

Annual Report 2024



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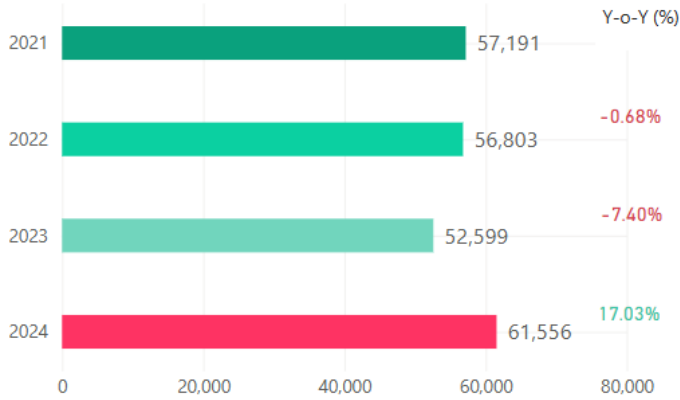
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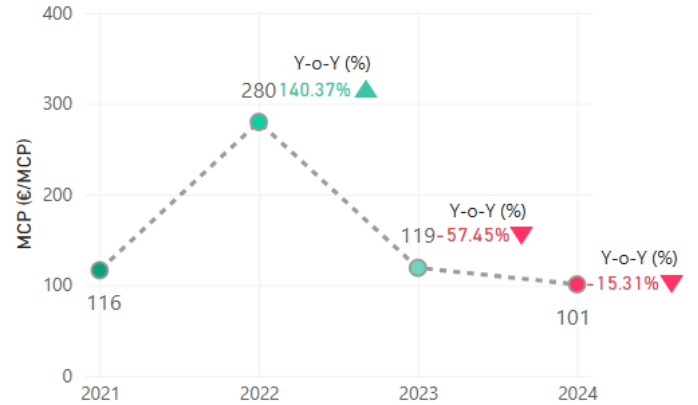
SUMMARY

DAM

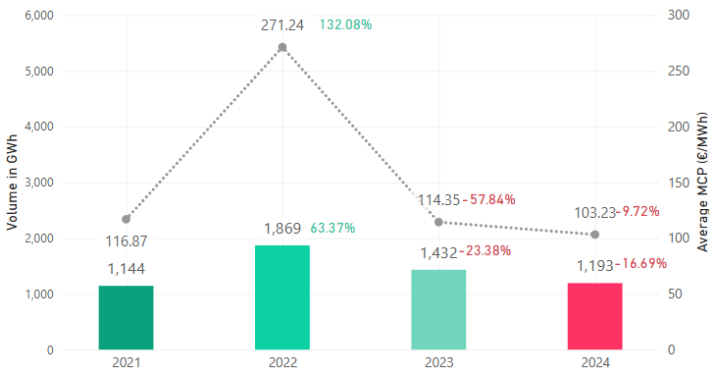
Volume in GWh



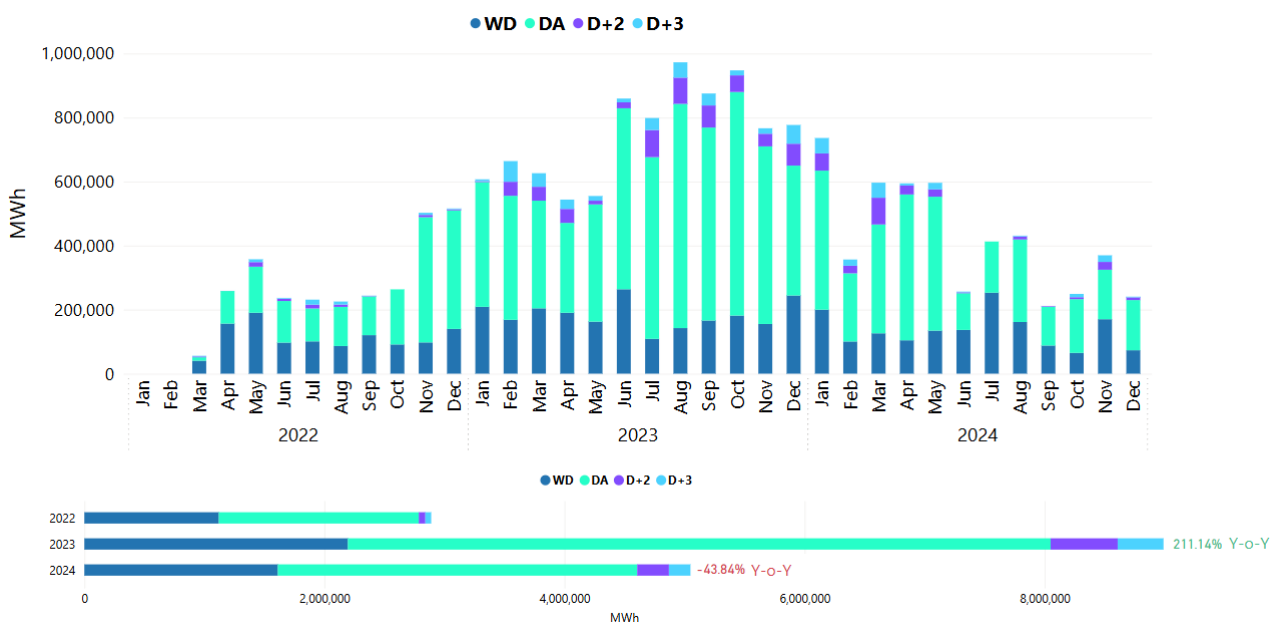
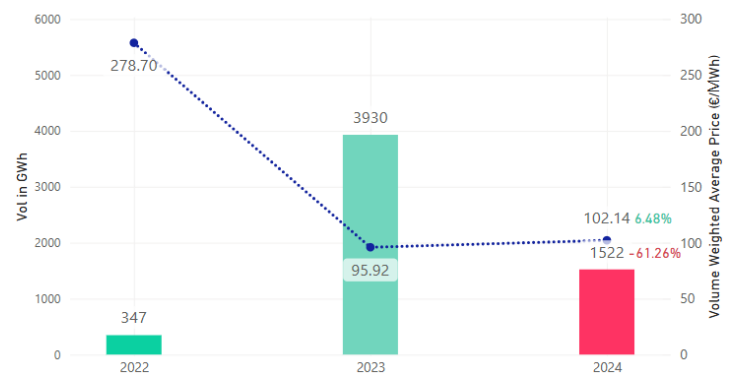
MCP (€/MWh)



LIDAs/CRIDAs/IDAs



XBID



NGAS

2024 Highlights



DAM

- MCP dropped to 100.88€/MWh in 2024 or 15.31% lower compared to 2023
- Buy Side (Demand) increased by 8,957 GWh (or +17%) from 52,599 GWh in 2023 to 61,556 GWh in 2024
- RES total traded volume increased by 7,610 GWh (or 44%), from 17,384 GWh in 2023 to 24,994 GWh in 2024 (40.1% of the energy mix in 2024 compared to 34% in 2023)
- Lignite total traded volume decreased by 2126 GWh (or 51.32%), from 4,142 GWh in 2023 to 2,016 GWh in 2024 (3.3% of the energy mix in 2024 compared to 7.9% in 2023)
- Exports increased by 84% (or 3,425 GWh) in 2024
- Low Voltage Assets Market Share (Households Consumption) increased by 13% or 3,484 GWh compared to the previous year.
- Medium Voltage (SMEs Consumption) increased by 19% or 1,791 GWh, compared to 2023
- For DD 18/07/2024, Greek DAM recorded the highest total traded volume so far, at 247 GWh
- Daily Spread (Max-Min) ranged from 62€/MWh to more than 320€/MWh on average for each calendar month



IDAs

From DD:14/06/2024 Intraday Auctions (IDAs) were implemented across Europe including the Greek Bidding Zone



NGAS

NGTH completed 2024 with 5,049 GWh of traded volume (compared to 8,990 GWh in 2023)



Members

HEnEX ended 2024 with **74** members in Electricity Spot Markets, **33** members in NGAS Spot and **28** in Energy Derivatives Market

