



Probabilistic Bidding: Revenue & Penalty Outcomes Update

IS THIS POSSIBLE ?


Actual Production: 0.847 MWh

?	FORECAST 1	FORECAST 2
FORECAST VALUE(MWh)	0.686	0.098
NET REVENUE(€)	50.30	87.09

Agenda

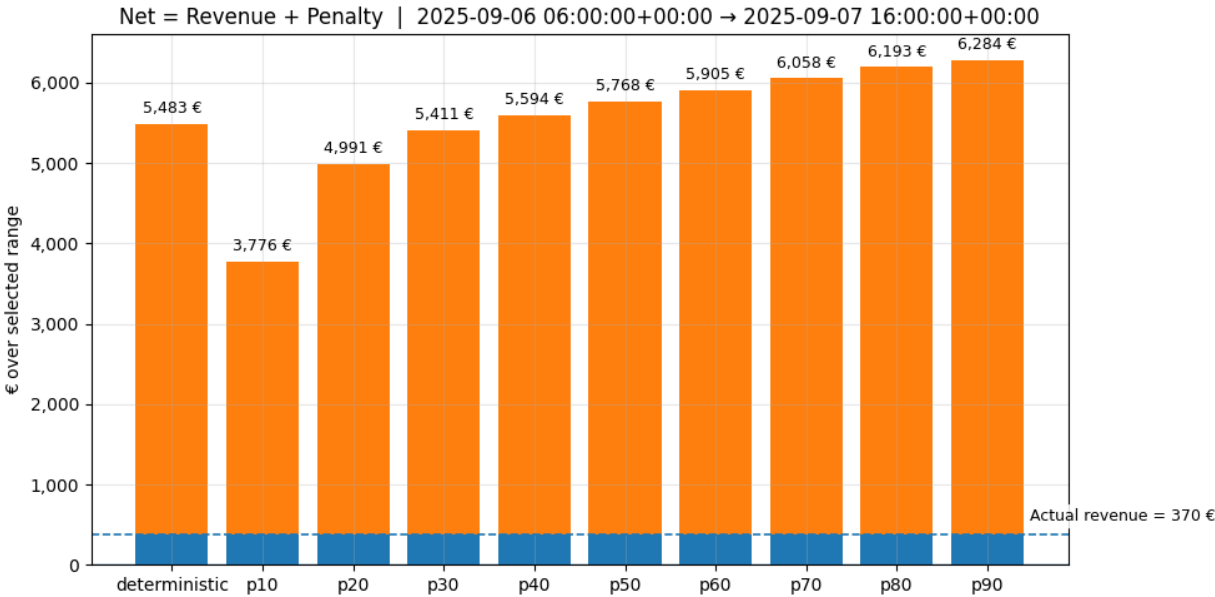
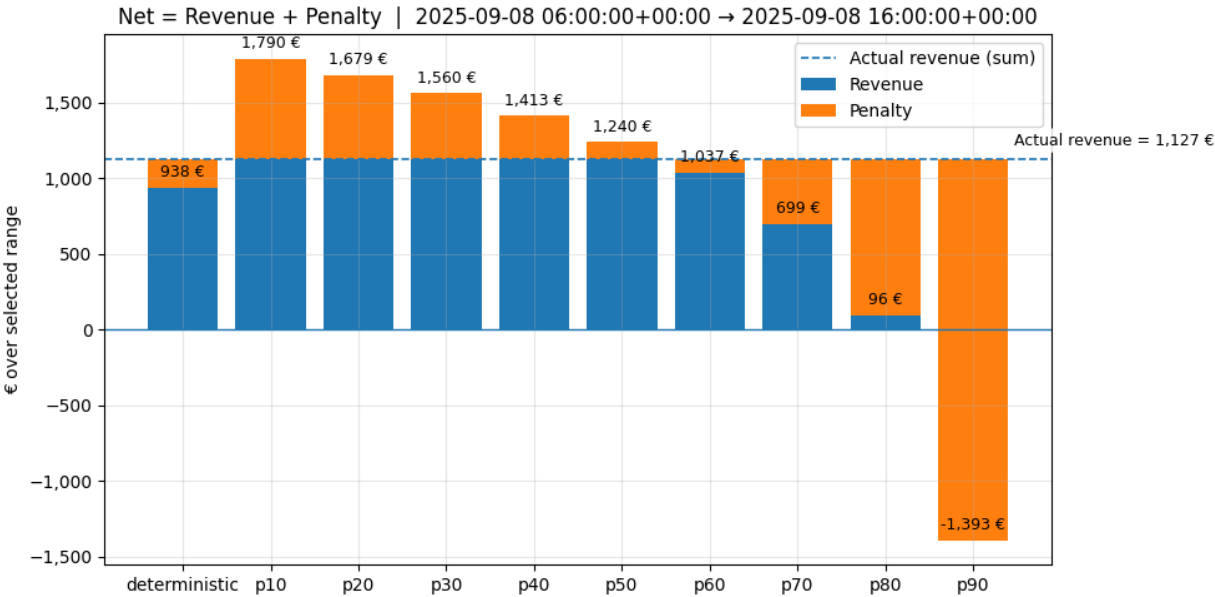
- Understanding the penalty scheme - Case: Neoen (14MW - France)
- Results and Findings

