# Baltic Balancing market roadmap

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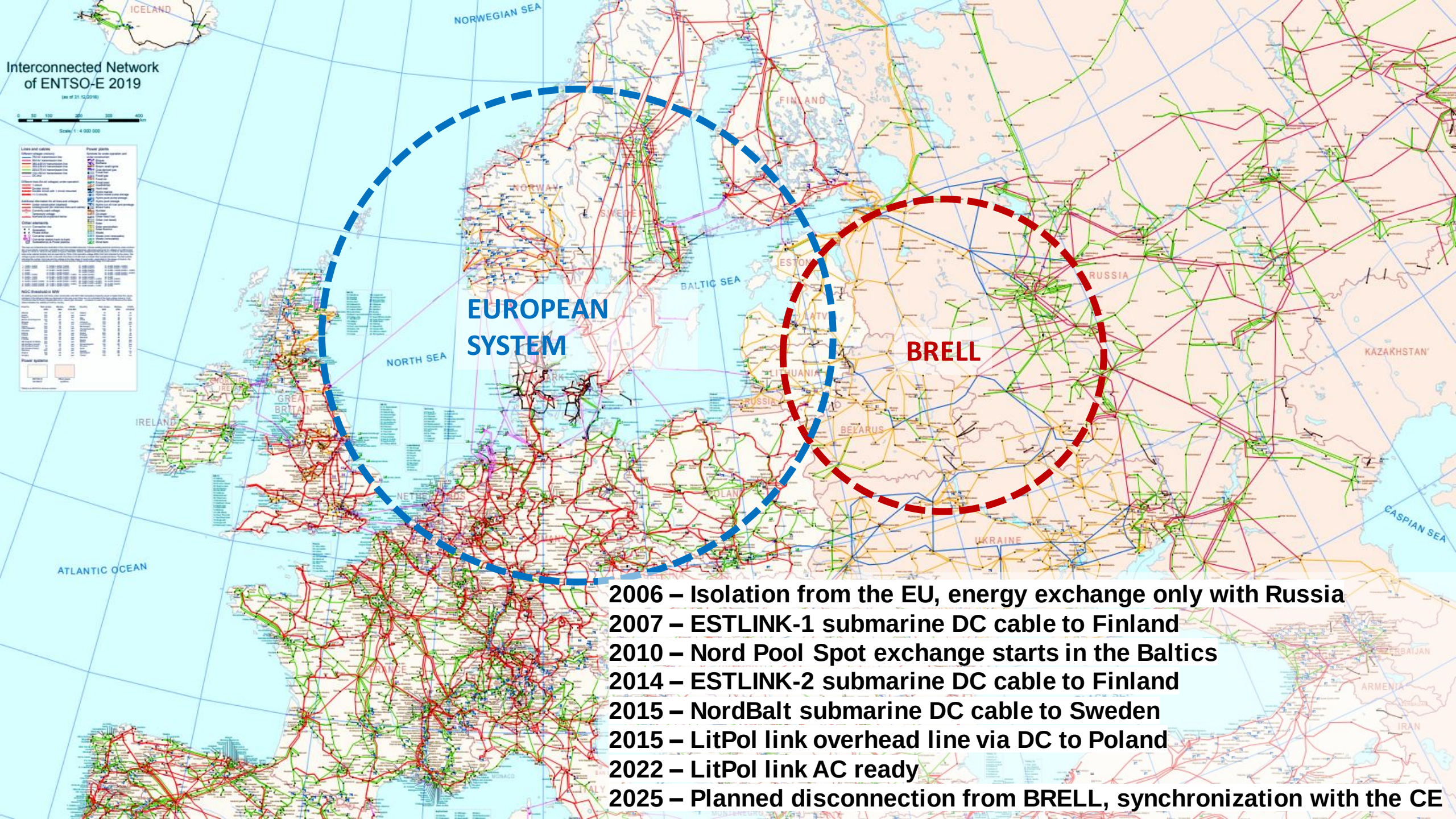

Interconnected Network
of ENTSO-E 2019
EUROPEAN
SYSTEM
BRELL
2006 – Isolation from the EU, energy exchange only with Russia
2007 – ESTLINK-1 submarine DC cable to Finland
2010 – Nord Pool Spot exchange starts in the Baltics
2014 – ESTLINK-2 submarine DC cable to Finland
2015 – NordBalt submarine DC cable to Sweden
2015 – LitPol link overhead line via DC to Poland
2022 – LitPol link AC ready
2025 – Planned disconnection from BRELL, synchronization with the CE

