

Energy Market Development – Highlights from the TSO perspective

**Update by Slovenská elektrizačná prenosová
sústava, a.s. (SEPS)/SEPS operating as TSO in
Slovak Republic**

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Introduction - Slovakia from Market and System Operation Perspective

Fig. 1 LFC areas, LFC blocks and synchronous areas

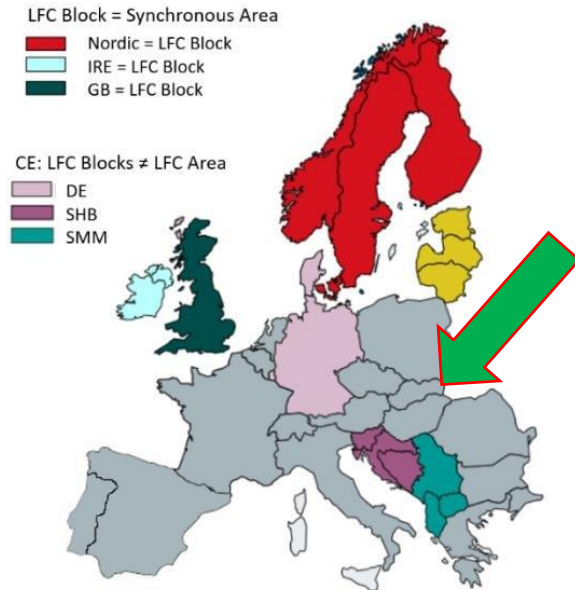


Fig. 2 Bidding zones



Fig. 3 Single Intraday Coupling (SIDC)

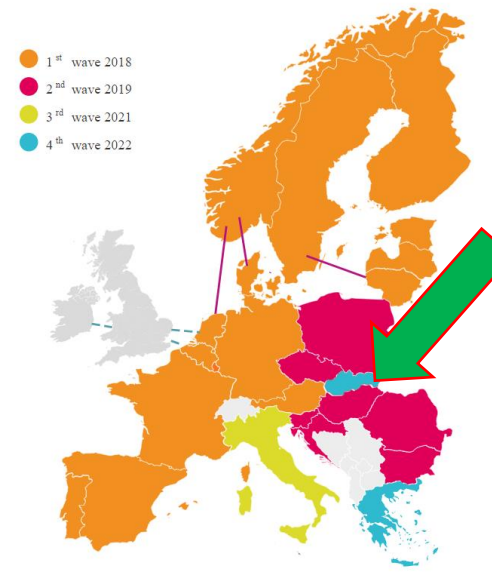


Fig. 4 Single Day-ahead Coupling (SDAC)

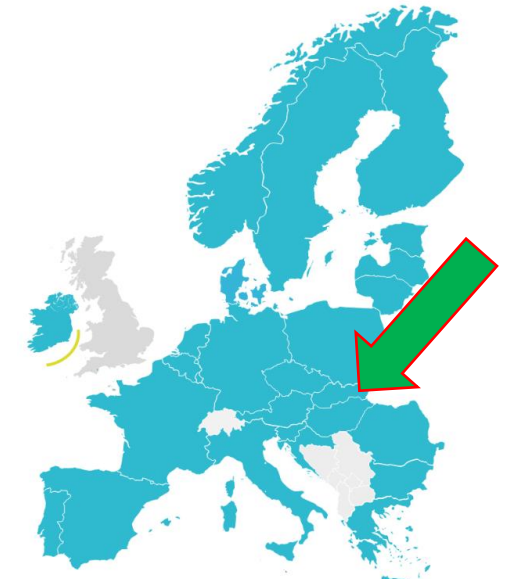


Fig. 5 Core Capacity Calculation Region (CORE CCR)