When does imbalance become revenue?

	System Long (Negative)	System Short (Positive)
Actual > Schedule	Penalty	Remuneration
Actual < Schedule	Remuneration	Penalty


“In imbalance settlement, you are rewarded when your deviation reduces the grid imbalance, and penalised when it amplifies it.”

Revenue Comparison across Forecast Types



Model Considerations for Grid / System State Prediction

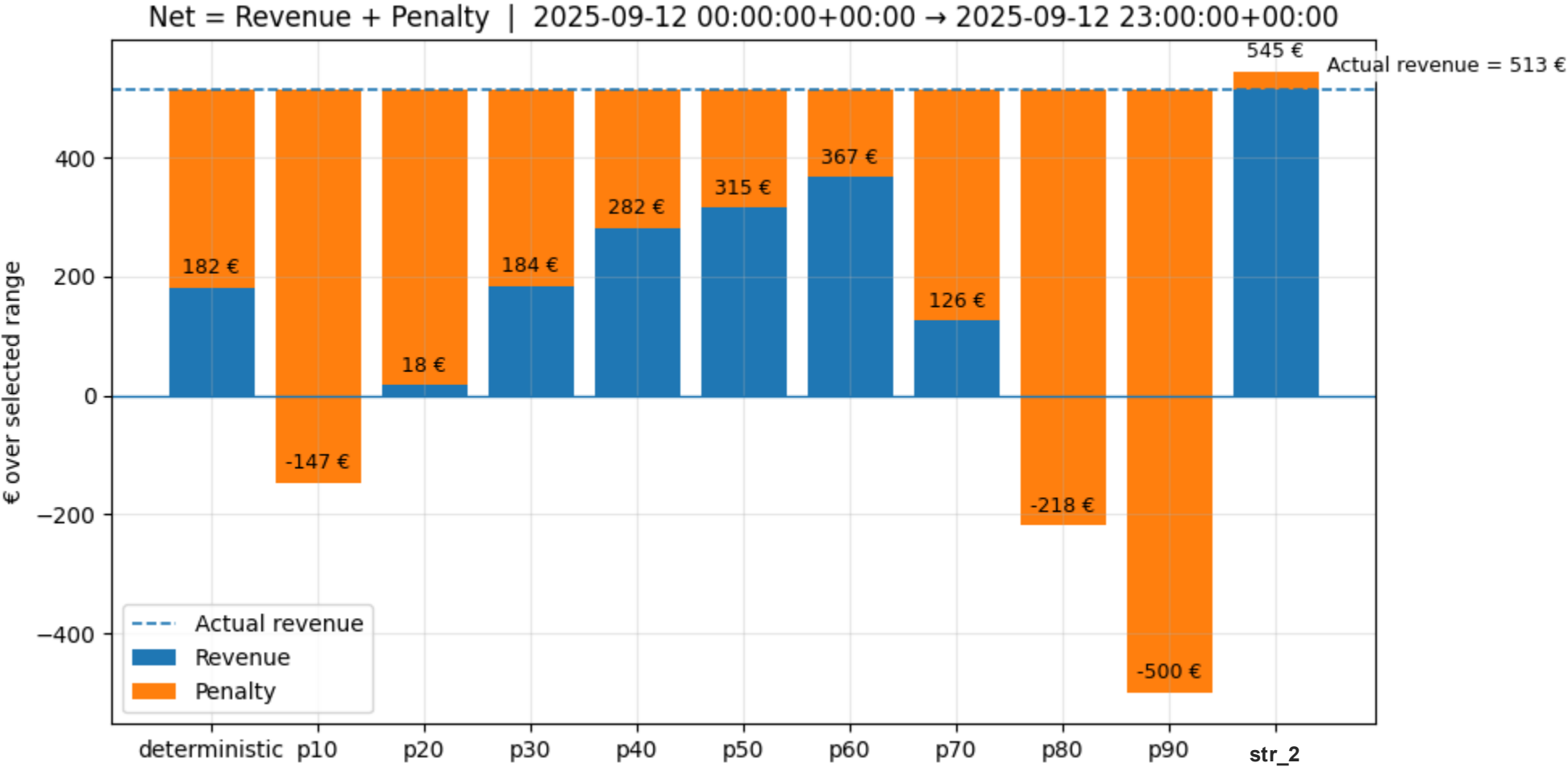
By anticipating grid conditions, we optimize bid quantiles to enhance revenue opportunities and reduce risk.

