

Latest evolutions in short term markets in Austria



Vincent Thevenin
Market Expert Montel EnAppSys

Latest evolutions in short term markets in Austria

30 Min. XB ID Gate Closure Time

- 1 Recap: what is it?
Why is this important?
Analysis of recent trading patterns evolution

PICASSO Elastic Demand

- 2 Recap: what is it?
Analysis of recent imbalance
price spike events

From auctions to real time



Chapter 01

30 Min Intraday Cross zonal Gate Closure Time

01

30 Minutes Cross Zonal Gate Closure Time

Live since 14/01 for selected borders

Intraday Gate closure Time Reduction 60 → 30 min

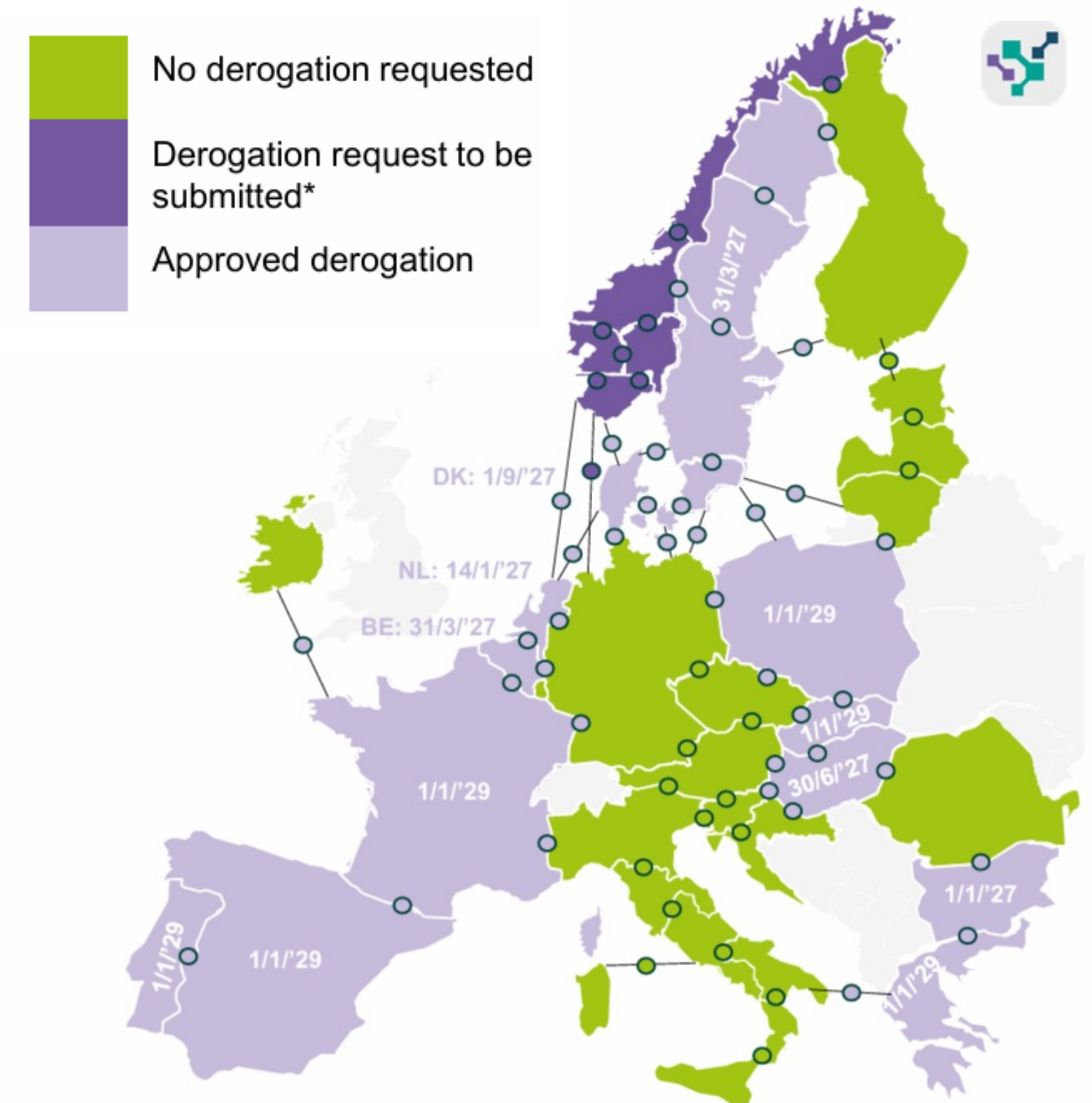
DE/AT, AT/CZ, AT/ITn, AT/SI borders already Live !

Borders	Planned go-live
NL-DE	October 2026
BG-RO / HU-RO / HU-AT / HU-SI / HU-HR	Q1 2027
SE-FI / SE-DE / SE-LT	March 2027
BE-NL / BE-DE	1 April 2027
Remaining borders*	Q4 2028

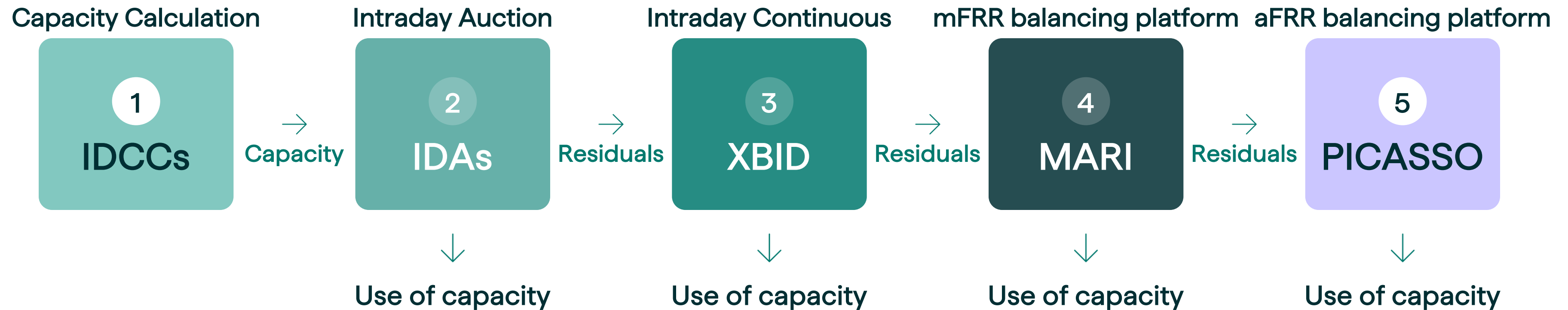
20260708_MCCG_Session_file.pdf



Since 14/01 Gate Closure time reduction 60 → 30 implementation ongoing
Important step as resulting capacities goes into MARI & PICASSO afterwards

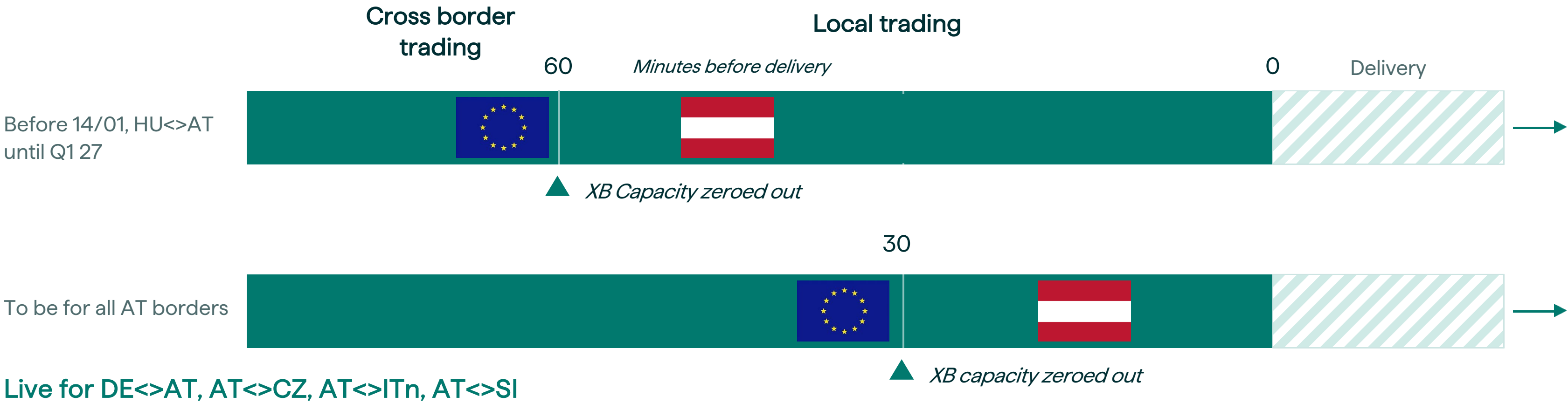


Cross border capacities are key and (re)used in subsequent markets



Cross borders capacities play a central role: let's see how it works for the Intraday Market !

XBID gate time closures



Since December 2024 products used: „XBID_Hour_Power“ or „XBID_Quarter_Hour_Power“
=> Switch made in the capacity matrix in CMM (Hub to Hub Matrix)



The timings of XBID dictate the liquidity and trading strategies / patterns.
Liquidity gathers each time just before gate closure creating some trading windows.
Trade off between different market sections.

The Shared Order Book in XBID is dependent on input capacities

Is there capacity available DE <> AT ?

T...  50Hz  ...		 50Hz 	
Product (CET/CEST)		50Hz ↗	↘ 50Hz
19:00	PH-19 18:00 - 19:00	0.0	0.0
	B 19-20 18:00 - 20:00		
	PH-19 18:00 - 19:00	0.0	0.0
	PH-20 19:00 - 20:00	128.6	0.0
	PH-21 20:00 - 21:00	10.5	0.0
23:00	PH-22 21:00 - 22:00	0.0	0.0
	PH-23 22:00 - 23:00	1,142.9	0.0
	PH-24 23:00 - 00:00	1,282.5	749.1

3 possibilities:

Fully Decoupled

Partially coupled ⇒ one direction

Fully coupled ⇒ both directions

Only German Orderbook

			
Qty (MW)	Bid (€/MWh)	Ask (€/MWh)	Qty (MW)
5	50	52	7

German Orderbook and Austrian bids on the buy side

 			
Qty (MW)	Bid (€/MWh)	Ask (€/MWh)	Qty (MW)
5	50	52	7
10.5	48		

German and Austrian Orderbooks fully coupled

 		 	
Qty (MW)	Bid (€/MWh)	Ask (€/MWh)	Qty (MW)
5	50	52	7
10.5	48	53	10

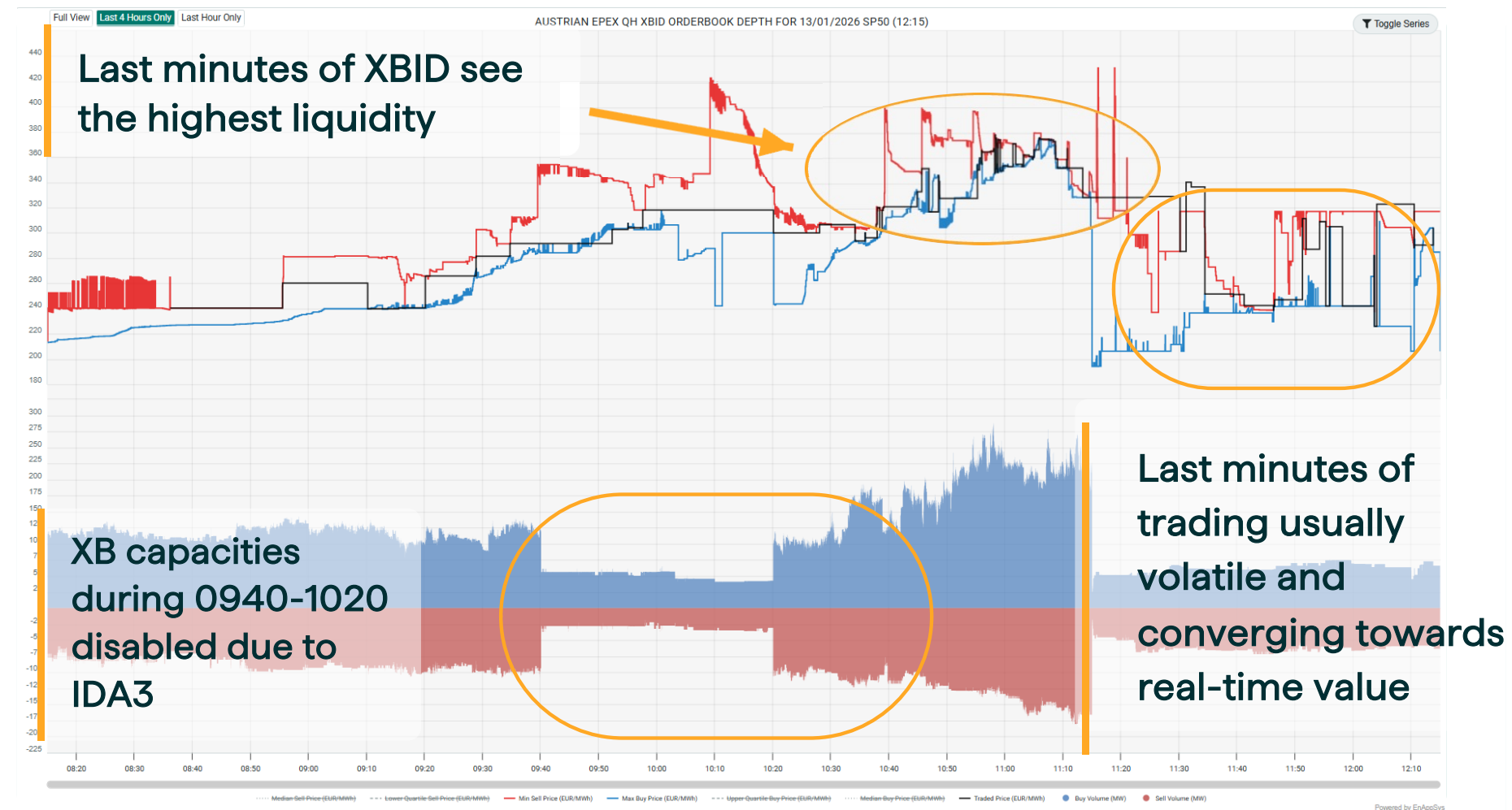


An order for a different market area can be matched as long as there is enough capacity available