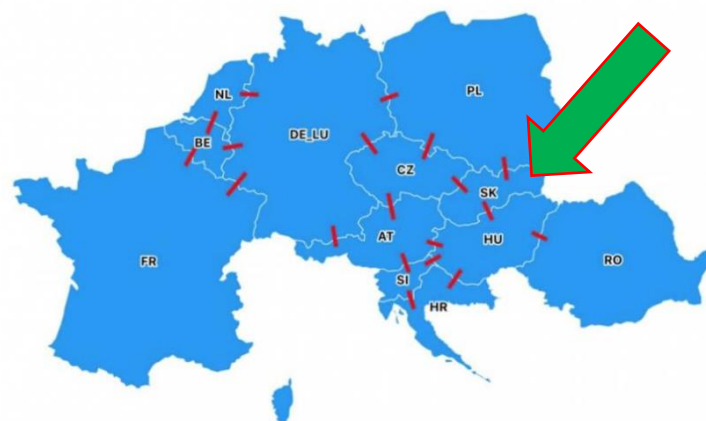
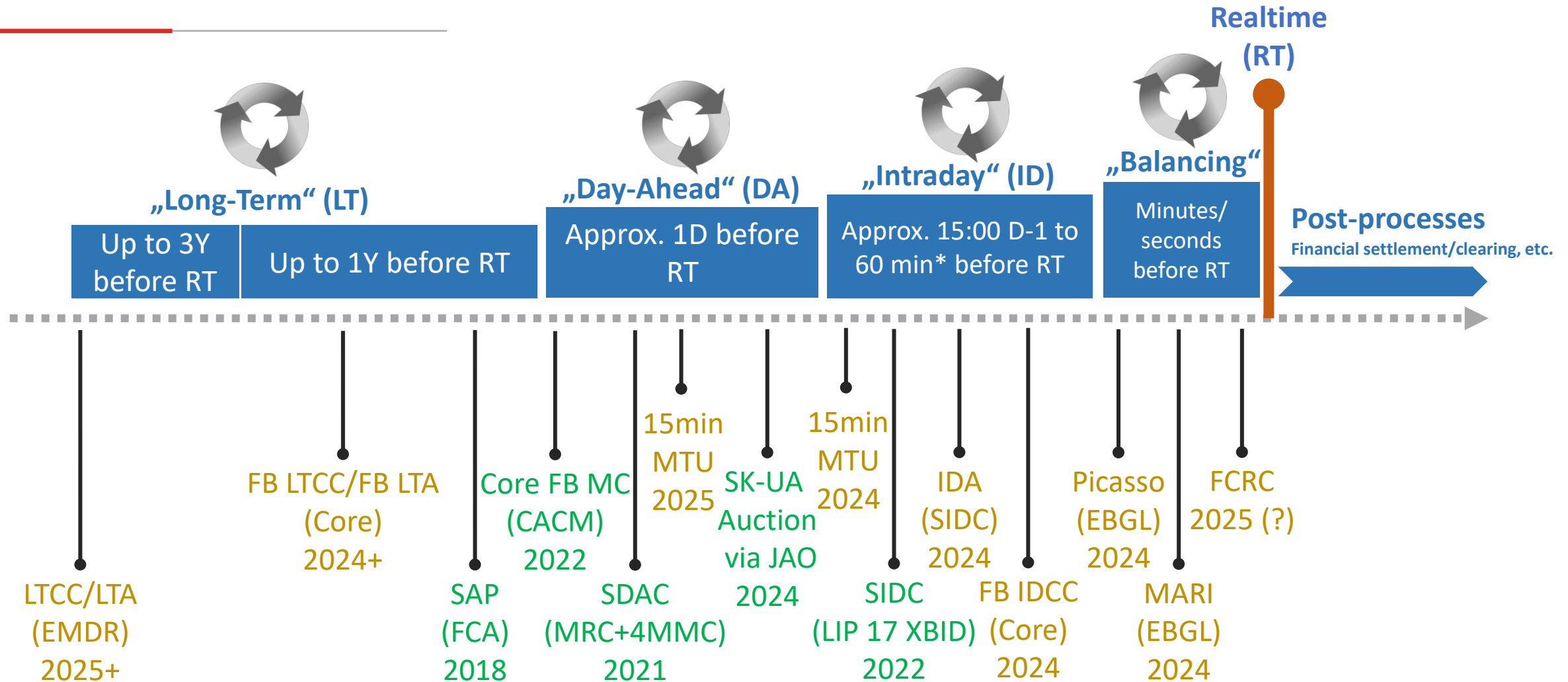