	Model 1	Model 2
Features Used	Cyclic features (TOD* & DOW**)	Lag + Cyclic features (1 step autoregression)
Prediction Accuracy	57.23%	74.23%

*TOD: Time of the Day
**DOW: Day of the Week



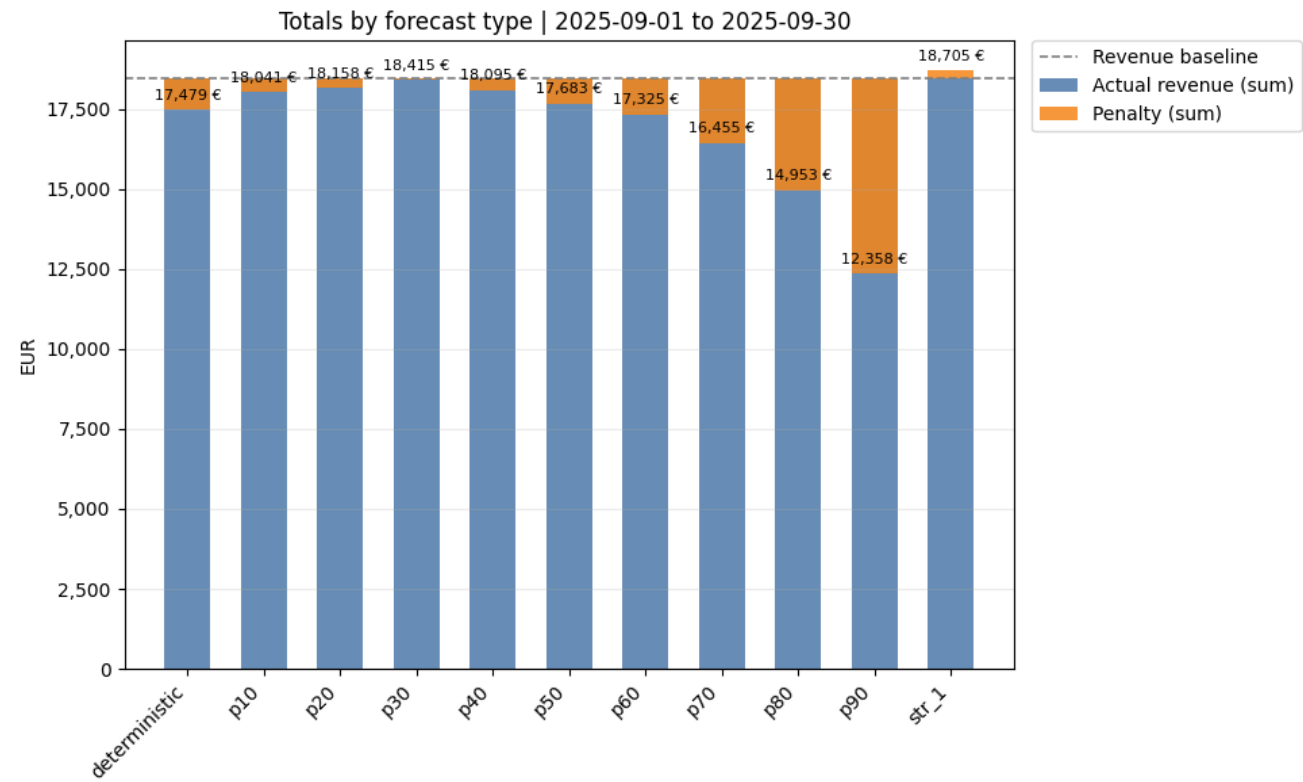