1. Electricity Markets

Day-Ahead Market

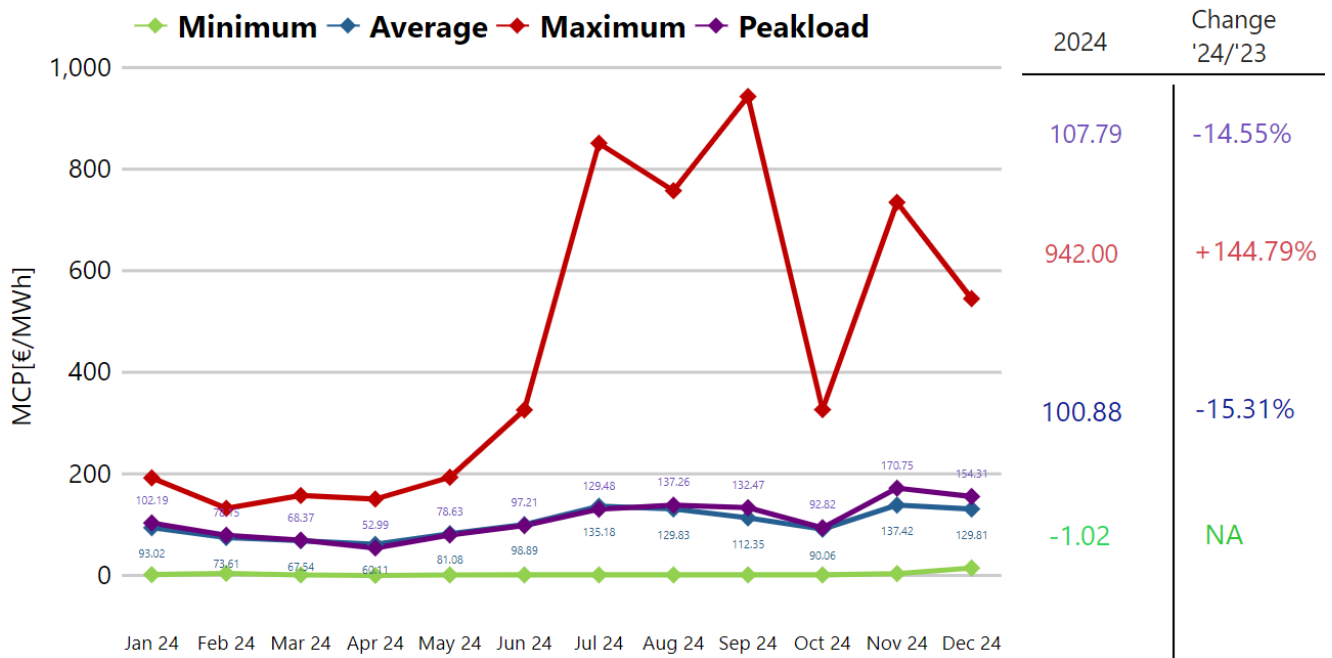
Intra-Day Market

DAM & IDM Aggregated Overview

Derivatives Market

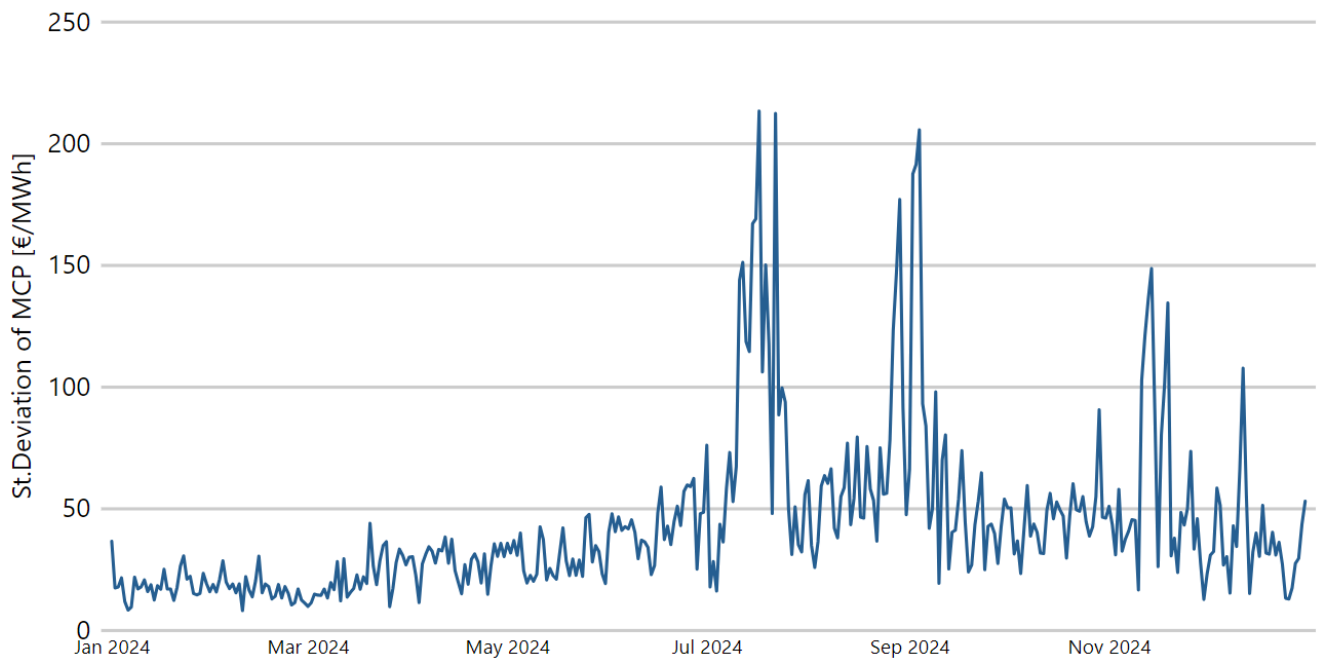
Day-Ahead Market

Monthly Day-Ahead Market MCP

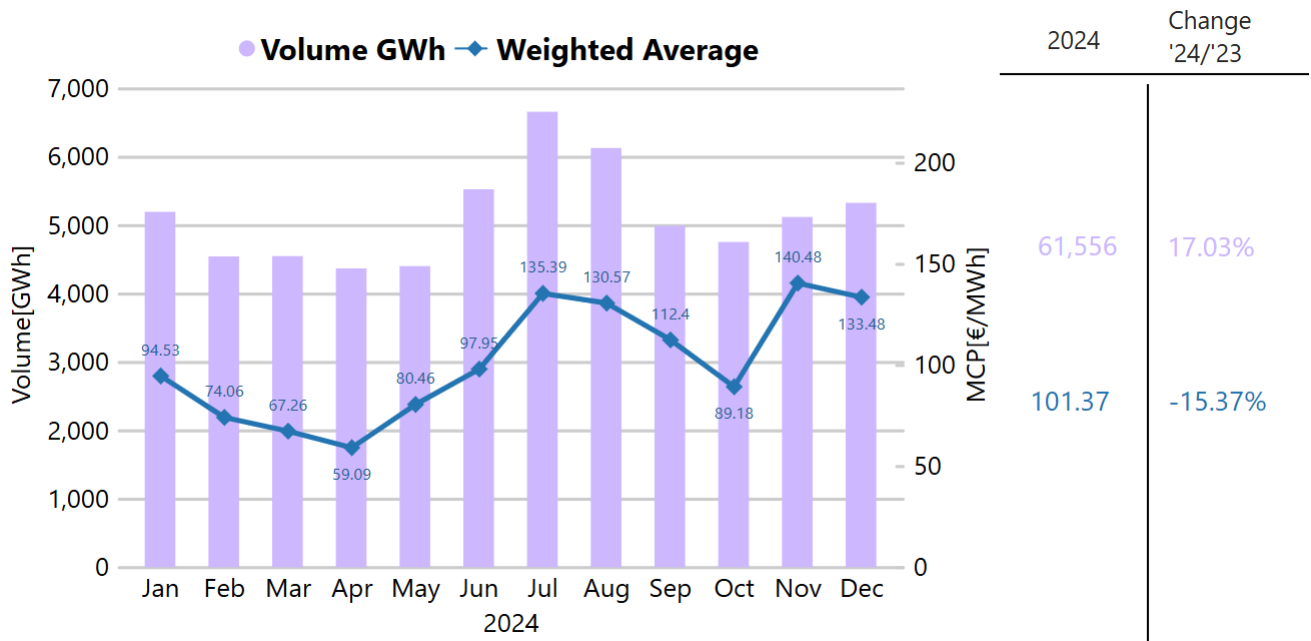


*In 2023, Min MCP was 0

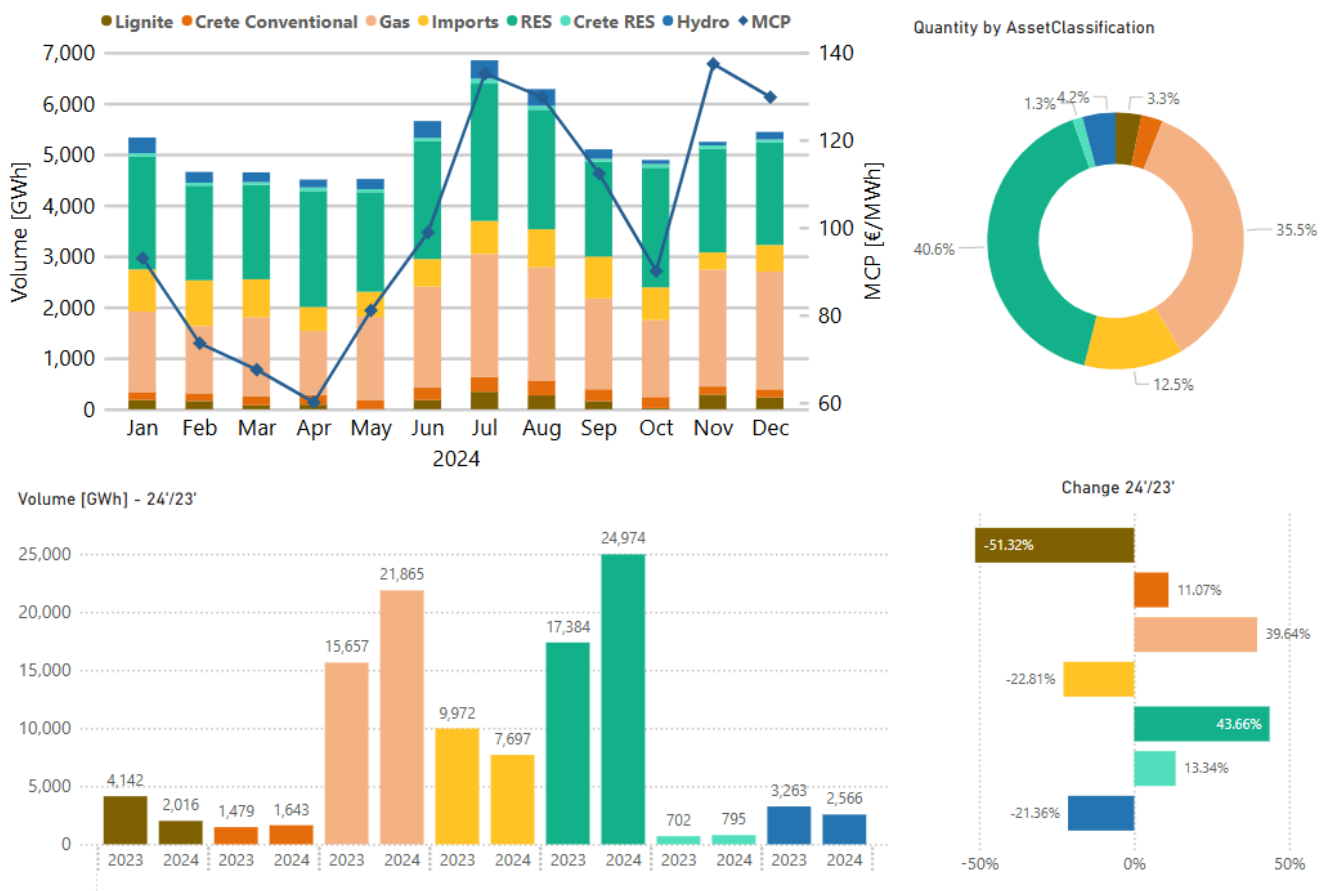
Daily Volatility of Day-Ahead Market MCP



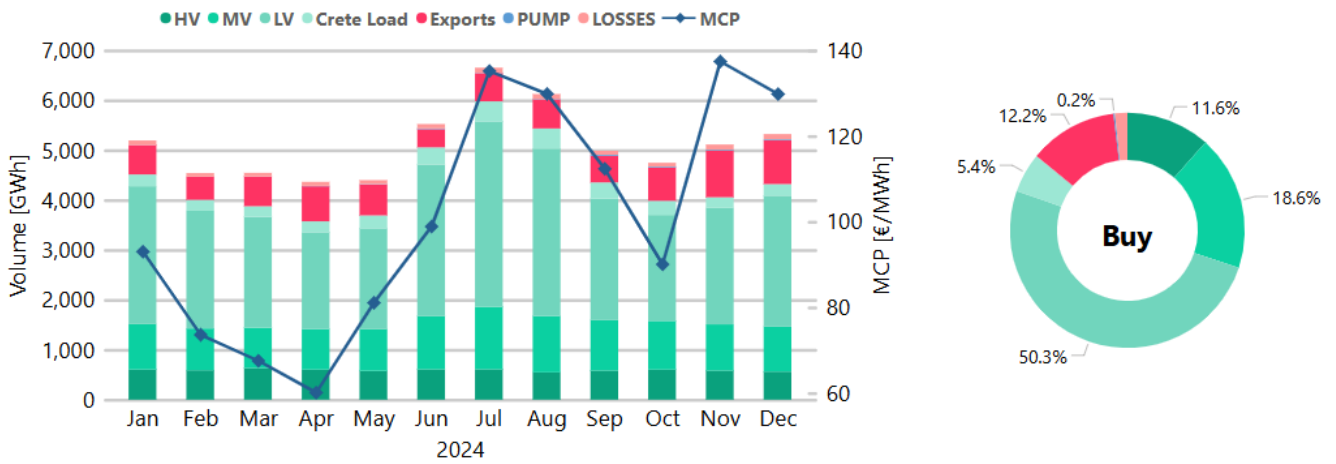
Monthly Day-Ahead Market Volume and Weighted Average MCP



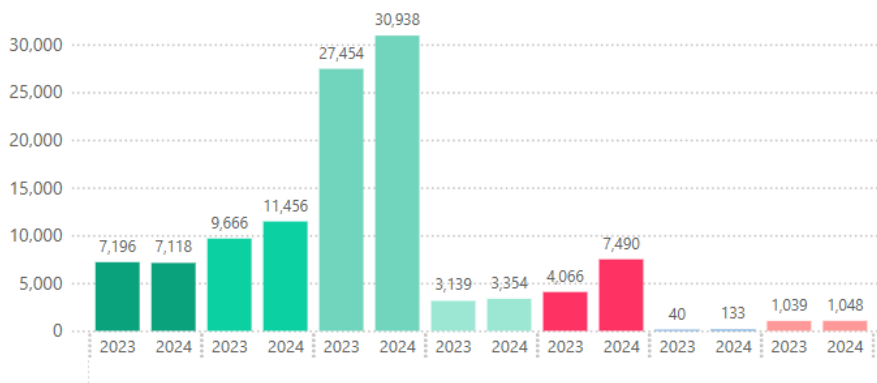
Monthly Day-Ahead Sell Side Dashboard



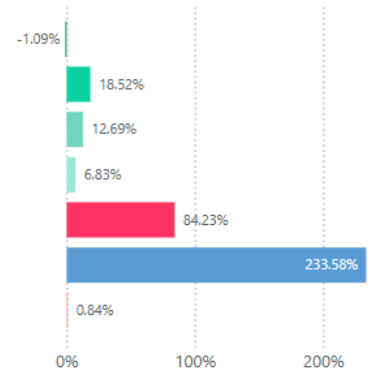
Monthly Day-Ahead Buy Side Dashboard



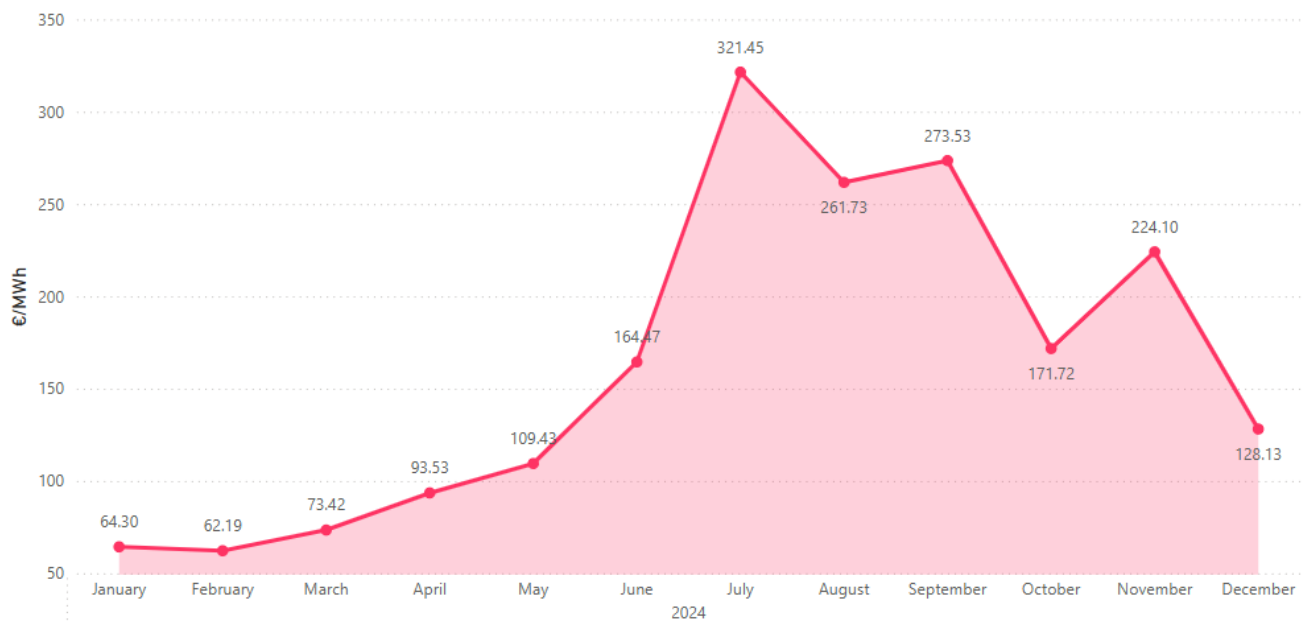
Volume [GWh] - 24/23'