Fig. 6 Eastern Europe Capacity Calculation Region (EE CCR)



Key development activities - SEPS relevant overview



*Gate closure time for cross-border intraday is 60 minutes before RT

SK-UA profile development

24/02/2022 Disconnection of Ukraine and Moldova from IPS/UPS;

16/03/2022 Emergency synchronization of Ukraine and Moldova with synchronously operated system of Continental Europe;

Commercial solution for the allocation of cross-border capacities between Slovakia and Ukraine maintained without significant interruption during whole period in form of day ahead explicit auctions organized by the TSOs of Slovakia and Ukraine;

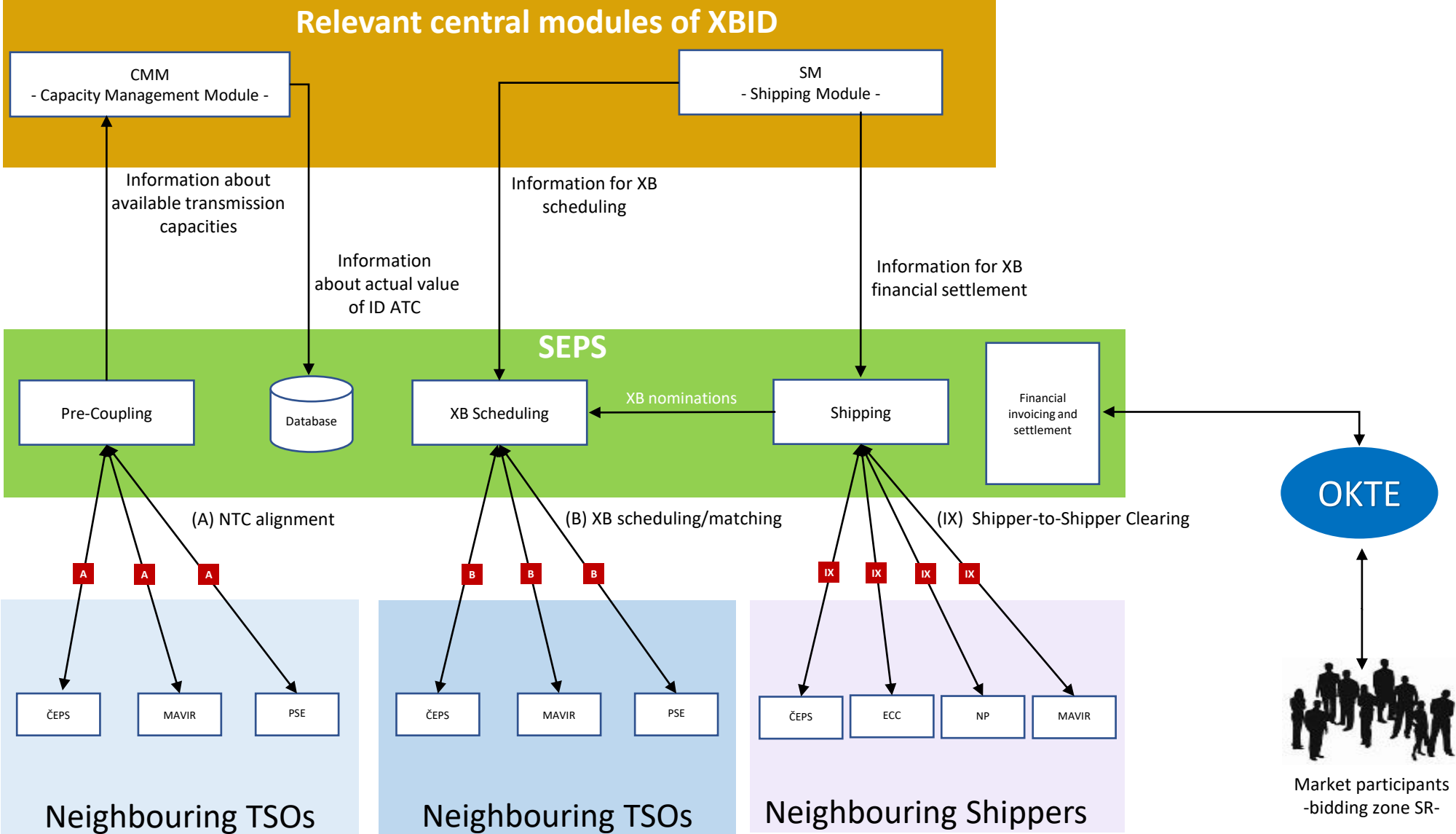
3-layer assistance: Trading 1d+ before RT, Emergency assistance – hours before RT, Fskar - mins/seconds before RT;