Revenue Comparison: Specific Day



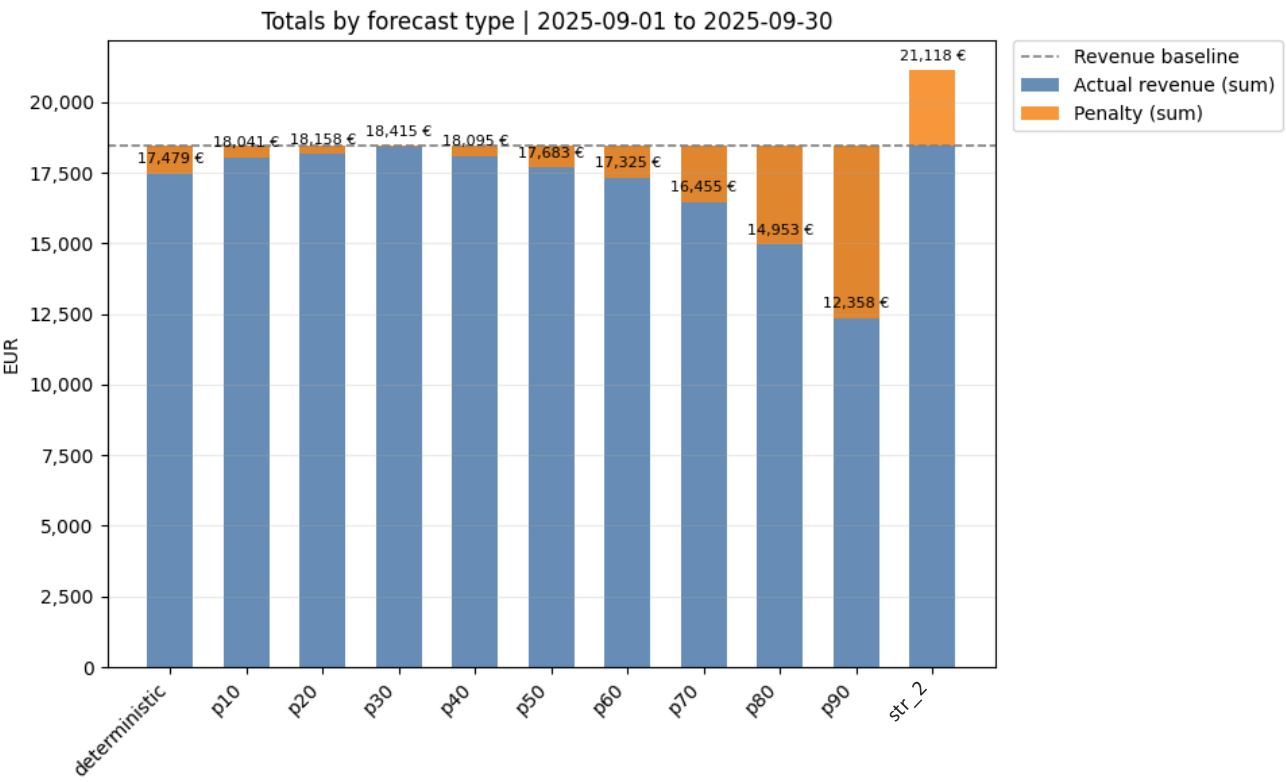
Δ% (Deterministic Vs Strategy) : 200.19%

Performance Comparison: Analysis over a month (September 2025)