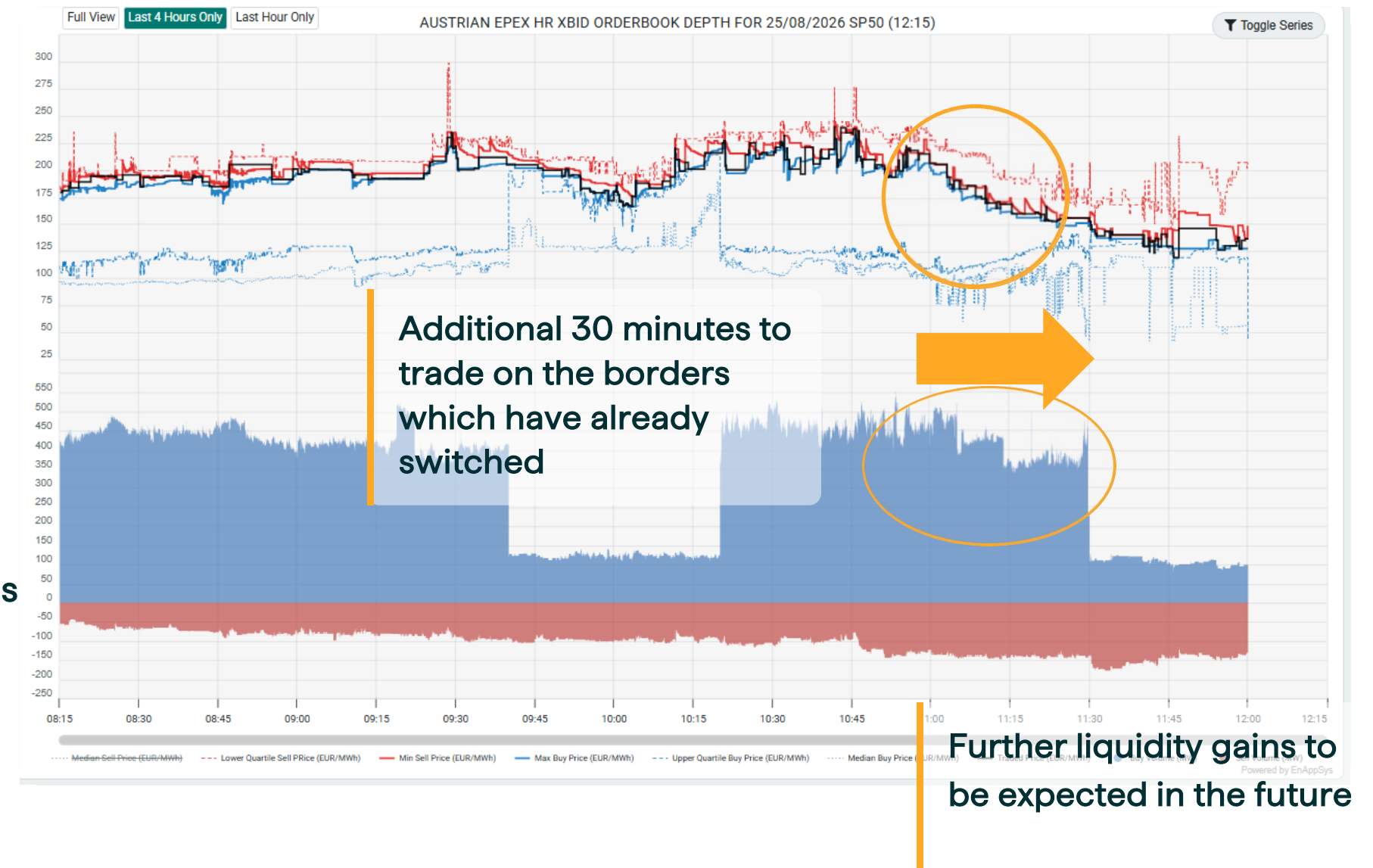
Trading sessions liquidity: before and after the switch

Source: Montel EnAppSys

Before the switch - 12Q1



After the switch – 12Q1

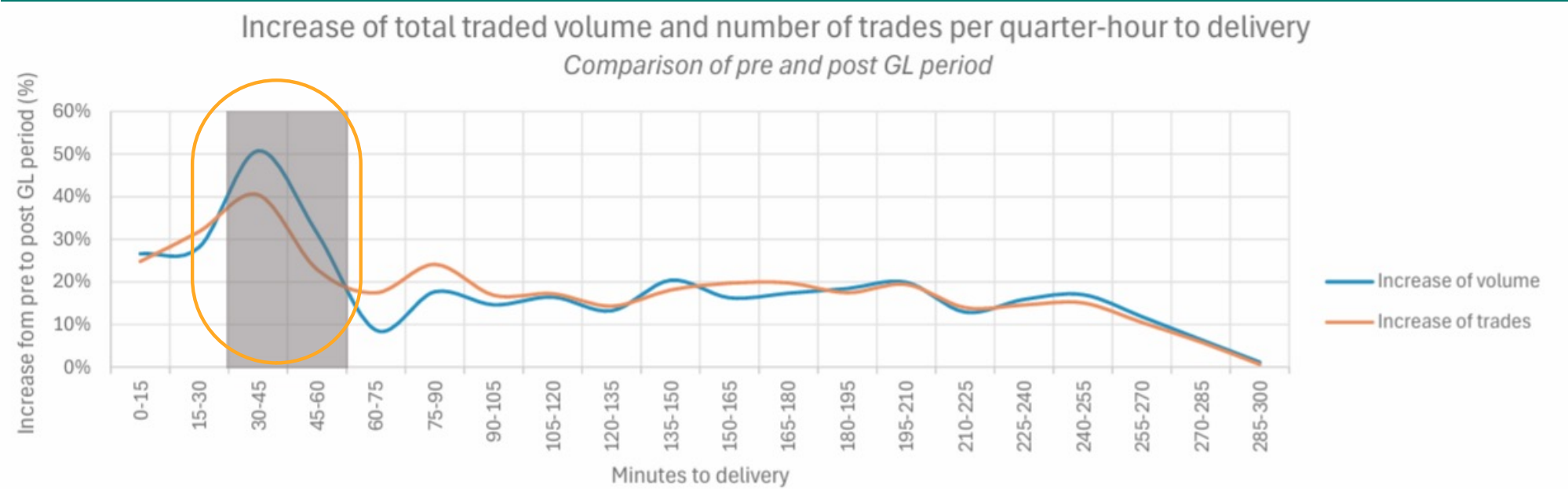


Lower bid-ask spread in XBID due to higher liquidity helping absorbing shocks.

Last minutes of local market more volatile, converging towards real-time value, being the expected value of imbalance price.

Increase of liquidity due to the 30 min switch

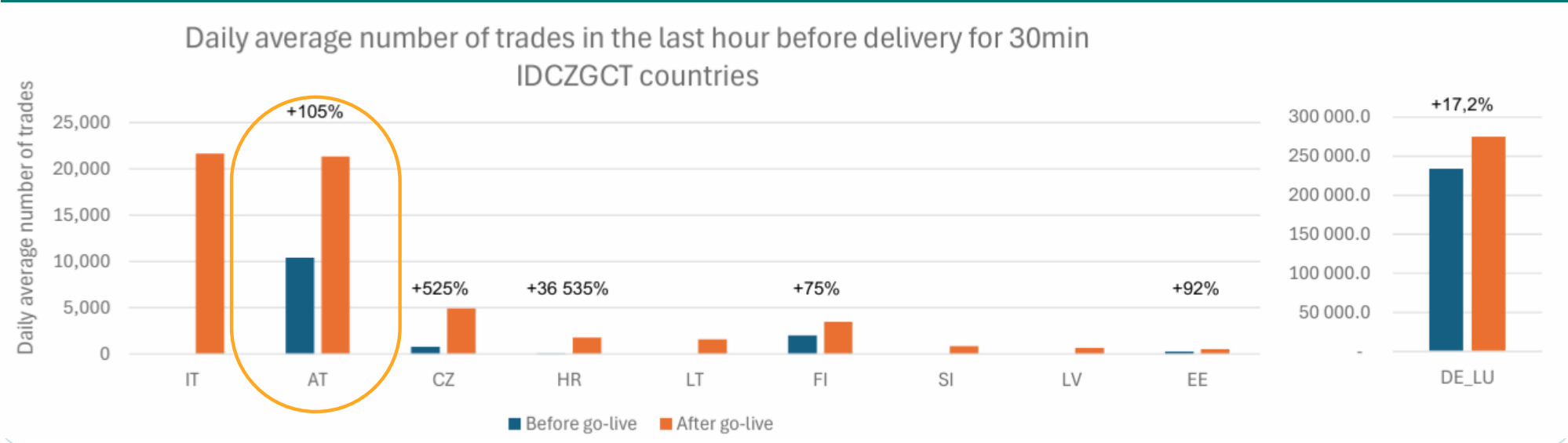
1 Traded volume and trades by quarter-hour



How to read chart 1

The first chart sums up all the trades for all contracts in SIDC that are concluded in the given quarter-hour before the delivery of those contracts.

2 Daily average trades in the last hour



What the data shows

- Significant increase in traded volume and number of trades in the 30-45 period.
- Higher traded volumes in 45-60 period but not significantly higher than in other quarter-hours.

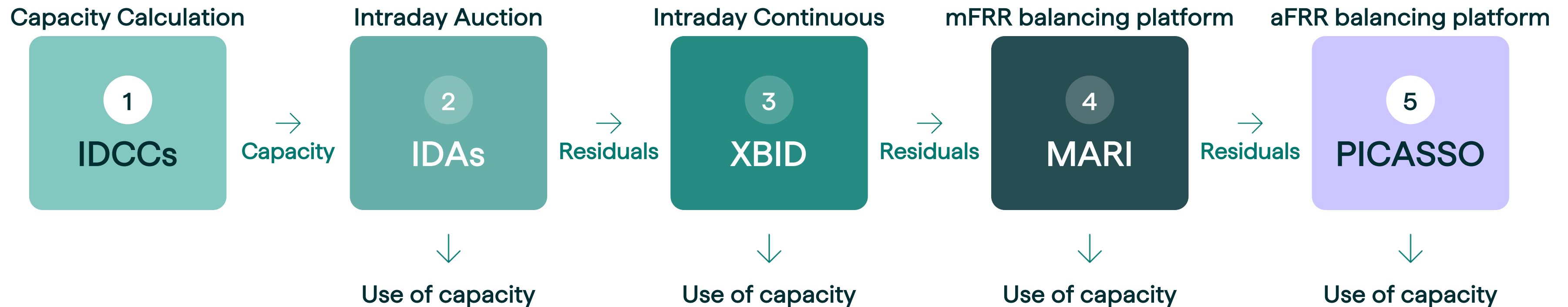
Both charts — pre GL period: 2025 November and December
post GL period: 2026 February and March

Analysis and charts from Gergo Hollo
20260708_MCCG_Session_file.pdf



Gate Closure time reduction has brought more liquidity in many countries incl. AT

Cross border capacities are key and (re)used in subsequent markets



- Liquidity shift towards delivery is helping RES to balance forecast deviations
- But at the same time: less capacity available for MARI/PICASSO to share balancing resources



New trade-off to be monitored: will more ID capacity usage means more imbalance price spikes?

Chapter 02

Picasso elastic demand

02

PICASSO Elastic demand: rationale and implementation

- Imbalance price spikes in AT and other countries present since PICASSO Go Live in June 2022
- High prices mitigation measure:
 - Elastic demand implemented in AT on 04.08.2025 and also in other countries (BE, PL, FR, IT, DK) with different volume and price formulas

Implementation at APG



Activation only if:

Price < 1k€/MWh for POS

Price > -1k€/MWh for NEG

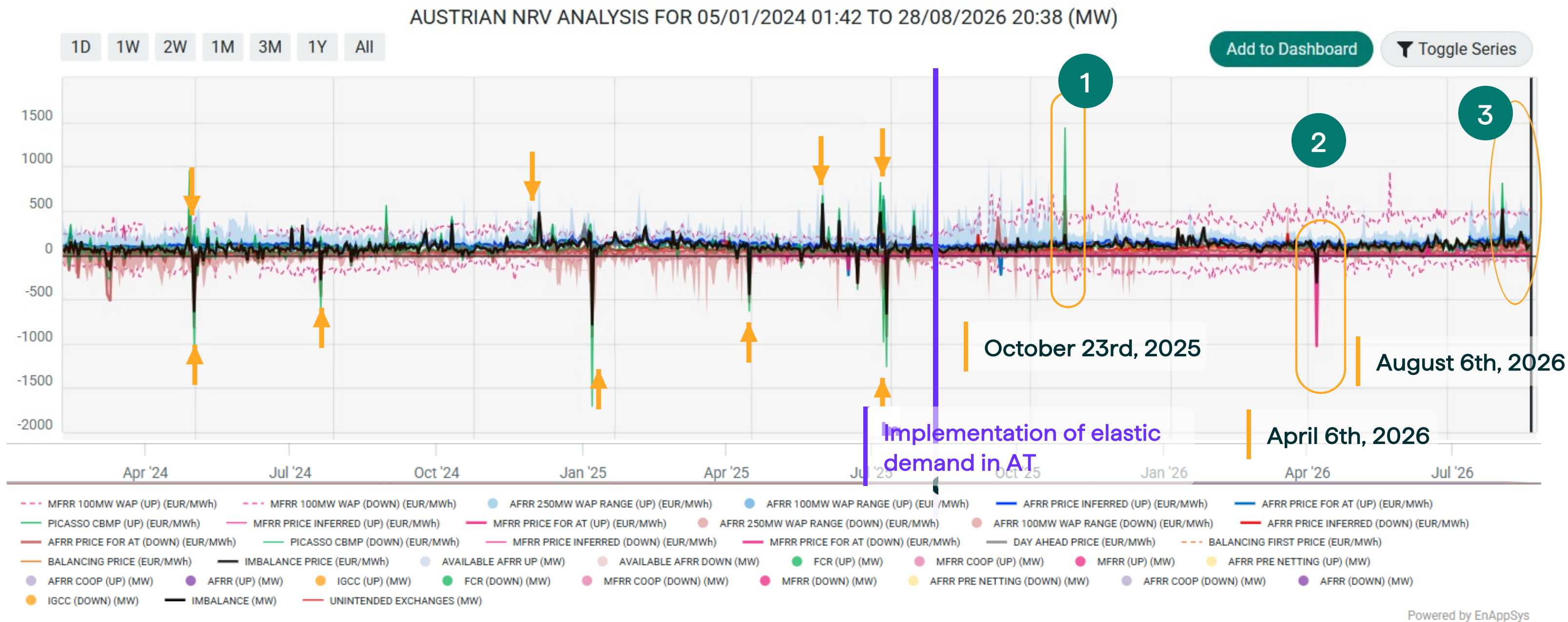
Slide adapted from Matthias Kettner APG Marktforum: <https://pb1-medien.apg.at/im/dl/apg-2038478805/Elastic%20Demand.pdf>



The aFRR Austrian demand is divided into two parts: 1) an inelastic one up to 225 MW 2) an elastic one beyond up to +/- 1000 €/MWh

Elastic demand has reduced the number of imbalance price spikes significantly since its introduction

Source: Montel EnAppSys



Some imbalance price spikes do remain: let's have a closer look at it !