Change 24/23'

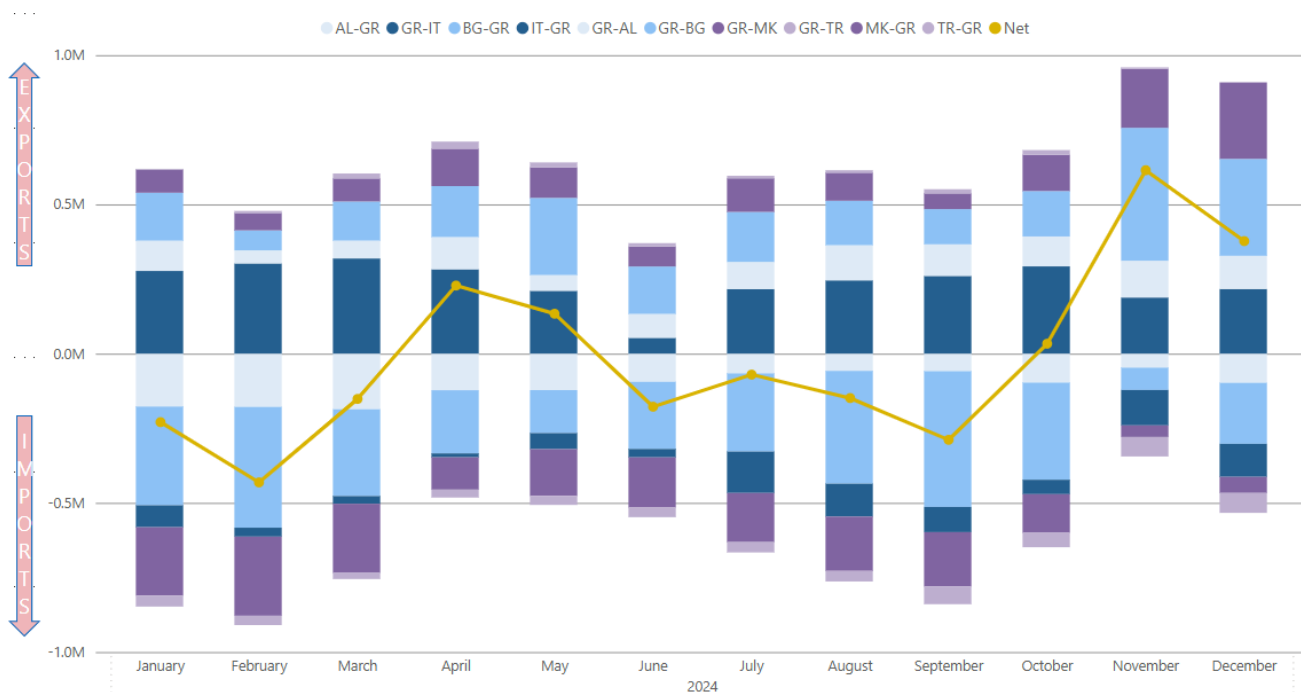


Average Daily Spread per month – DAM

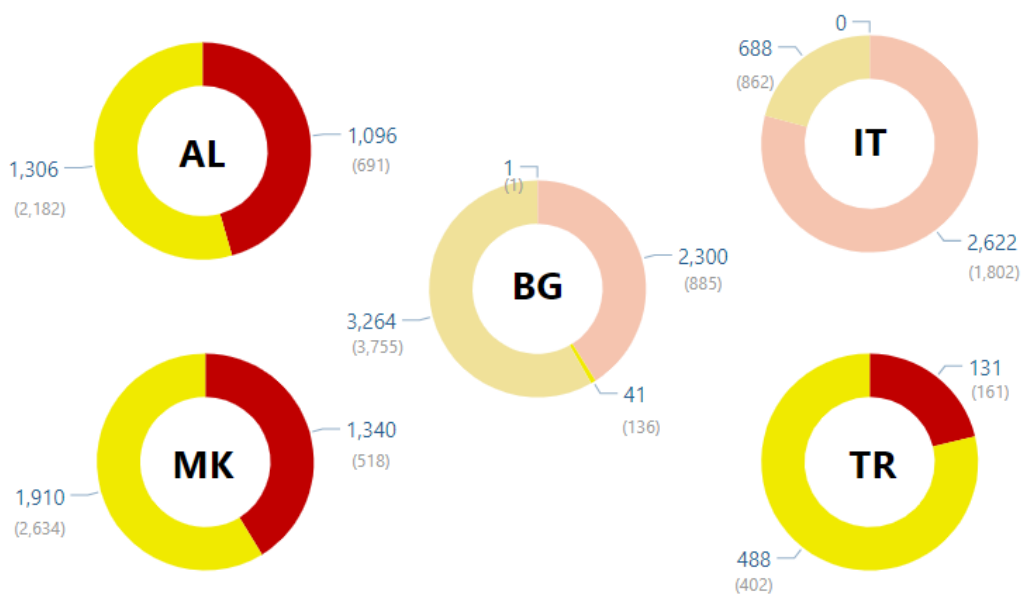


The above chart shows the daily MCP spread (max MCP – min MCP) averaged per month.

Cross Border Volume (MWh) – Imports, Exports and Net flow per month



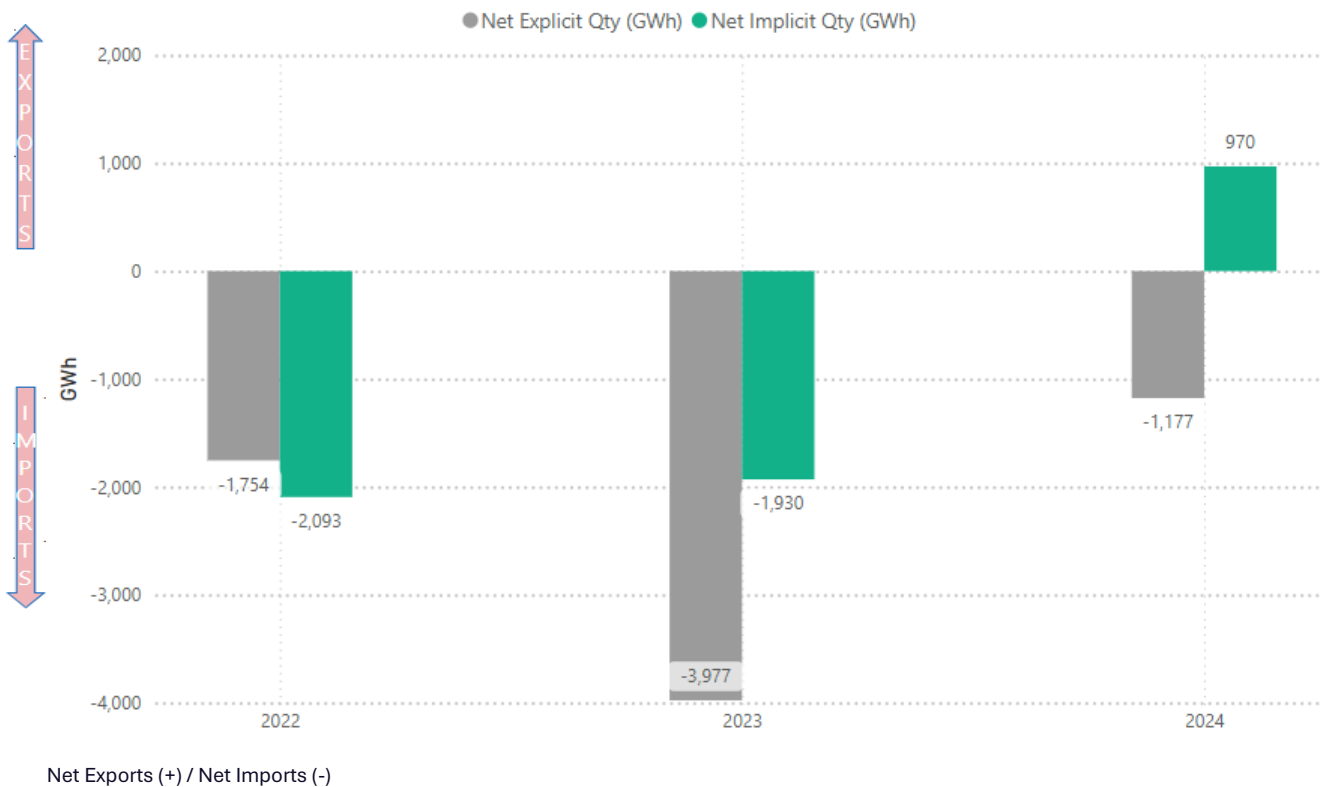
Total Cross Border Volumes (GWh) per Border



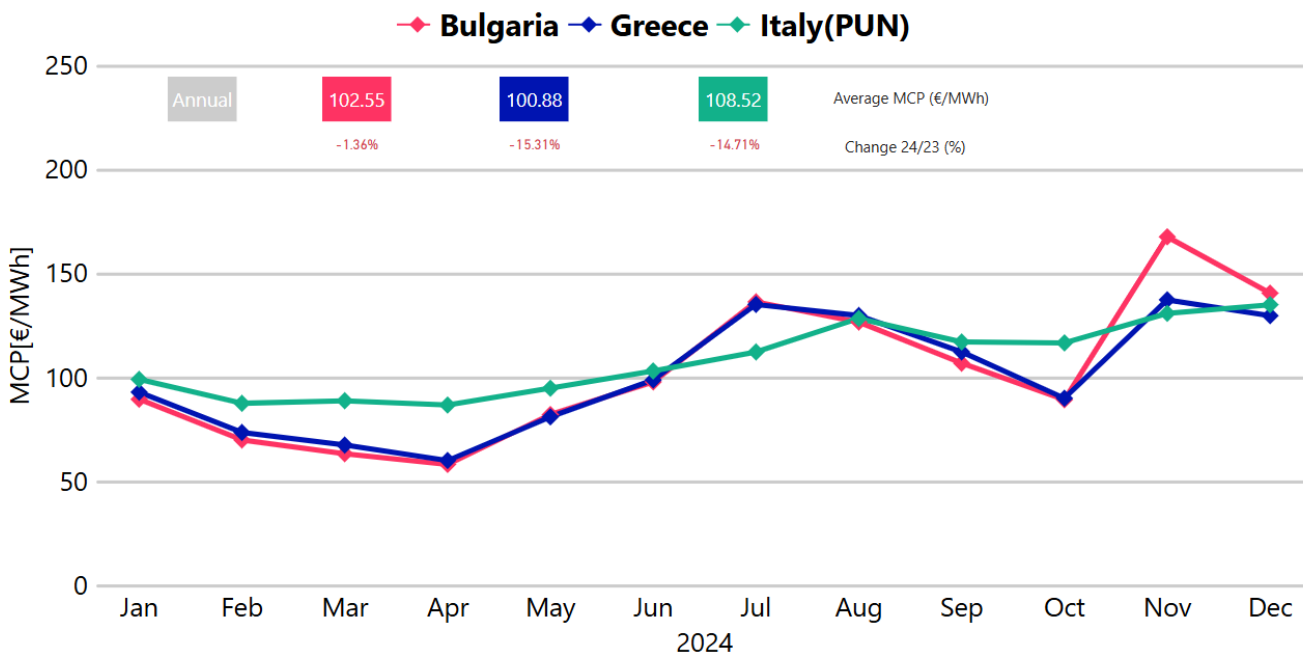
● Exports-Implicit Allocation
 ● Exports-Explicit Allocation
● Imports-Implicit Allocation
 ● Imports-Explicit Allocation

