



Monthly Report - October 2023

Electricity and NGAS Markets

Summary

Oct 2023
Sep 2023
Oct 2022

DAM

CRIDA1

CRIDA2

CRIDA3

XBID*

NGAS*



€/MWh

111.19
101.95
232.60

109.27
99.93
226.04

105.15
97.19
205.56

113.33
100.78
213.59

96.37
92.55

35.74
33.67
76.47



GWh

4,292
4,545
4,037

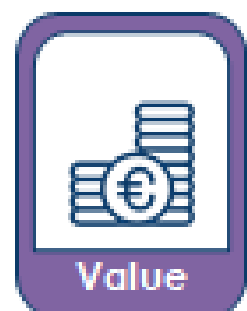
45.8
54.5
86.1

41.4
45.7
66.3

20.8
26.3
33.5

288.48
310.2

947.22
875.0
263.4



M €

482.7
464.4
946.84

5.21
5.64
22.02

4.21
4.47
14.43

2.40
2.71
7.55

27.80
28.71

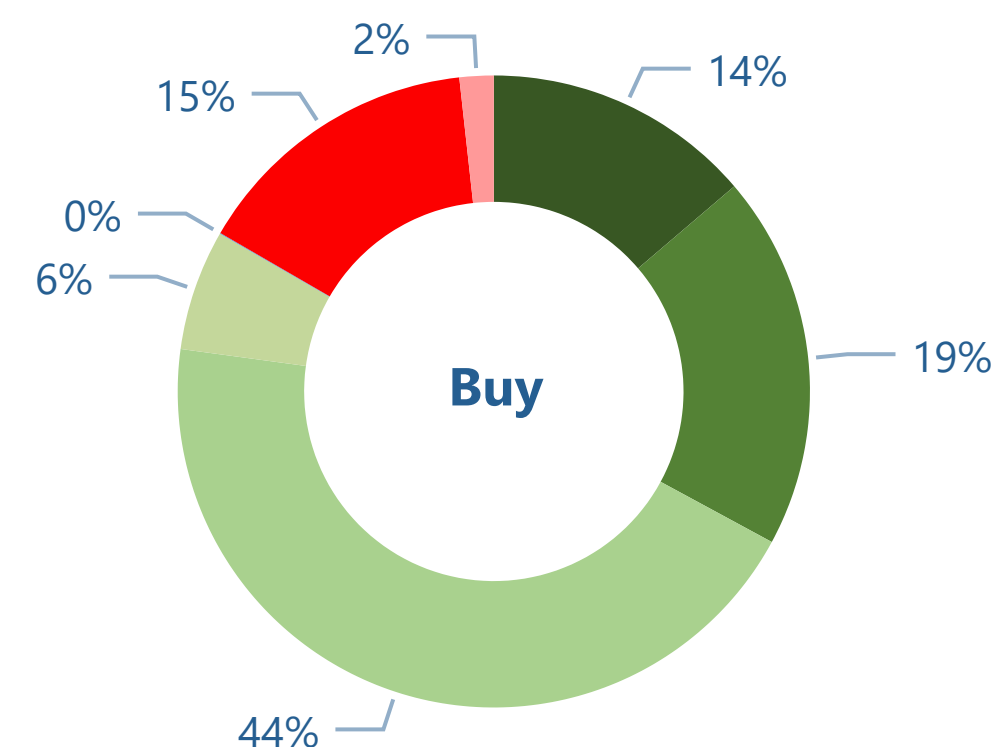
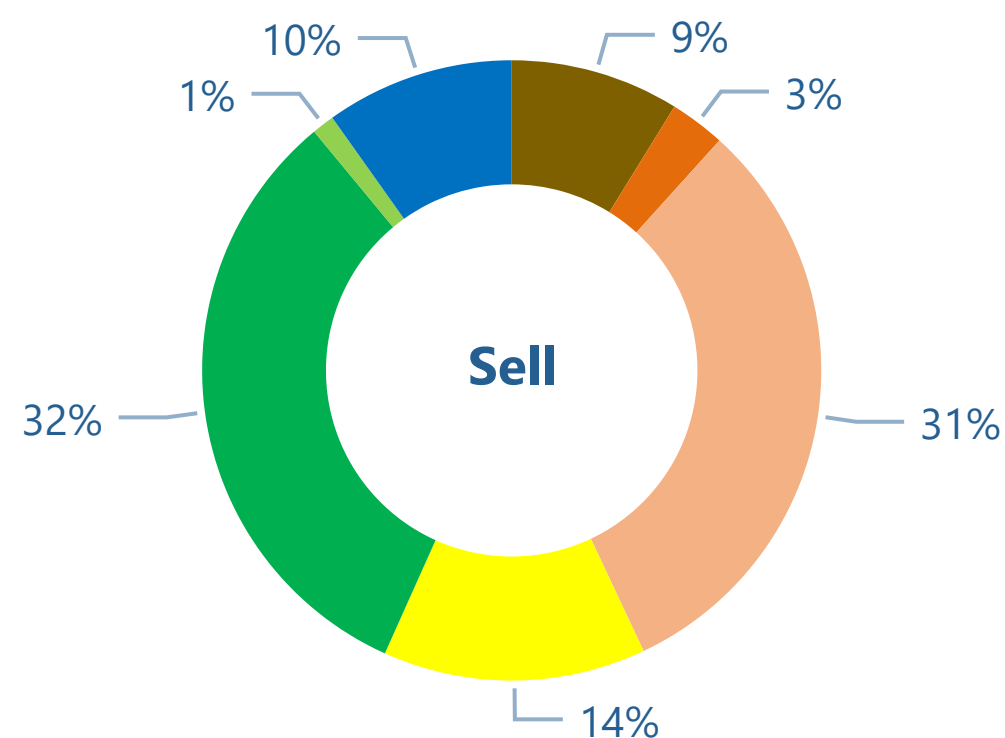
33.85
29.46
20.14

*The NGAS and XBID Prices (€/MWh) refer to the weighted average of all trades (incl. all contracts) of the respective month.

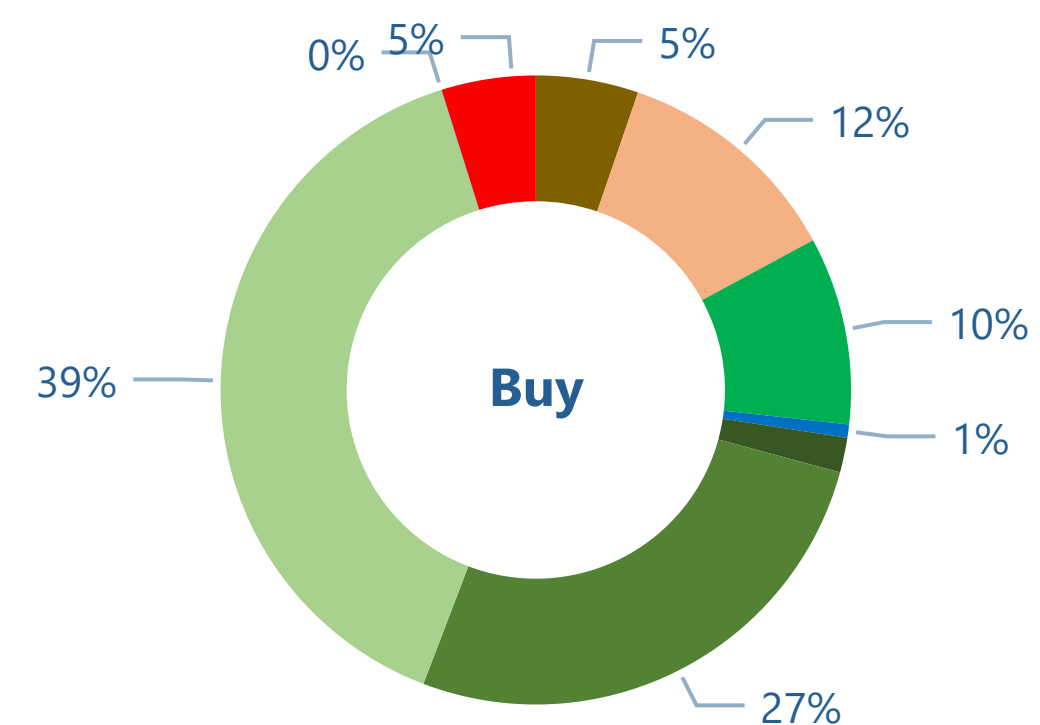
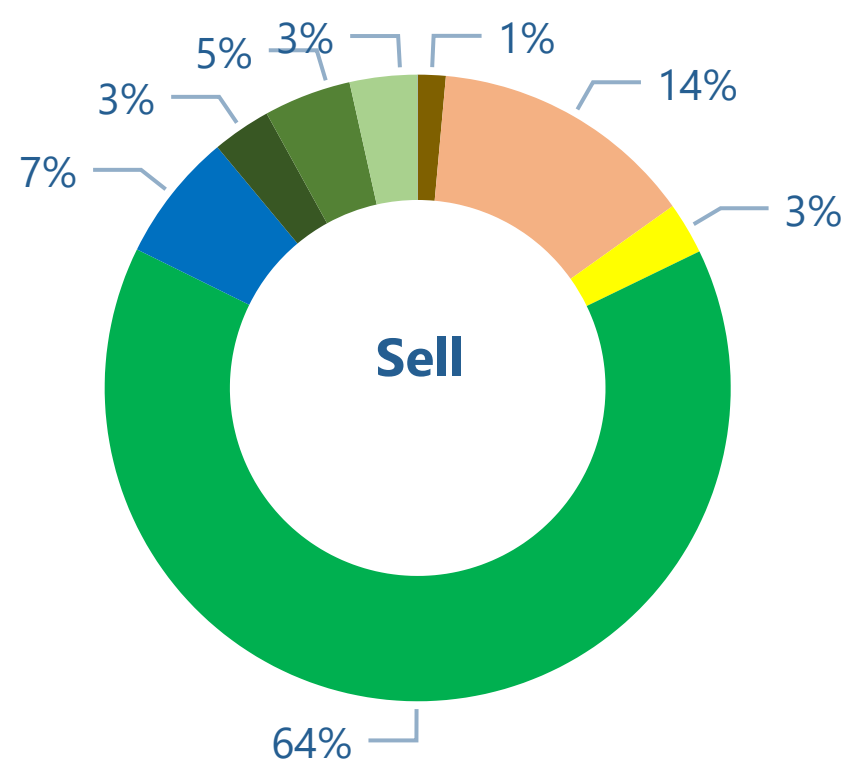
All volumes are one sided. XBID volumes are the average of all sell/buy trades.

Volume mix

DAM



IDM



- Lignite
- Crete Conventional
- Gas
- Imports
- RES
- Crete RES
- Hydro
- HV Load
- MV Load
- LV Load
- Crete Load
- Pumping
- Exports

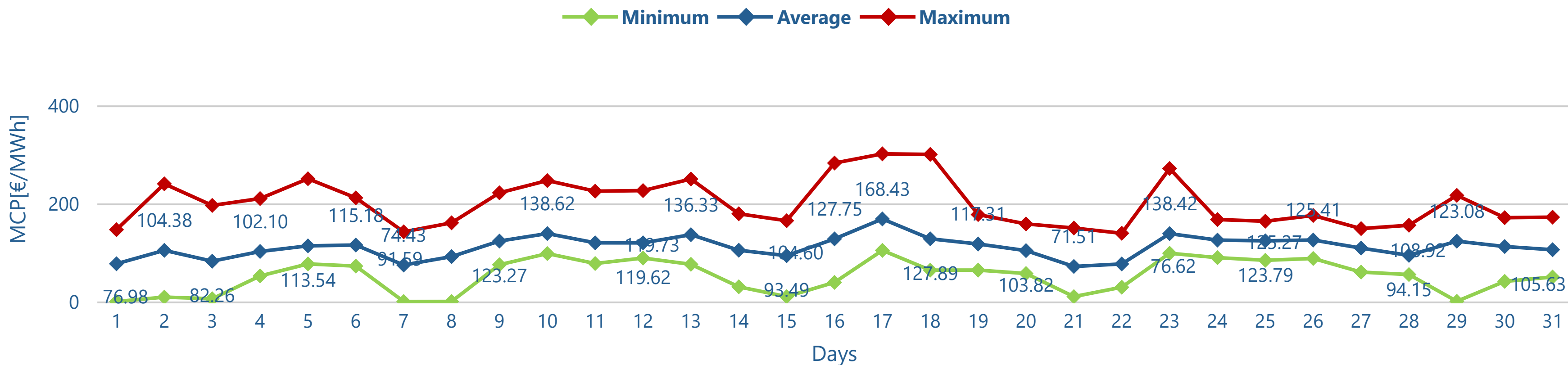
1. DAM

Market Clearing Price (MCP)