Revenue Baseline – €18,452

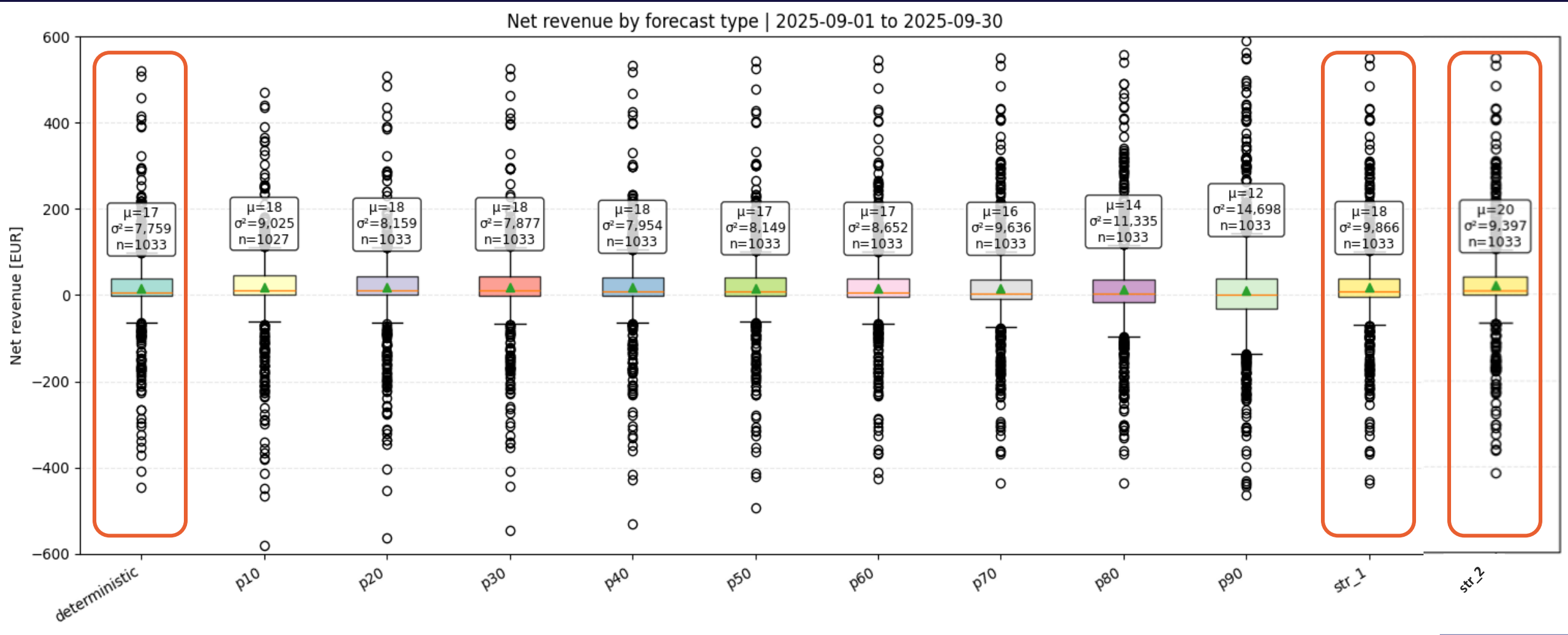


Δ% (Deterministic Vs Strategy_1) : 7.02%

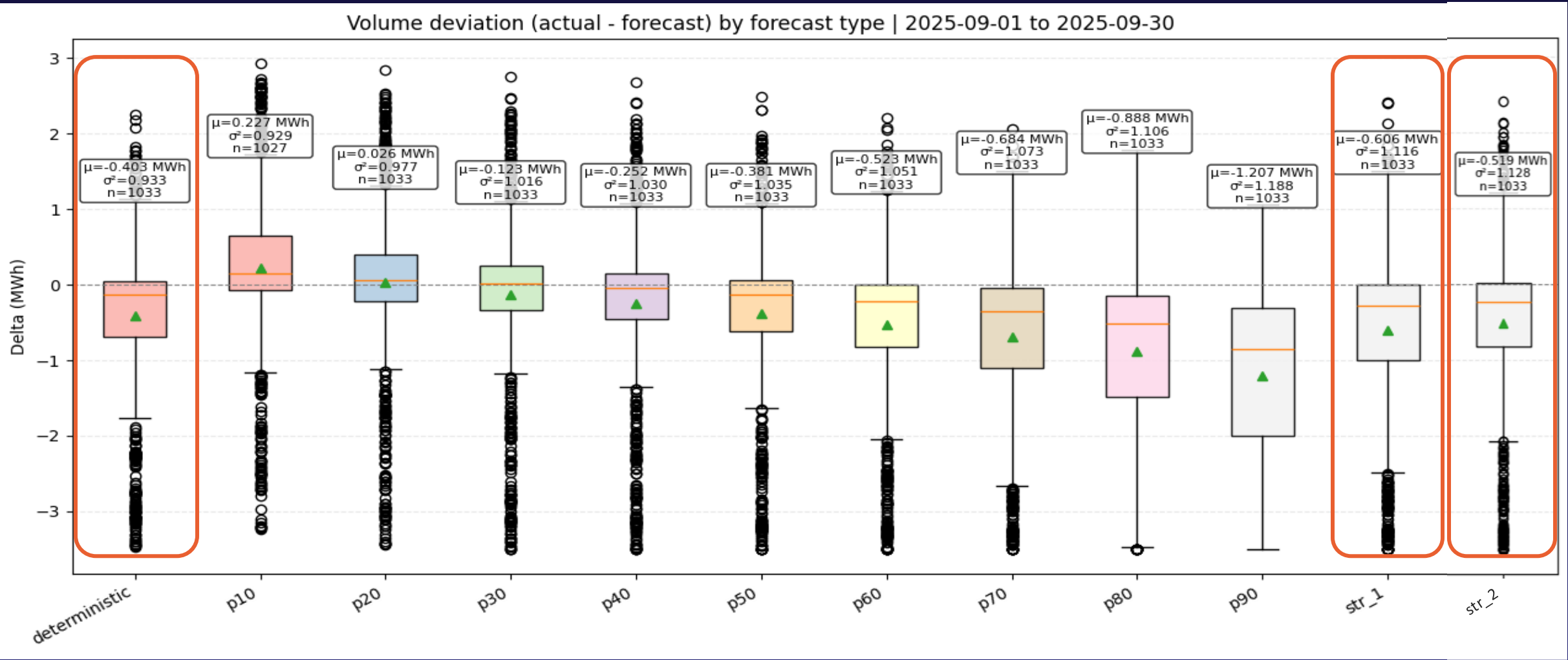


Δ% (Deterministic Vs Strategy_2) : 20.83%

