



PICASSO and the Italian wholesale market reform

Montel | A tale of cross-border power mechanisms gone awry

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ABOUT ELEMENS

Strategic consulting based on a deep knowledge of the energy market

Strong expertise on Policy&Regulation, Power Market Models, new RES investments, utilities strategies, M&A

Working with all the main energy players active in Italy



based in **Milan**
founded in **2012**

OUR APPROACH

Regulatory
Assessment

Deep
knowledge of
power markets

Use of
quantitative
tools and AI

Business
intelligence

Building strategies
for utilities, IPPs
and investors



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5 Bespoke

To answer any of your needs: analysis and studies on any segment of the energy market, from generation to retail, with a focus on regulation, growth, investments and power markets

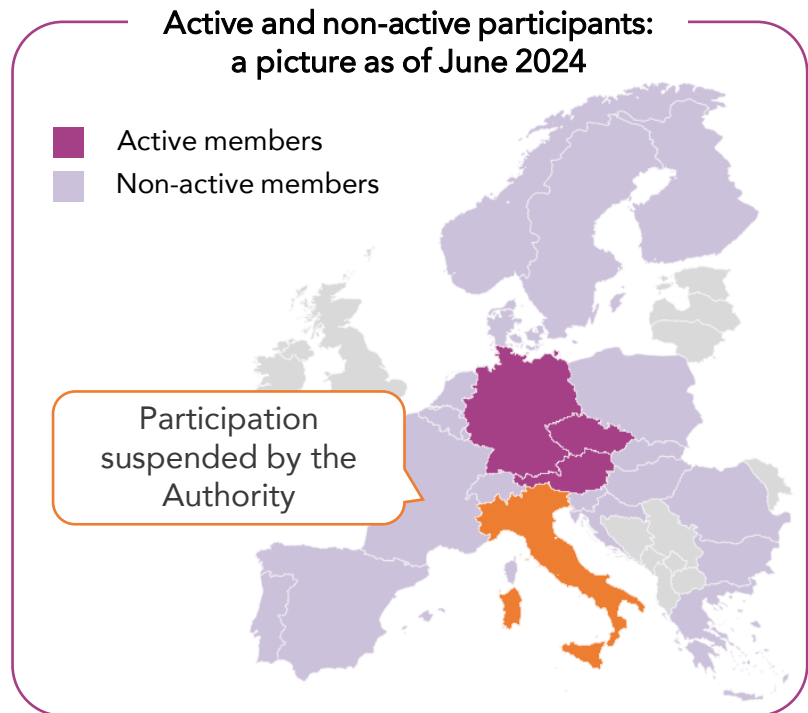
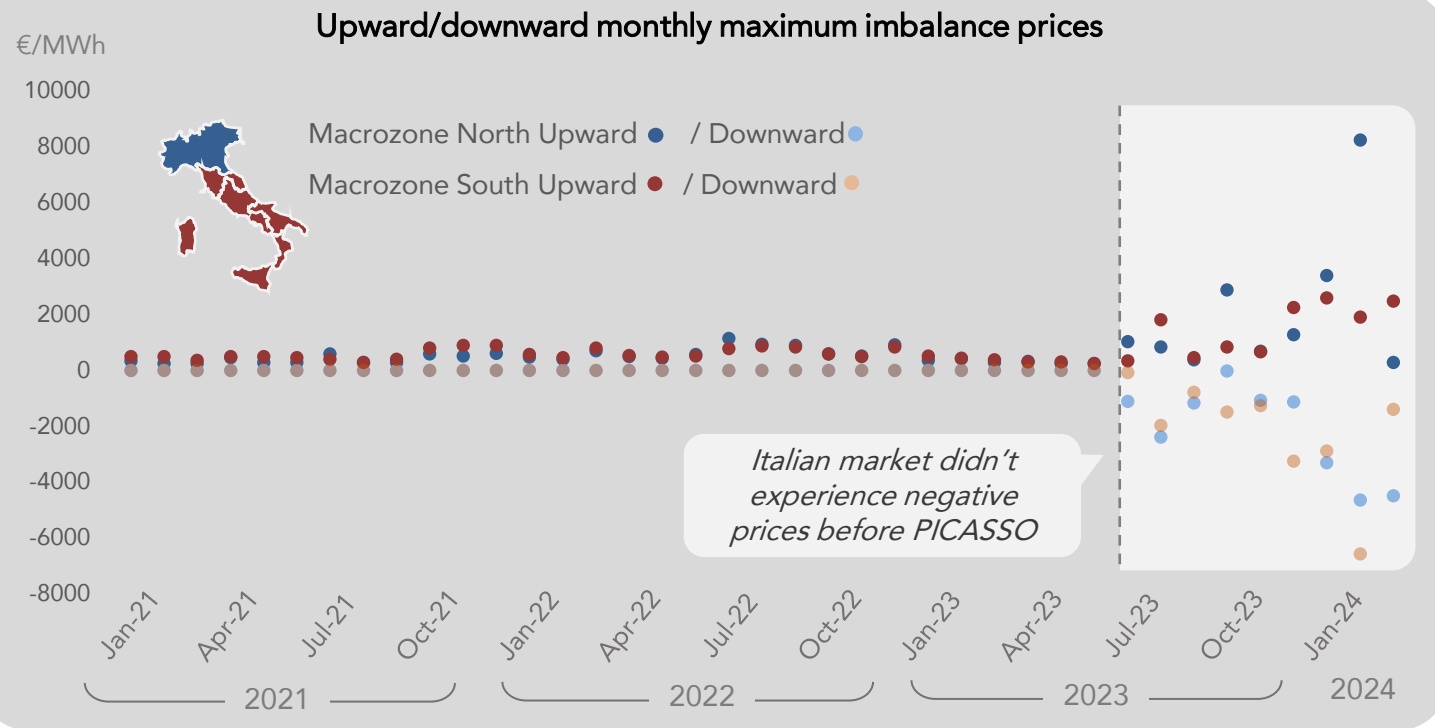
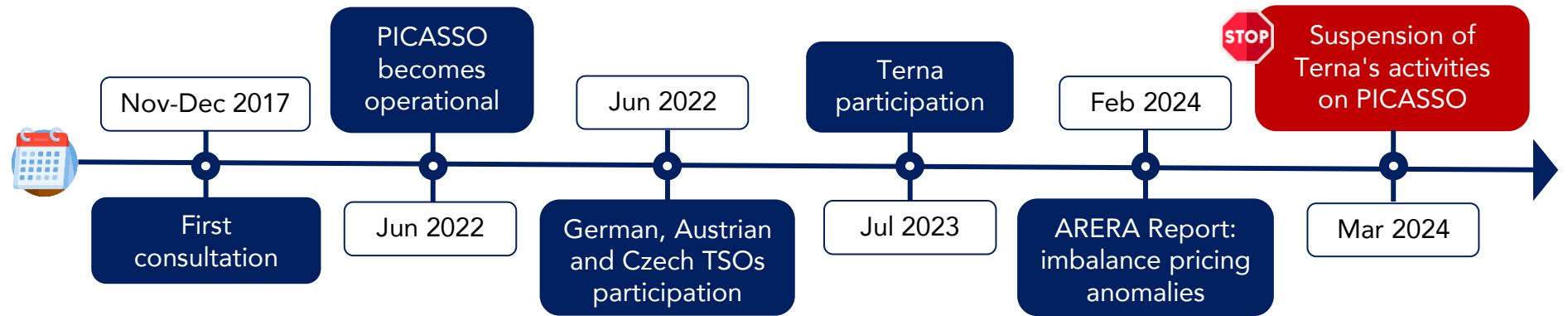
6 Advocacy & Multiclient

To influence the debate: studies on the main dynamics of the sector or on specific critical aspects addressed to decision makers, with management of key communication aspects

PICASSO and the impact on imbalance prices



PICASSO represents the **European aFRR Platform** for exchanging balancing energy from **Frequency Restoration Reserves with automatic activation**