04/03/2024 Daily auctions on the SK-UA profile via JAO successfully launched;

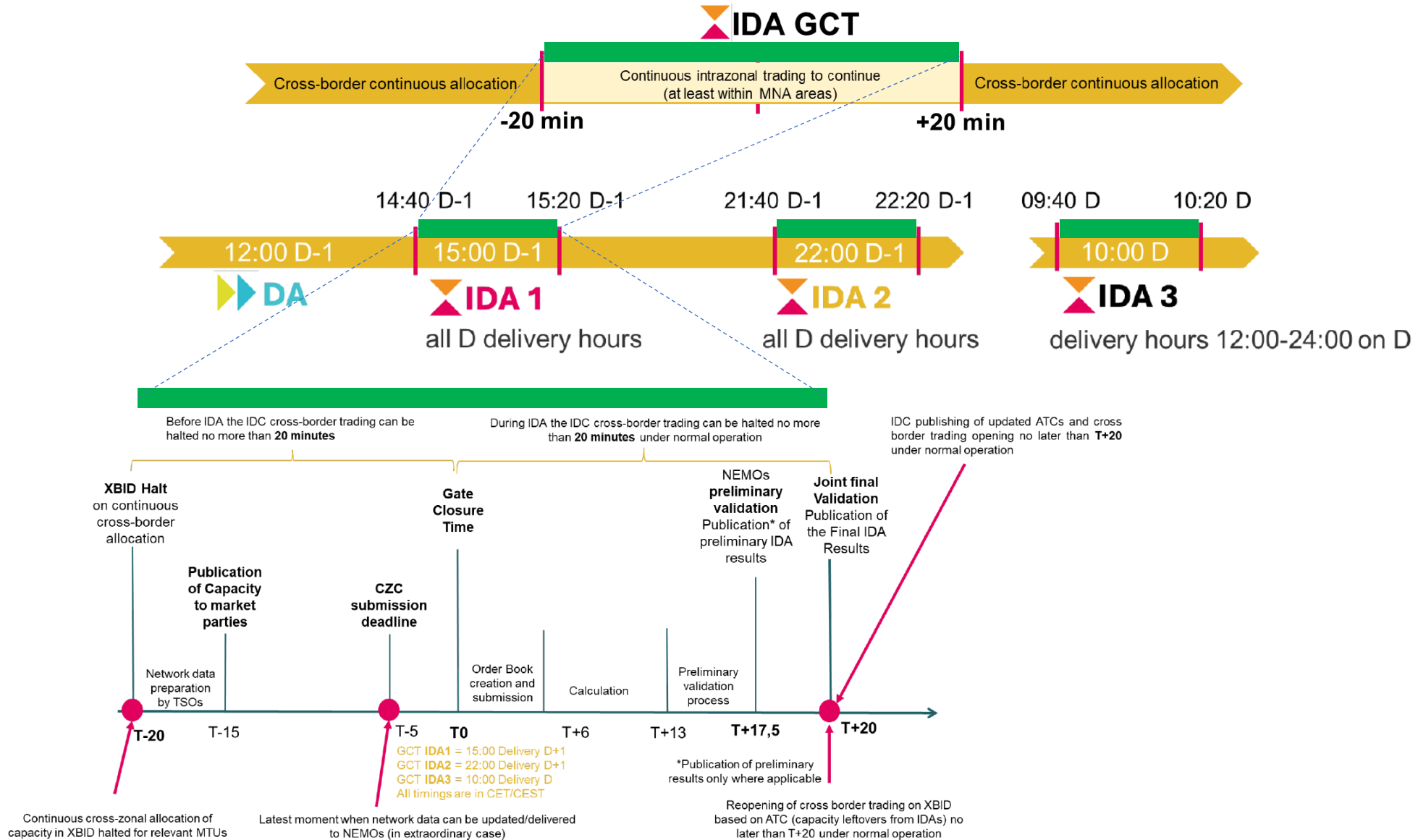
Discussions on the possibility to join SIDC/SDAC were Initiated.



