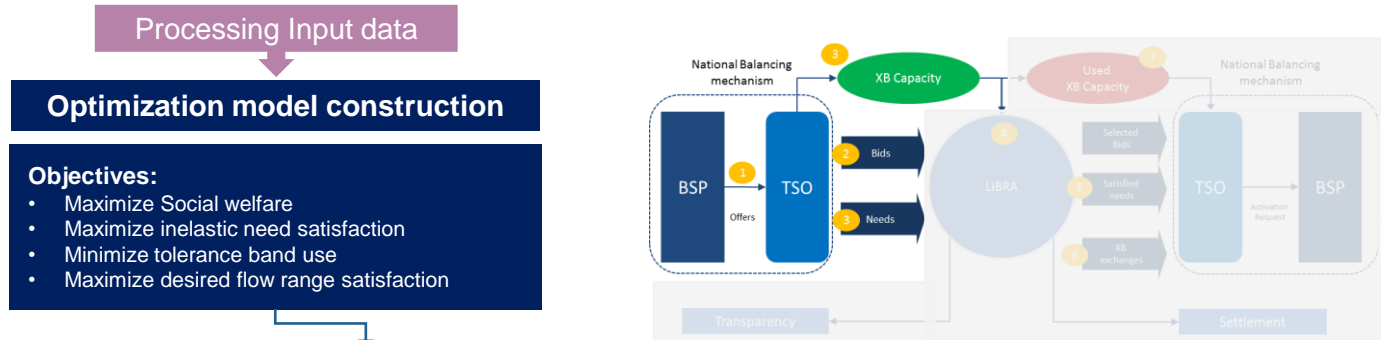
6. Exclusive bids in time

7. Multi part bids

- Increasing or decreasing only prices
- They can be either fully divisible, or divisible or indivisible bids
- A multi-part bid can be defined with a starting and an ending time and can last from 15 to 60 minutes.. The same volume will be accepted for the whole defined delivery period



RR Platform – Algorithm optimisation



1. TSO receive bids from BSPs from their local balancing area/bidding zone.
2. TSOs put the valid RR bids on the LIBRA platform
3. TSOs send their needs and ATC values to the platform.

Maximize Social welfare

- Constraints: Fix bids and need selections
- Fix social welfare

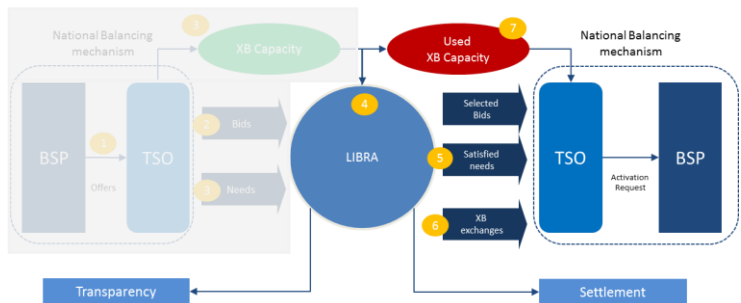
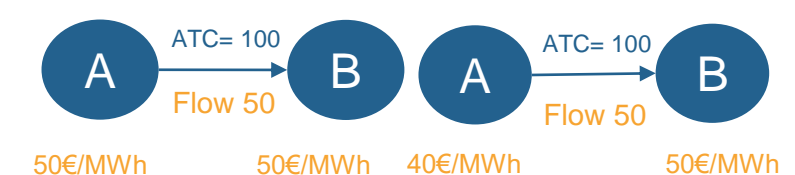
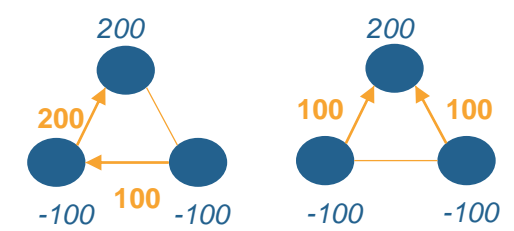
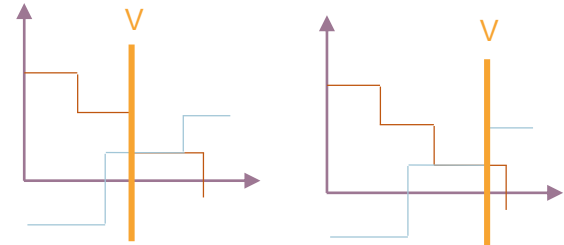
Maximize inelastic need satisfaction

- Constraints: Fix XB flows

Minimize tolerance band use

- Constraint : Fix XB price differences


Maximize desired flow range satisfaction



5. Communication of accepted offers, satisfied needs and marginal prices
6. Calculation of the bilateral exchanges between balancing areas and TSO-TSO settlement.
7. Residual ATC and net positions are communicated to TSOs

RR Platform – LIBRA


Lot B



Optimization/Clearing algorithm

- Optimization of the bids using CMOL
- Optimization of the available CZ interconnections

Lot B2




IT interface/data management

- Interface scalable up to 50 TSOs

■ Main modules

■ Services


Lot C



Hosting

- Unicorn are contracted for hosting the LIBRA activities (cloud based)
- Flexibility on changing the hosting party towards other suppliers or TSOs
- Flexibility on upgrading the hardware following future demand


Lot D



IT monitoring service

- Monitoring of the Optimization module
- Monitoring of the IT interface
- SLAs and contracting in case of failure
- Liaison with TSO operations

Lot E



Financial Settlement

- Financial settlement to be externally contracted
- Monthly billing system between TSOs through a centralized clearing house
- Flexibility to add new TSOs

Lot F - Testing