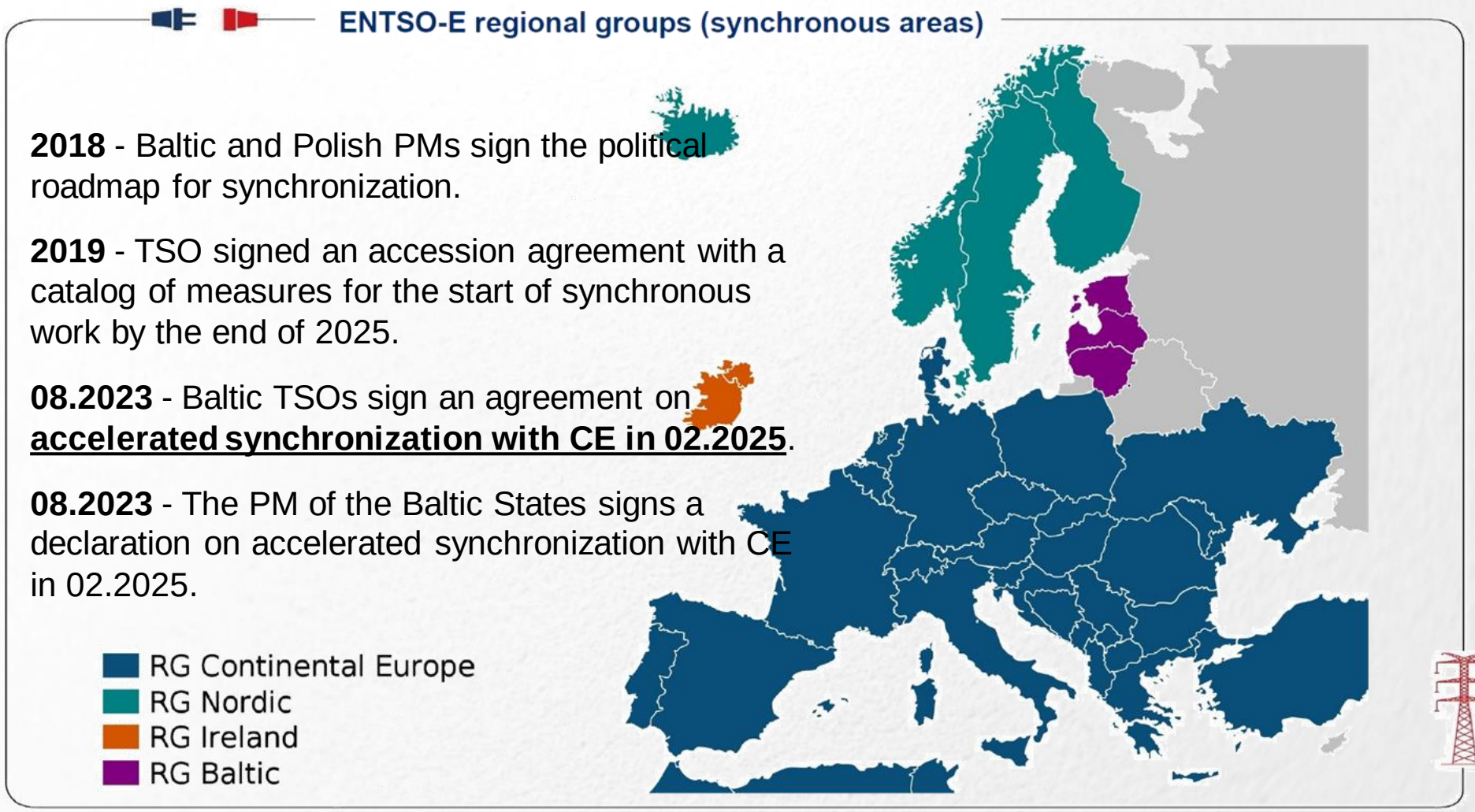
# ACCELERATED SYNCHRONIZATION WITH CE

**2018** - Baltic and Polish PMs sign the political roadmap for synchronization.

**2019** - TSO signed an accession agreement with a catalog of measures for the start of synchronous work by the end of 2025.