1 23rd October, 2025: wrong german aFRR energy bids

00:00 – 10:45

A bug after a software update in the German aFRR procurement system (hosted by 50Hertz) sent an erroneous local merit order list to PICASSO.



Sign flipped

Unchanged “default bids” in the negative direction flipped from grid-to-provider to provider-to-grid — e.g. from -15 to +15 k€/MWh!



CMOL impact

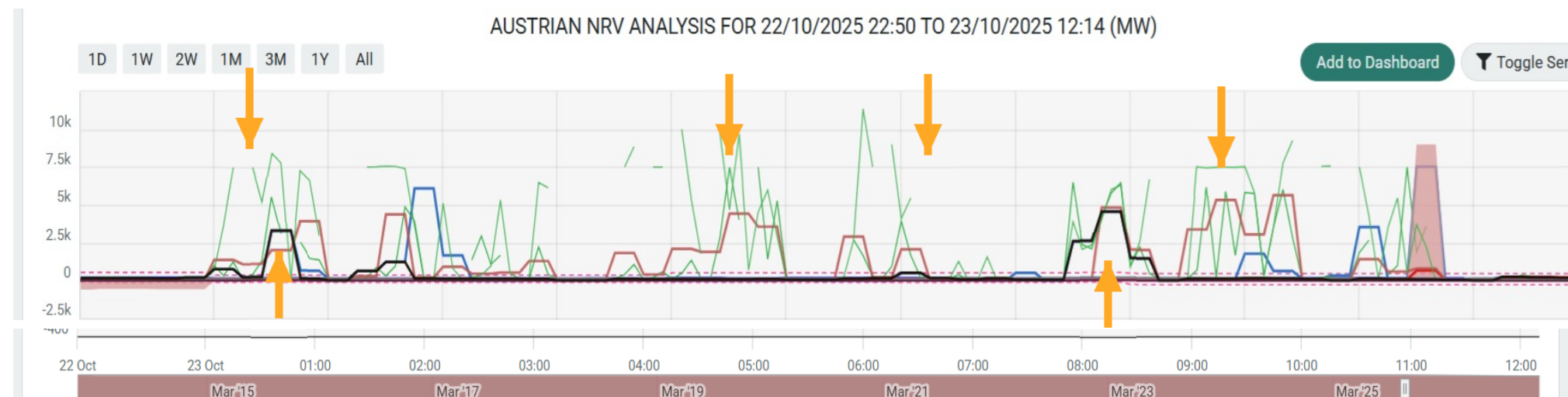
Those bids entered the top of the CMOL and were activated, driving the negative-direction CBMP to high positive values in some MTUs.



Correction

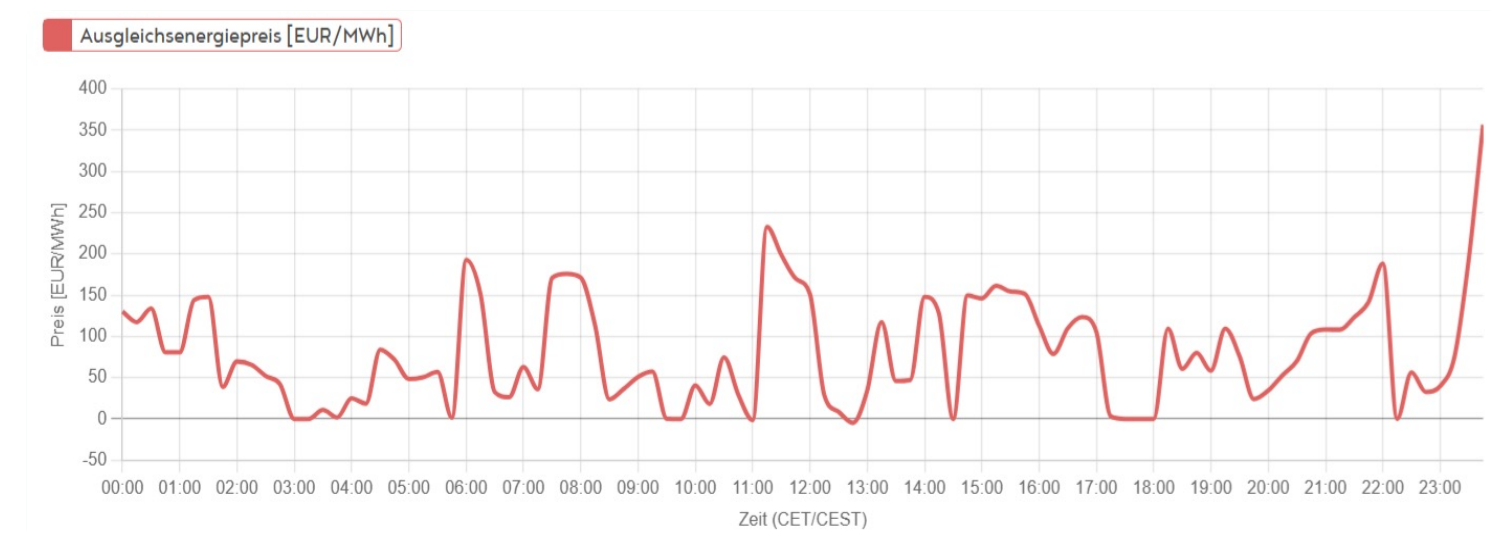
PICASSO re-priced the erroneous CBMPs (incl. netted) at the price of the first non-German negative aFRR bid, plus 0.01 €/MWh.

Cross Border Marginal prices up to 13k€/MWh ... !



leading to imbalance price up to 4.5 k€/MWh !

After retroactive price correction: only moderate



APG Visualisierungen · German_TSOs_Bug_Procurement_Press_release.pdf



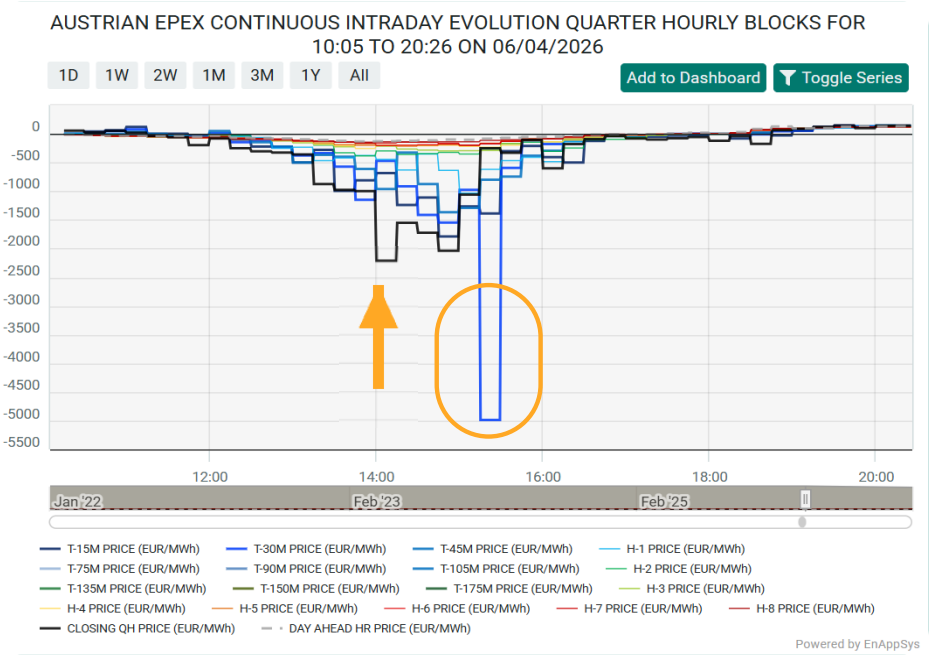
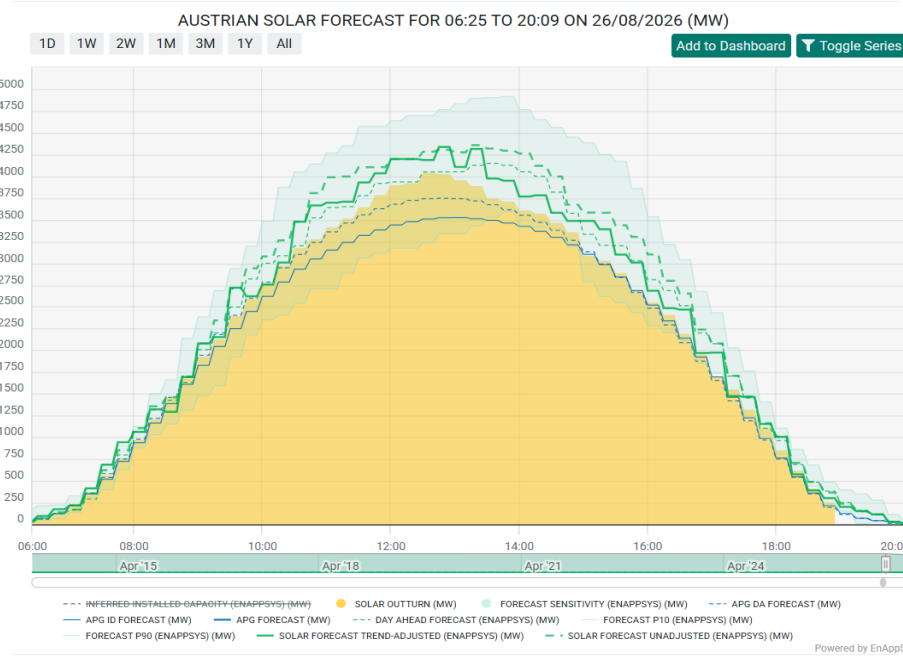
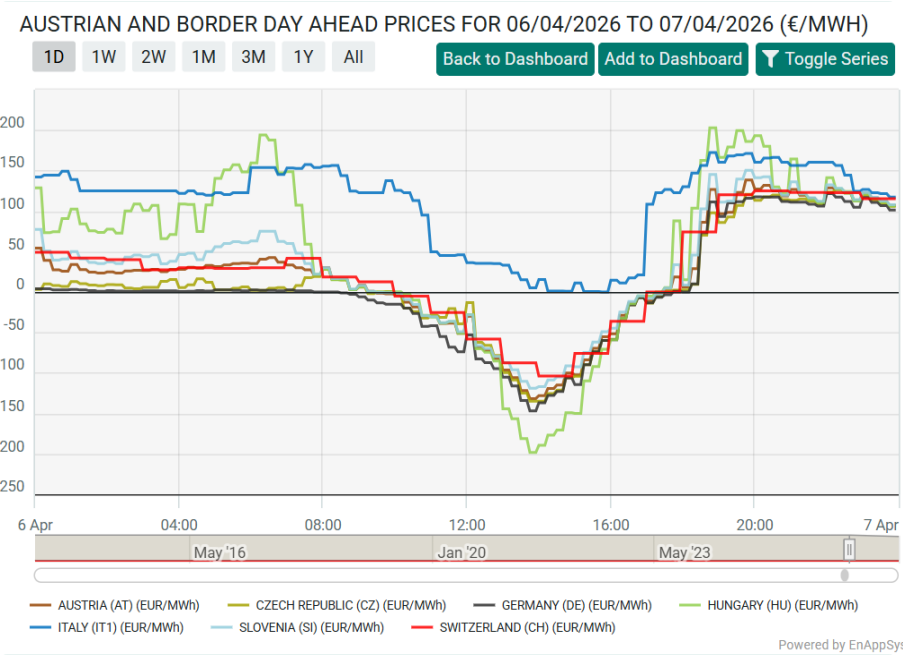
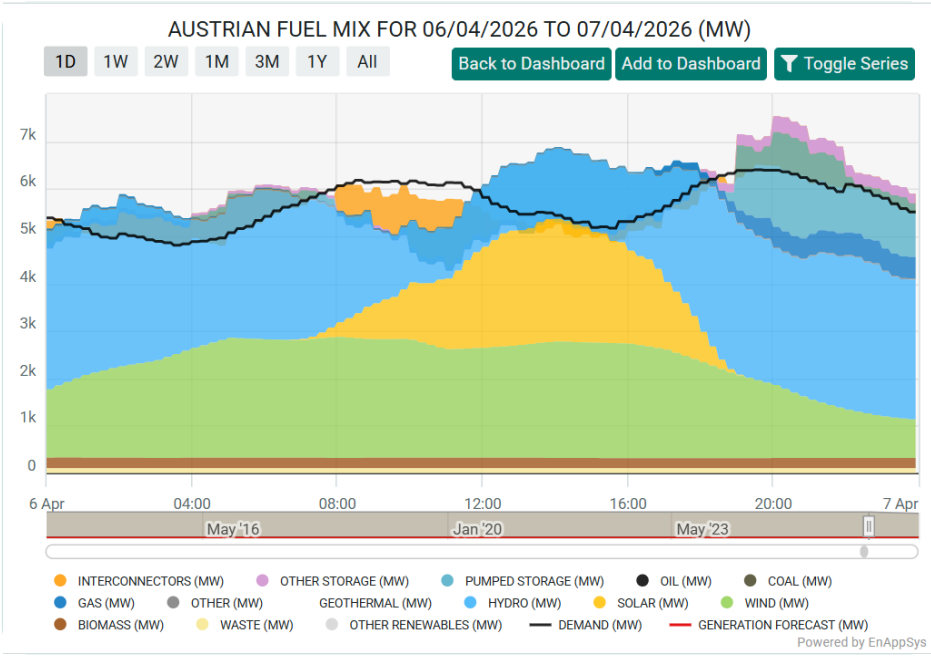
23rd October, 2025: an imbalance price spike event until it was corrected