Intraday timeframe – XBID solution in Slovakia (TSO perspective)



Intraday timeframe – Intraday Auctions (IDAs)



PICASSO - Platform for the International Coordination of Automated Frequency Restoration and Stable System Operation

Activation:	Automatic
Number of project members (TSOs):	30
GL of platform:	01.06.2022 (CZ, DE and AUT)
Currently in operation:	7 TSOs (+ITA)
Market Time Unit (MTU):	4s
Full Activation Time:	7,5 min (target 5 min.)
Min. length of service provision:	no limitation
DL for bid submission:	T - 25 min
GL - plan of SEPS:	5 November 2024

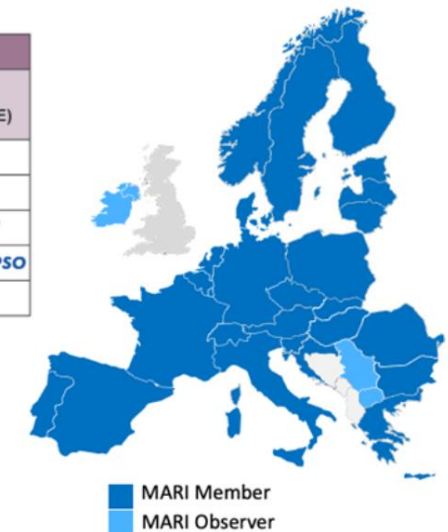
30 TSOs + ENTSO-E (Observer)		
PICASSO Members (26 TSOs)		PICASSO Observers (4 TSOs + ENTSO-E)
Austria	Hungary	Latvia
Belgium	Italy	Lithuania
Croatia	The Netherlands	Estonia
Czech Republic	Norway	North Macedonia
Denmark	Poland	ENTSO-E
Finland	Portugal	
France	Romania	
Germany	Slovak Republic	
	Slovenia	
Sweden	Spain	
Bulgaria	Greece	
Switzerland	Luxembourg	