() 2023 values

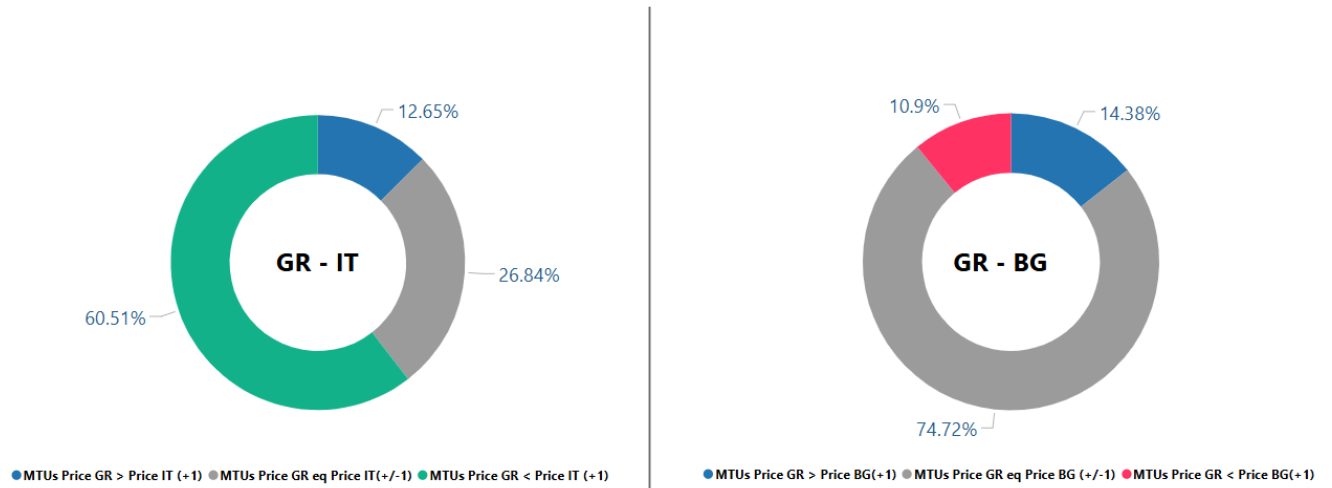
Net Implicit Vs Net Explicit Imports/Exports - DAM



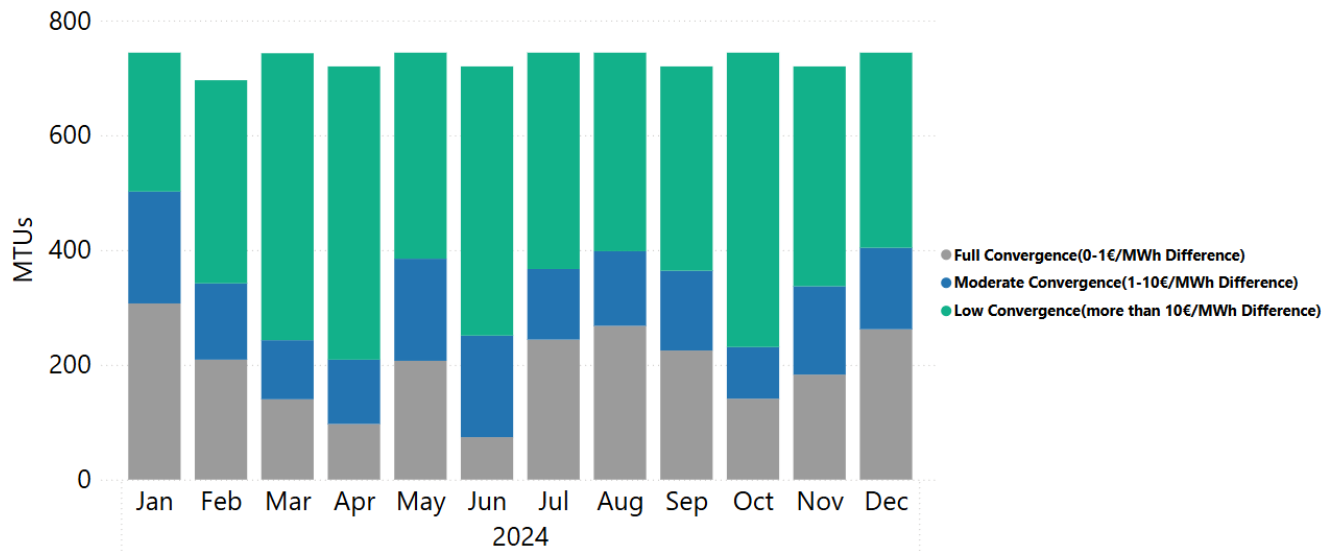
Monthly Day-Ahead Market MCP on Greece, Italy (PUN) and Bulgaria



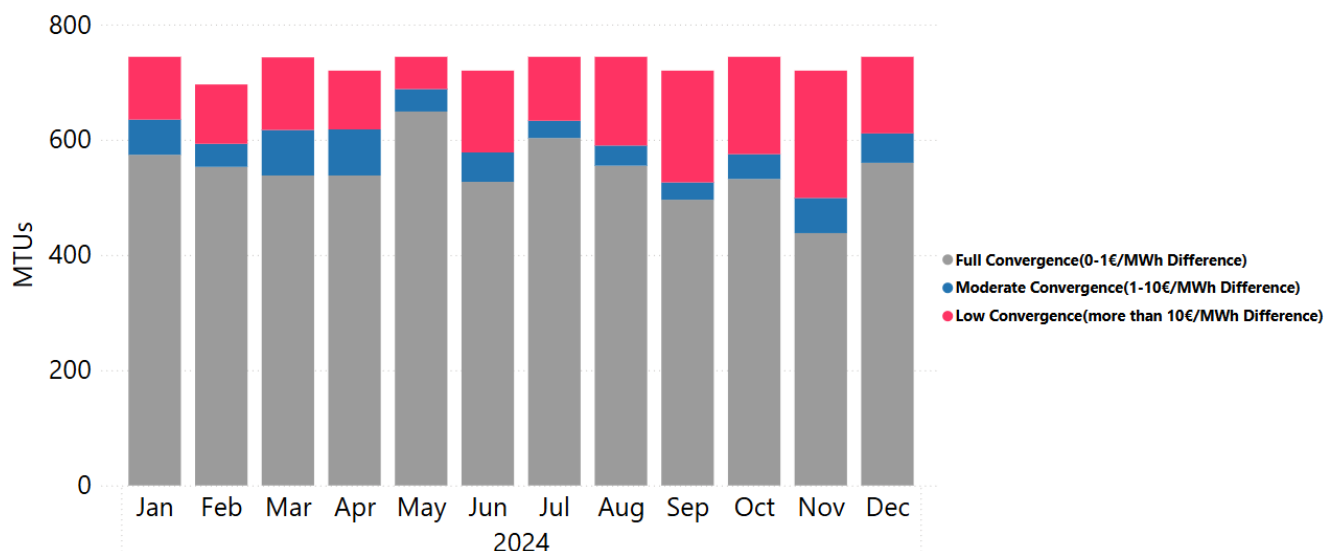
Annual Price Convergence – Coupled Borders