2

April, 6th 2026: easter Monday

from negative setup to price crash in Intraday

Source: Montel EnAppSys



Really low residual demand due to Easter Monday

DA prices down to -132 €/MWh for 13Q4

Solar overproducing in ID

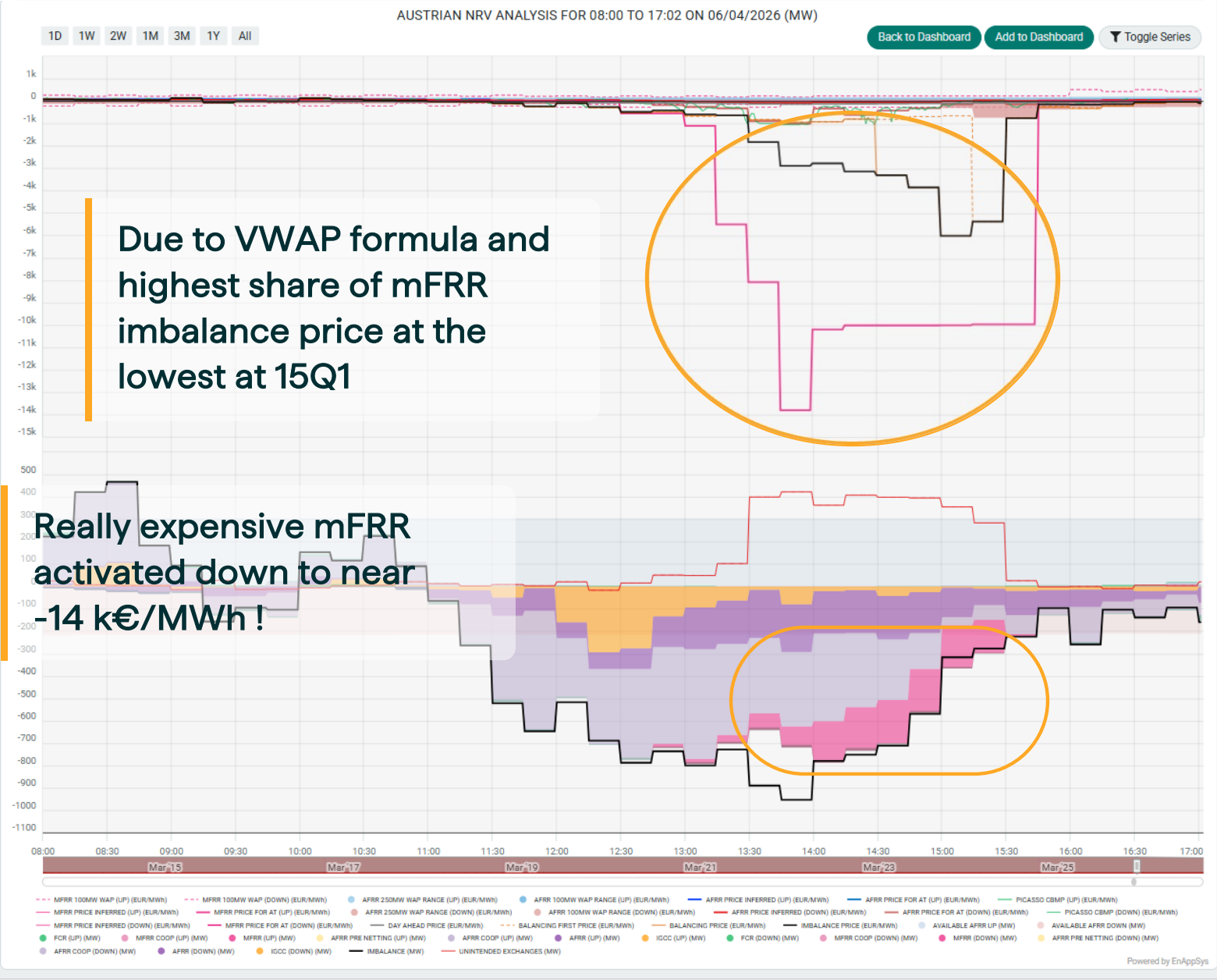
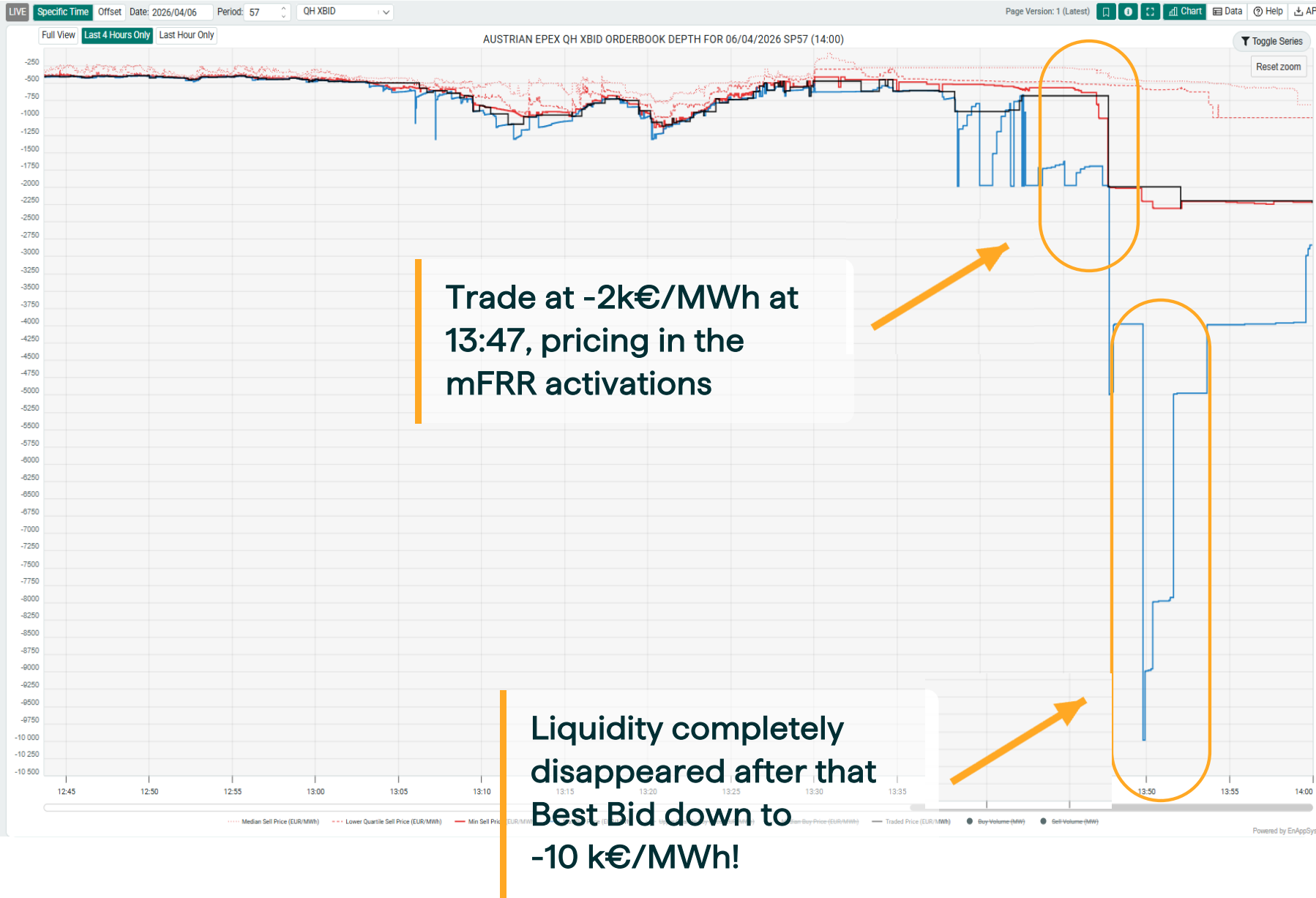
Proper Intraday Crash down to last traded -2.2 k€/MWh for 14Q1



Day-Ahead negative prices crashed even lower in the Intraday Session

downwards imbalance price spike down to -6 k€/MWh

Intraday Evolution for 14Q1

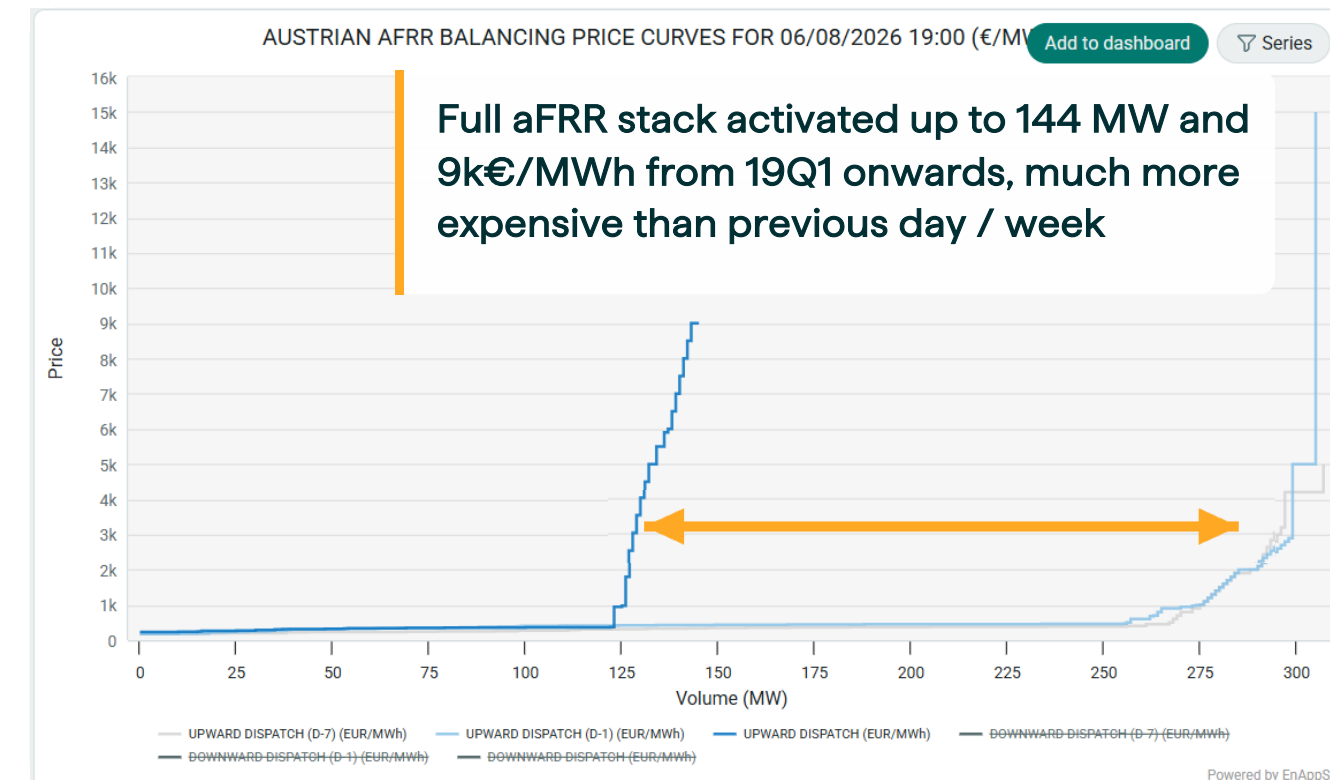
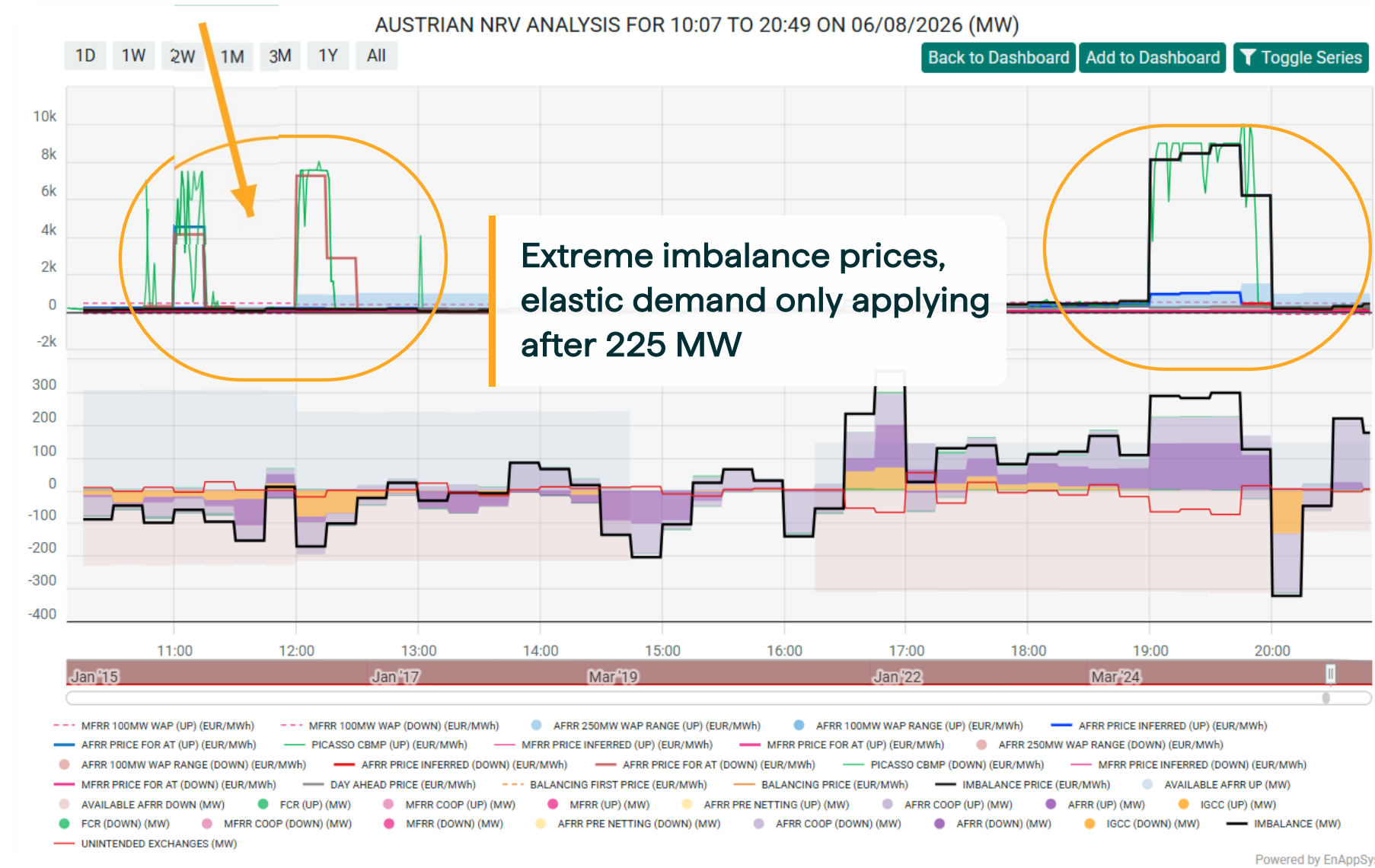