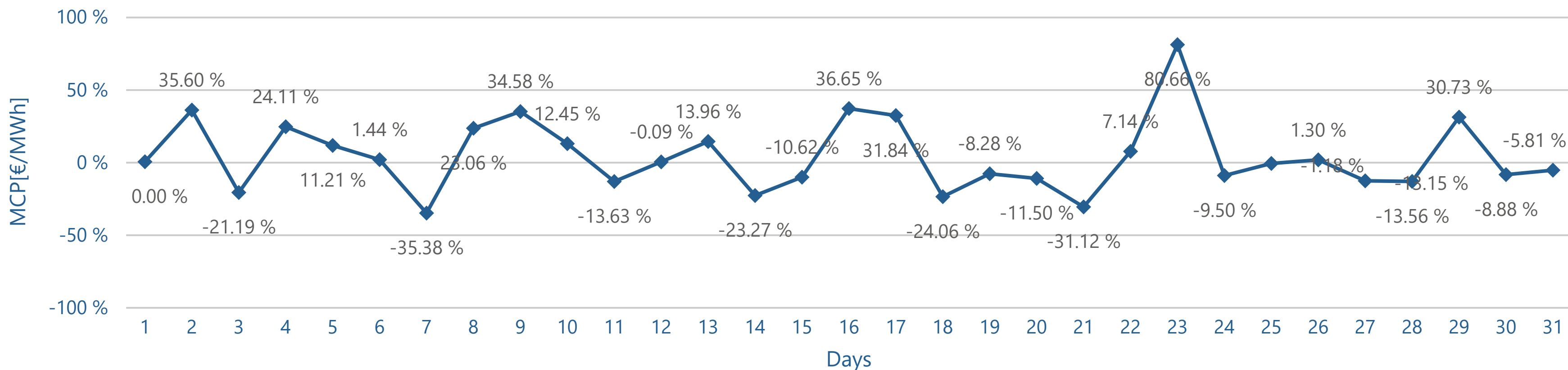
Volumes, technologies and order types

Interconnections

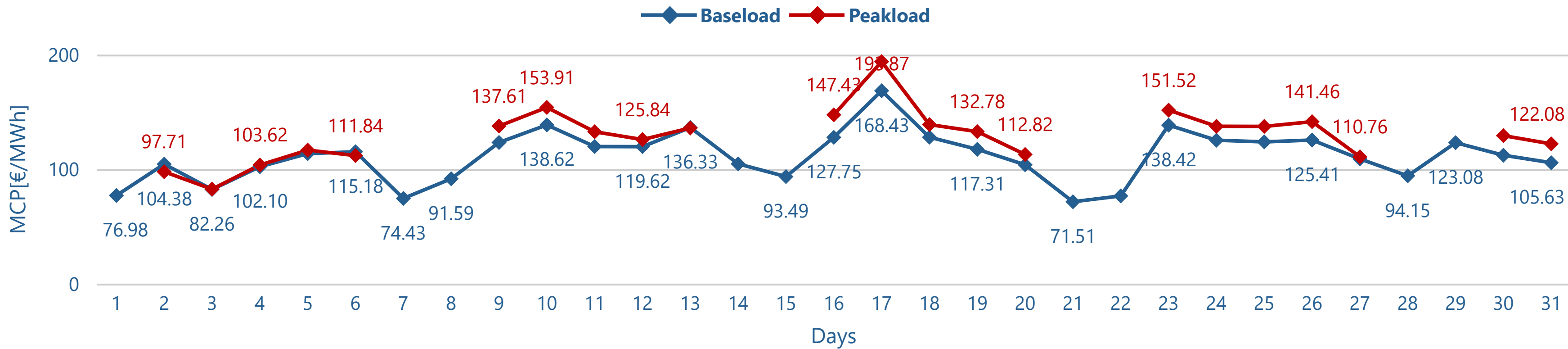
1.1 Daily MCP data of GR BZ



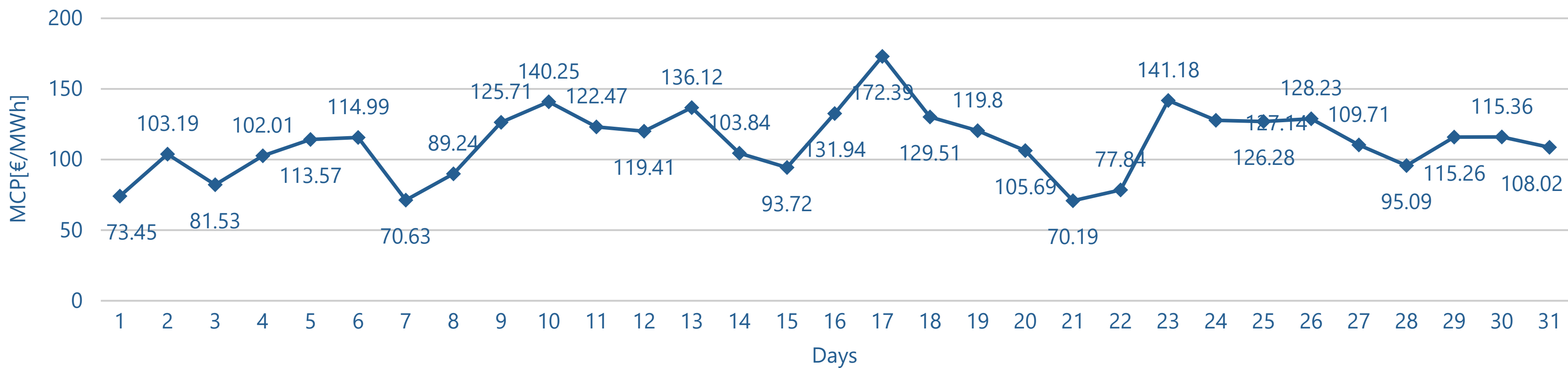
1.2 Daily percentage change in price



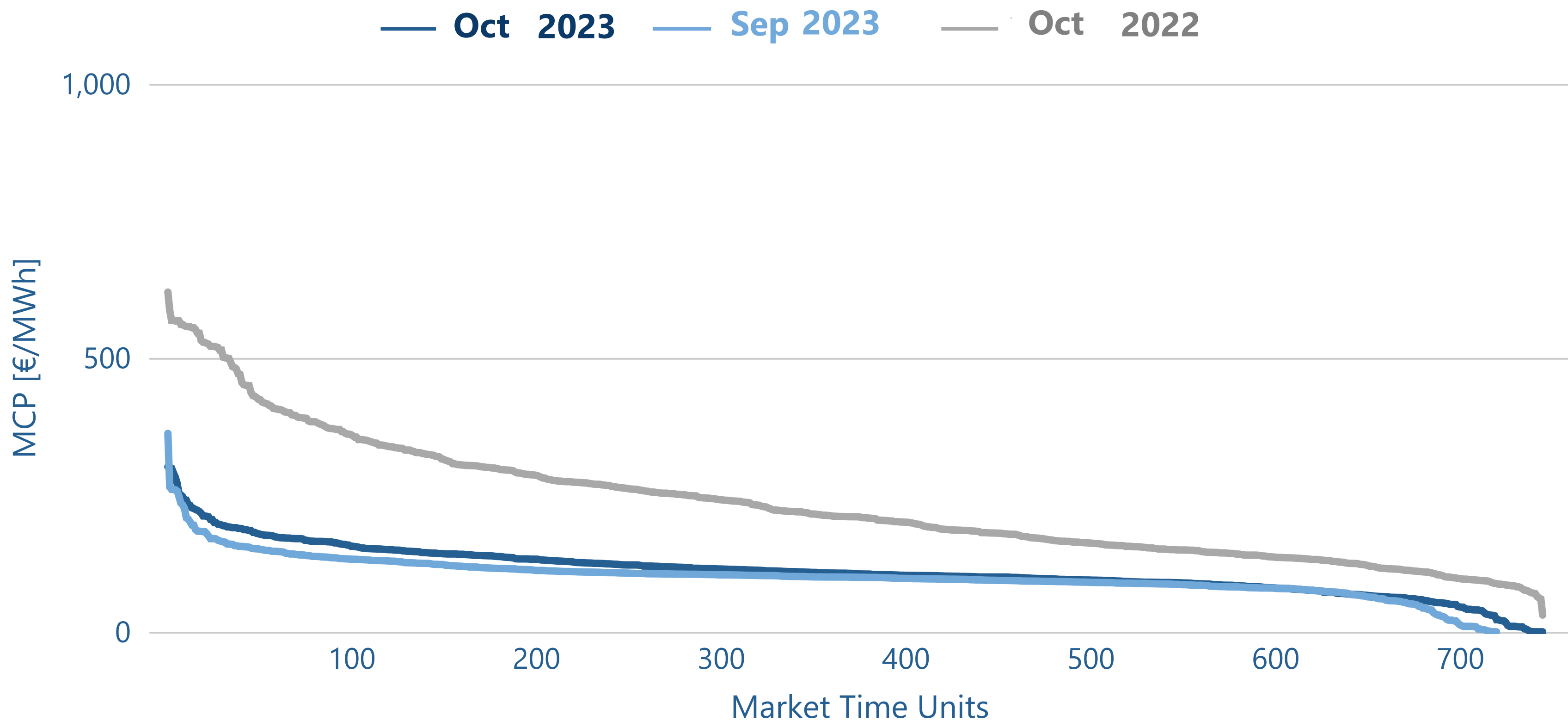
1.3 Daily average prices



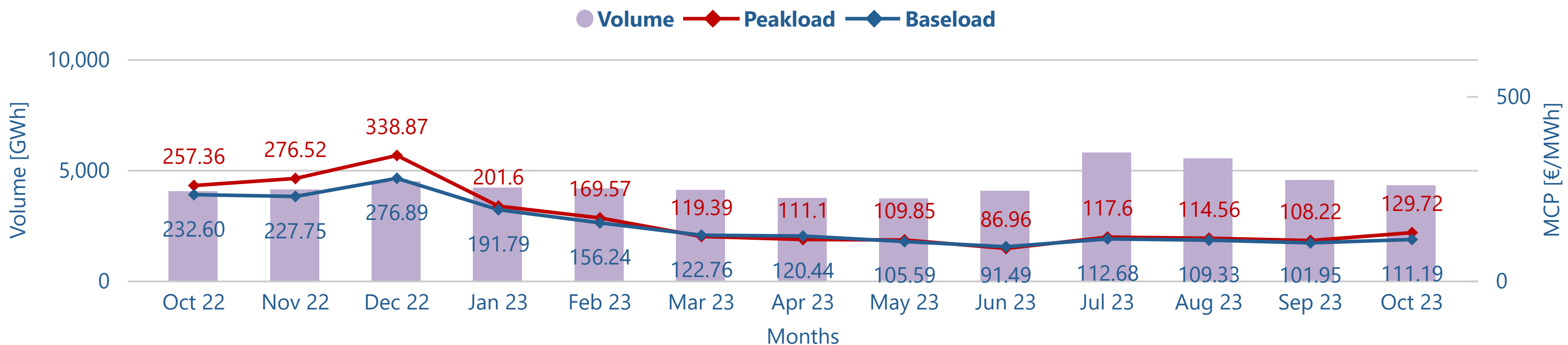
1.4 Daily weighted average baseload price