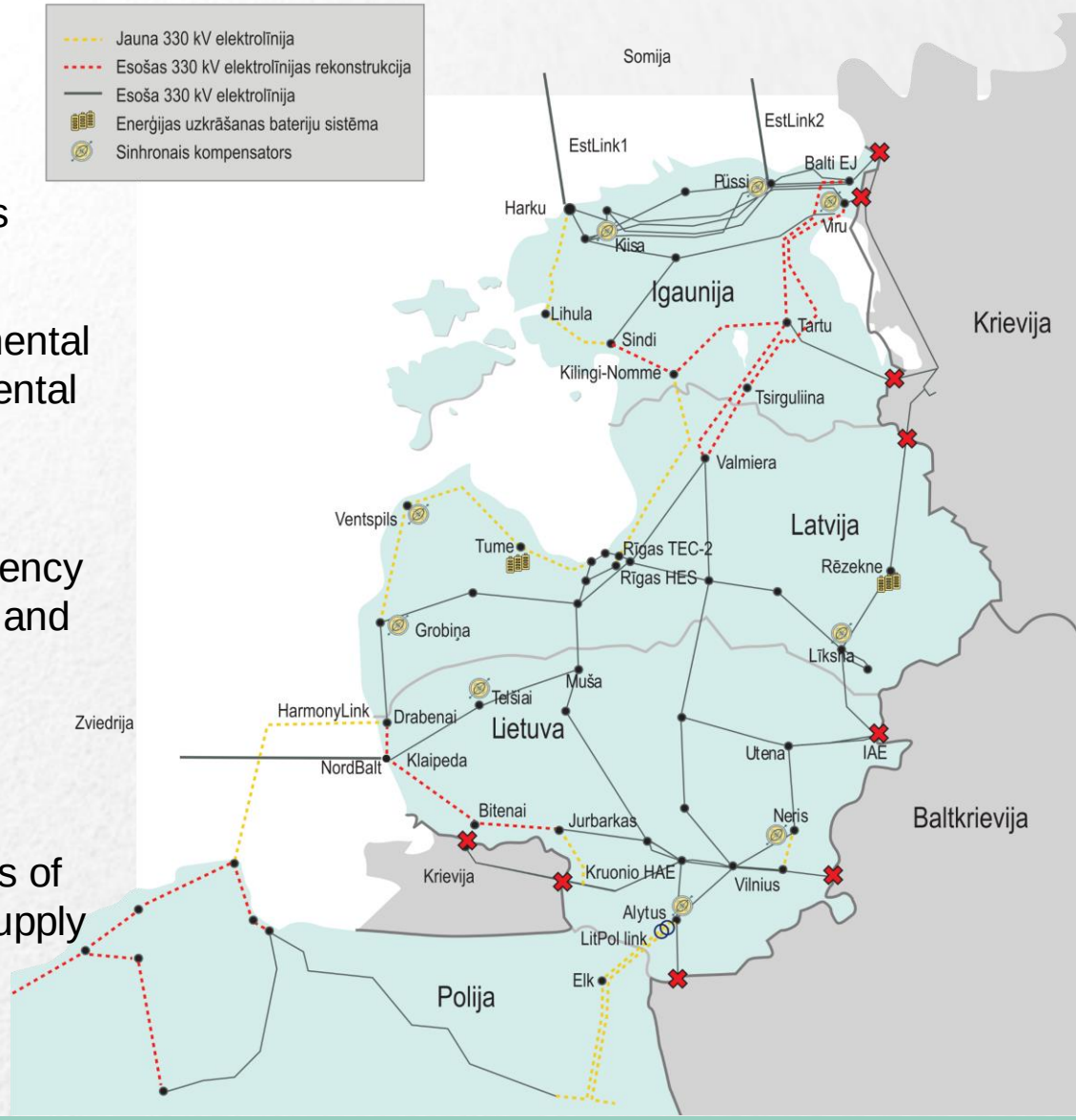
**08.2023** - Baltic TSOs sign an agreement on **<u>accelerated synchronization with CE in 02.2025</u>**.

**08.2023** - The PM of the Baltic States signs a declaration on accelerated synchronization with CE in 02.2025.



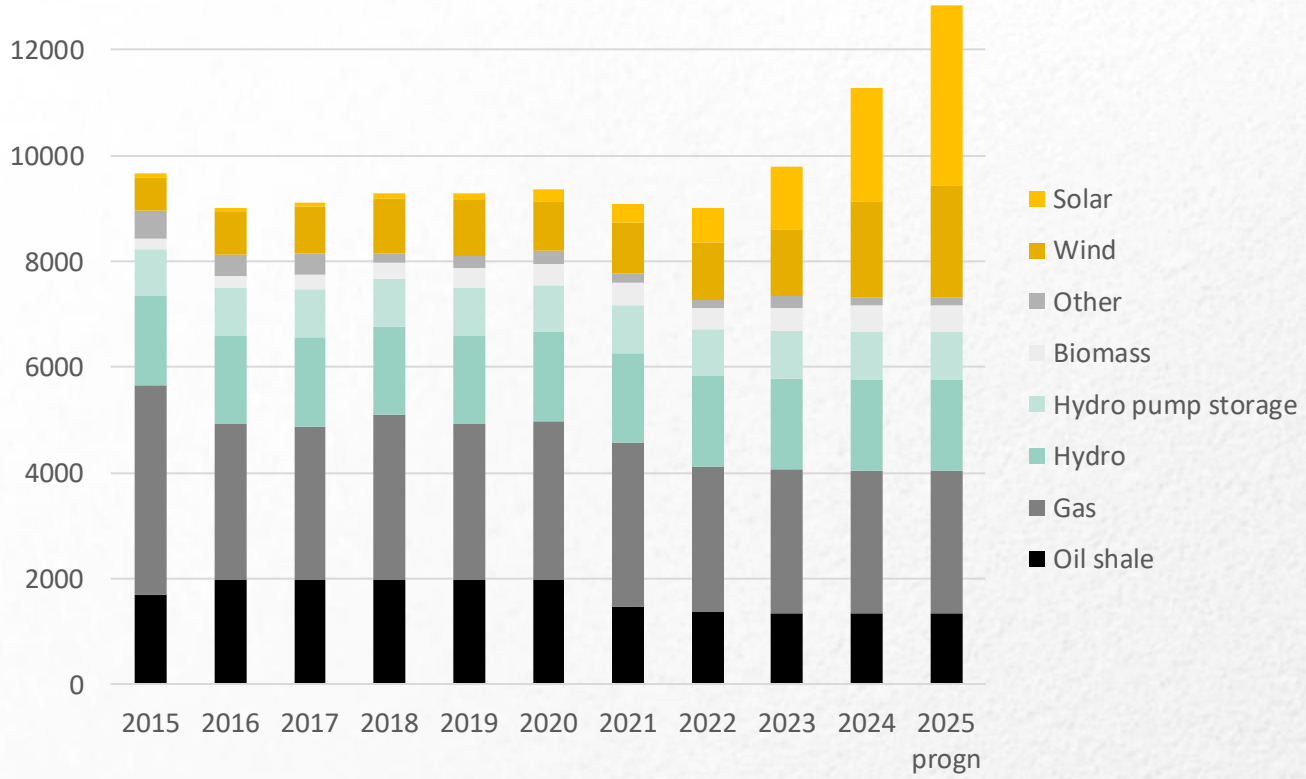
# SYNCHRONIZATION WITH CONTINENTAL EUROPE