Extreme mFRR activations as market driver for Intraday and impacting the imbalance price

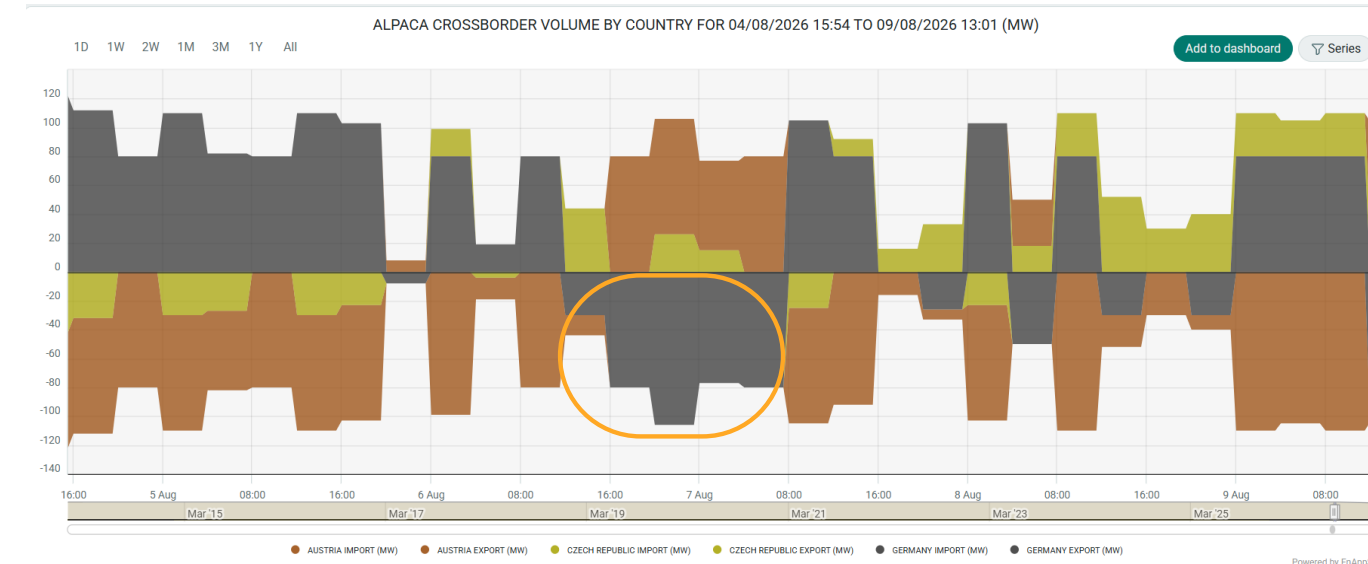
3 August, 6th 2026: imbalance price spike up to 8.9 k€/MWh

Source: Montel EnAppSys

Wrong german bids again this time not due to the platform but to a signal trader without impact for AT ! (no correction)



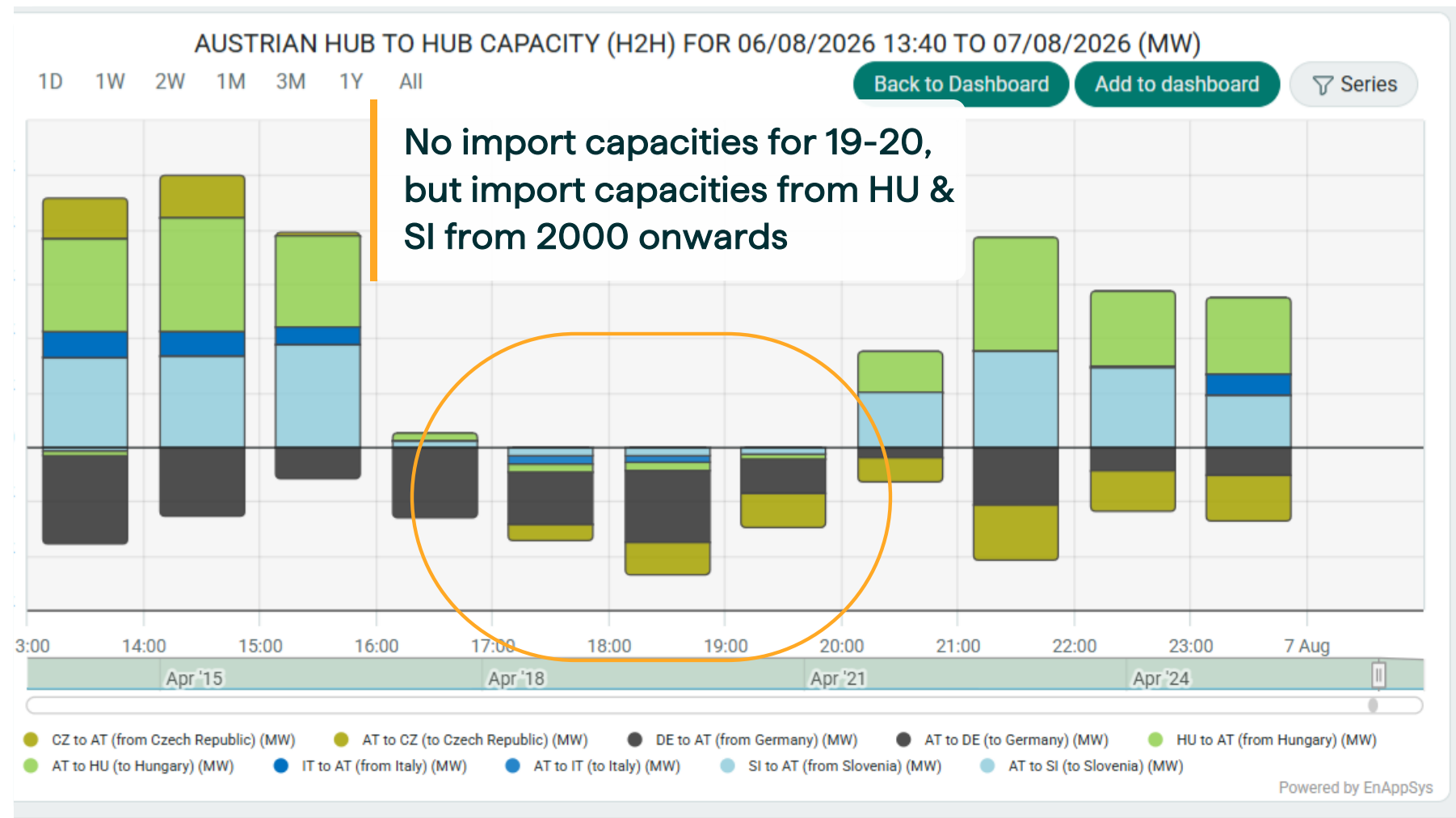
Rest of the aFRR up to 225MW procured in DE via ALPACA capacity procurement



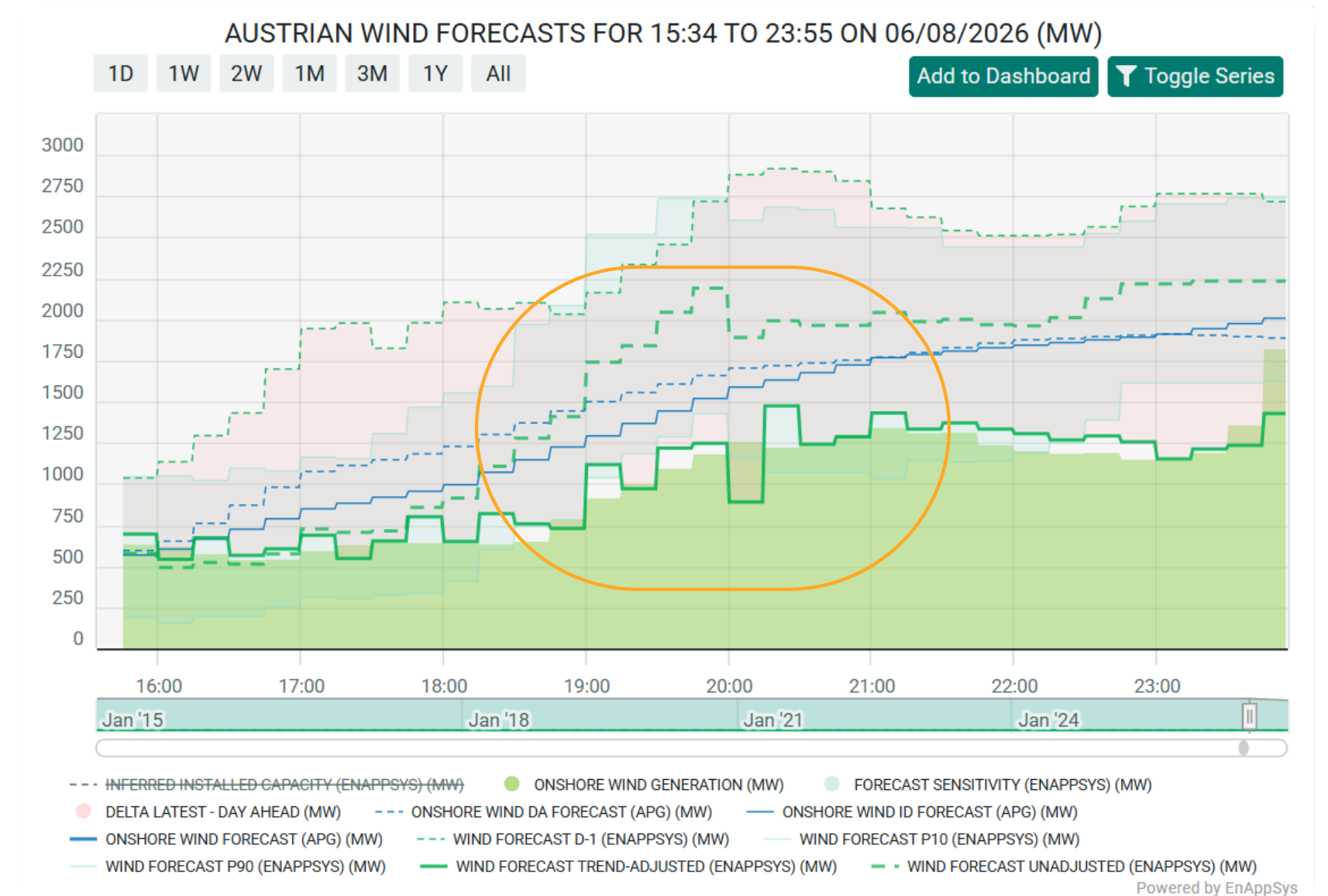
Extreme mFRR activations as market driver for Intraday and impacting the imbalance price