GR-IT Monthly Price Convergence



GR-BG Monthly Price Convergence

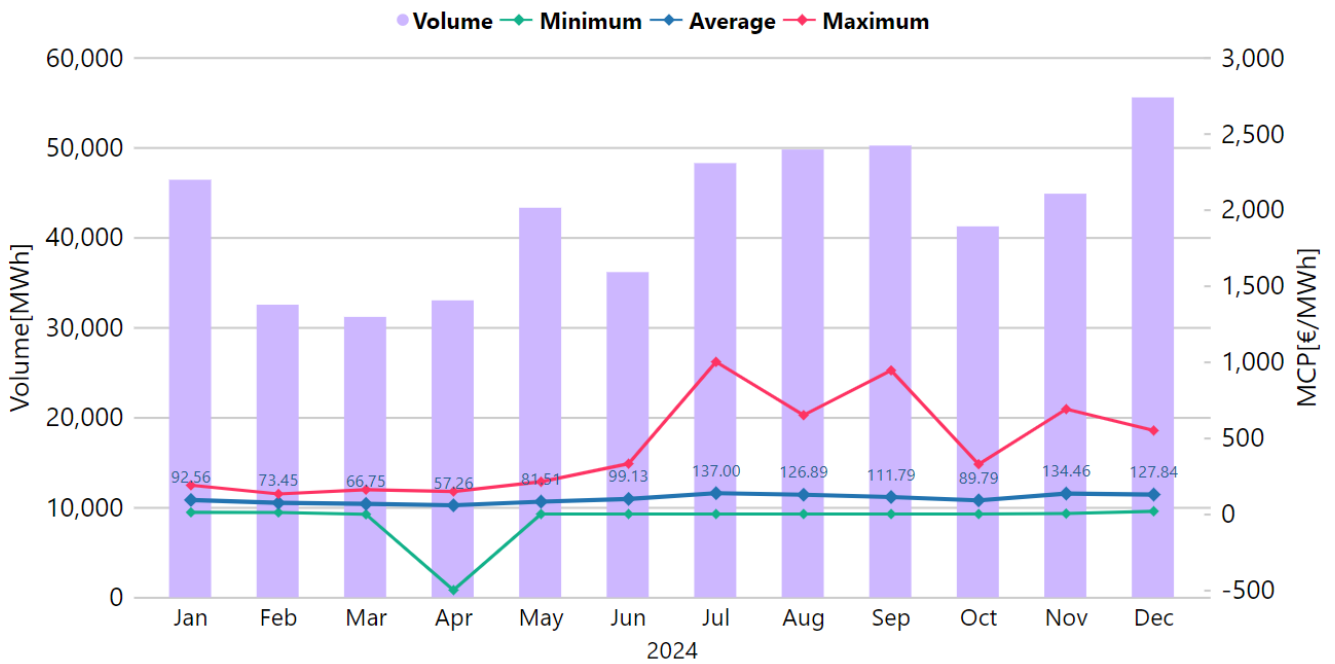


Day-Ahead Market MCP and Volume per Month

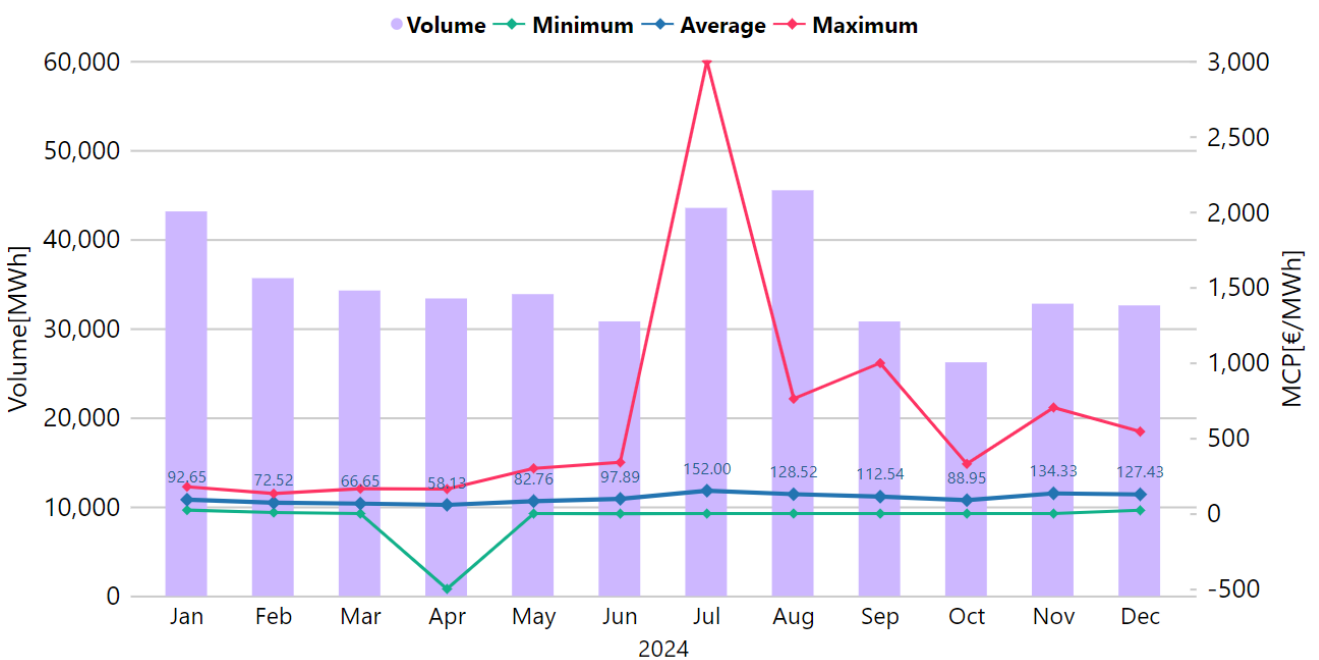
Year	Month	Minimum MCP[€/MWh]	Average MCP[€/MWh]	Change	Maximum MCP[€/MWh]	Peakload MCP[€/MWh]	Change	Volume [GWh]
2024	January	0.54	93.02	↘ -9%	190.96	102.19	↘ -9%	5,195.08
2024	February	3.00	73.61	↘ -21%	130.97	78.15	↘ -24%	4,542.50
2024	March	0.00	67.54	↘ -8%	156.39	68.37	↘ -13%	4,547.62
2024	April	-1.02	60.11	↘ -11%	149.39	52.99	↘ -22%	4,367.99
2024	May	0.00	81.08	↗ 35%	192.20	78.63	↗ 48%	4,401.58
2024	June	0.04	98.89	↗ 22%	324.95	97.21	↗ 24%	5,524.55
2024	July	0.04	135.18	↗ 37%	850.00	129.48	↗ 33%	6,657.77
2024	August	0.04	129.83	↘ -4%	756.50	137.26	↗ 6%	6,128.40
2024	September	0.04	112.35	↘ -13%	942.00	132.47	↘ -3%	4,990.12
2024	October	0.04	90.06	↘ -20%	325.34	92.82	↘ -30%	4,753.52
2024	November	2.54	137.42	↗ 53%	733.65	170.75	↗ 84%	5,119.58
2024	December	13.47	129.81	↘ -6%	543.86	154.31	↘ -10%	5,327.26

Intra-Day Market

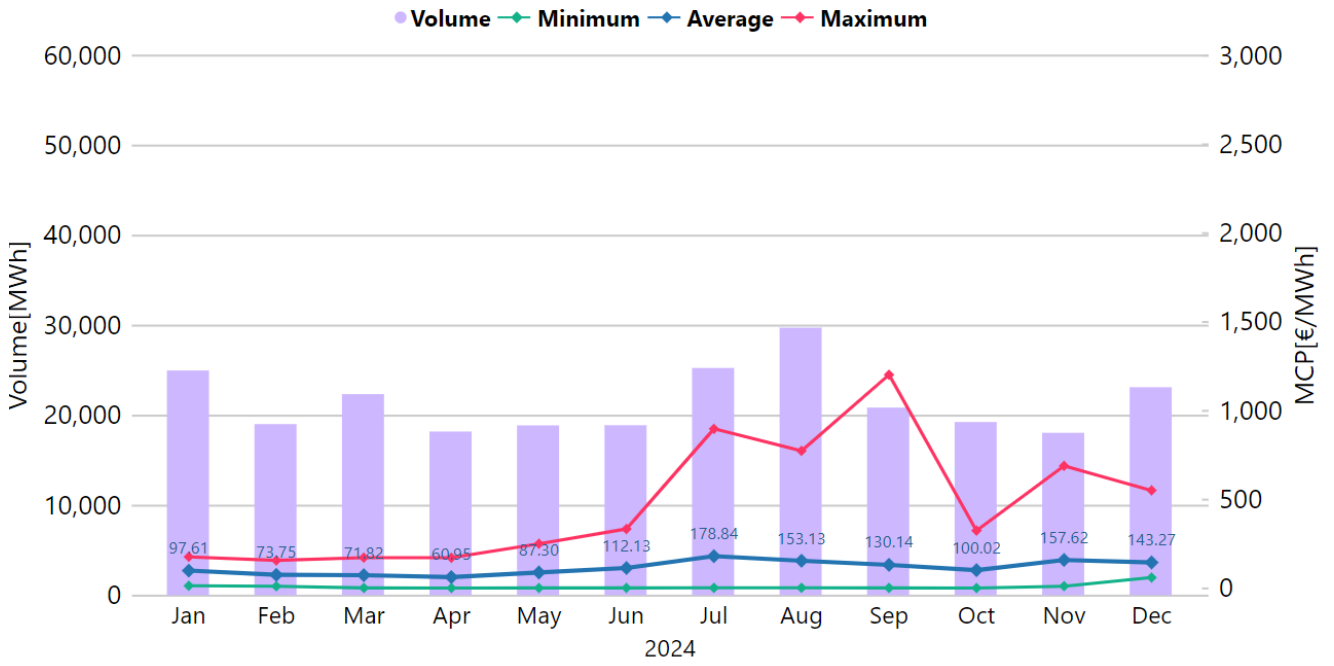
Intraday-Day MCP and Volumes – CRIDA1/IDA1



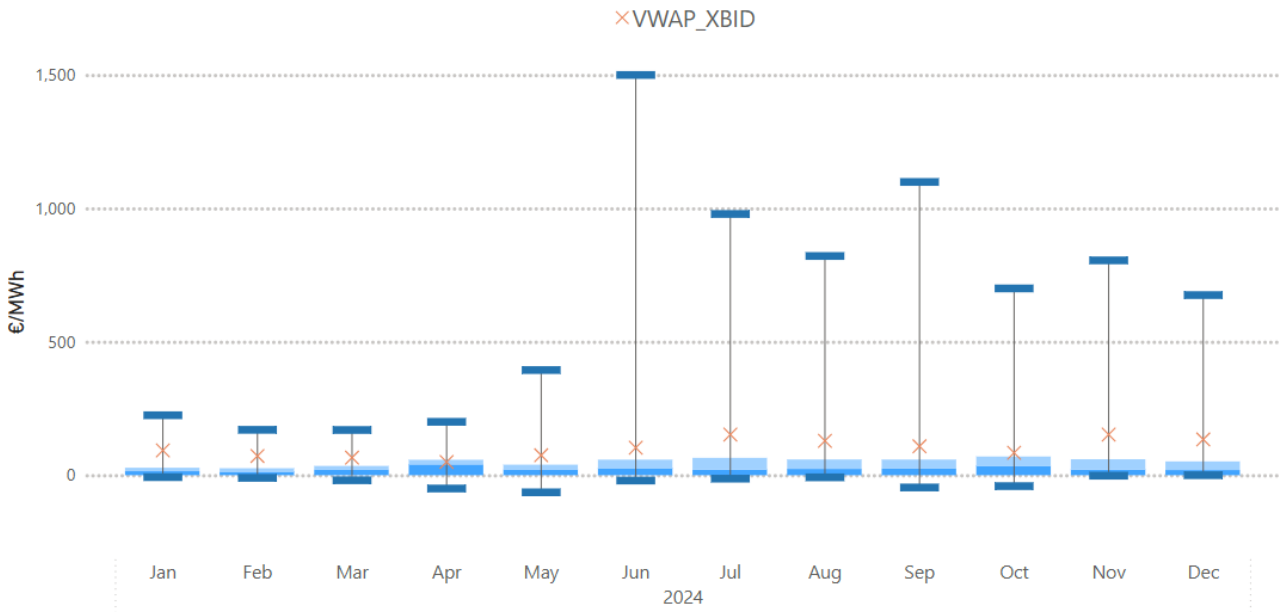
Intraday-Day MCP and Volumes – CRIDA2/IDA2



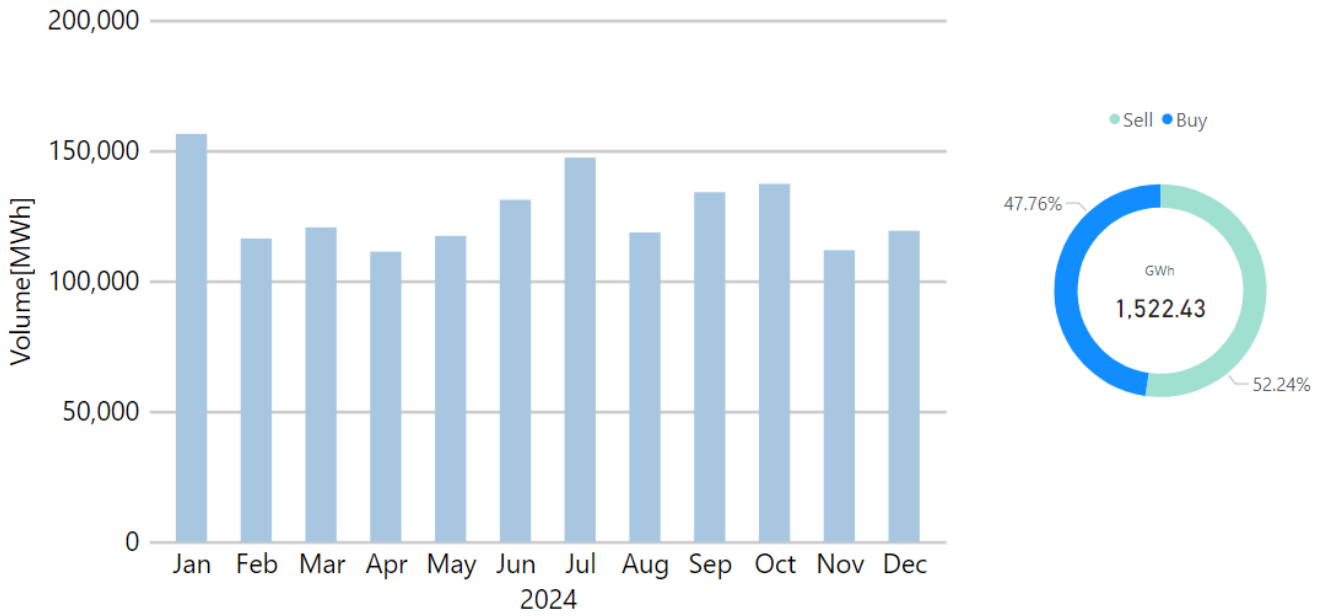
Intraday-Day MCP and Volumes – CRIDA3/IDA3



Intraday- XBID Prices (boxplot)