- On historical reasons the frequency control of Baltic countries takes place in Russia
- Synchronization of Baltic power systems with the network of Continental European Synchronous Area (CESA) implies complex and fundamental changes in the operations of the power systems and requires a completely new model of balancing in Baltics.
- For this purpose, Baltic TSOs plan to create a Baltic load and frequency control (LFC) block consisting of three LFC areas – Estonia, Latvia and Lithuania.
- To join the CESA, Baltic countries must establish frequency control capability with the relevant amount of reserve capacity
- The reserve capacity must be procured taking into account the rules of the common European energy market, while ensuring security of supply as well as optimal usage of cross-zonal capacity

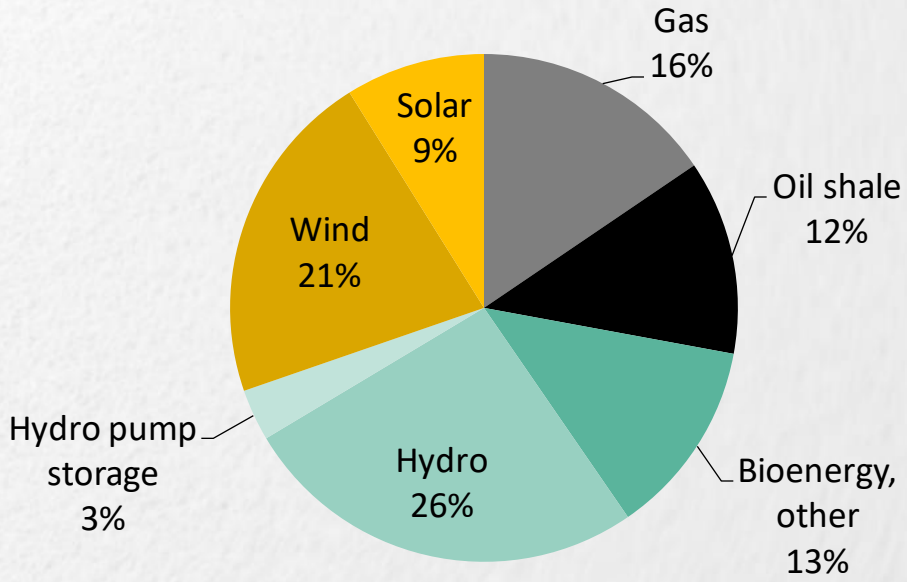


# GENERATION IN THE BALTICS

Installed production capacity in Baltic market, MW




Electricity generation in Baltics in 2023



# THE BALTIC BALANCING ROADMAP

## Foreseen developments and changes until 2026*

AST Litgrid elering

**LFC** reserves prequalification

Joining **MARI**

Joining **PICASSO**

**Baltic capacity market** (FRR)

**LCF block** operation

15min **ISP**

### 2023

Q1 Q2 Q3 Q4

**BALTIC COBA** balancing model

| | |
|---|---|
| *Market period* | **60 min** |
| *Control period* | **60 min** |
| *Settlement period* | **60 min** |

Baltic balancing energy products: *Baltic standard mFRR product*

Baltic analog capacity products: *Local products*


### 2024

Q1 Q2 Q3 Q4

Integration with **MARI**

| | |
|---|---|
| *Market period* | **15 min** |
| *Control period* | **60min** |
| *Settlement period* | **60min/15min*** |

Baltic balancing energy products: *Standard mFRR energy product*

Baltic balancing capacity products: *Local products*

* Settlement period transition in accordance to local implementation plans


### 2025

Q1 Q2 Q3 Q4

Integration with **PICASSO**

| | |
|---|---|
| *Market period* | **15 min** |
| *Control period* | **15 min** |
| *Settlement period* | **15 min** |

Baltic balancing energy products: *Standard mFRR energy product* *Standard aFRR energy product*

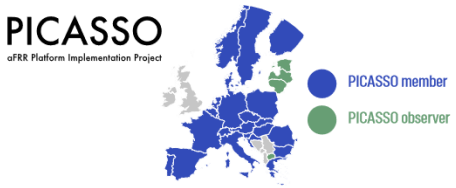
Baltic balancing capacity products: *aFRR and mFRR capacity products*