3 August, 6th 2026: AT without importing capacities available

Source: Montel EnAppSys



80 MW DE aFRR from ALPACA still available though due extra DE-AT deal



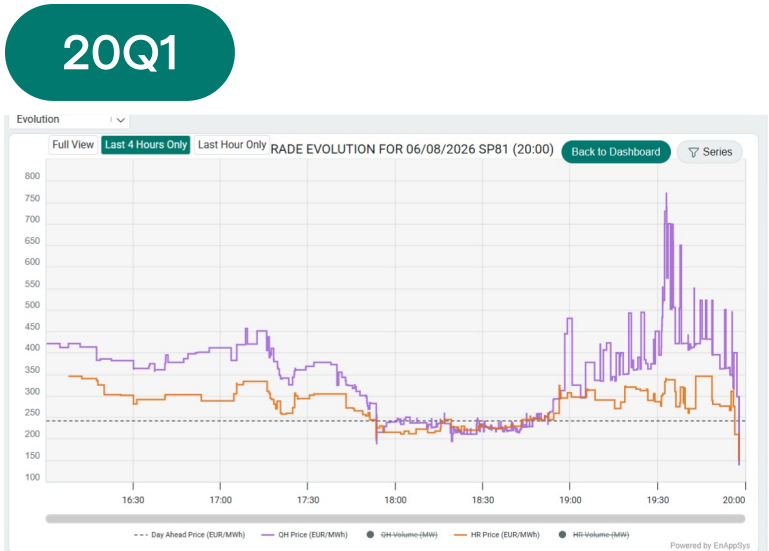
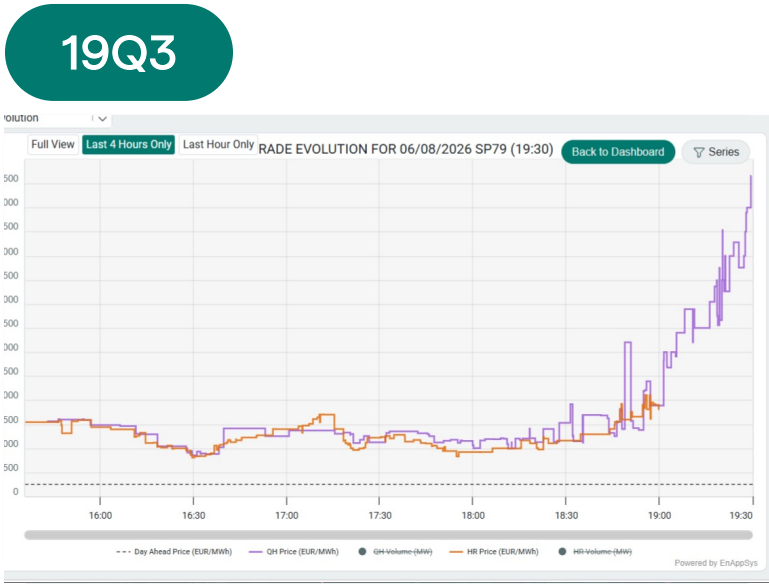
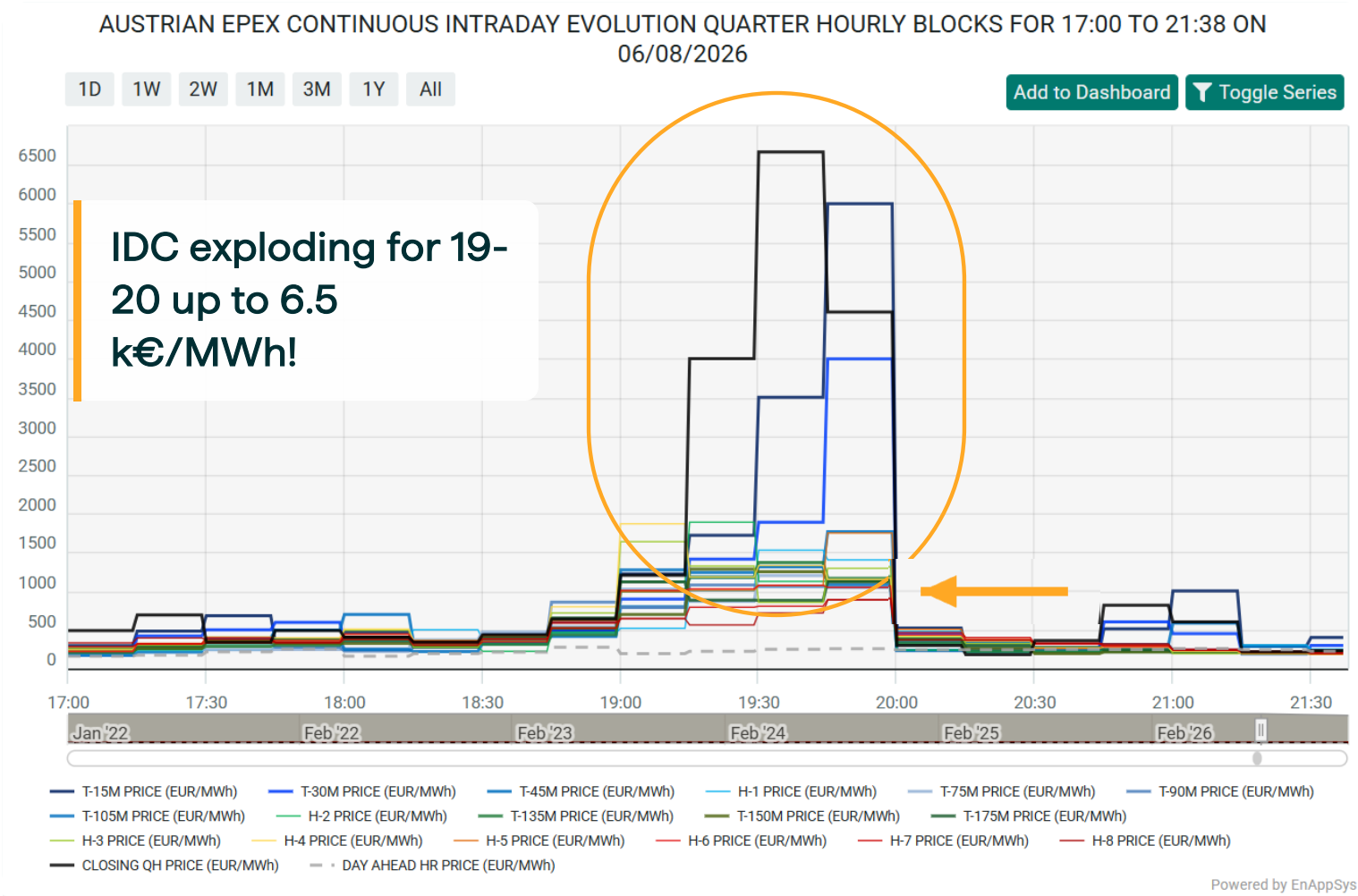
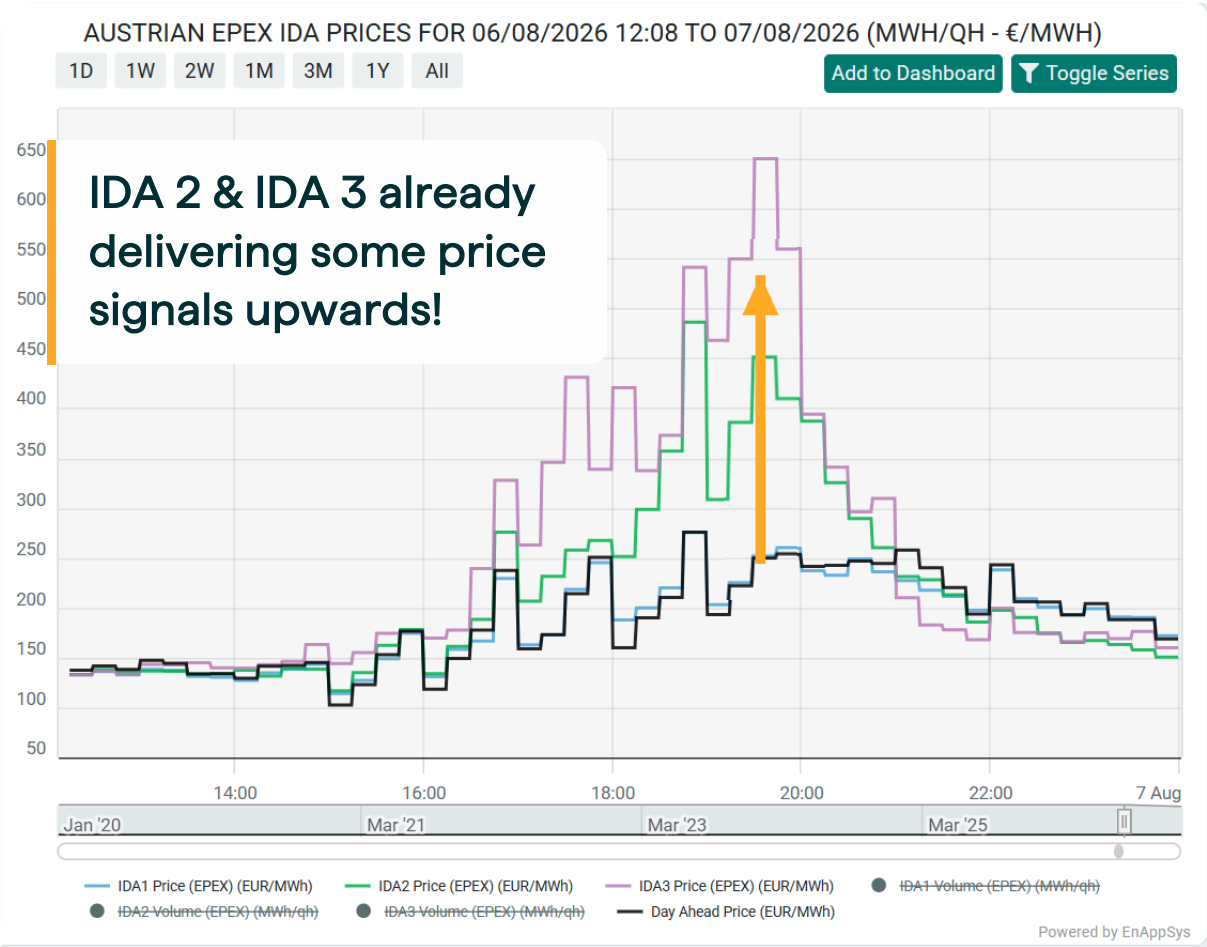
Wind underdelivering in ramp-up phase



Drivers for the spike: wind underdelivering when supposed to ramp in an isolated mode