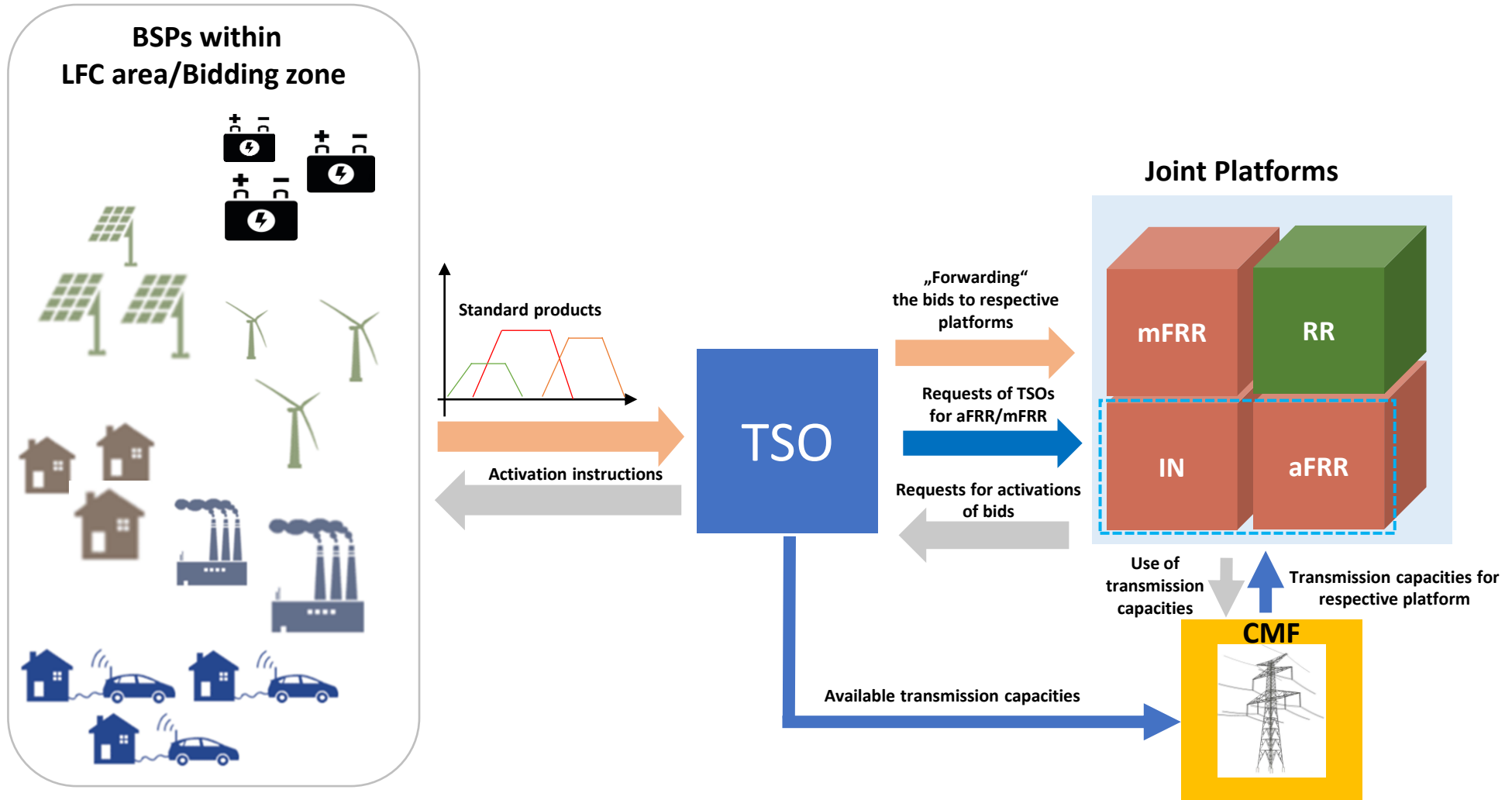
MARI - Manually Activated Reserves Initiative

Activation:	„Manual“
Number of project members (TSOs):	33
GL of platform:	05.10.2022 (CZ and DE)
Currently in operation:	6 TSOs (+AUT)
Market Time Unit(MTU):	15 min
Full Activation Time:	12,5 min (target 12,5 min.)
Min. length of service provision:	5 min
DL for bid submission: :	T - 25 min
GL - plan of SEPS:	3 December 2024

33 TSOs + ENTSO-E (Observer)				
MARI Members (29 TSOs)			MARI Observers (4 TSOs + ENTSO-E)	
Austria	Greece	Spain	Serbia	
Belgium	Italy	Sweden	Ireland	
Croatia	Latvia	Switzerland	Northern Ireland	
Czech Republic	Lithuania	Luxembourg	North Macedonia	
Denmark	Norway	Bulgaria	ENTSO-E	
Estonia	Netherlands			
Finland	Portugal			
France	Poland			
Hungary	Romania			
Germany	Slovak Republic			
	Slovenia			