Performance Comparison 1: Revenue over a month (September 2025)



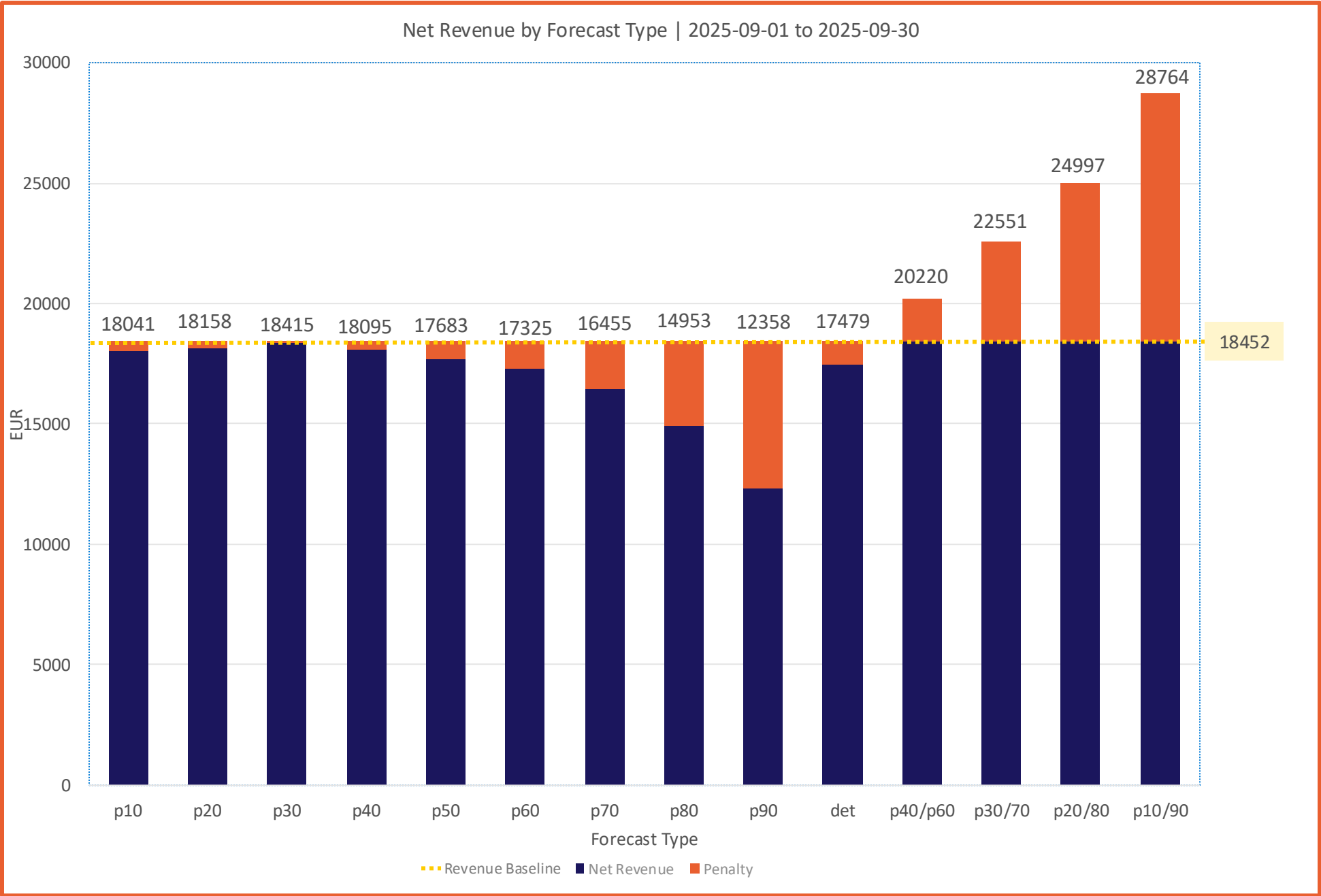
Performance Comparison 2: Volume Deviation over a month