Synchronisation with **CESA**

| | |
|---|---|
| *Market period* | **15 min** |
| *Control period* | **15 min** |
| *Settlement period* | **15 min** |

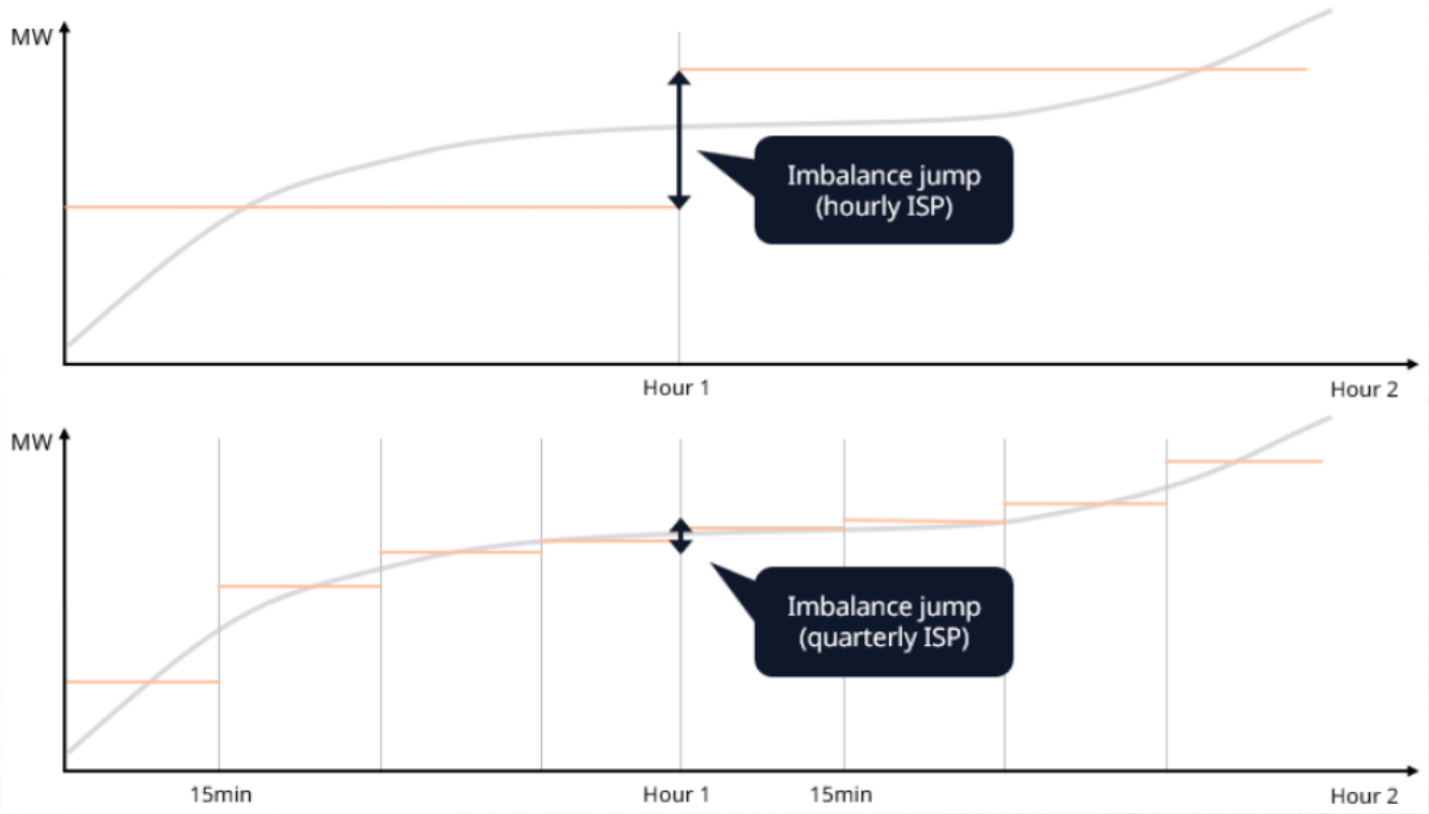
Baltic balancing energy products: *Standard mFRR energy product* *Standard aFRR energy product*

Baltic balancing capacity products: *aFRR and mFRR capacity products, FCR product*




*The above milestones and deadlines indicate the best estimate of dates and are elaborated in the Baltic balancing roadmap text above.