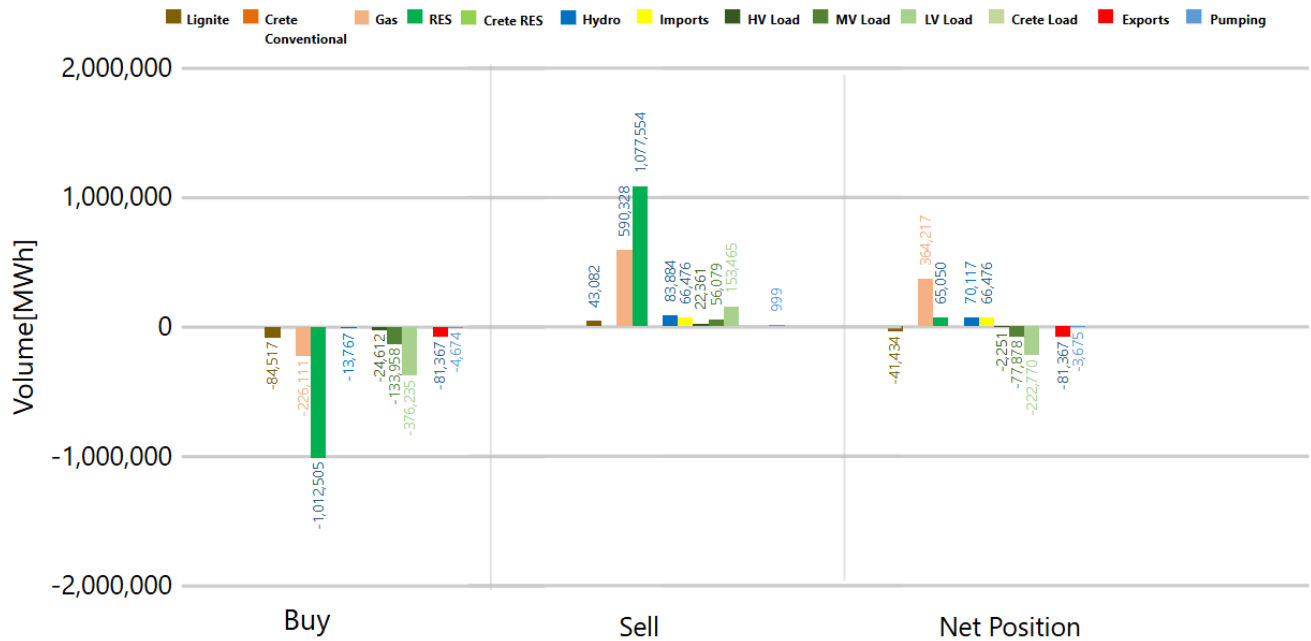


Intraday-Day XBID Volumes *



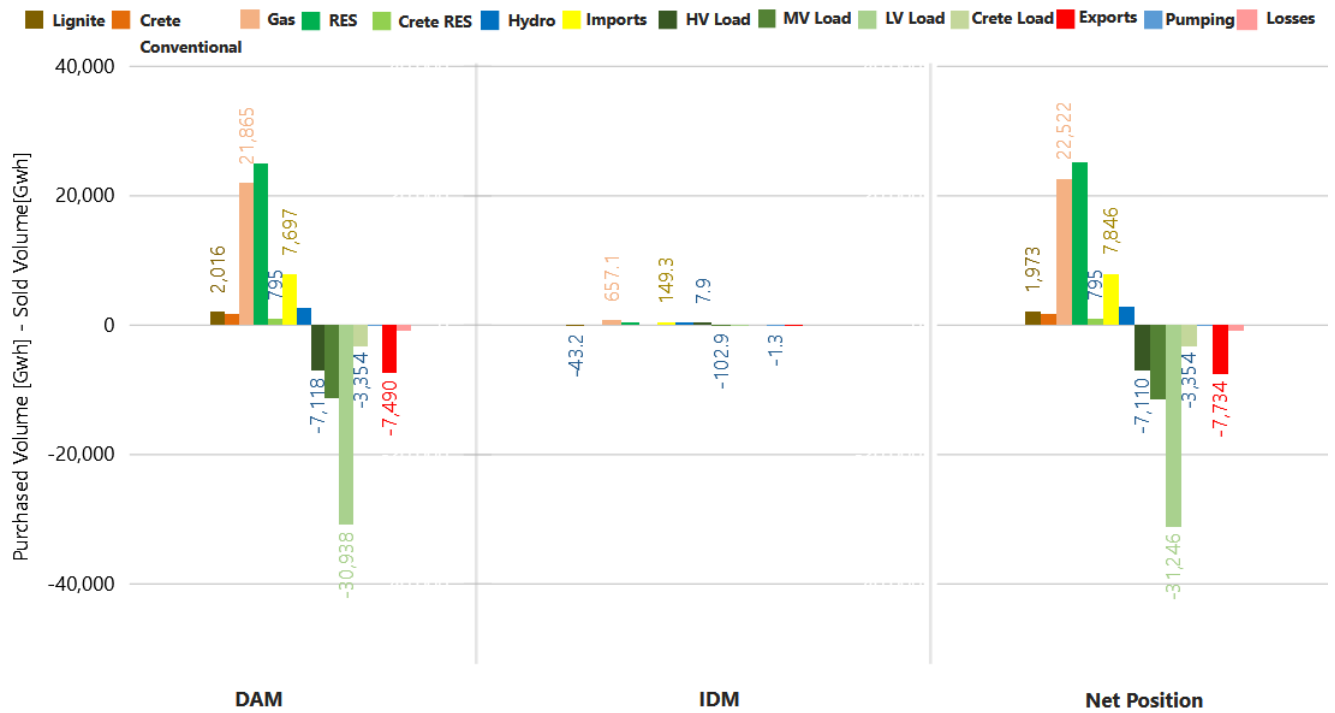
* Volume = (Sell + Buy) / 2

Intraday-Day Volume Mix per side and Net position

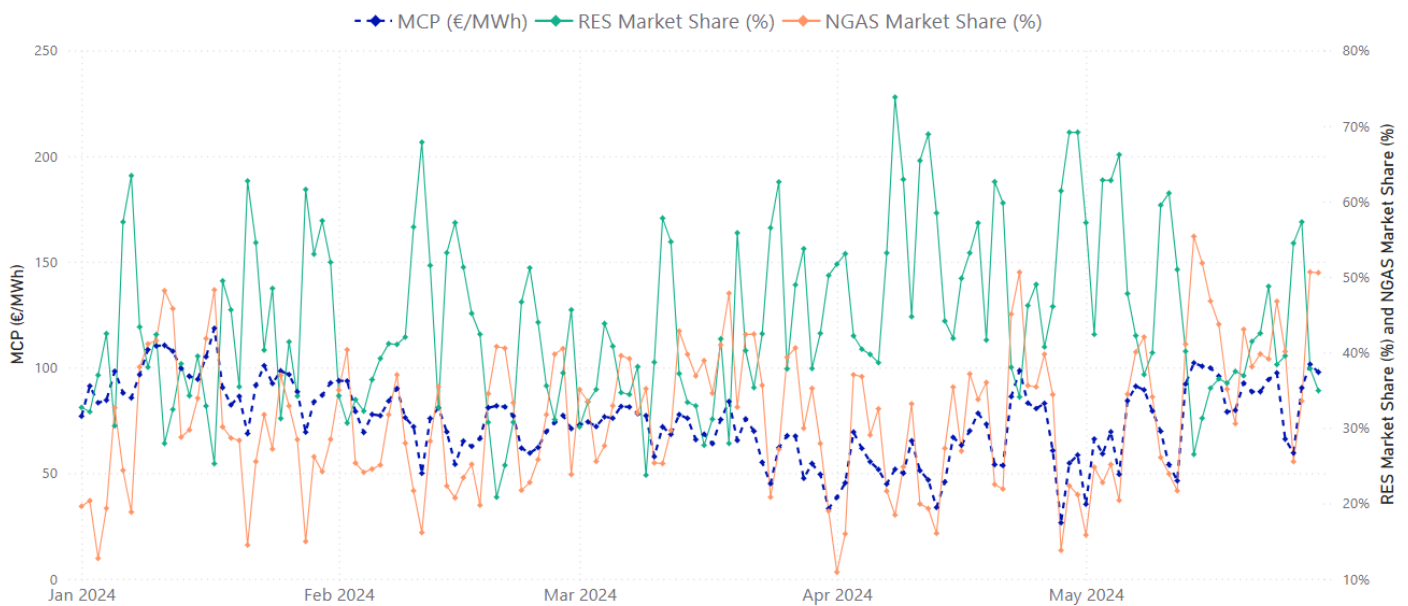


DAM & IDM · Aggregated Overview

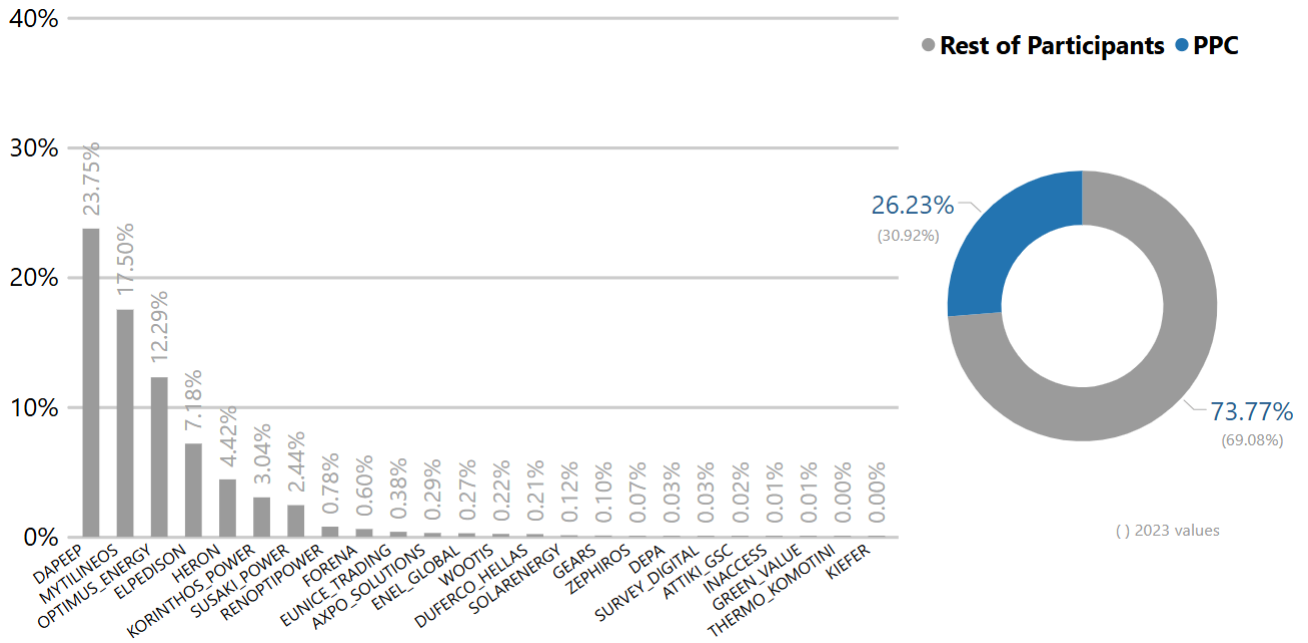
Market Schedules



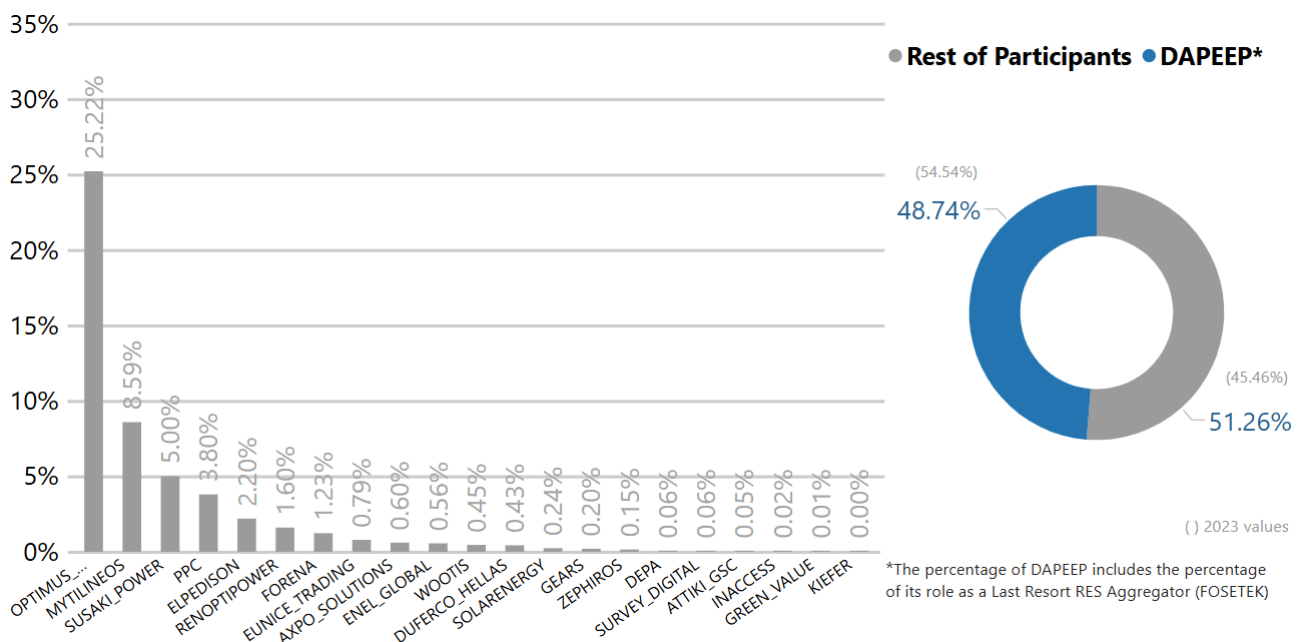
Daily DAM MCP (€/MWh) comparison against RES Market share (%) and NGAS Market Share (%)