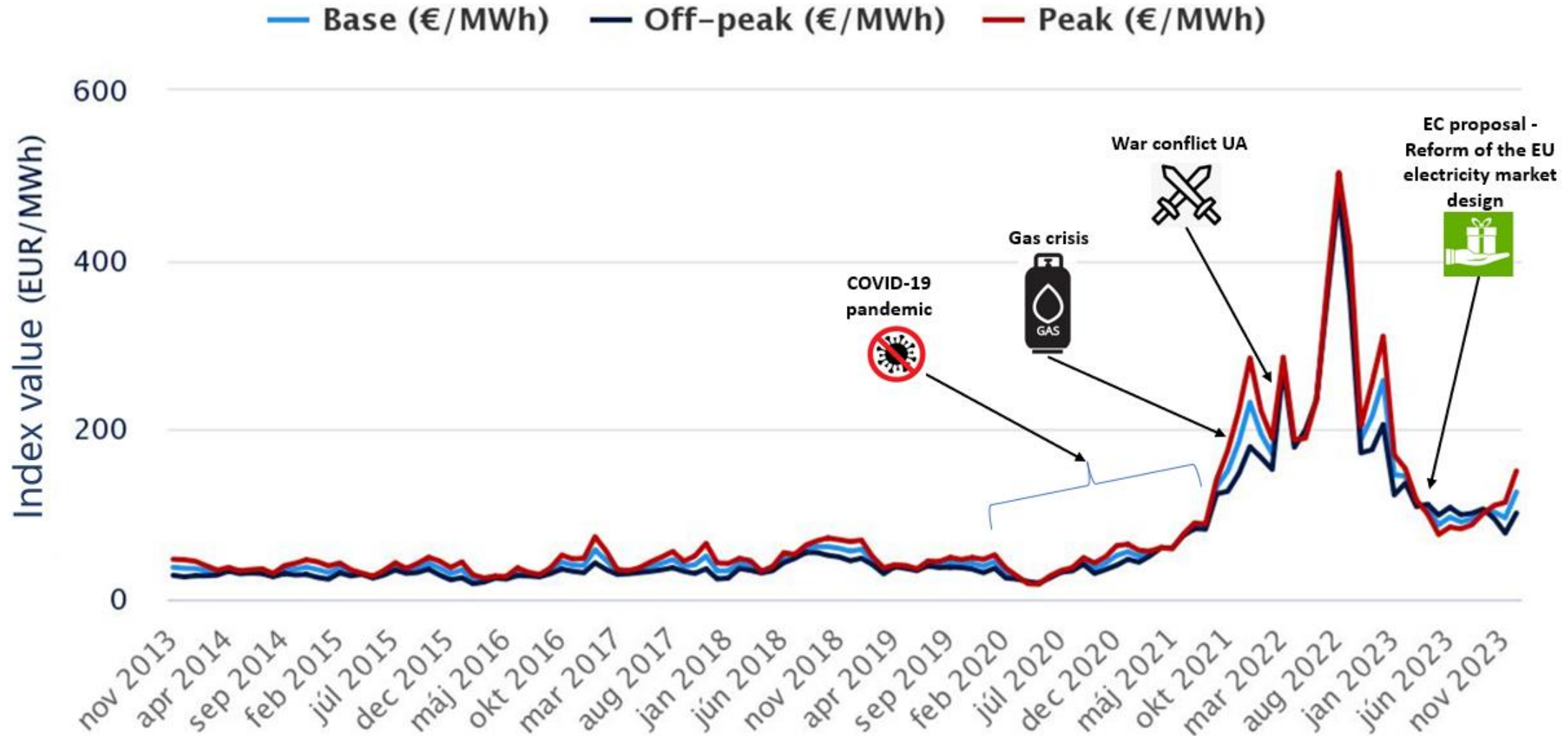


Balancing platforms for RR, mFRR and aFRR/IN



Trigger of Electricity Market Design Reform

Energy crisis → development of spot prices: Index DT – OKTE (monthly)



Legislative framework – goal and essence of the EMDR reform



The reform is devoted to 3 areas:

- I. End customer protection
- II. Increasing the stability and predictability of energy costs
- III. Support for investments in RES (in accordance with the Green Deal)

a) Electricity market design = amendment of 2 regulations and 2 directives:



- ❖ REGULATION (EU) 2019/943 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 on the internal market for electricity
- ❖ REGULATION (EU) 2019/942 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators
- ❖ DIRECTIVE (EU) 2023/2413 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652
- ❖ DIRECTIVE (EU) 2019/944 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU

b) Protection against manipulations on wholesale energy markets = amendment of 2 regulations:



- ❖ REGULATION (EU) No 1227/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on wholesale energy market integrity and transparency (REMIT)
- ❖ REGULATION (EU) 2019/942 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators



**THANK YOU
FOR YOUR ATTENTION!**

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