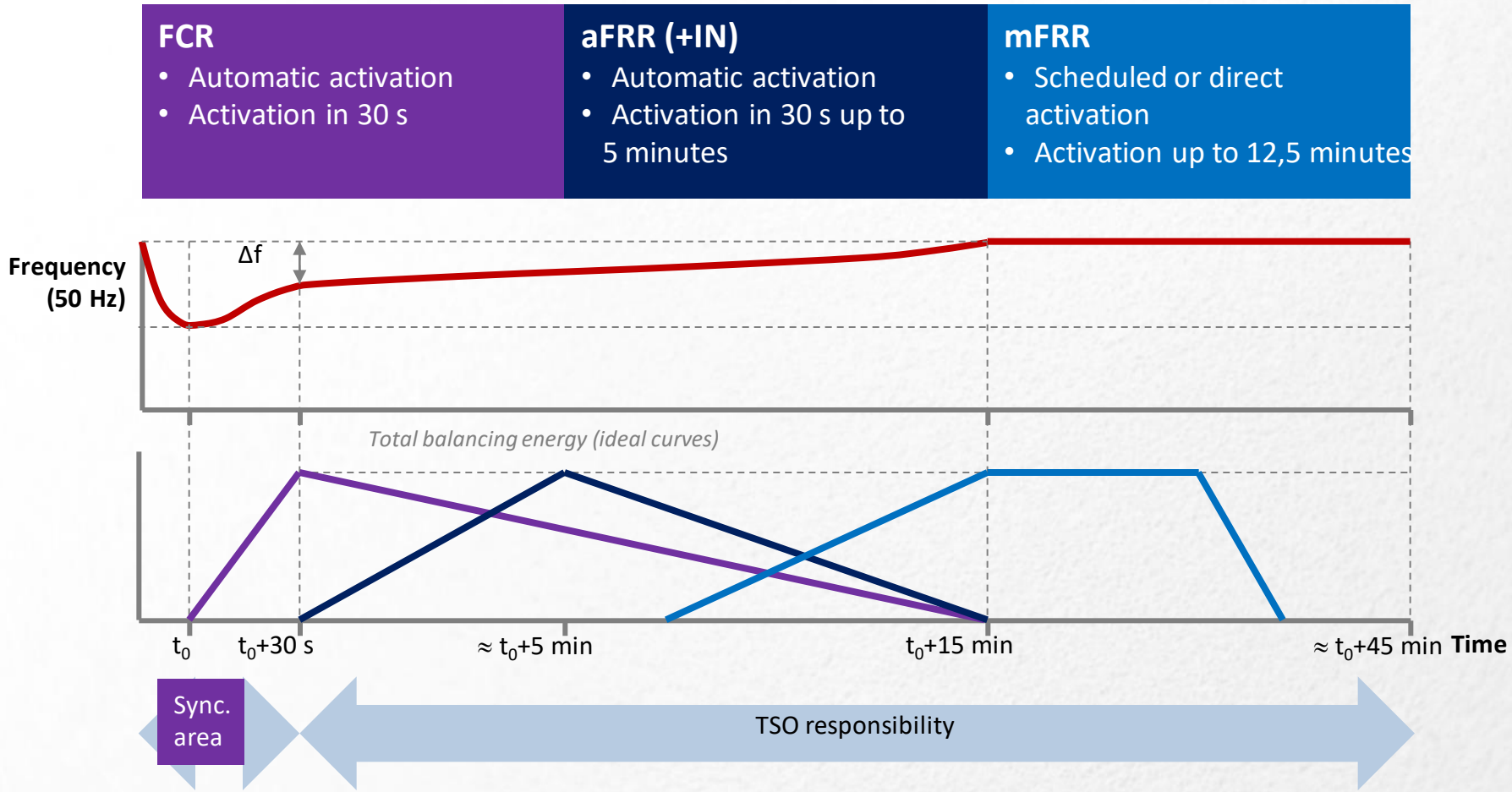
# FROM 60 MIN TO 15 MIN BALANCE PERIOD




- Using a one-hour time resolution made sense when production was mostly controllable (thermal).
- When production is mostly intermittent (renewables), matching supply and demand becomes much harder with one-hour intervals.
- Electricity market model must be adopted. Market players should be more involved in balancing.
- Market should remunerate flexibility.