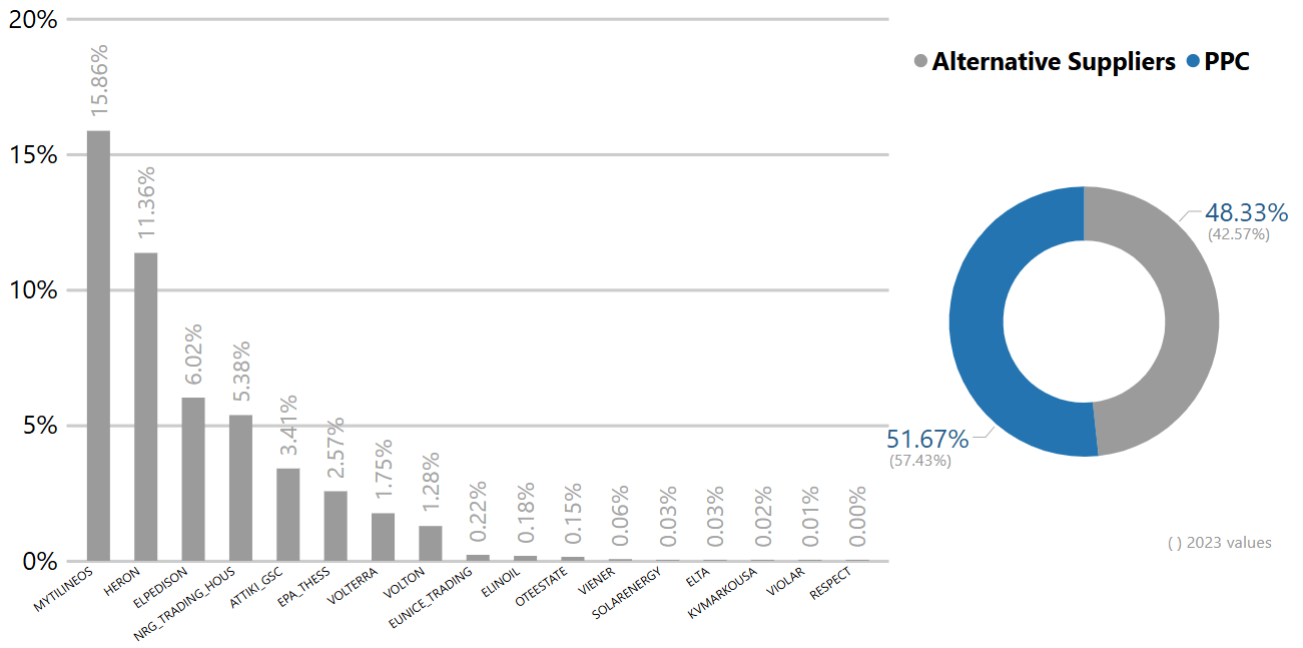
Final Market Schedule Shares for Production Units per Market Participant



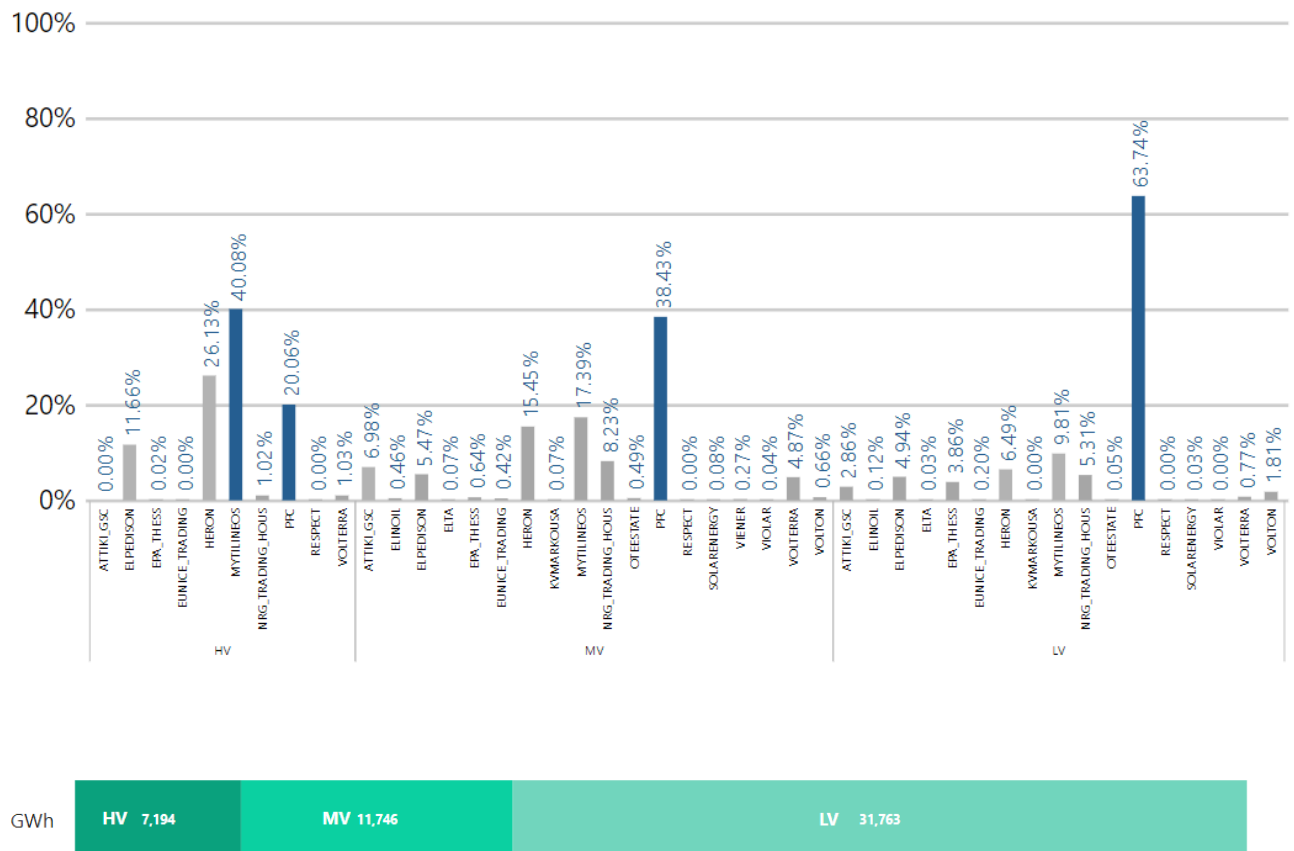
Final Market Schedule Shares for RES Production Units per Market Participant



Final Market Schedule Shares for Domestic Load per Market Participant



Final Market Schedule Shares for Domestic Load per Voltage Level and Market Participant



Greek DAM Products – Usage Indicators

DAM Products - Usage Indicators

Daily Average Orders No

Year	BLK	HBD	PPT	Total
2022	50	3,366	1,214	4,630
2023	53	2,943	1,486	4,481
2024	47	2,910	1,262	4,220

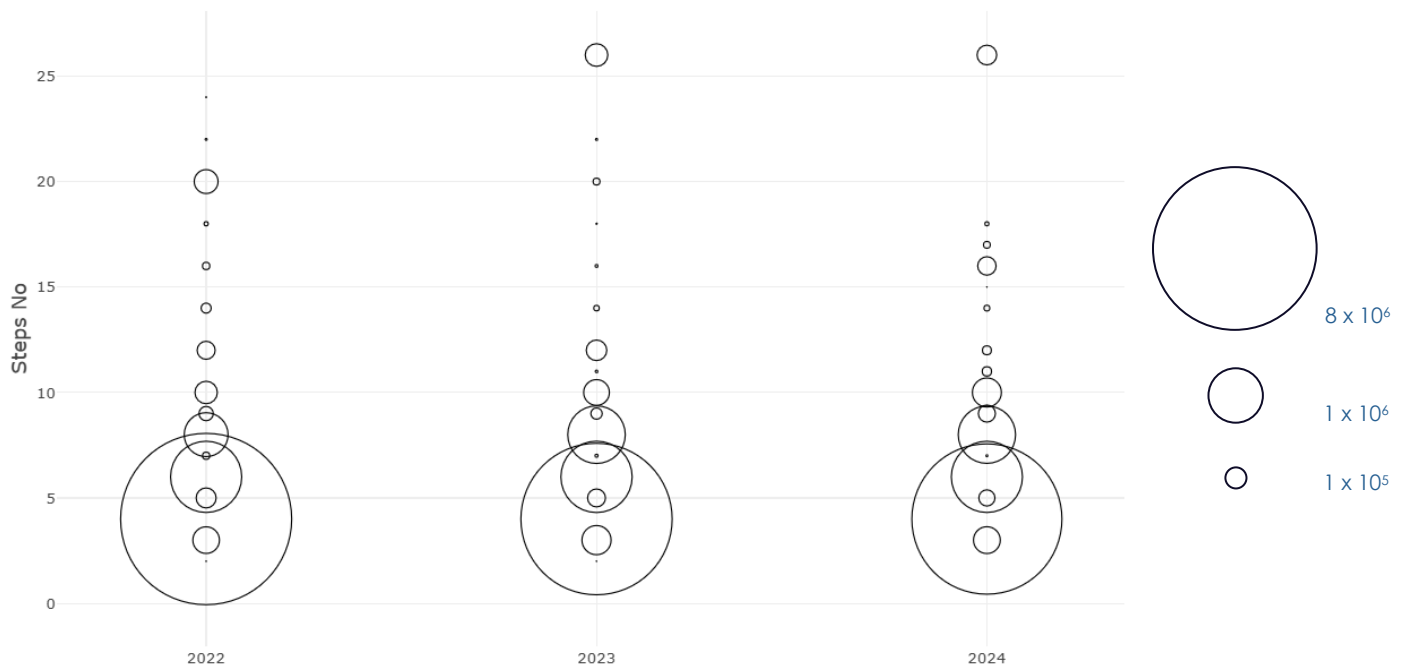
HBD – Daily Average number No of HBD steps

Year	Min	Avg	Max
2022	14041	16,501	17844
2023	13790	15,499	16799
2024	13077	15,431	17349

Block Orders – Daily Average No by Relation Type

Year	Simple	Linked	Exclusive
2022	30.56	15.86	3.26
2023	26.19	21.40	5.08
2024	20.35	25.72	1.34

HBD Orders – Orders No Per Max Steps



IDM Products - Usage Indicators

IDAs/CRIDAs Daily Average Orders No

	2022	2023	2024
HBD	2,048	1,764	1,648

IDAs/CRIDAs – Daily Average number No of HBD steps

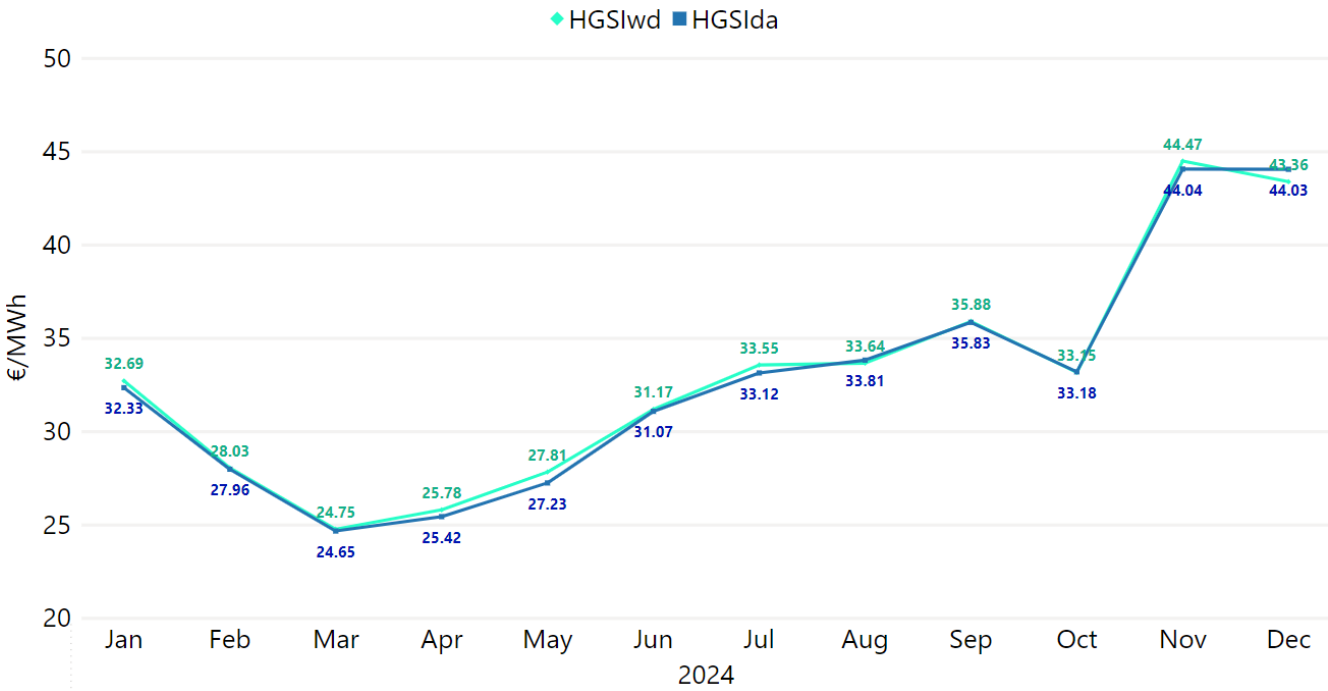
Year	Min	Avg	Max
2022	7749	14,290	20402
2023	4655	11,113	13430
2024	5434	12,399	17184