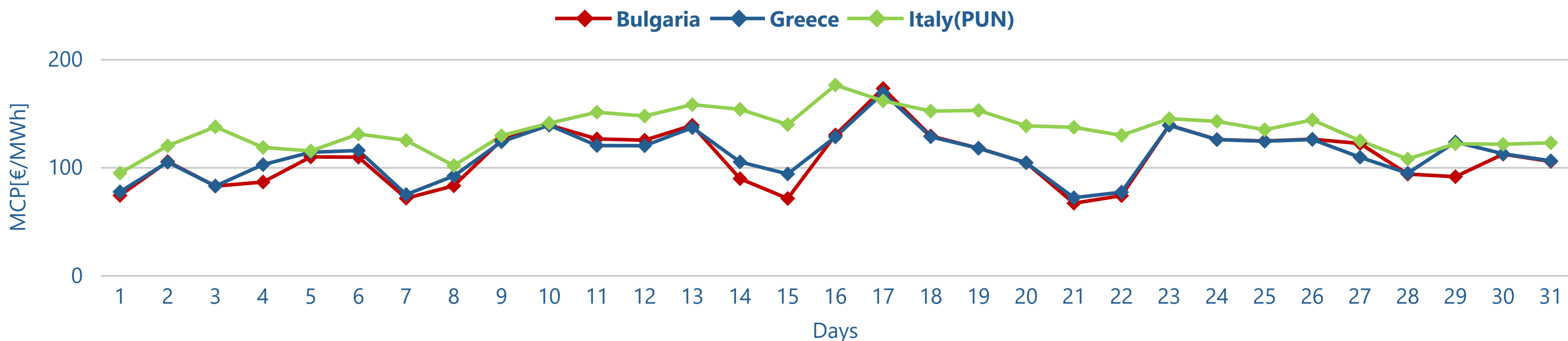
1.5 MCP duration curve



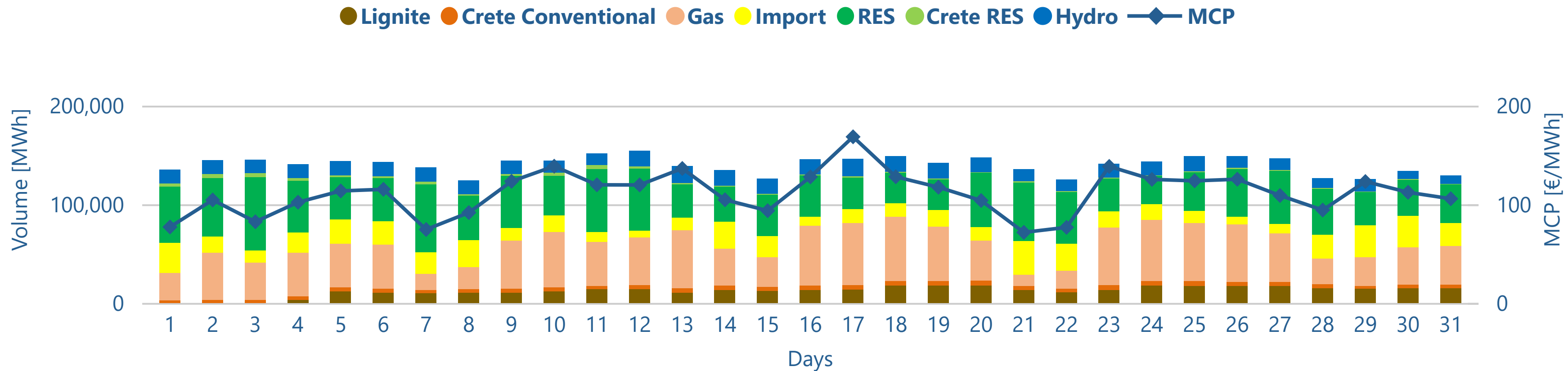
1.6 Monthly volume and average prices



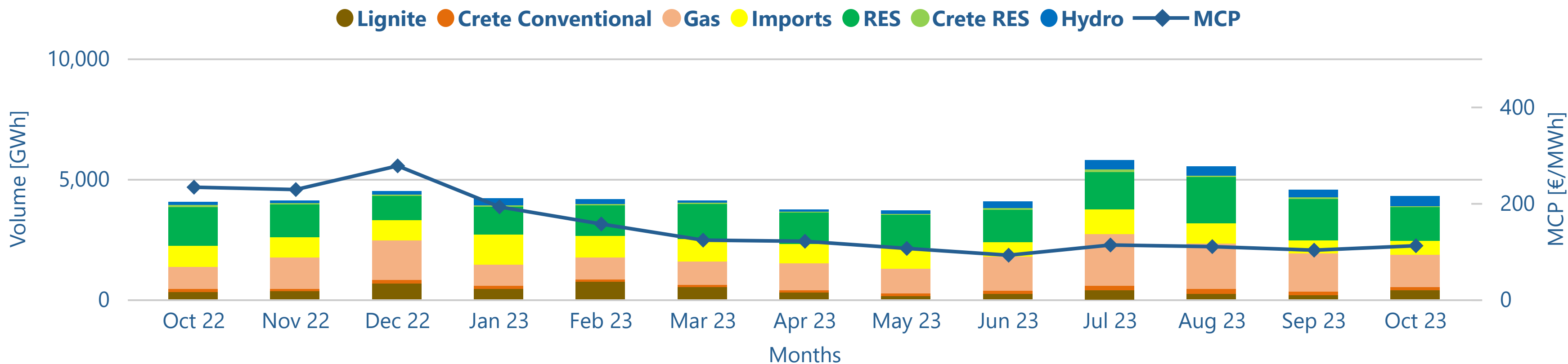
1.7 Daily average MCP of GR, IT, BG



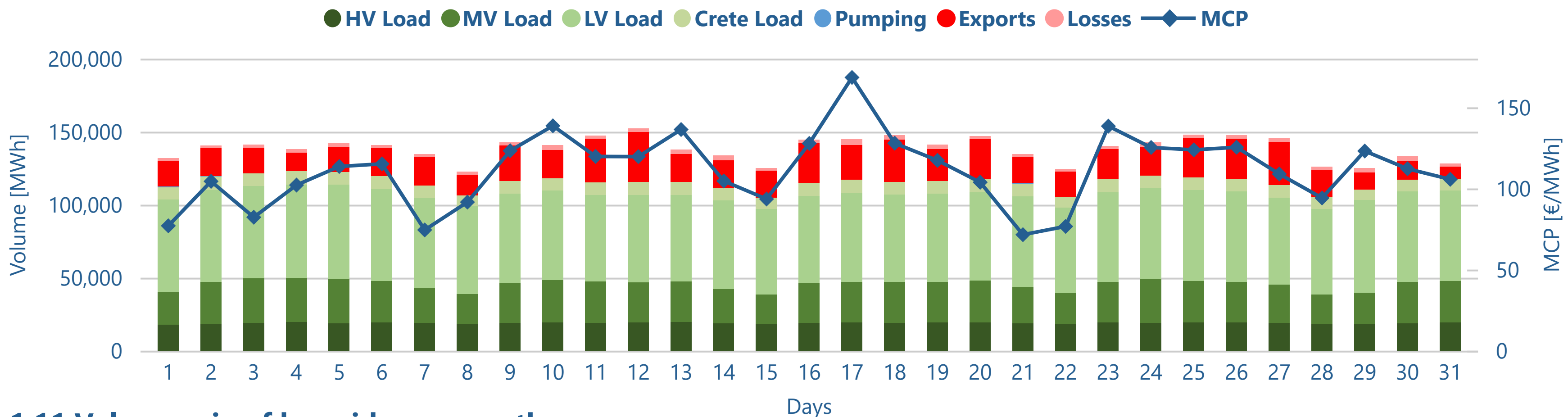
1.8 Volume mix of sell side per day



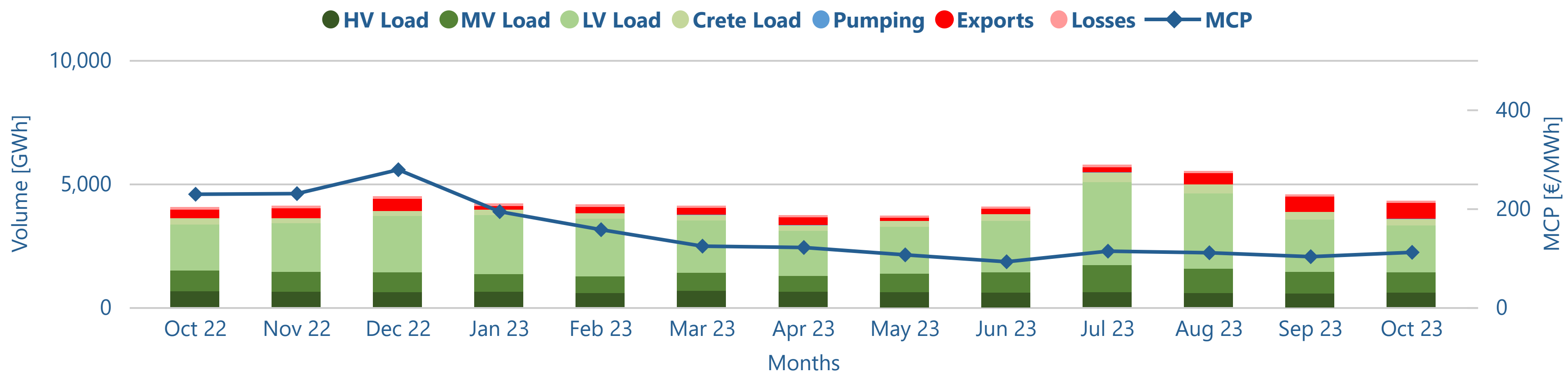
1.9 Volume mix of sell side per month



1.10 Volume mix of buy side per day



1.11 Volume mix of buy side per month

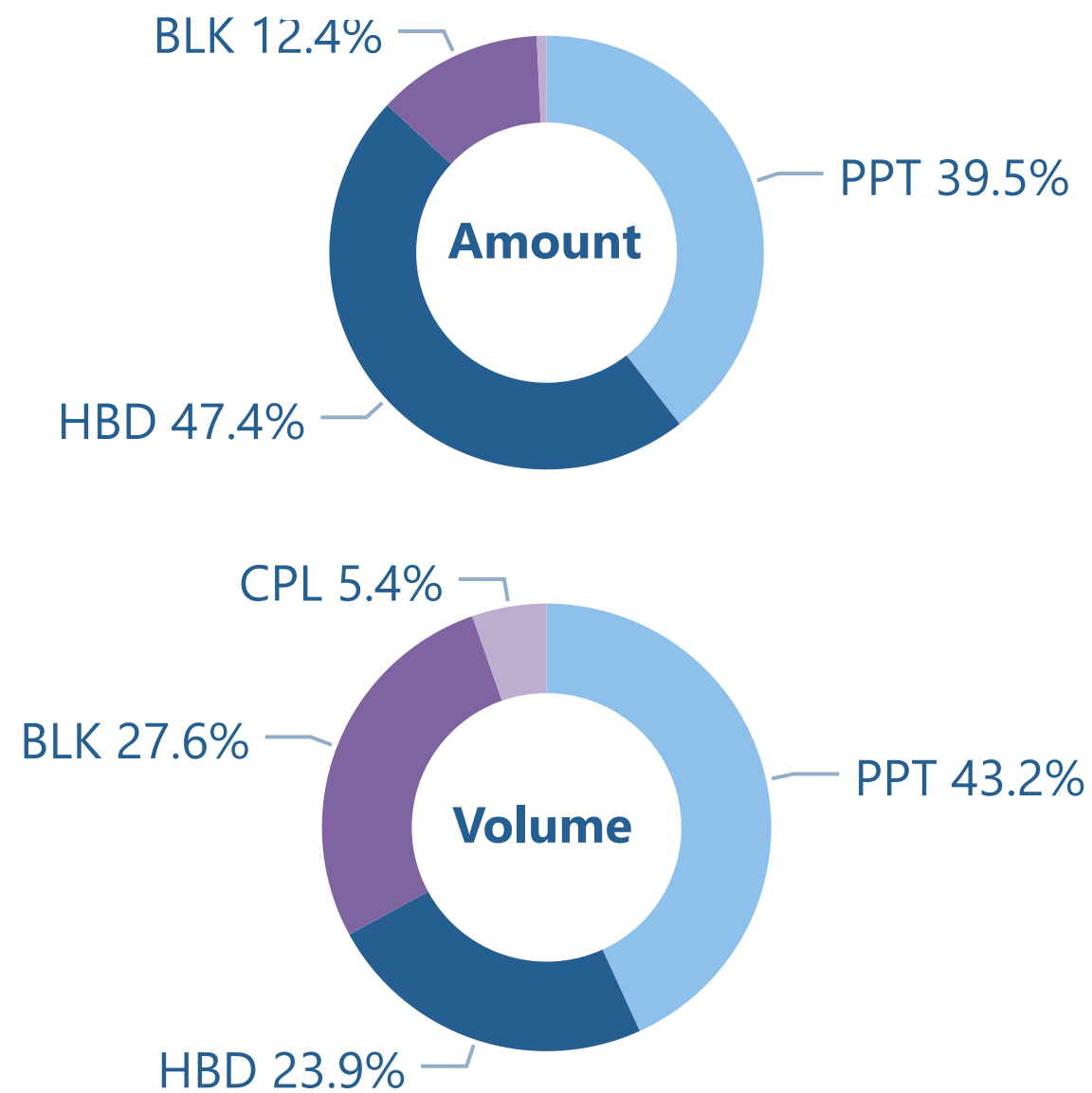


1.12 Table with MCP and volume per month

Year	Month	Minimum MCP[€/MWh]	Average MCP[€/MWh]			Maximum MCP[€/MWh]	Peakload MCP[€/MWh]			Volume [GWh]
2022	October	30.53	232.60	↓	-44%	620.00	257.36	↓	-42%	100,962
2022	November	44.70	227.75	↘	-2%	503.55	276.52	↗	7%	100,962
2022	December	-0.01	276.89	↑	22%	600.10	338.87	↑	23%	100,962
2023	January	0.49	191.79	↓	-31%	369.17	201.60	↓	-41%	100,962
2023	February	1.01	156.24	↓	-19%	287.32	169.57	↓	-16%	100,962
2023	March	4.95	122.76	↓	-21%	224.29	119.39	↓	-30%	100,962
2023	April	0.18	120.44	↘	-2%	211.00	111.10	↘	-7%	100,962
2023	May	0.00	105.59	↓	-12%	195.07	109.85	↘	-1%	100,962
2023	June	0.02	91.49	↓	-13%	174.99	86.96	↓	-21%	100,962
2023	July	0.00	112.68	↑	23%	245.30	117.60	↑	35%	100,962
2023	August	0.00	109.33	↘	-3%	384.82	114.56	↘	-3%	100,962
2023	September	0.00	101.95	↘	-7%	362.17	108.22	↘	-6%	100,962
2023	October	0.00	111.19	↗	9%	301.15	129.72	↑	20%	100,962

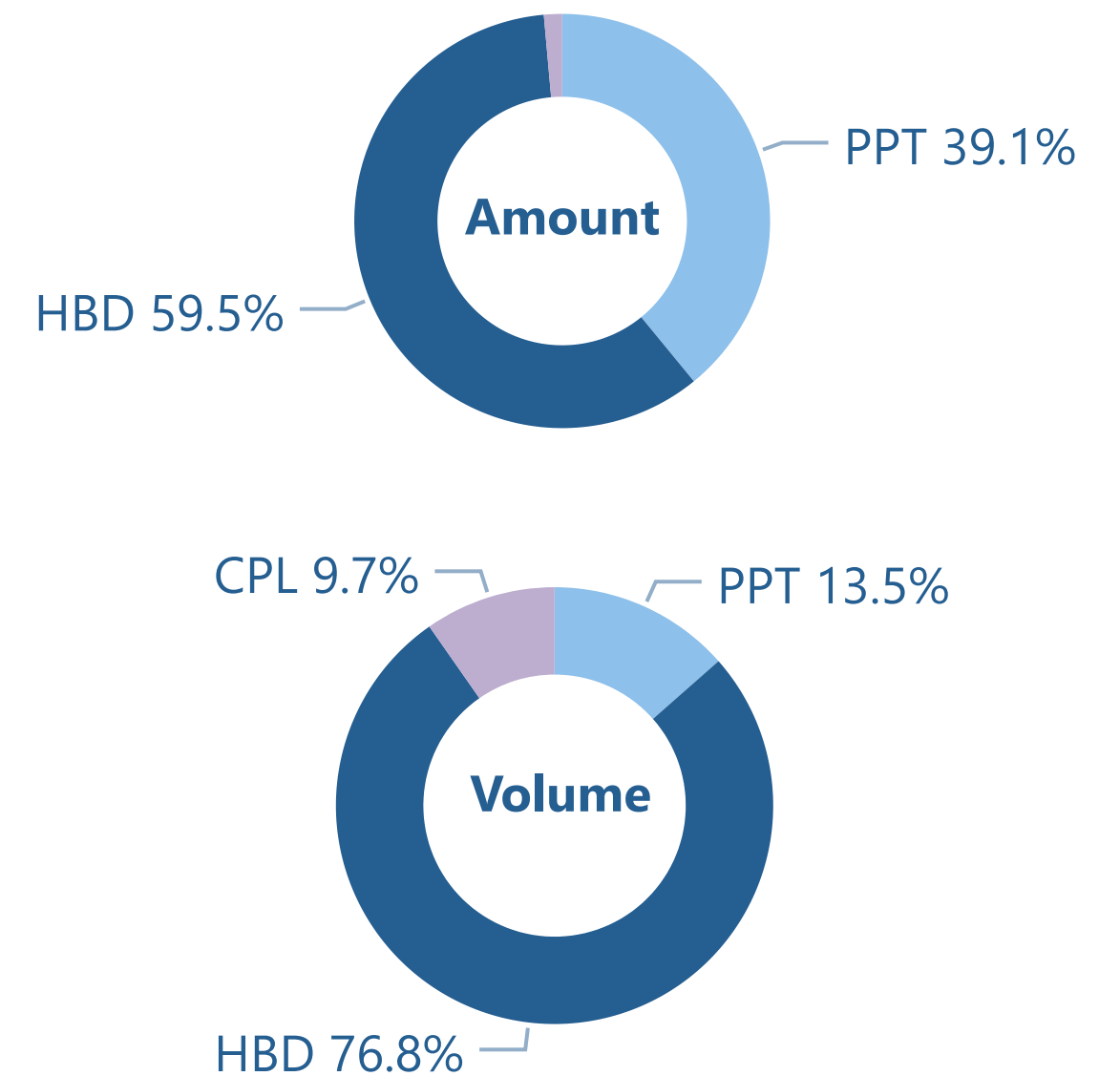
1.13 Trades per Order type

Sell Side



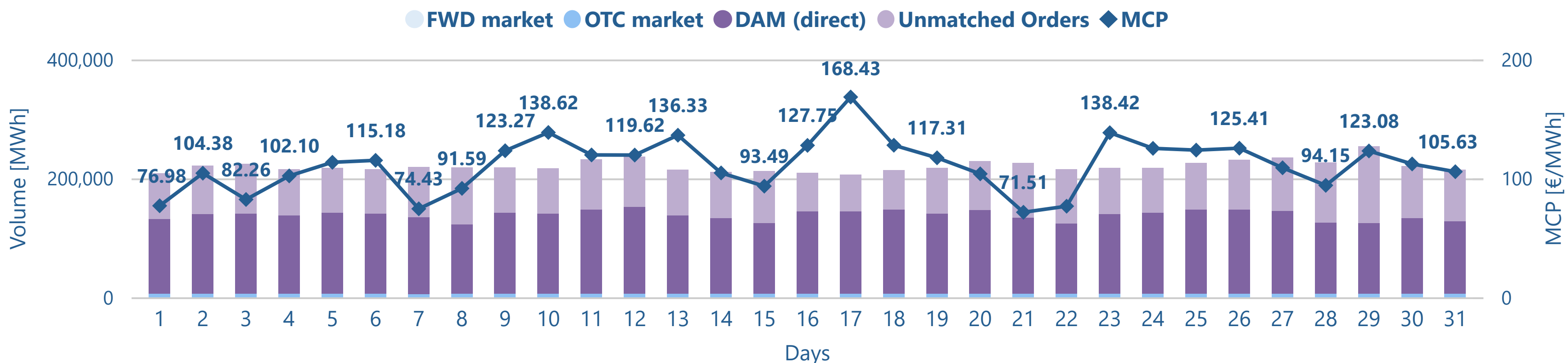
	PPT	HBD	BLK	CPL
Amount	25757	30910	8071	471
Volume [GWh]	1854	1024	1183	230