# TIMELINE FOR THE BALTIC 15 MIN MTU/ISP PERIOD DEVELOPMENT

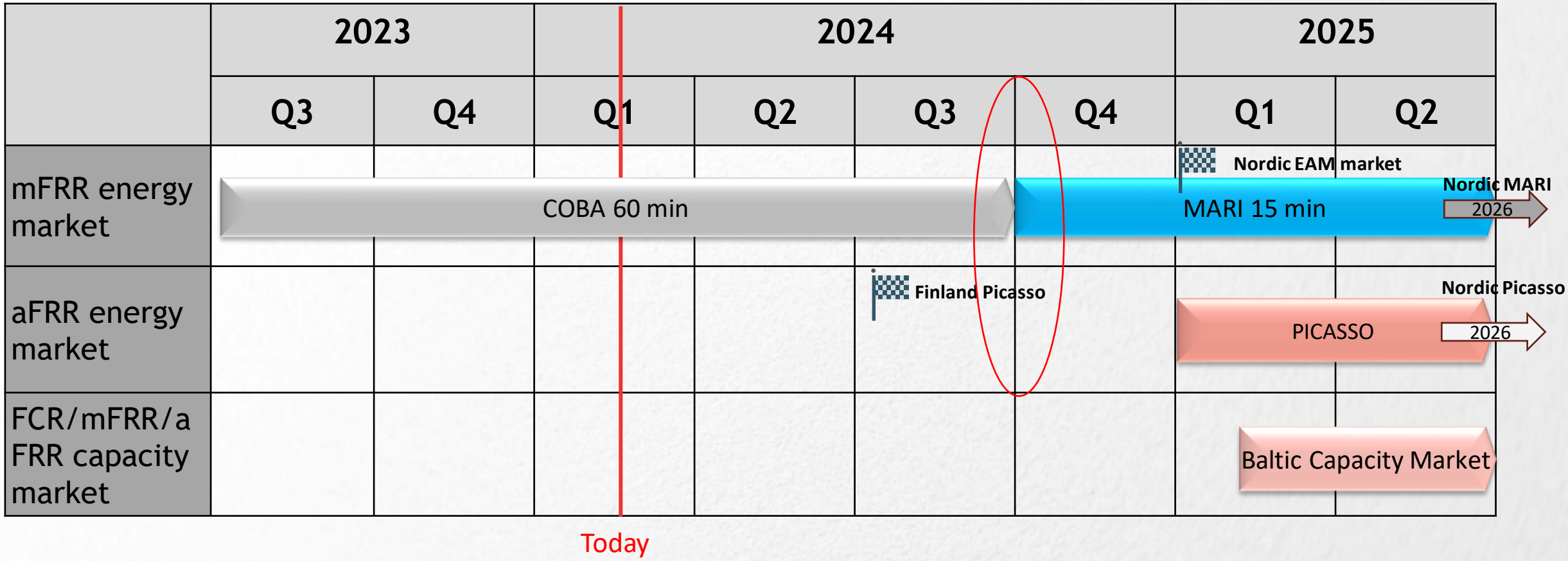
# THE NEW BALTIC BALANCING MARKET RESERVE PRODUCTS



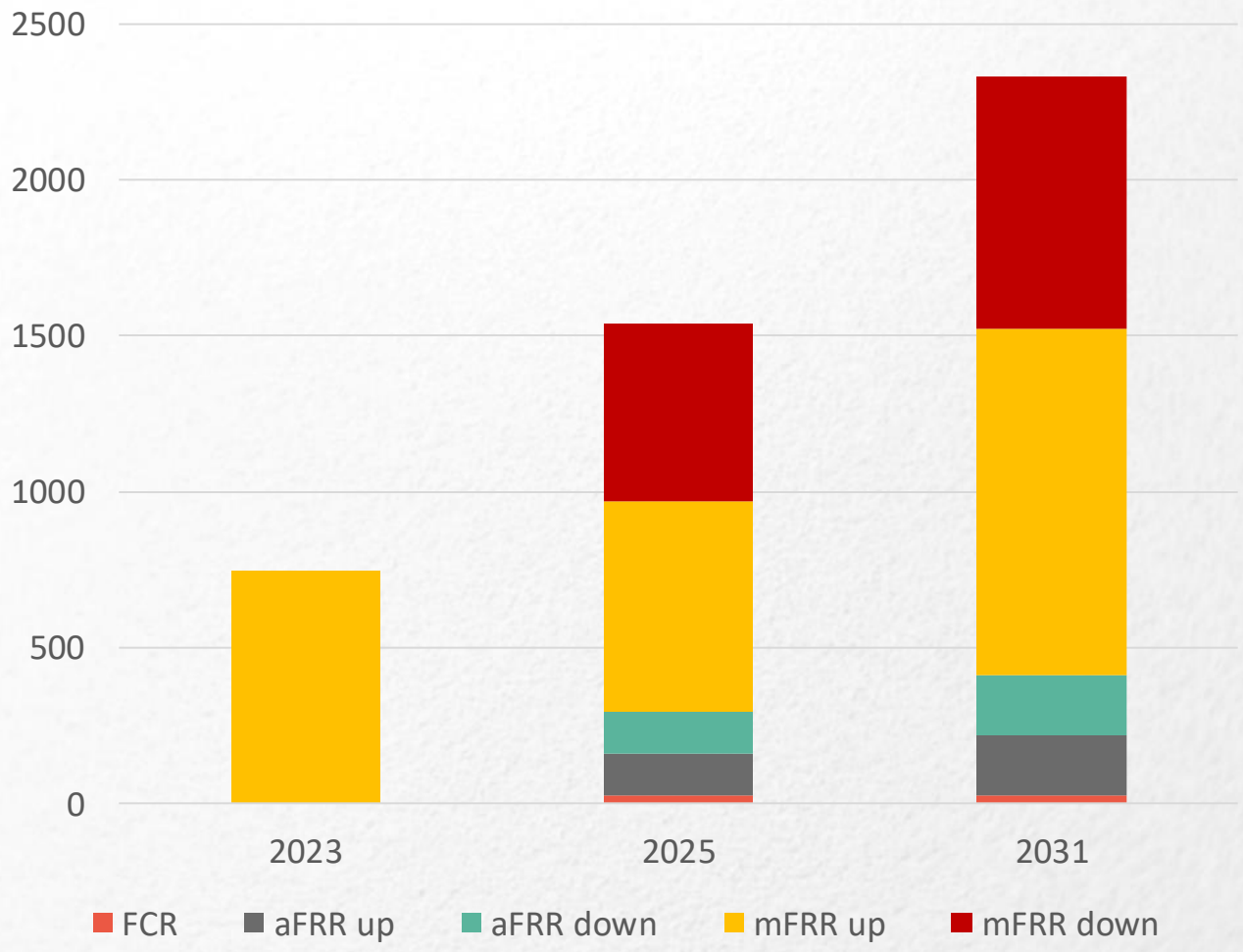

**Frequency containment reserve (FCR)**
Instant activation and full power achieved within 30 seconds

**Frequence Restoration Reserves (aFRR ja mFRR)**
Activations within 5 and 12,5 minutes, respectively

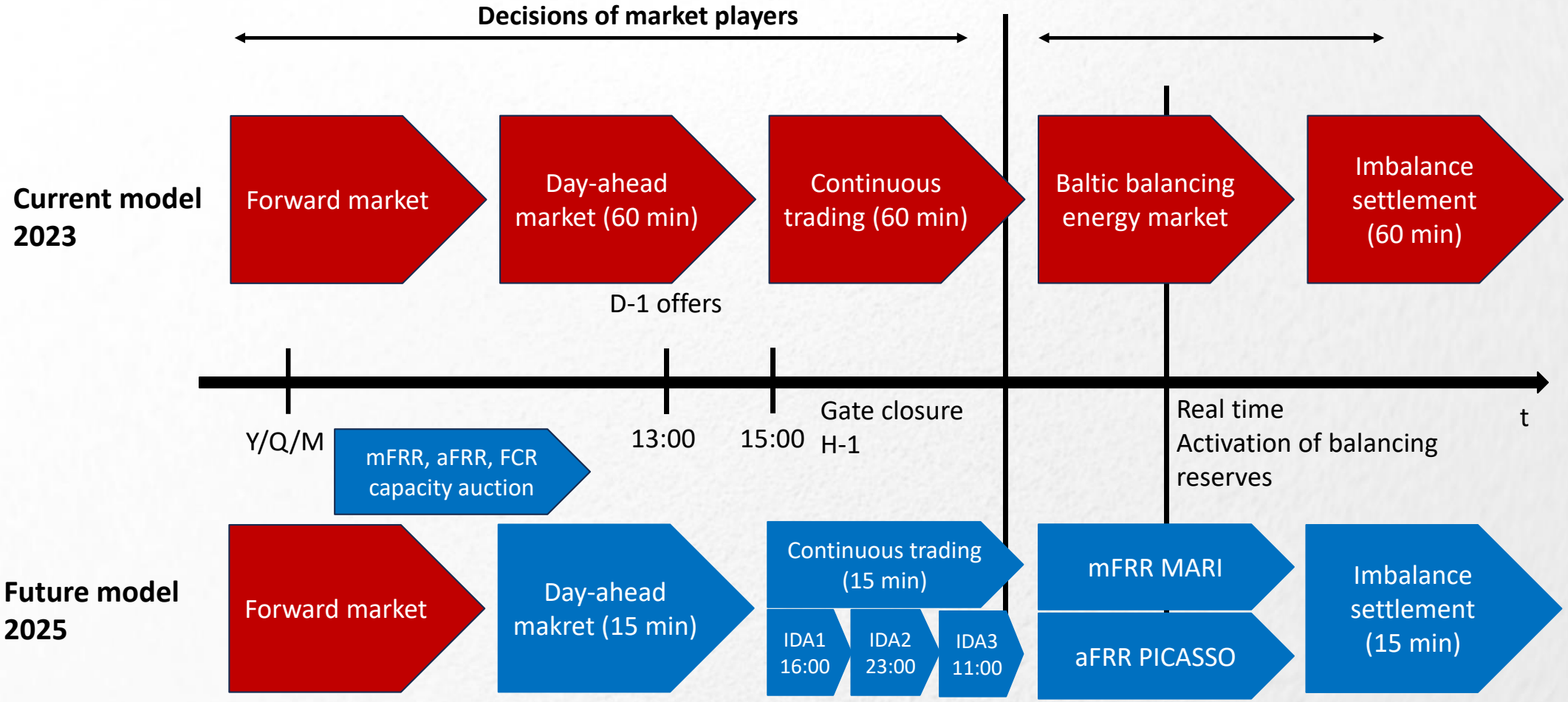
# TIMELINE FOR BALTIC BALANCING MARKET DEVELOPMENTS



# FORECASTED BALANCING RESERVE DEMAND IN THE BALTICS (MW)



# DEVELOPMENTS IN THE BALTIC ELECTRICITY MARKET BY 2025



## WHAT ABOUT MARKET TRUST?

Under Article 15 of REMIT regulation, any person professionally arranging transactions (PPAT) in wholesale energy products who reasonably suspects that a transaction might breach Article 3 or 5 of REMIT shall notify the national regulatory authority without further delay, which requires the implementation and maintenance of effective measures and procedures to detect such breaches.

- Baltic TSOs have agreed on close cooperation for monitoring the Baltic balancing markets.
- To prevent the breach of REMIT and guide market participants, a best practice guidance document for Baltic balancing market participants shall be created.
- If relevant, the TSO shall notify the NRA or ACER about potential breaches.

**THANK YOU!**