XBID Daily Average Orders No

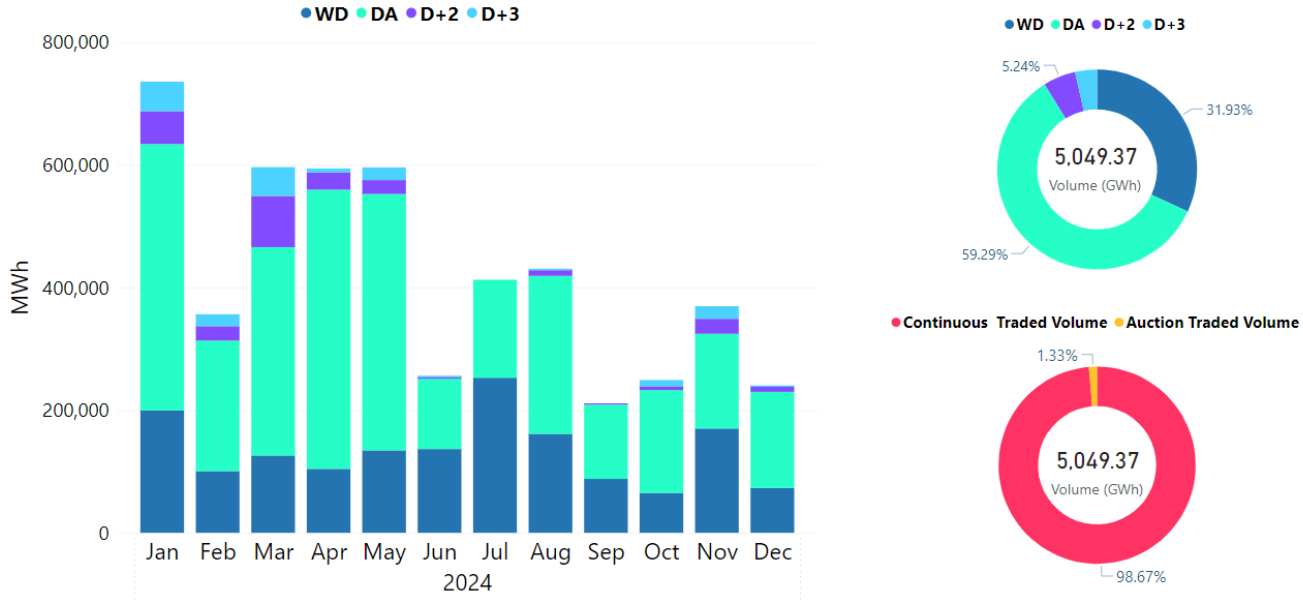
	2023	2024
XBLK	115	52
XICE	31	30
XREG	400	353

2. Natural Gas Market

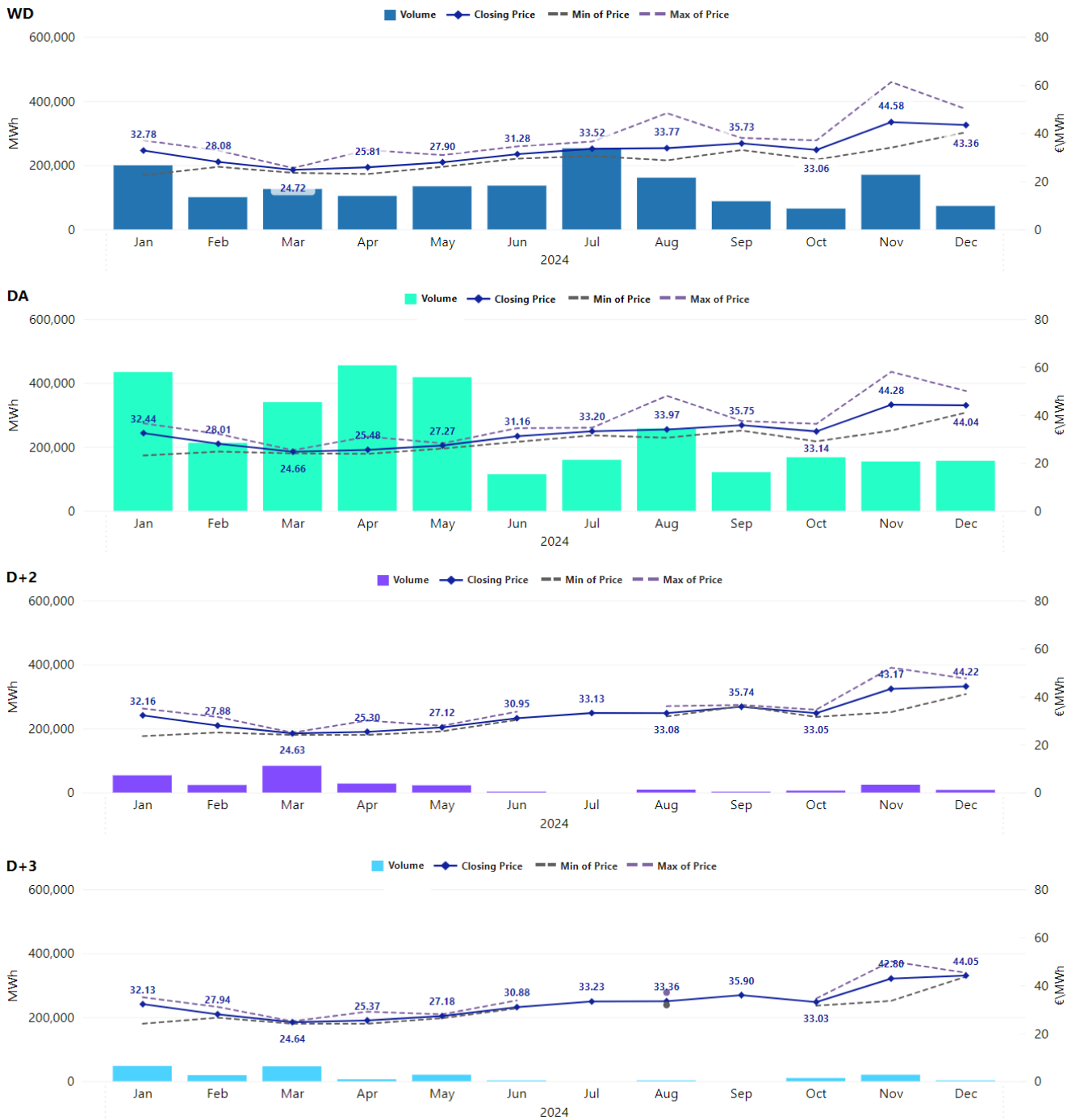
HEnEx NGAS indices



Trading Volume per Contract and Method

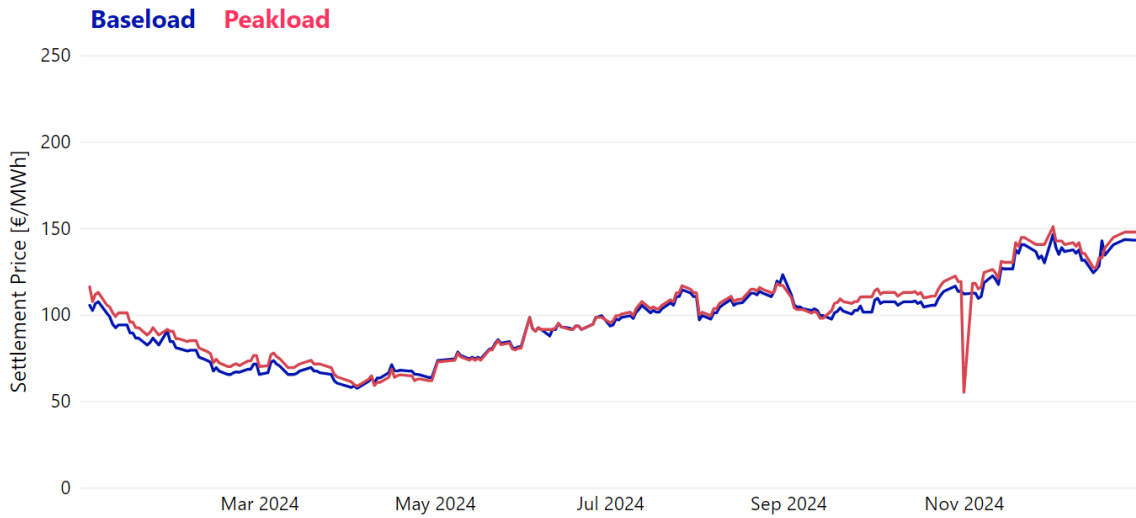


Volume, Closing, Min, & Max Prices per Month & Product

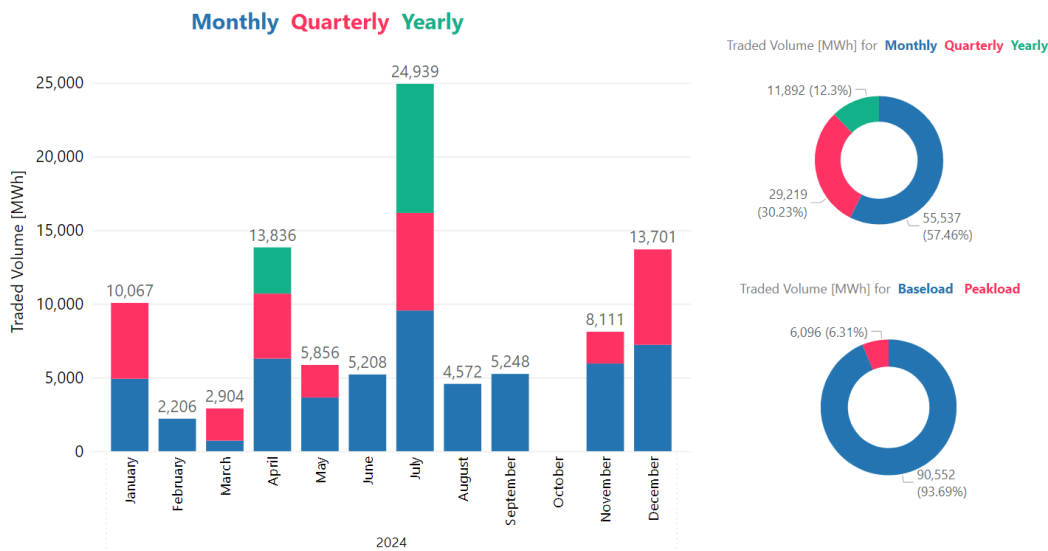


3. Derivatives Market

Daily Settlement prices for Month-Ahead (M+1) Instrument



Traded Instruments – Value (€), Volume (MWh), Number & Vol



Final settlement prices for 2024 for monthly products

Series	Final Settlement Price (€/MWh)	% change	Series	Final Settlement Price (€/MWh)	% change
GREBM0124	93.02		GREBM0124	93.02	
GREBM0224	73.61	↓ -21%	GREBM0224	73.61	↓ -21%
GREBM0324	67.54	↘ -8%	GREBM0324	67.54	↘ -8%
GREBM0424	60.11	↓ -11%	GREBM0424	60.11	↓ -11%
GREBM0524	81.08	↑ 35%	GREBM0524	81.08	↑ 35%
GREBM0624	98.89	↑ 22%	GREBM0624	98.89	↑ 22%
GREBM0724	135.18	↑ 37%	GREBM0724	135.18	↑ 37%
GREBM0824	129.83	↘ -4%	GREBM0824	129.83	↘ -4%
GREBM0924	112.35	↓ -13%	GREBM0924	112.35	↓ -13%
GREBM1024	90.06	↓ -20%	GREBM1024	90.06	↓ -20%
GREBM1124	137.42	↑ 53%	GREBM1124	137.42	↑ 53%
GREBM1224	129.81	↘ -6%	GREBM1224	129.81	↘ -6%

4. Annex

Definitions

ACRONYM	Definition
GR BZ	Greek Bidding Zone
MCP	Market Clearing Price
NTC	Net Transfer Capacity

Market Details

- Market Time Units of GR BZ are in CET-hr.
- Intraday Market of GR BZ consists of three IntraDay Auctions (IDAs and CRIDAs(until 13/06/2024)) and one continuous (XBID).
- Data source for MCP of Italy: <http://www.mercatoelettrico.org/En/Download/DatiStorici.aspx>
- Data source for MCP of Bulgaria: <http://www.ibex.bg/en/market-data/dam/prices-and-volumes/#data-table>