Results comparison across strategies

Strategy	μ (Δ volume) [MWh]	σ^2 (Δ volume)	μ (net rev) [€]	σ^2 (net rev)
Str_1 (Acc: 57.23%)	-0.606	1.116	18	9,866
Str_2 (Acc: 74.23%)	-0.519	1.128	20	9,397

Revenue Comparison across Quantiles



Δ% (Deterministic Vs Probabilistic)

- P40/P60 - 15.68 %
- P30/P70 - 29.03 %
- P20/P80 - 43.02 %
- P10/P90 - 64.58 %

ACER & REMIT (EU cross-border)

Agency for the Cooperation of Energy Regulators – ACER

- EU rulebook and market surveillance
- Coordinates cross-border REMIT probes

EU REgulation on wholesale energy Market Integrity and Transparency – REMIT

- Article 5: Non tolerance for market manipulation or abuse

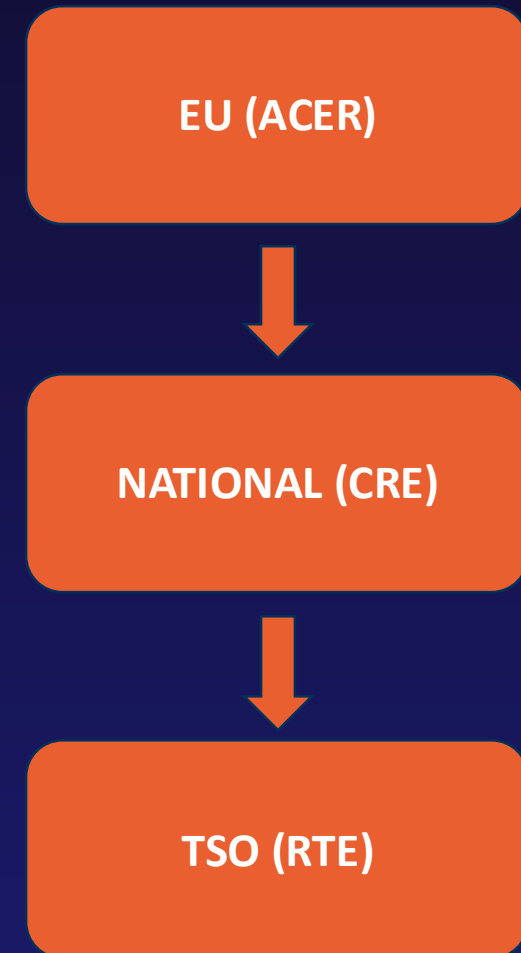
CRE & CoRDIS (France)

Commission de régulation de l'énergie – CRE

- National energy regulator for France

Comité de règlement des différends et des sanctions – CoRDIS

- Investigates REMIT in France



Further Study

- Penalty analysis focusing on the intra-day market – Penalty mechanisms varies across countries.
- More accurate prediction of grid state and prices of imbalances – Might be a pivot focussing more on market forecast
- Setting a base case scenario for other customer segments – Say Hybrid operators

MERCI POUR VOTRE
ATTENTION