3 August, 6th 2026: Intraday price explosion

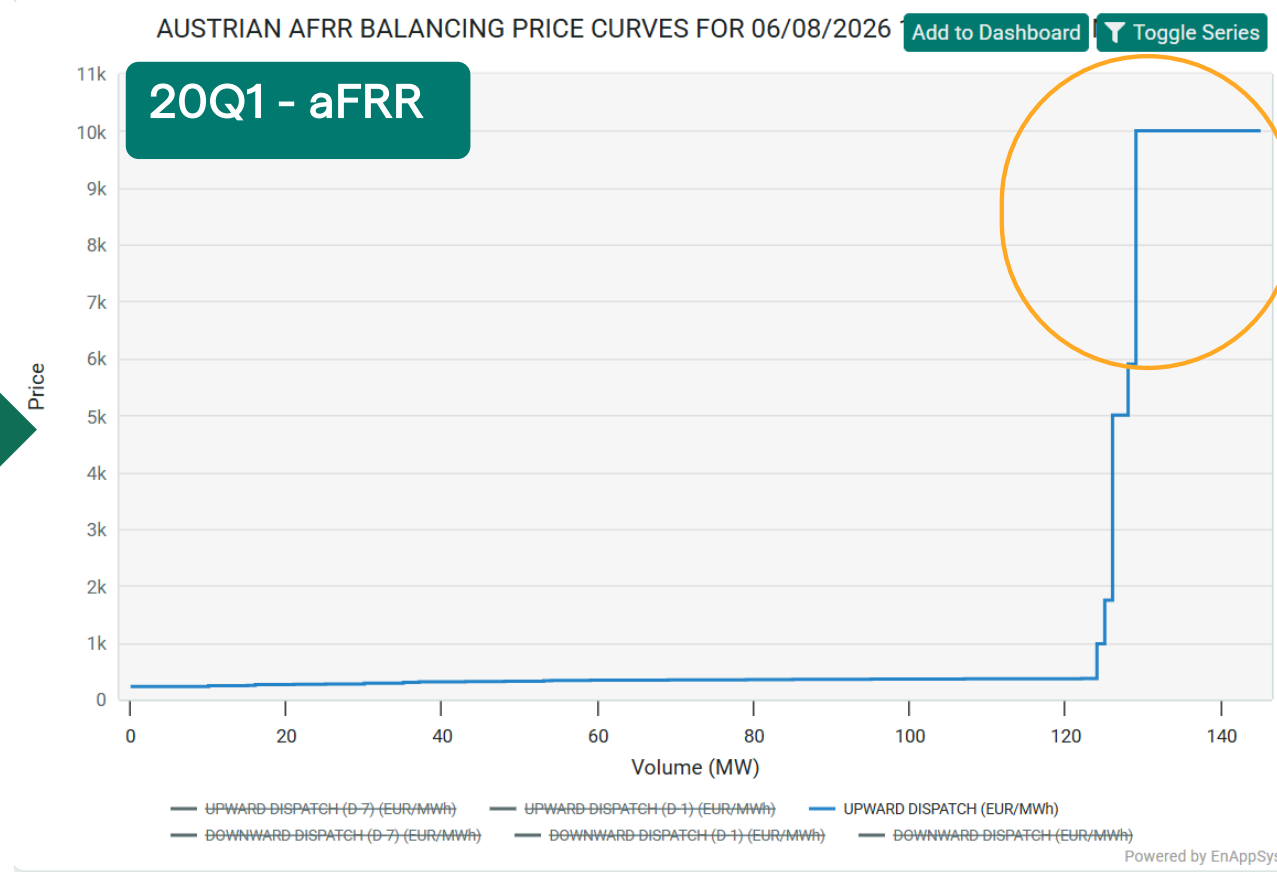
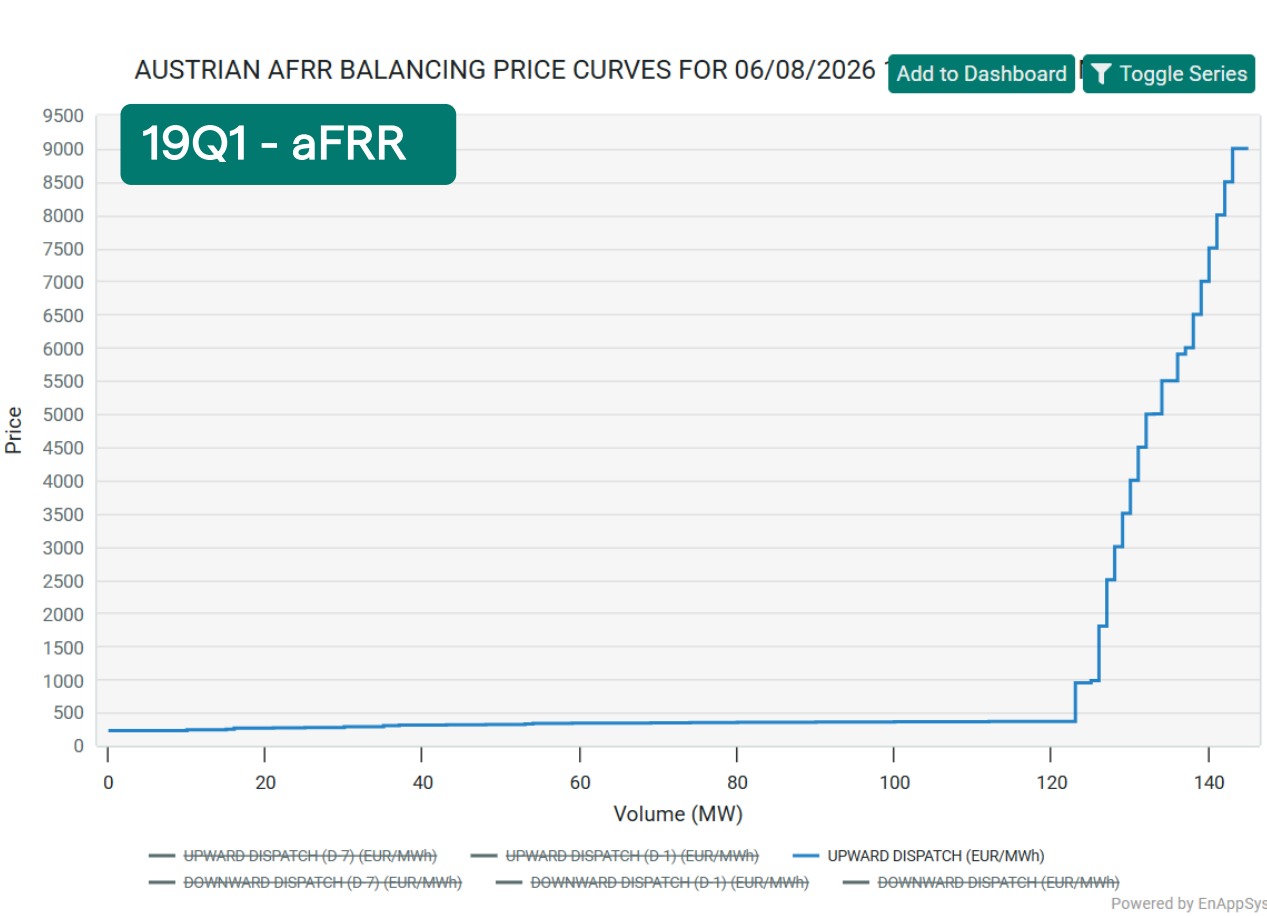
Source: Montel EnAppSys



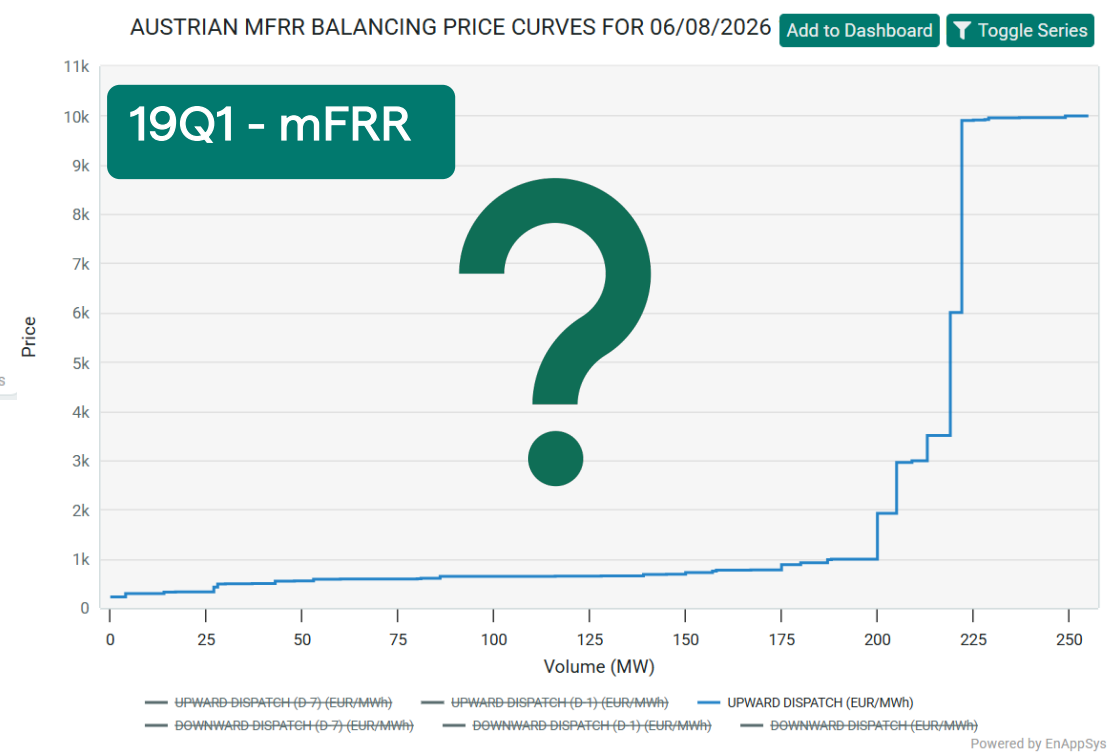
Intraday exploding due to AT in isolated mode without importing capacities, IDAs delivering warning signals already, relaxation after 19-20

3 August, 6th 2026: aFRR bids evolving during the session

Source: Montel EnAppSys



mFRR could have helped to temper the imbalance prices but was not activated. Reason unclear !



Price of aFRR stack increasing during the hour



Full aFRR activated and pricewise deteriorating but no mFRR activated, although it could have helped !

Latest evolutions in short term markets in Austria

30 Min. XB ID Gate Closure Time

- 1 Trading session patterns are changing and liquidity is moving closer to delivery



Cross border capacities impact intraday and balancing !

PICASSO Elastic Demand

- 2 Working well but still a few imbalance price spikes due to various reasons

From auctions to real time



Austrian Deep Dive

Thanks for listening

Meet us today and tomorrow



Vincent Thevenin

Market Expert at Montel EnAppSys

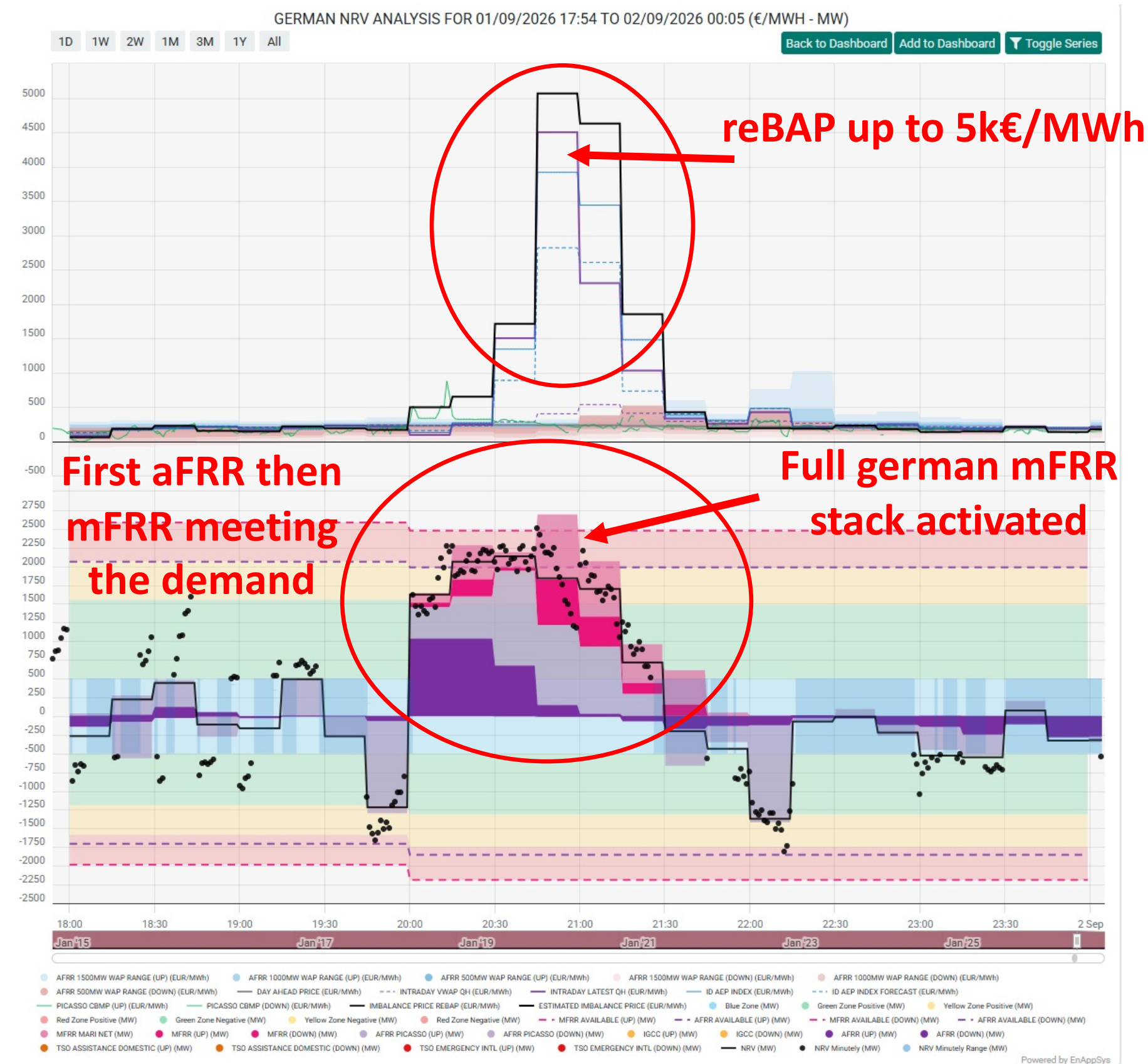
vincent.thevenin@montel.energy

Q&A

What questions do you have?

