

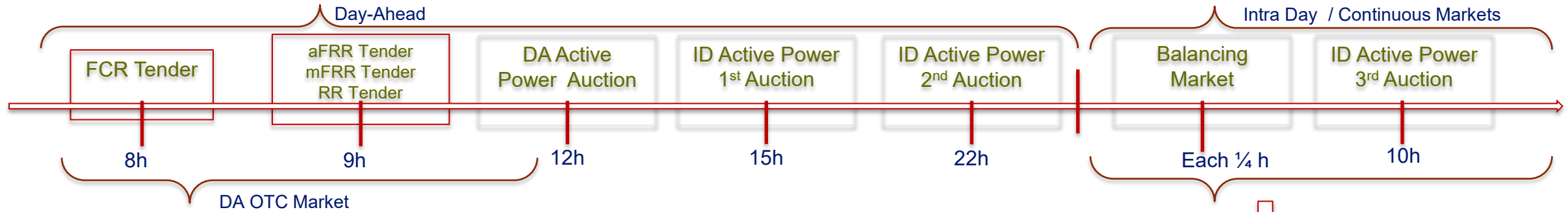


# IEA Electricity Market Workshop

4<sup>th</sup> December 2025



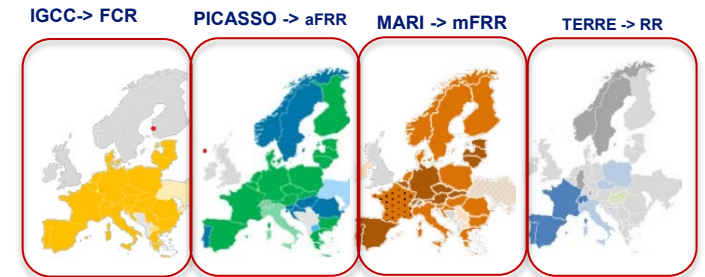
# Short-Term Markets in Europe / France



## Some key points for understanding :

Ancillary services tenders concern capacity only  
 Energy activation is carried out in real time by TSO via different platforms  
 FCR: Frequency Containment Reserve – Energy activated through IGCC platform  
 aFRR : automatic Frequency Restoration Reserve – energy activated through Picasso Platform  
 mFRR: manual Frequency Restoration Reserve – Energy activated through Mari Platform  
 RR : Replacement Reserve – energy activated through TERRE Platform

TSO activate energy through different platforms



## Why this market design is beneficial for the market ?

- Auctions provide a comprehensive view of constraints and enable cross-borders reserves utilisation
- These different markets ensure cost-minimal coverage
- DA OTC (Over The Counter) market reveals a continuous price before auctions
- A price is revealed at each auction, thereby strengthening transparency
- Possible arbitrage opportunities enhance price representativeness

**All these factors contribute to developing liquidity with greater transparency in price formation with cheapest reserves and maximise welfare .**

## A good market design is only part of the jigsaw puzzle

A good market design is critical but not the only necessary factor to create the conditions for the development of effective and liquid power wholesale markets

All successful markets – those with high traded volumes and a diverse range of market participants benefit from:

- **Standardised contracts** so all players can trade on the same general terms and conditions
- A range of **standardised traded products** that meet the needs of most market participants and that help pool liquidity
- High level supply-demand **transparency**
- Transparent and **robust price references** so everyone can see and trust the 'market price' (even when it is negative)
- A number of easily **accessible trade execution platforms** (both brokers and exchanges) to support liquidity and technology solutions to make trading easier and faster
- Low barriers to entry to the market and a stable and **predictable regulatory environment** which also brings confidence for investors
- Initiatives allowing operational and credit risks to be managed effectively (e.g. electronic trade and settlement confirmation)

# Appendix

## Ancillary services : two complementary remunerations : Capacity and Energy

|                             | Ancillary services                        |  | Balancing Mechanism                                      |   |
|-----------------------------|---|--|--|---|
| Capacity                    | Frequency Containment reserve<br>FCR      | automatic Frequency Restoration<br>Reserve<br>aFRR | manual Frequency Restoration<br>Reserve<br>mFRR          | Replacement Reserve<br>RR                                 |
| Contracted Capacity Volume  | 516 MW (2025)                             | 500 to 1100 MW                                     | 1000 MW Up<br>780 MW Down                                | 500 MW Up   |
| Contractual basis           | Day-Ahead Tender                          | Day-Ahead Tender                                   | Annual, quarterly and Day-Ahead<br>tenders               | Annual, quarterly and Day-Ahead<br>tenders                |
| Capacity Remuneration Price | Marginal Price from tender                | Marginal Price from tender                         | Marginal Price from tender                               | Marginal Price from tender                                |
| Energy                      | Frequency Containment reserve<br>FCR      | automatic Frequency Restoration<br>Reserve<br>aFRR | manual Frequency Restoration<br>Reserve<br>mFRR          | Replacement Reserve<br>RR                                 |
| Activation                  | Automatic                                 | Automatic  | Manual   | Manual  |
| Order                       | Decentralised (linked to frequency<br>Hz) | Centralised (signal sent by RTE)                   | Centralised (order from RTE)                             | Centralised (order from RTE)                              |
| Mobilisation Delay          | 30 s                                      | 5 min  | <13 min  | >13 min   |
| Energy Remuneration Price   | Day-ahead Spot Price                      | Standard marginal price (PICASSO)                  | Specific auction price<br>Standard marginal price (MARI) | Specific auction price<br>Standard marginal price (TERRE) |