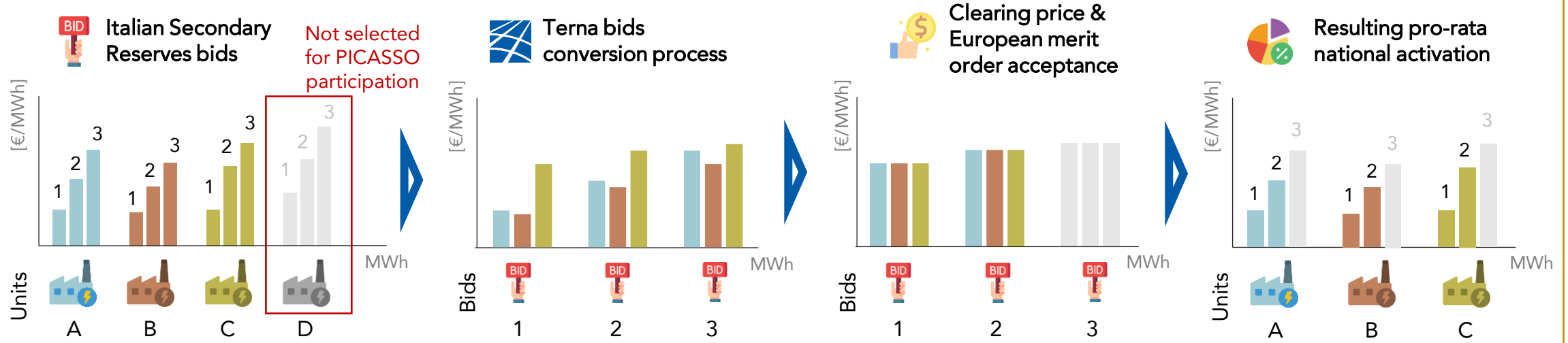




Two different worlds to match

ILLUSTRATIVE

In Italy, the aFRR service corresponds to the Secondary Reserves service which is performed according to a different logic: therefore, a bids conversion is necessary to match the aFRR *merit order* model with the Italian *pro-rata* activation model



The consequences

- Following the anomalies in the formation of national imbalance prices, ARERA launched a preliminary investigation on the July-October 2023 period to examine the causes and identify possible solutions
- What emerged is that the full access to the merit order, in cases of high aFRR needs by TSOs, selected extremely high upward bids (low downward bids), applying the same marginal price to all uncongested areas, distorting imbalance prices
- The price spikes appear to be mainly due to the volume of aFRR shared by Terna on the platform resulting lower than the quantity available
- This also implies a non-complementarity of the Platform with other national mechanisms for frequency restoration (e.g., through other slower manual reserves) that may be cheaper for the system