Thank you

Evening peak imbalance price in DE up to 5k€/MWh

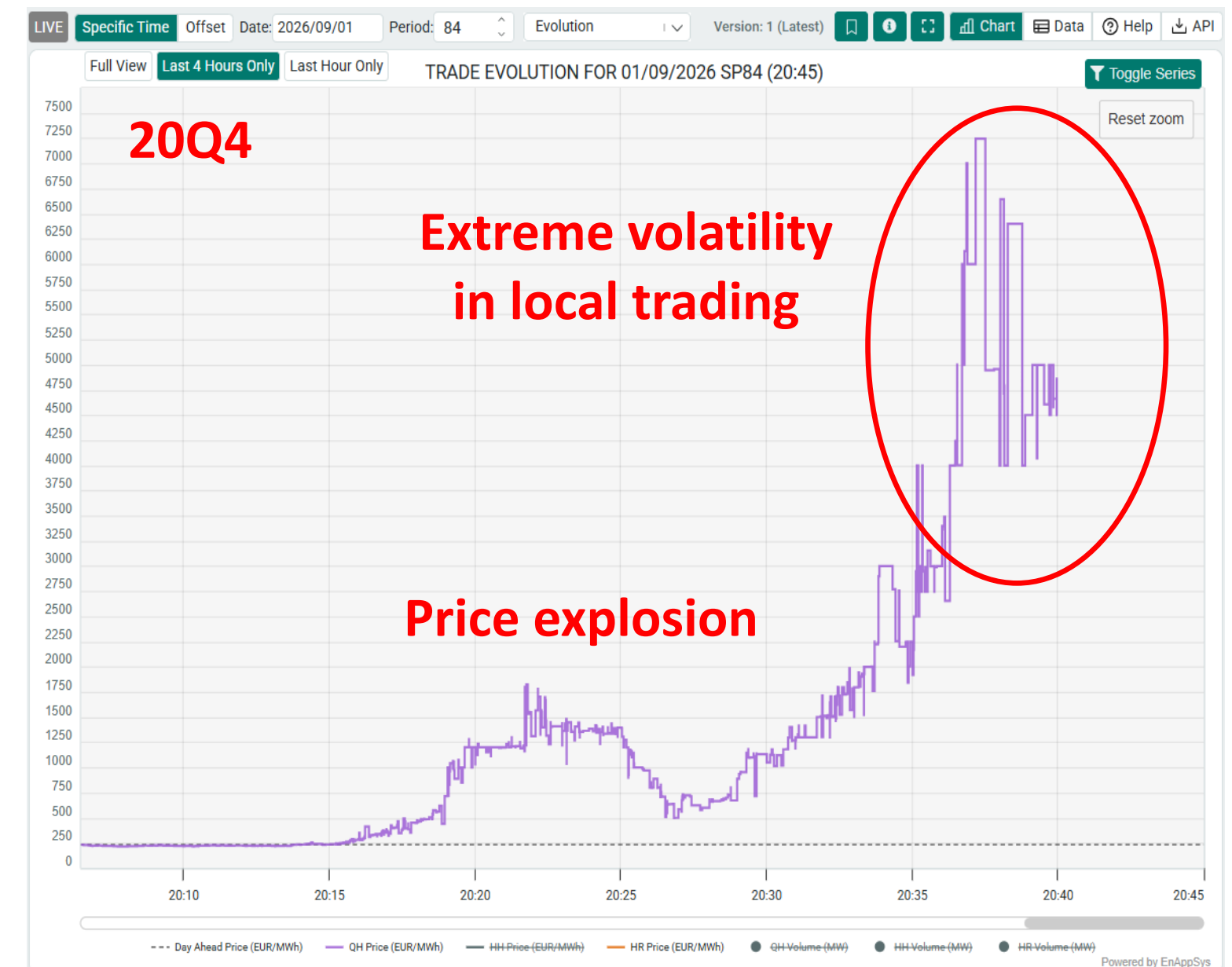
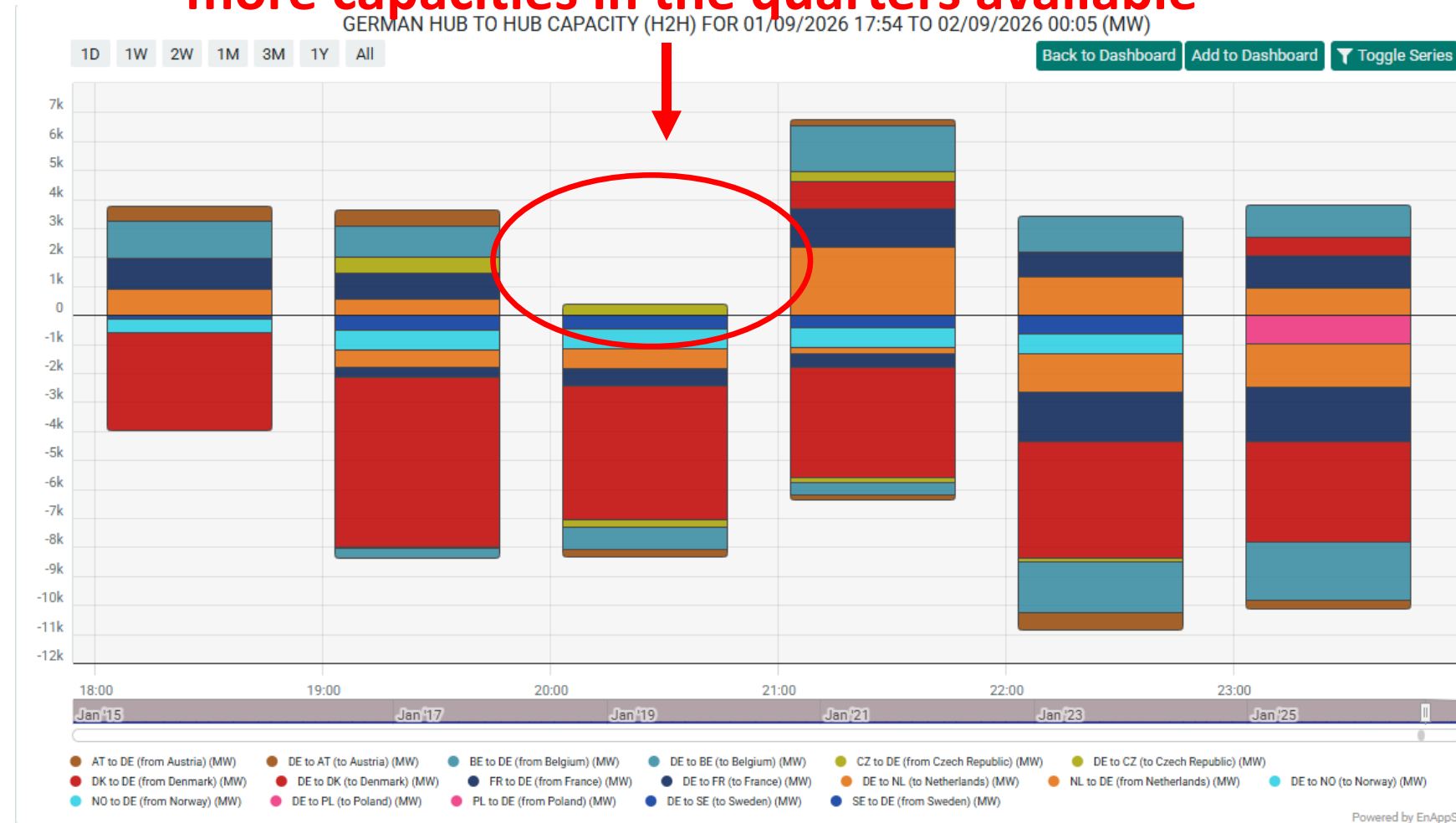


September 1st: sabotage on the grid

- Sabotage on Amprion (and 50Hertz) network elements forced 3 GW of RWE lignite off at 20:00
- System short for about 90 minutes, peaking at 2.2 GW as 15 minute NRV average in 20Q3
- Only CZ and AT capacity left for the full hour, more from other borders in single quarters
- Intraday rallied to 4.5 k€/MWh, last traded for 20Q4
- Balancing followed the playbook: local aFRR in size, then help via PICASSO and later MARI
- Full German mFRR stack up to 15 k€/MWh activated, imbalance price 5 k€/MWh for 20Q4
- System absorbed the shock, but the geopolitical situation keeps being tense

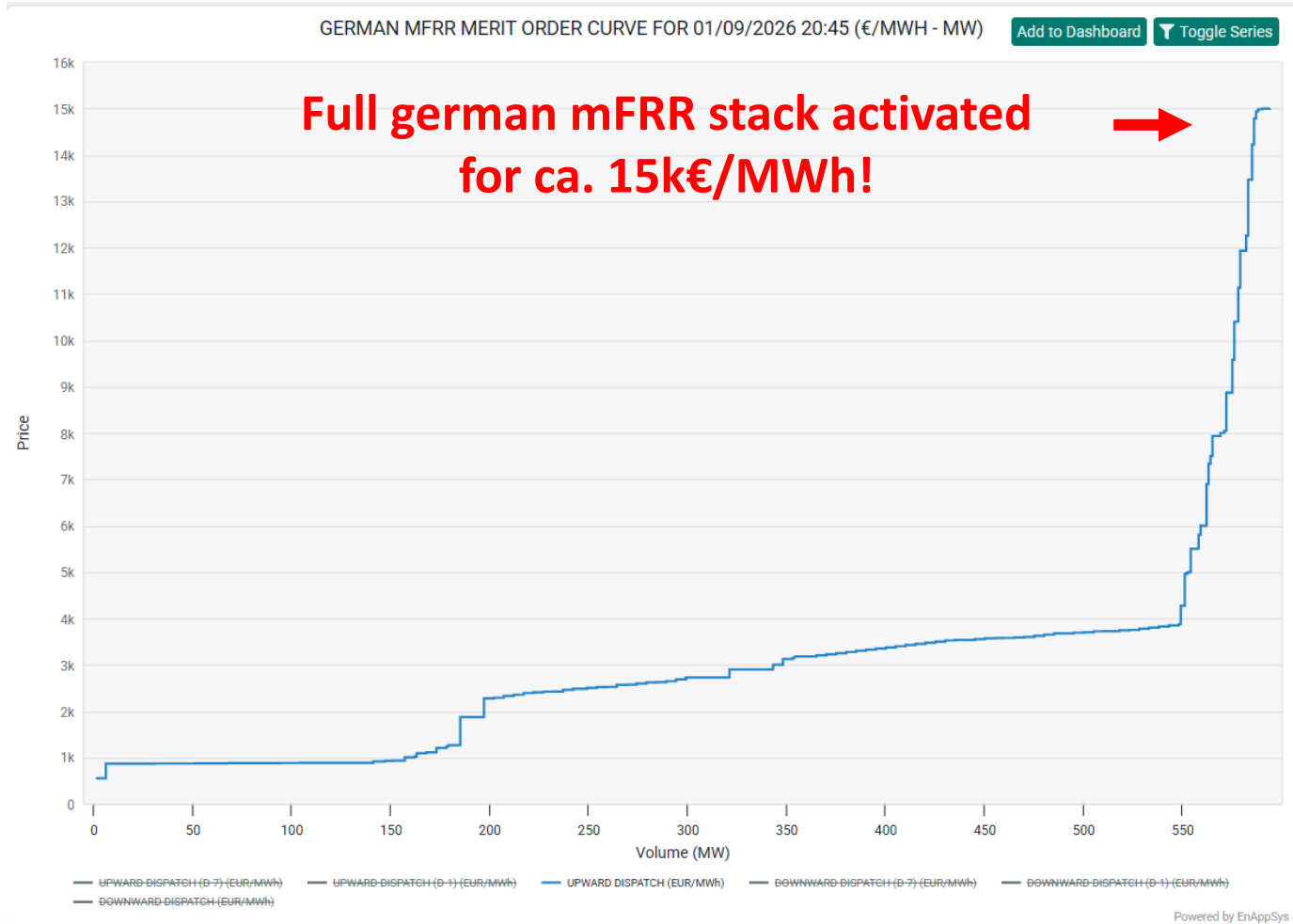
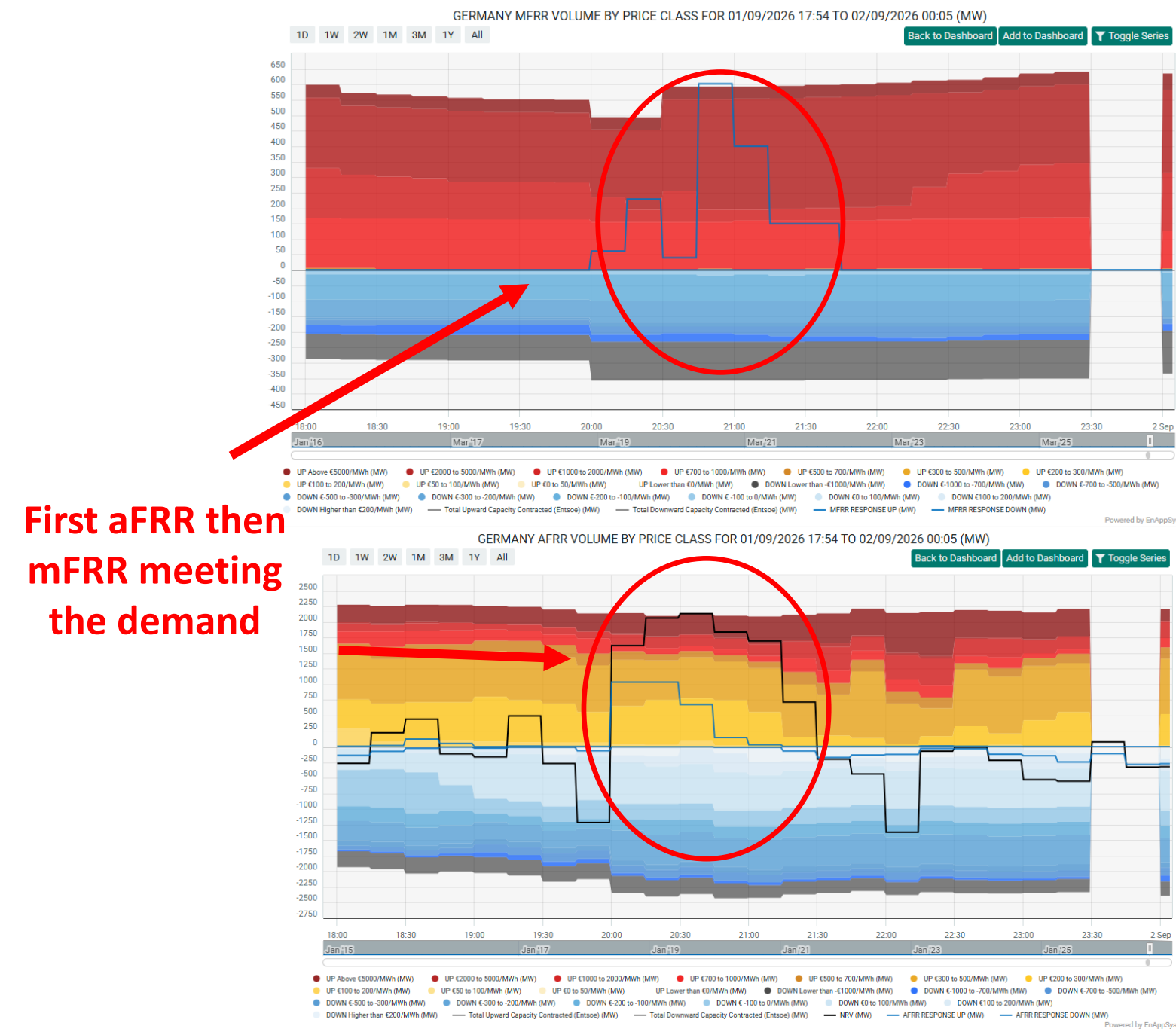
Importing capacity from CZ & intraday rally

Importing capacities only from CZ for hourly products in XBID,
more capacities in the quarters available



Only CZ capacity was left for the hourly product, more MW from BE, FR in the quarters
With cross-border help capped, 20Q4 intraday exploded to 7.5 k€/MWh

Full german mFRR activated led to expensive activations



aFRR came first, then the full German mFRR stack was activated for 20Q4
The merit order ran to its top, clearing at around 15 k€/MWh