Buy Side

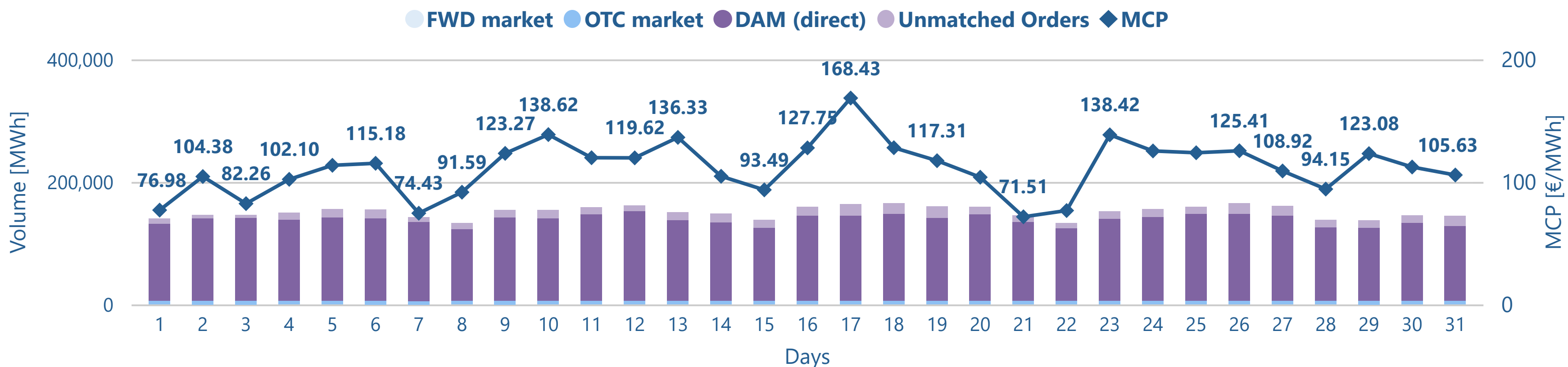


	PPT	HBD	CPL
Amount	25410	38684	919
Volume [GWh]	579	3296	416

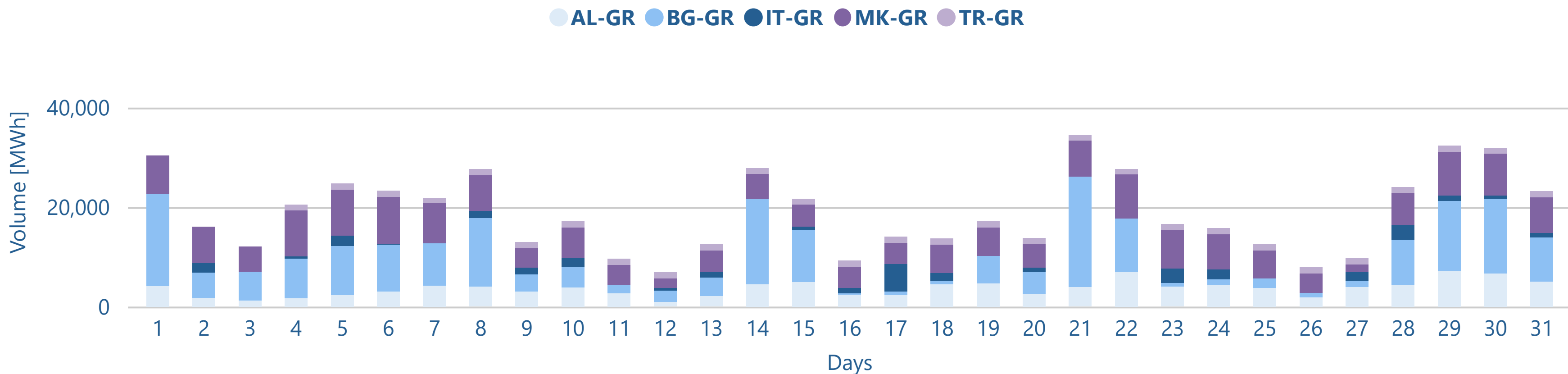
1.14 Total volume and traded volume per Market Source of sell orders



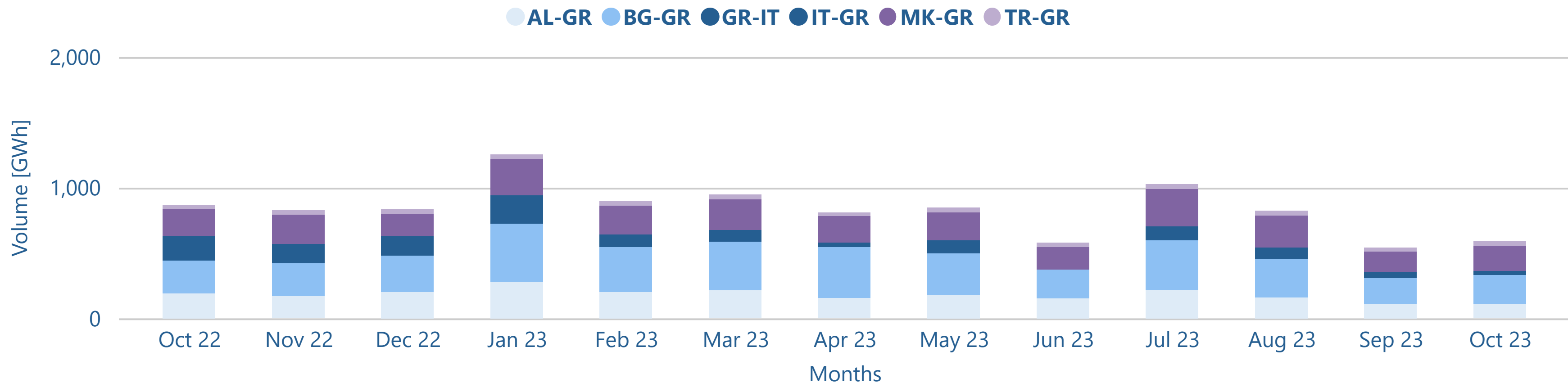
1.15 Total volume and traded volume per Market Source of buy orders



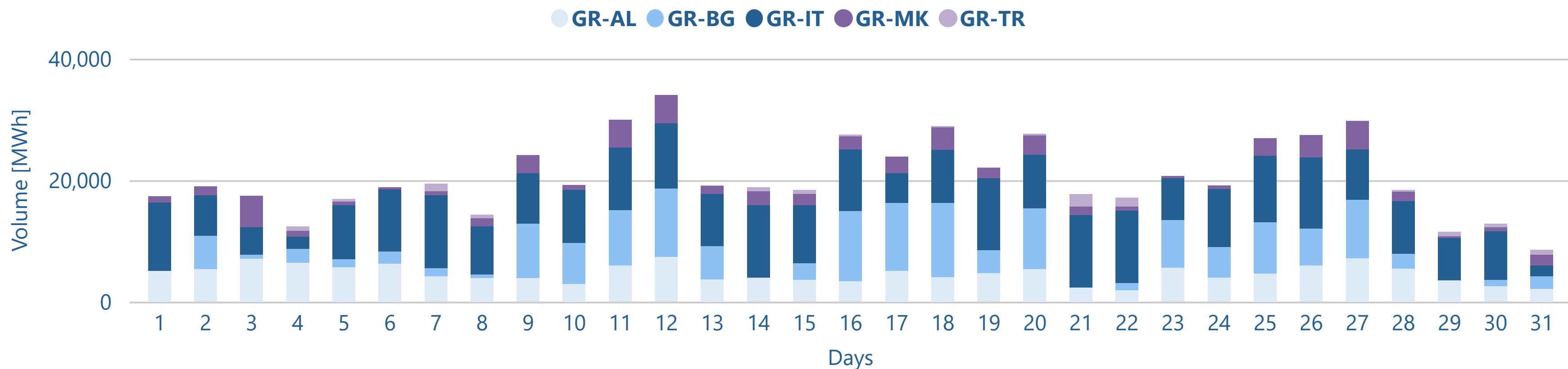
1.16 Cross Border volume · Imports per day



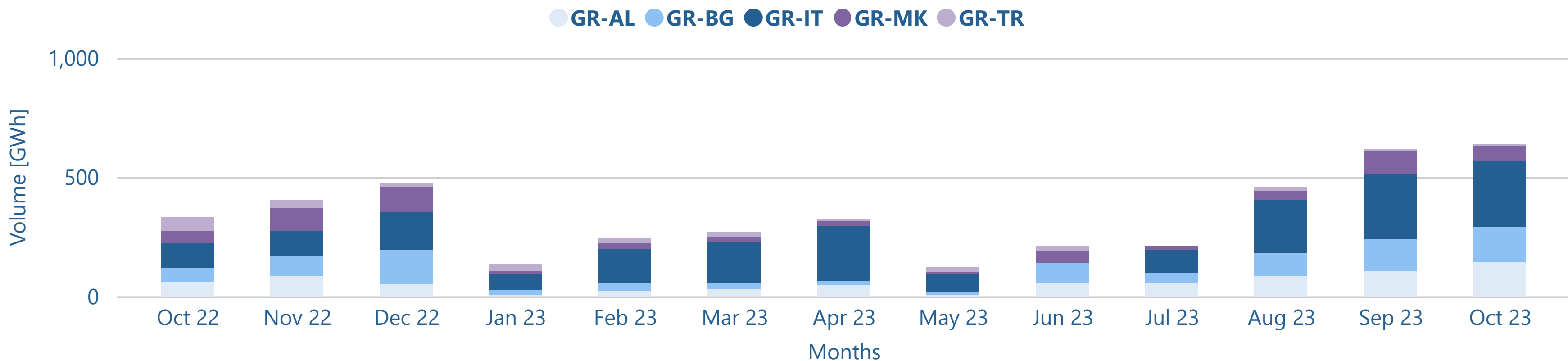
1.17 Cross Border volume · Imports per month



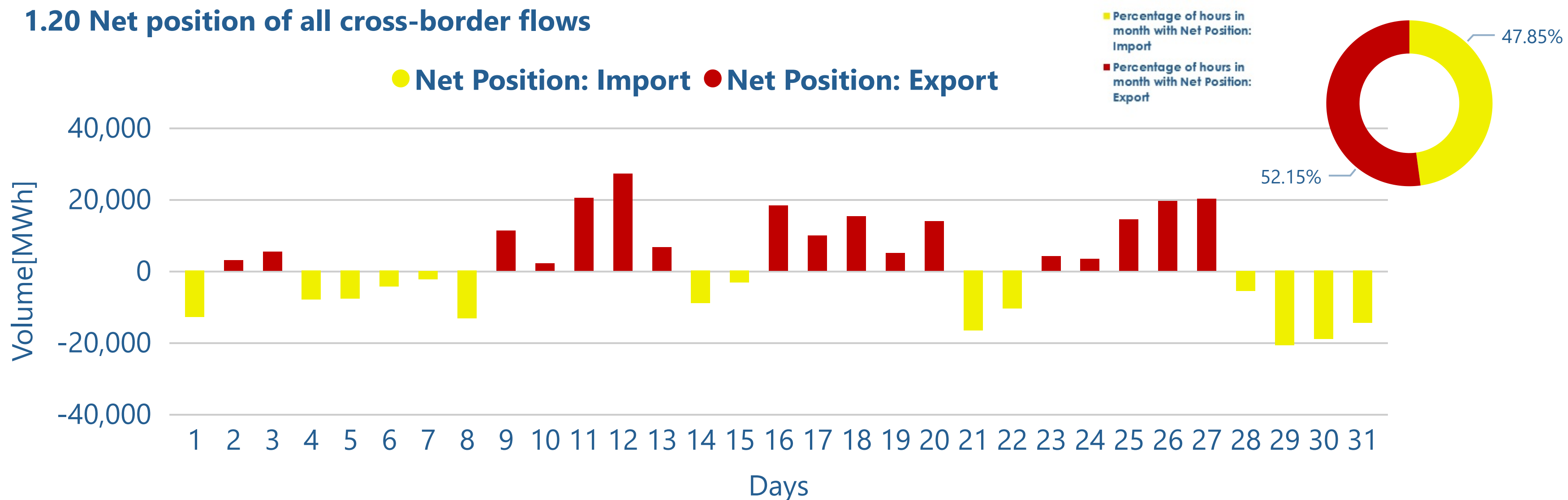
1.18 Cross Border volume · Exports per day



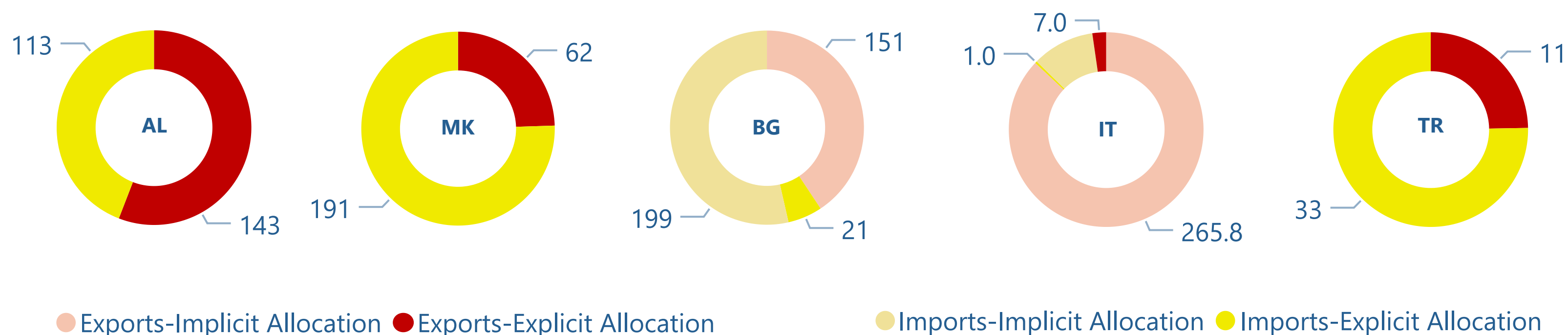
1.19 Cross Border volume · Exports per month



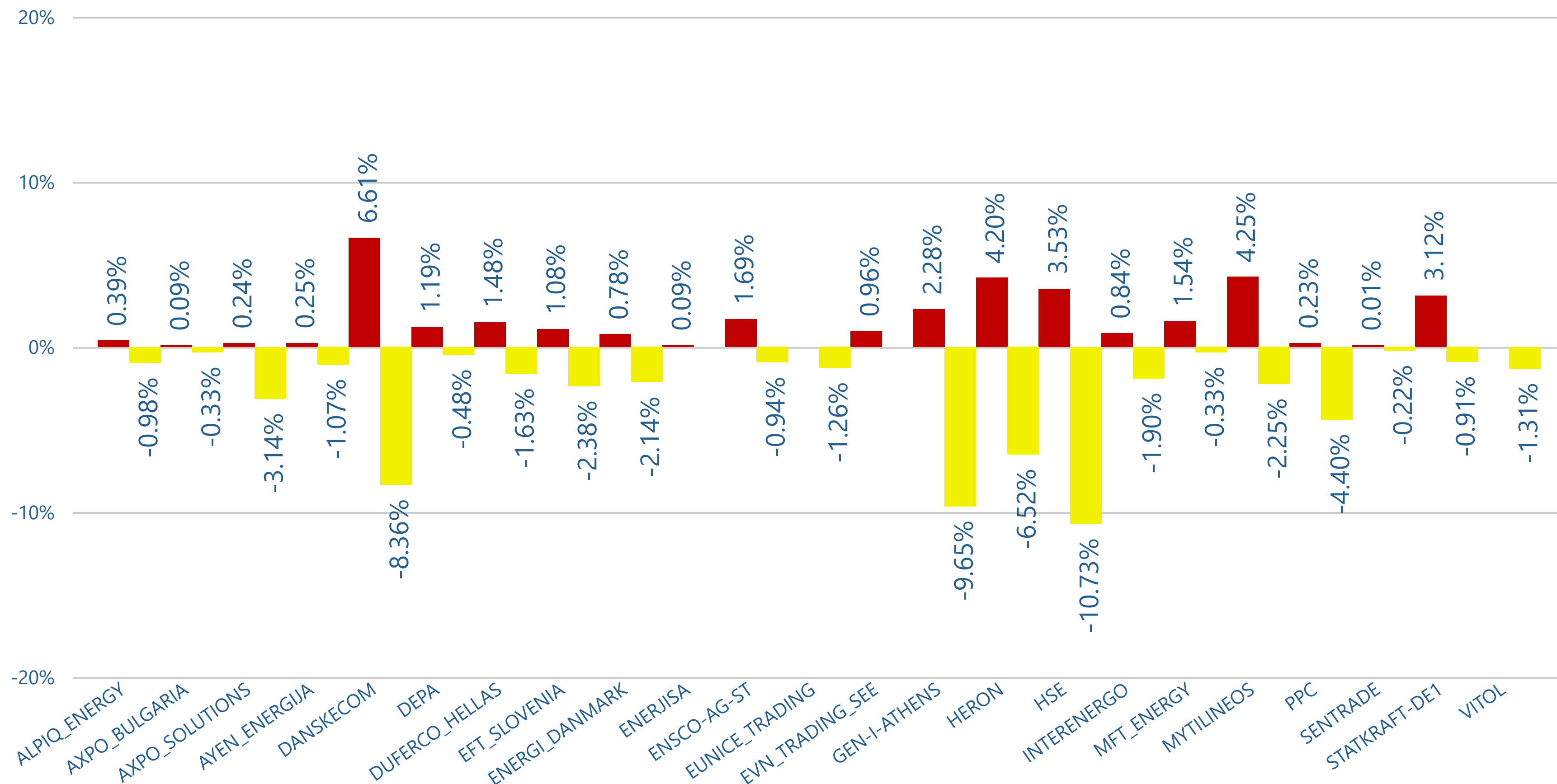
1.20 Net position of all cross-border flows