Impact on flexible generation



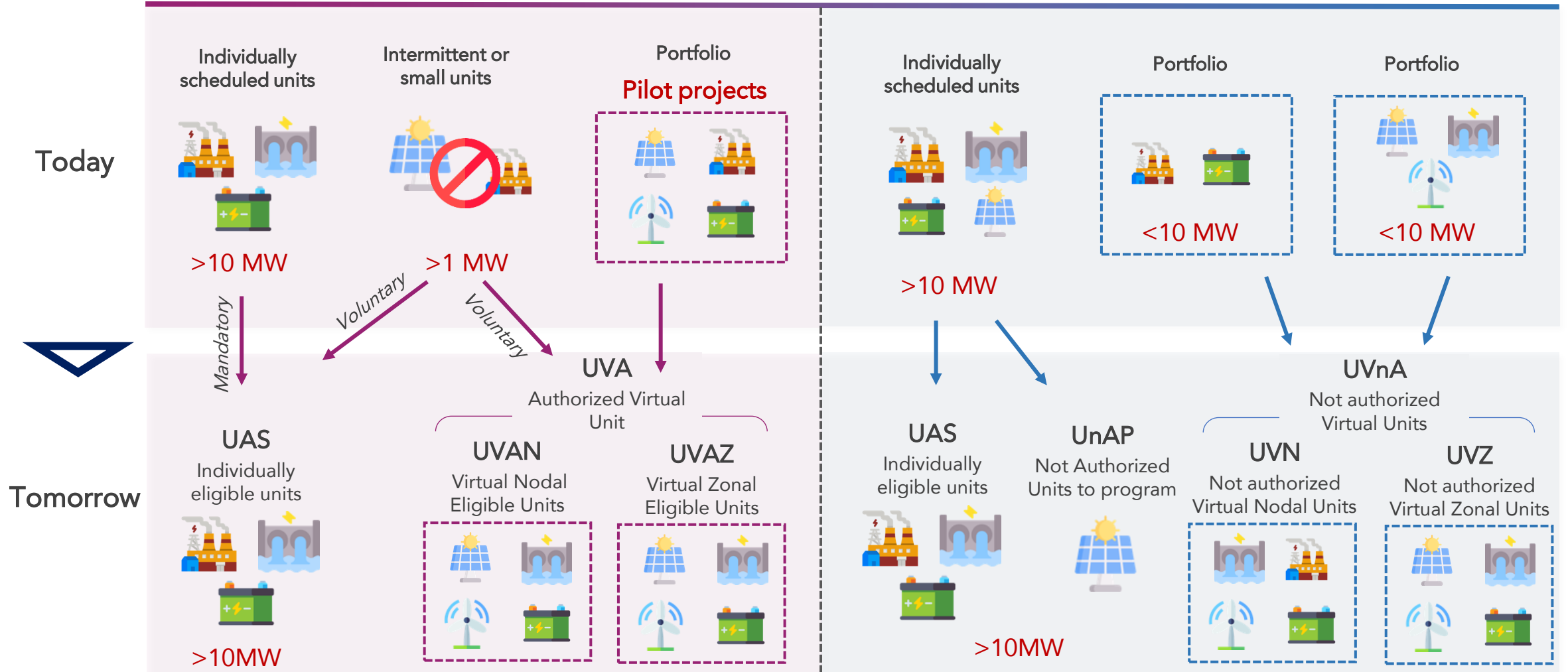
- The aFRR service represents in other European States a valuable opportunity for new market entrants
- Italy's ASM structure significantly differs with respect to regulations in place in the rest of Europe: a careful assessment of country specific regulation is fundamental

- Italian Regulator, TSO and Market Operator are working together to update the regulation related to the wholesale market. The goal of the reform is to transpose EU codes in the Italian regulation to allow a smooth integration of the Italian market in the EU
- From 2025 ancillary services will be brought back to the standard products exchanged on European platforms: this should allow for **greater competition between units and a removal of excessively stringent technical constraints on service**
- The main ancillary services will have to be procured on these EU platforms, however Terna will still be able to procure the 'redispatching' products necessary to guarantee system security on the national ASM (MSD)

Service	Current regulation	Perimeter	Future regulation	Perimeter	Platform	
Fast reserve	Accessible only for units awarded in the 2019 tender	North / South / Sardinia	Remuneration €/MW SMP	North / South / Sardinia	Mainly supplied on European balancing platforms, but also on MSD and MB if needed	
Primary	Regulated remuneration	Unit based	FCR - Remuneration €/MW SMP	Continental + islands		
Secondary	Obligation to offer minimum band - PAB	Continental + islands	aFRR - SMP	Continental + islands		
Tertiary	Obligation to offer - PAB	Continental + islands / Zonal	European mFRR and RR products - Remuneration with system marginal price (SMP)	Zonal		
Balancing	Obligation to offer - PAB	Zonal / Nodal	Together with other services, they become part of 'redispatching'	Nodal / Zonal		
Voltage regulation	Obligation to offer / no remuneration	Nodal	Become 'Extraordinary Modulation' SMP	Defined by Terna		
Congestion management	Obligation to offer - PAB	Zonal / Nodal				MSD - MB
Interruptible load	Only for consumption units / SMP + PAB	Continental + islands				Dedicated auctions

Ancillary Services Market

Energy Markets





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