1.21 Cross Border Volumes (GWh) per Border

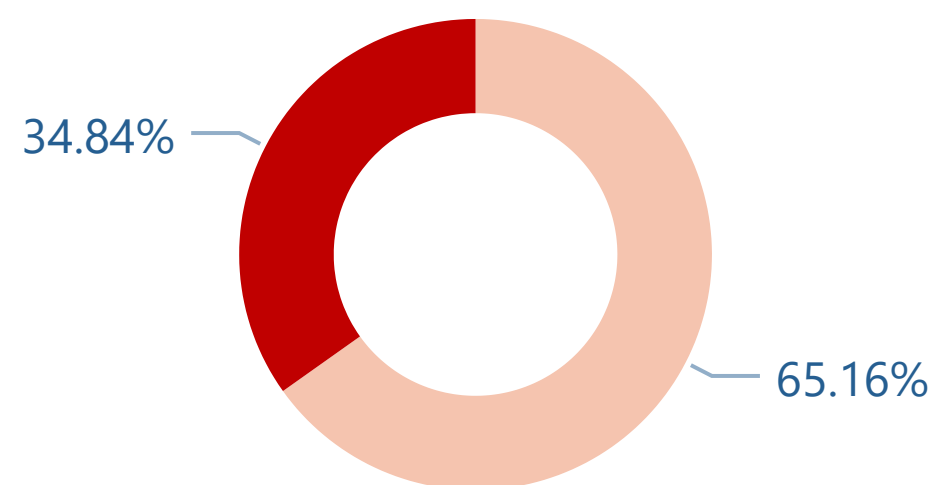


1.22 Market shares of Imports and Exports per Market participant



1.23 Total market shares of Imports and Exports

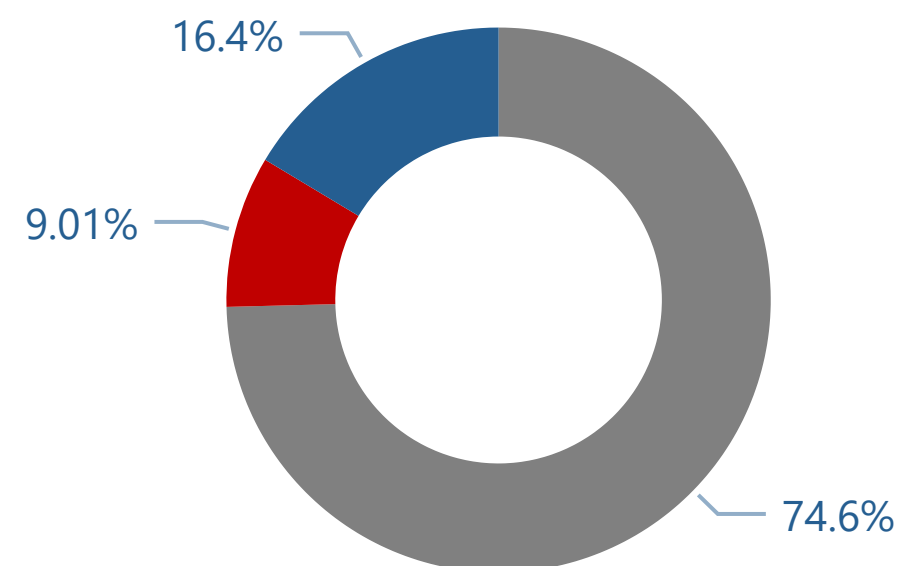
● Exports - Implicit Allocation ● Exports - Explicit Allocation



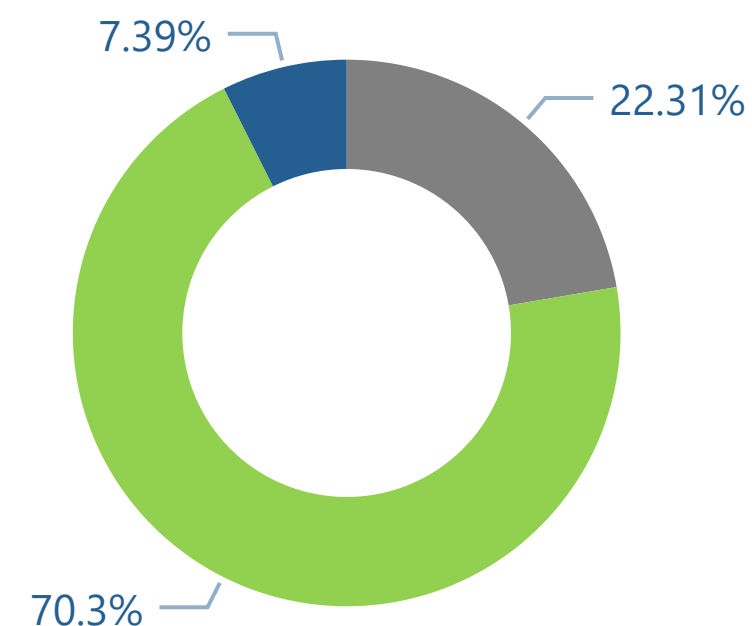
● Imports - Implicit Allocation ● Imports - Explicit Allocation



1.24 Price Coupling Data

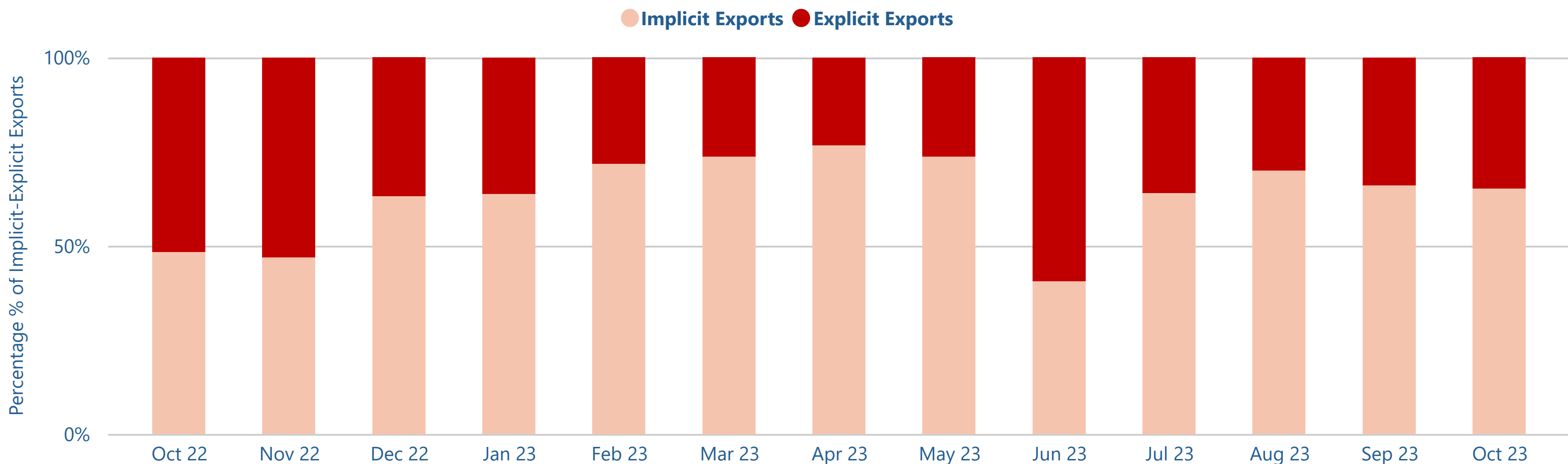
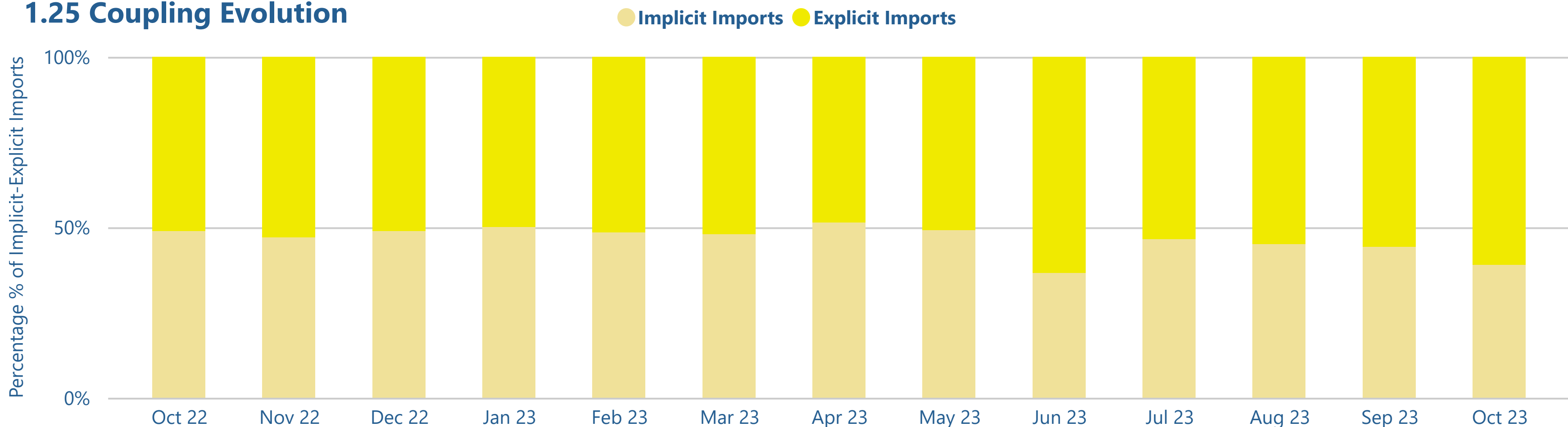


● MTUs GR = BG ● MTUs GR < BG ● MTUs GR > BG



● MTUs GR = IT ● MTUs GR < IT ● MTUs GR > IT

1.25 Coupling Evolution

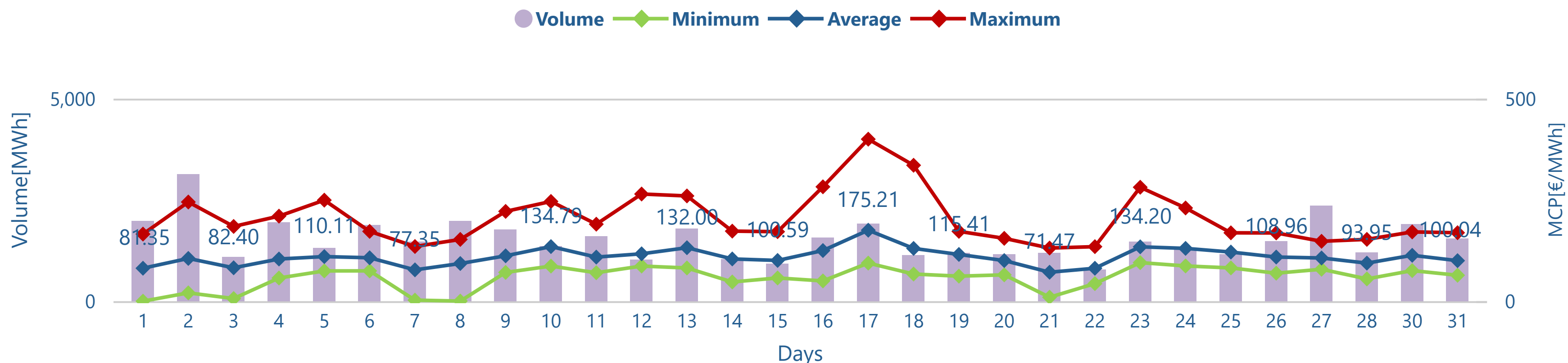


2. IDM

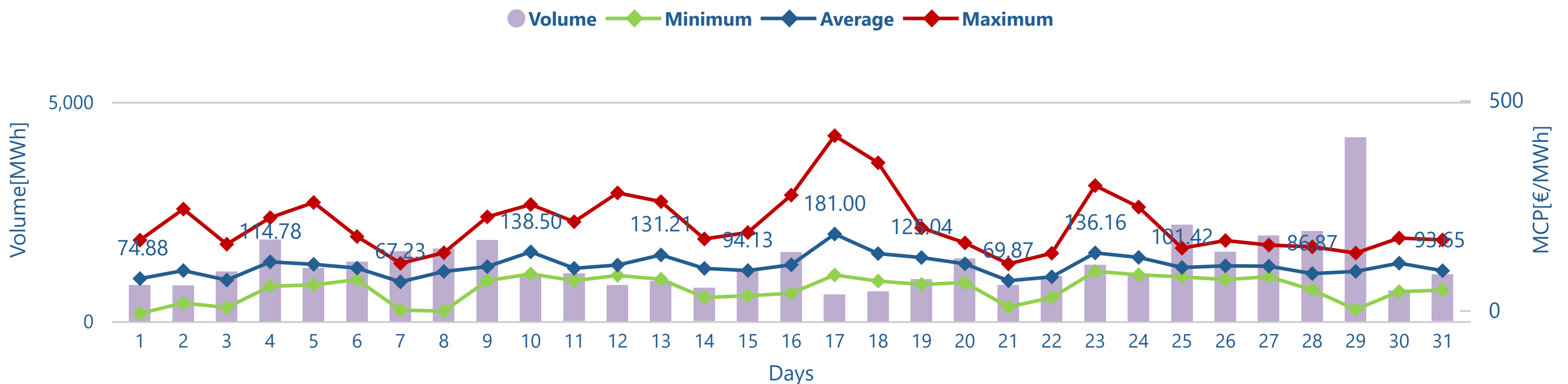
Market Clearing Prices (MCP)

Volumes, technologies and order types

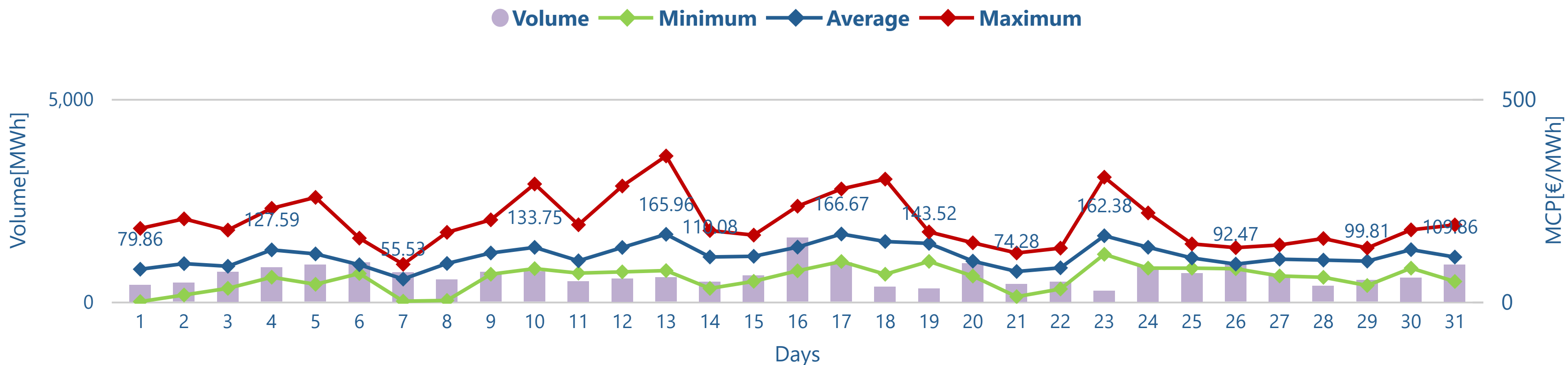
2.1 Daily MCP and Volume •CRIDA1



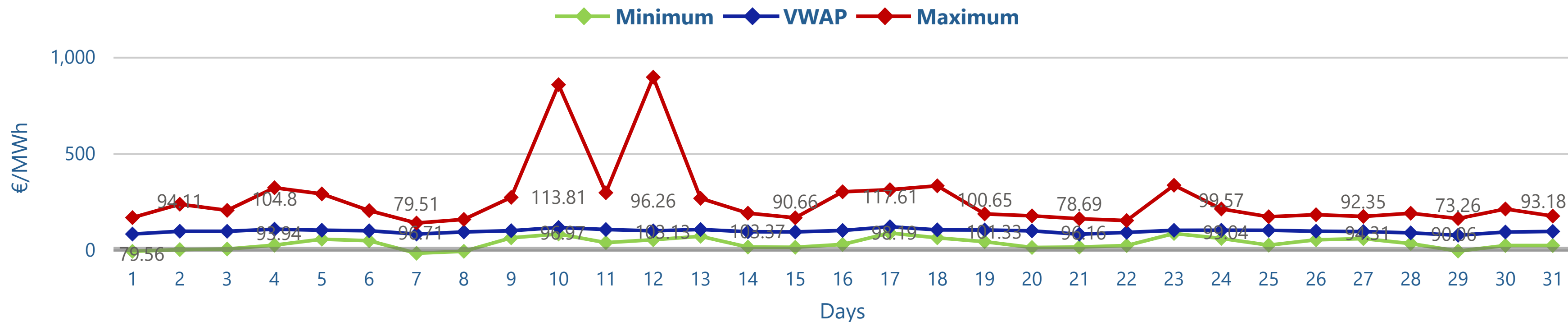
2.2 Daily MCP and Volume •CRIDA2



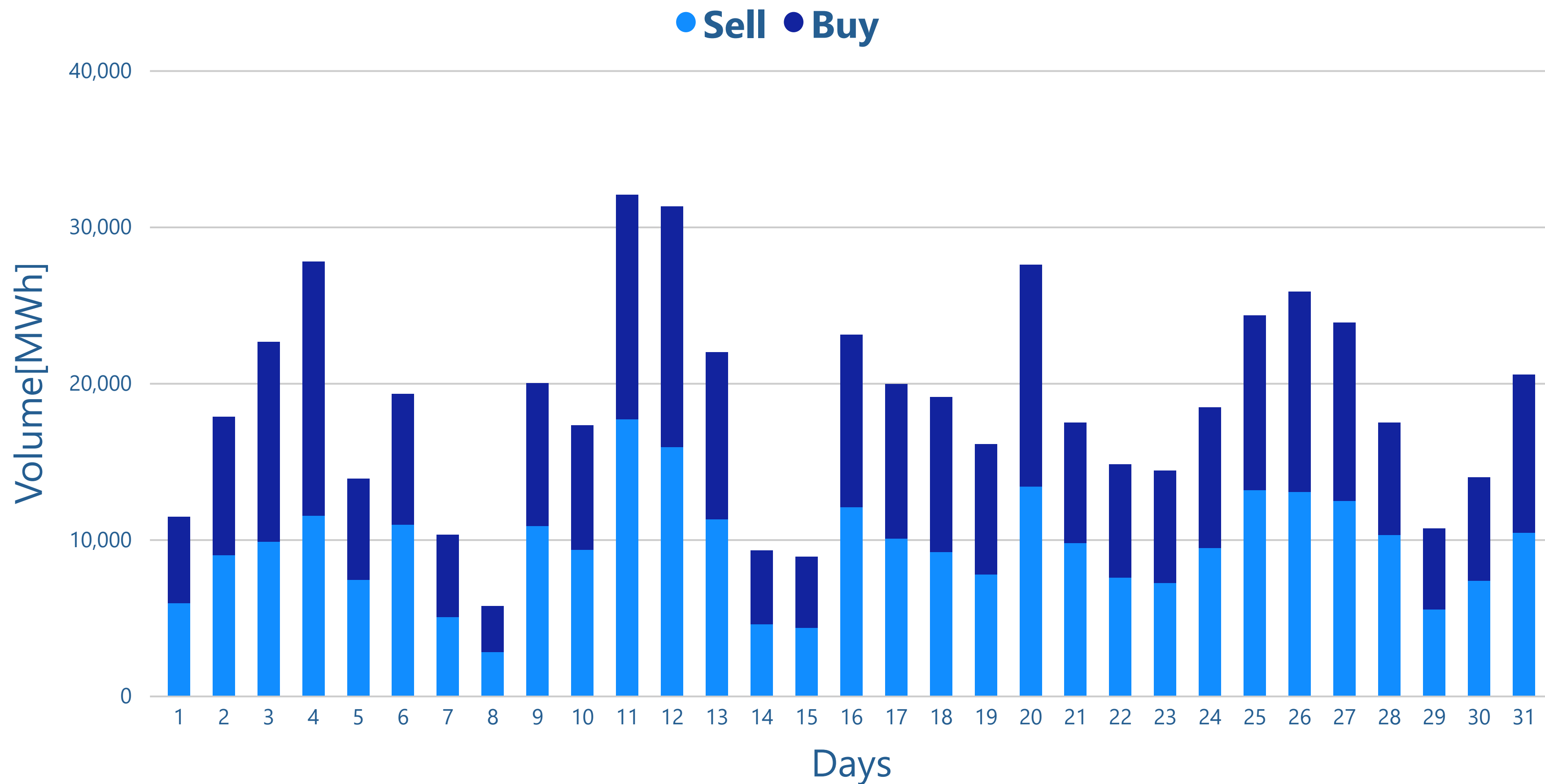
2.3 Daily MCP and Volume •CRIDA3



2.4 Daily XBID Weighted Average Prices



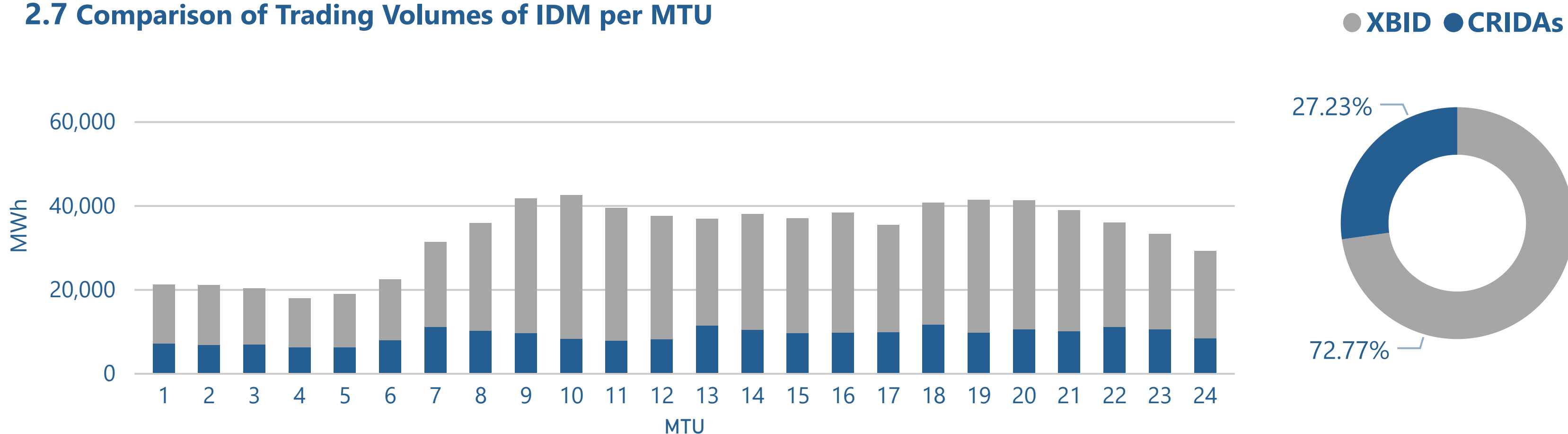
2.5 Daily XBID Volumes



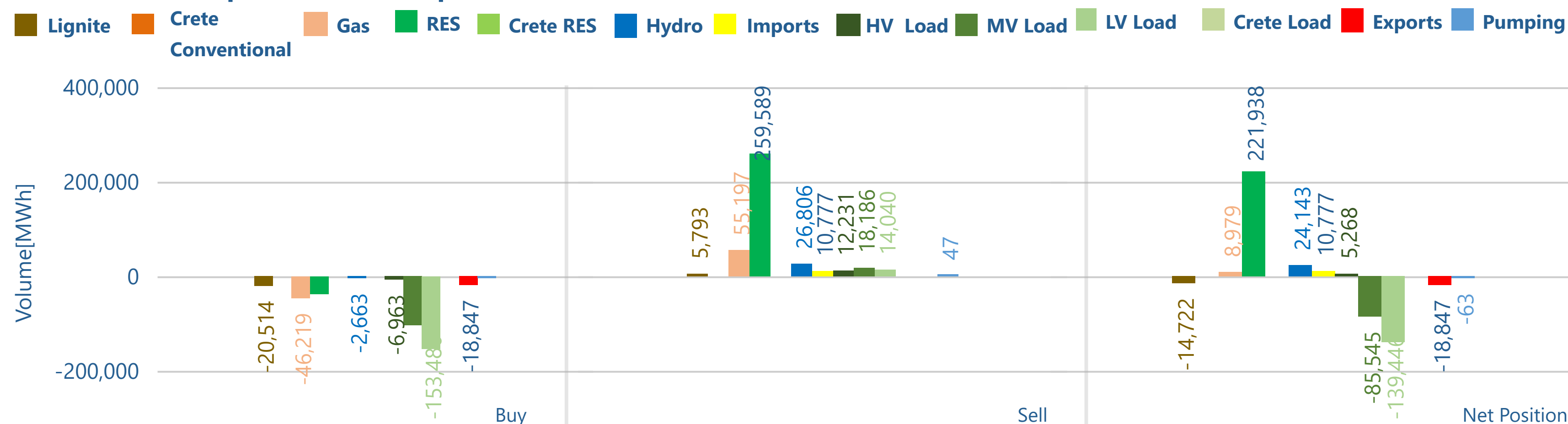
2.6 Table with MCP and volume

Year			2022	2022	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Month			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
CRIDA1	Price [€/MWh]	min	44.7	0	-90.28	0.90	3.95	7.50	-0.01	3.29	0	-1	-1	0
		avg	225.09	281.89	191.07	149.98	118.00	115.37	105.18	90.52	111.40	103.26	99.93	109.27
		max	700	1.06K	700	267	218.22	216.37	2.95K	190.92	300	404.90	342.17	400
	Volume [MWh]		59,666	32,236	31,952	41,868	50,834	41,365	45,131	31,612	58,530	57,680	54,474	45,751
CRIDA2	Price [€/MWh]	min	44.7	0.2	-47.45	-0.01	0	0.34	-4.18	0.14	-2.50	-25.51	-4	-8
		avg	212.60	273.38	173.21	138.04	109.27	108.38	96.24	89.23	107.55	100.36	97.19	105.15
		max	750	1.05K	531	500	244.22	226.37	190	400	415.82	571.54	331.27	415
	Volume [MWh]		59,260	18,677	44,385	53,775	51,859	48,714	60,218	43,967	46,690	37,297	45,738	41,353
CRIDA3	Price [€/MWh]	min	43	-0.4	0	-0.99	1	0.02	0.03	0.50	-3	0	0	0
		avg	226.36	277.57	180.25	141.56	103.40	107.07	92.49	104.72	126.30	117.56	100.78	113.33
		max	630	750	700	600	349.22	242.50	200	262.89	300	521.10	341.19	359.14
	Volume [MWh]		29,394	16,216	33,372	36,150	34,449	28,606	38,300	22,771	22,664	33,656	26,300	20,845
XBID	Price [€/MWh]	min	129	-3	-3.80	-1.90	0	-25	-32	-38	-21.10	-80	-23.12	-20
		VWAP	362.04	276.88	109.69	103.78	96.39	96.55	90.19	86.88	96.19	94.85	92.55	96.37
		max	493.55	660	413.90	300	1005	299.89	209.52	251	425.82	446	360	894
	AV.Volume [MWh]		7,384	339,205	261,922	356,502	342,283	335,968	348,346	312,678	398,199	365,551	310,182	288,476

2.7 Comparison of Trading Volumes of IDM per MTU



2.8 Volume mix per side and net position for IDM



3. DAM & IDM · Aggregated Overview

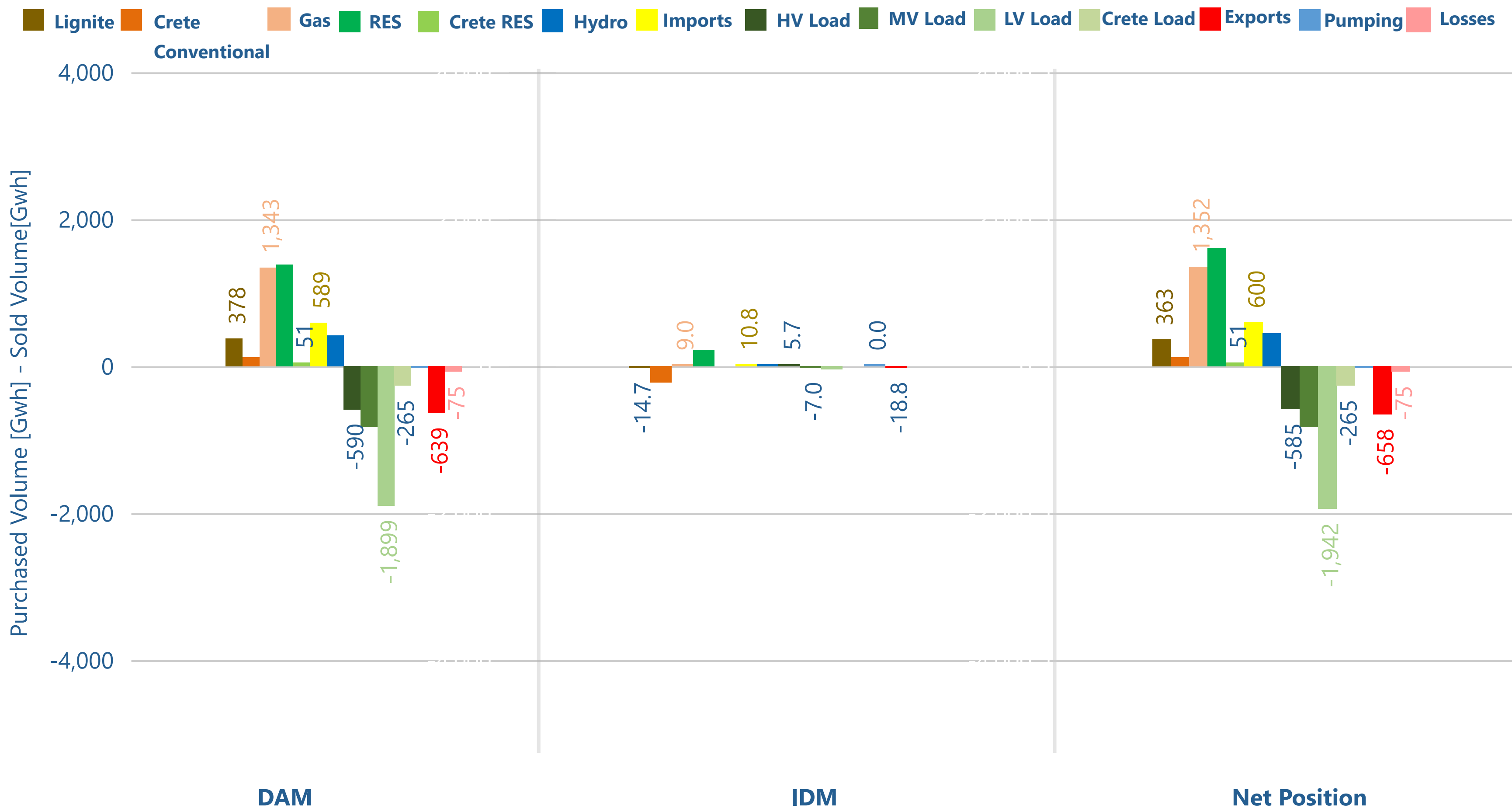
Final Market Schedules

Domestic Production

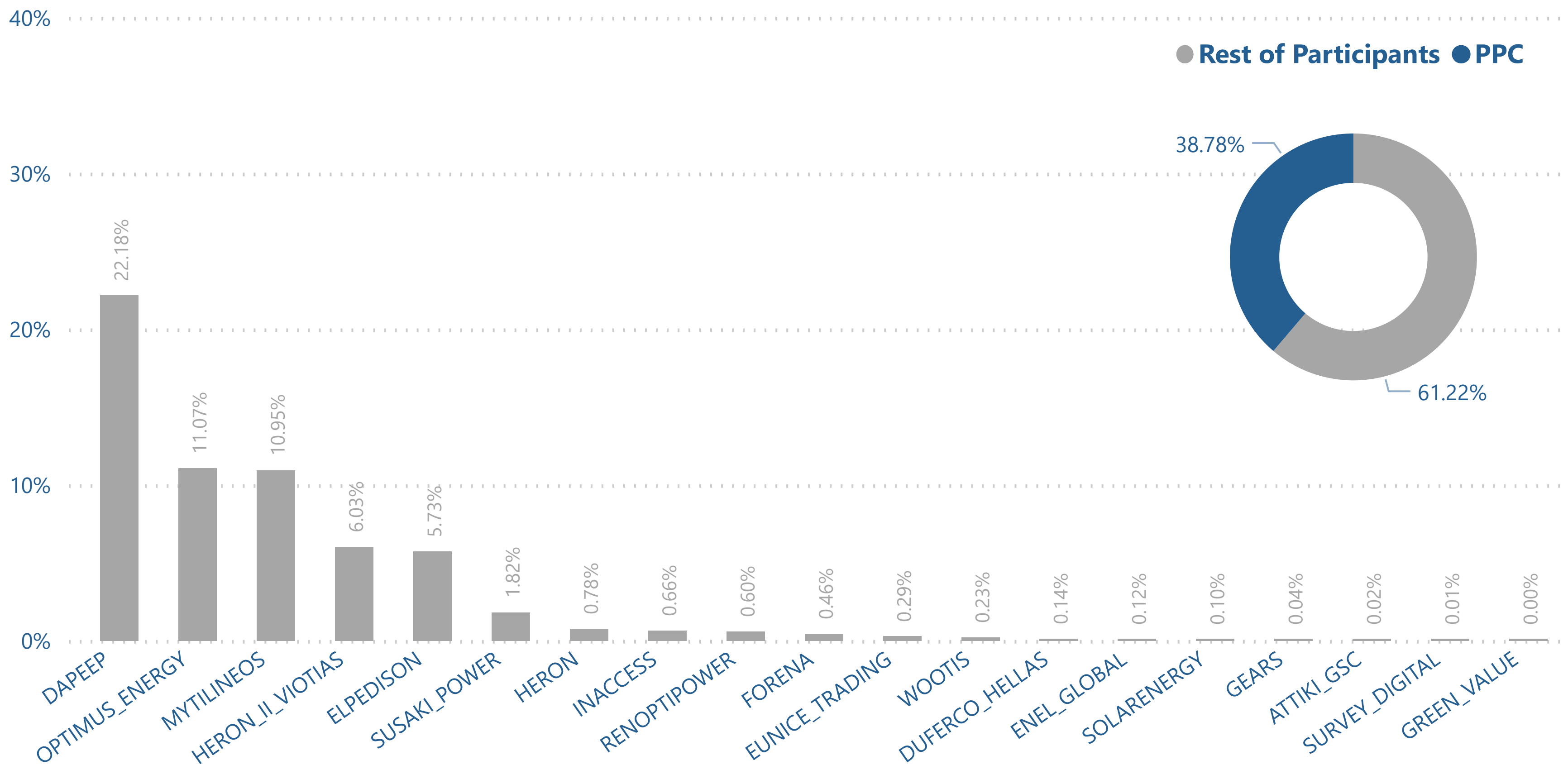
Domestic Consumption

Domestic Consumption per Voltage level

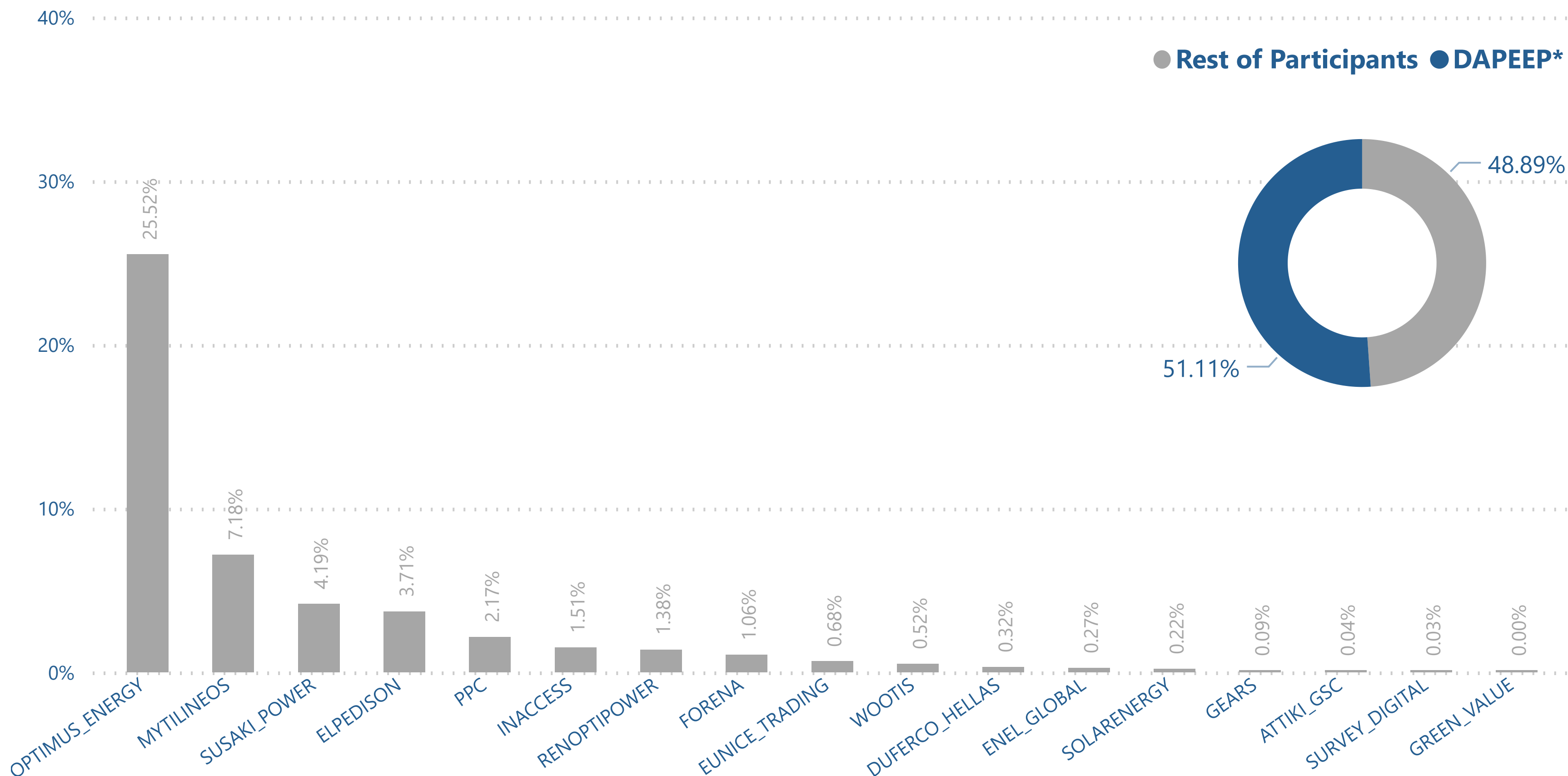
3.1 Market Schedules



3.2 Final Market Schedule shares for all production units per Market Participant · Greek Bidding Zone

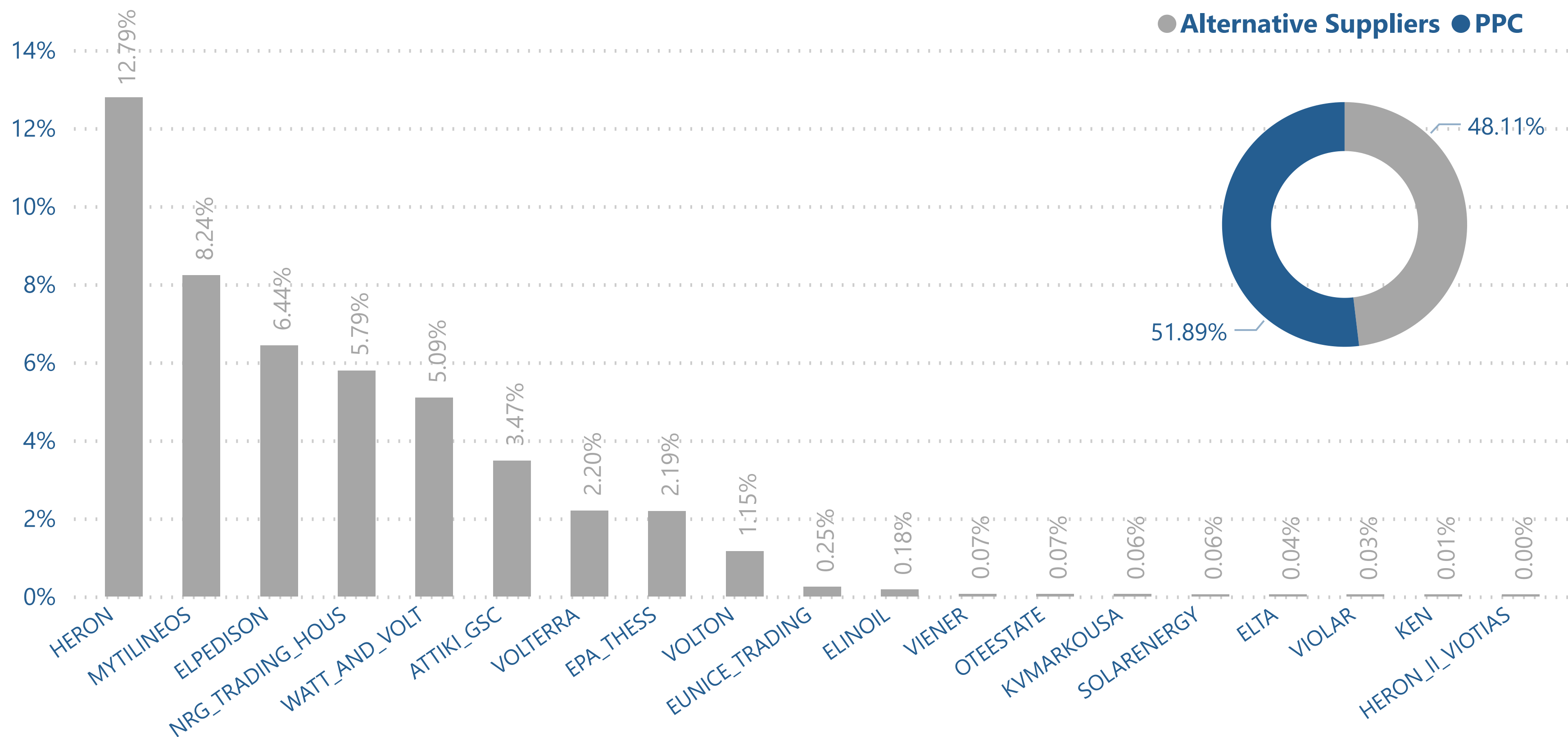


3.3 Final Market Schedule shares for RES production units per Market Participant · Greek Bidding Zone

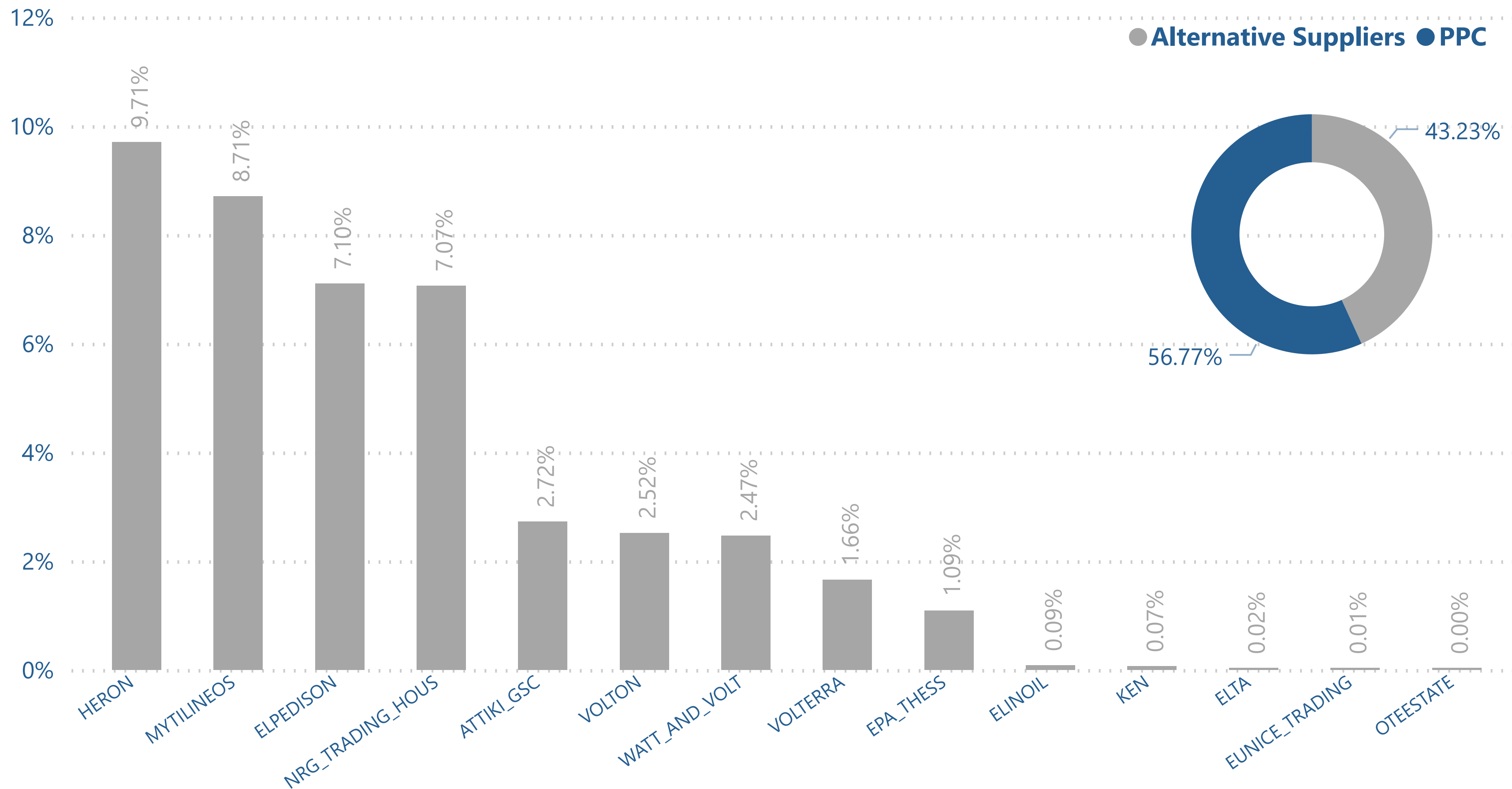


*The percentage of DAPEEP includes its role as a Last Resort RES Aggregator (FOSETEK)

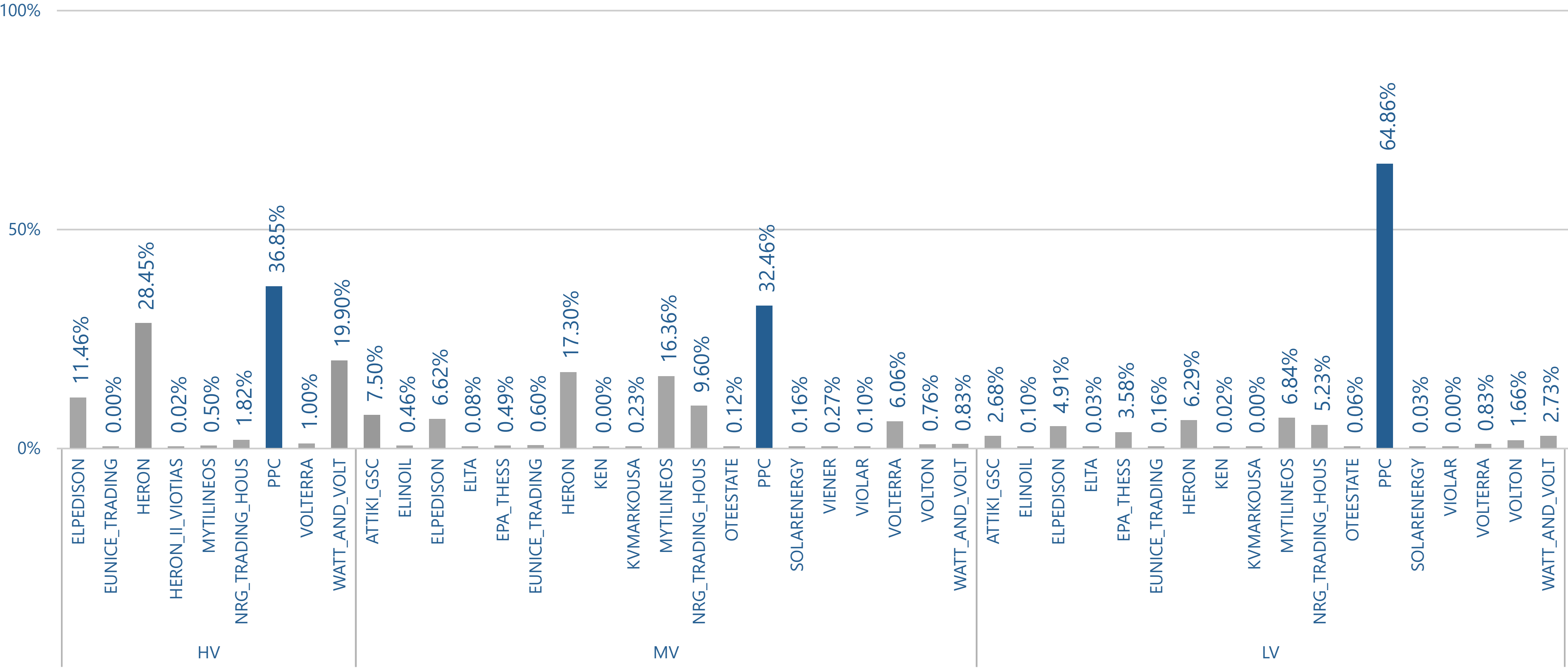
3.4 Final Market Schedule shares for domestic load per Market Participant · Mainland



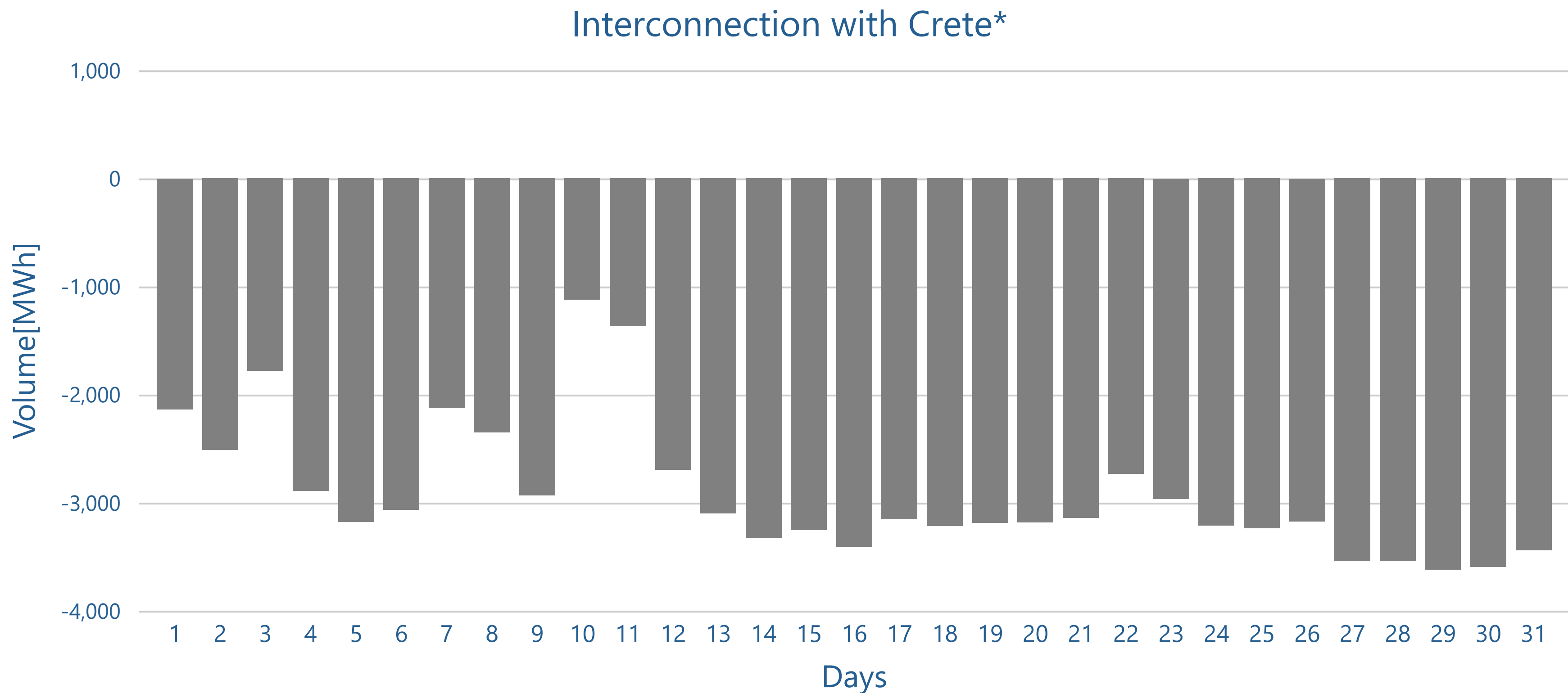
3.5 Final Market Schedule shares for domestic load per Market Participant · Crete



3.6 Final Market Schedule shares for domestic load per Market Participant at each Voltage Level · Mainland



3.7 Energy flow between Greece Mainland and Crete



*The positive figures represent energy flow from Crete to Greece mainland while negative figures represent energy flow from Greece mainland to Crete

4. Natural Gas TP

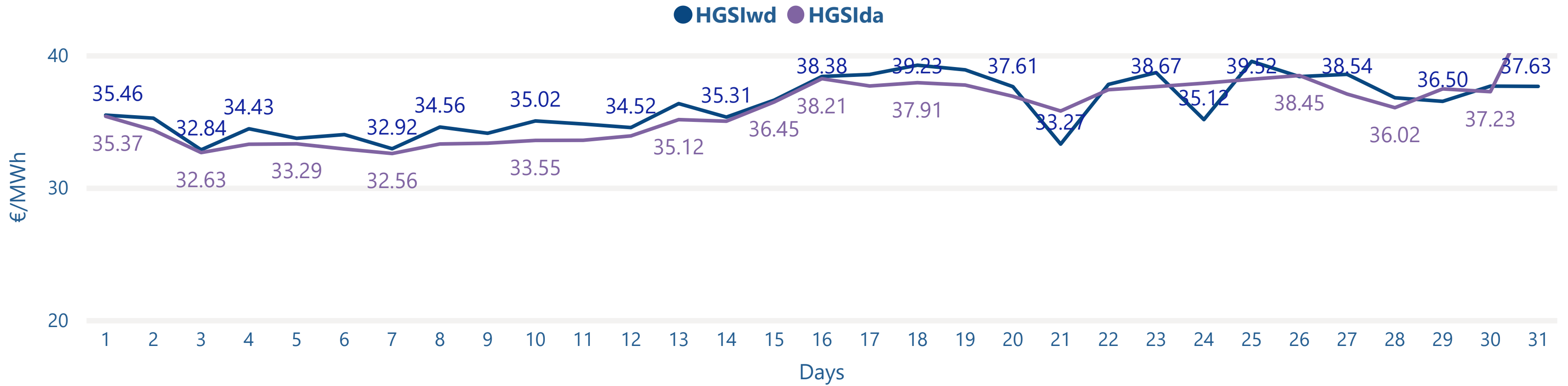
HEnEX NGAS Indices

Trading Volume per Trading Date

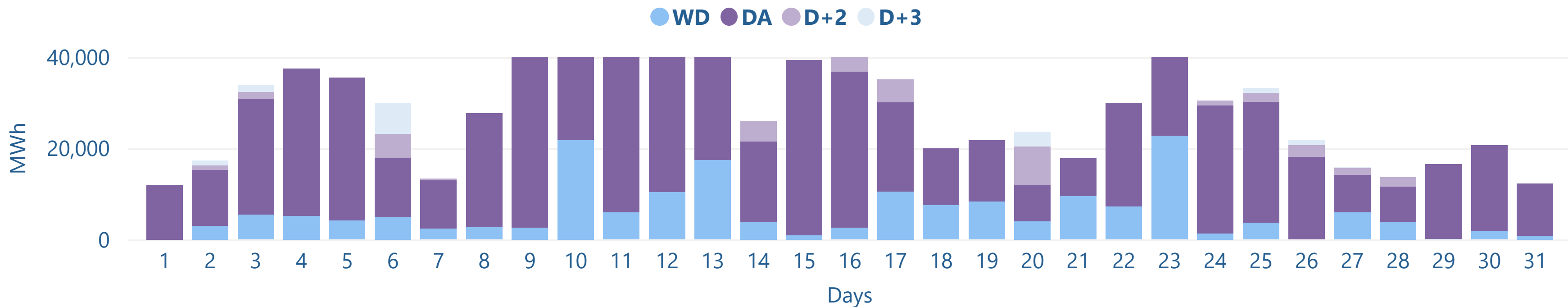
Trading Volume per Product, Session

Closing, Min & Max Prices

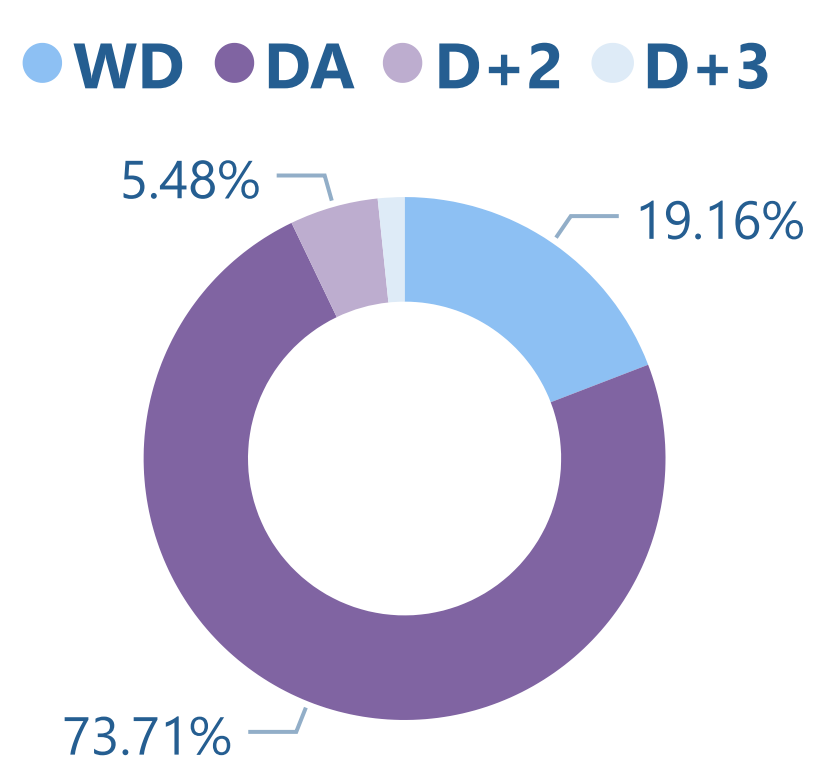
4.1 HEnEx NGAS indices



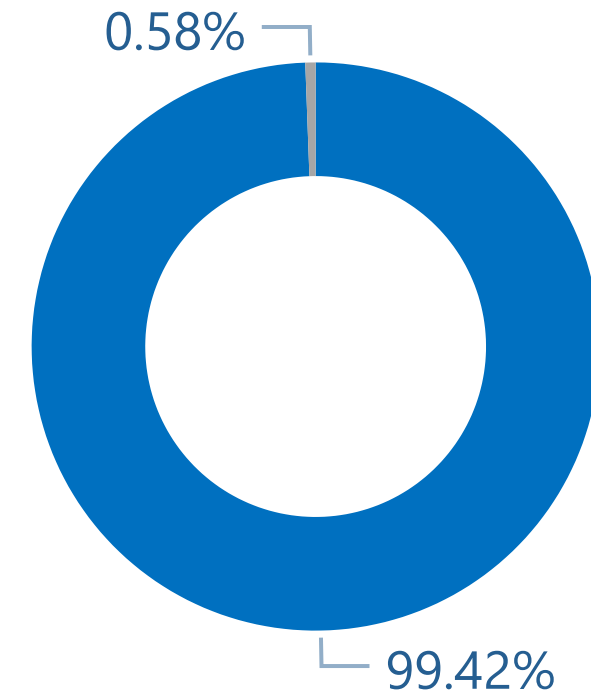
4.2 Trading Volume per Trading Day



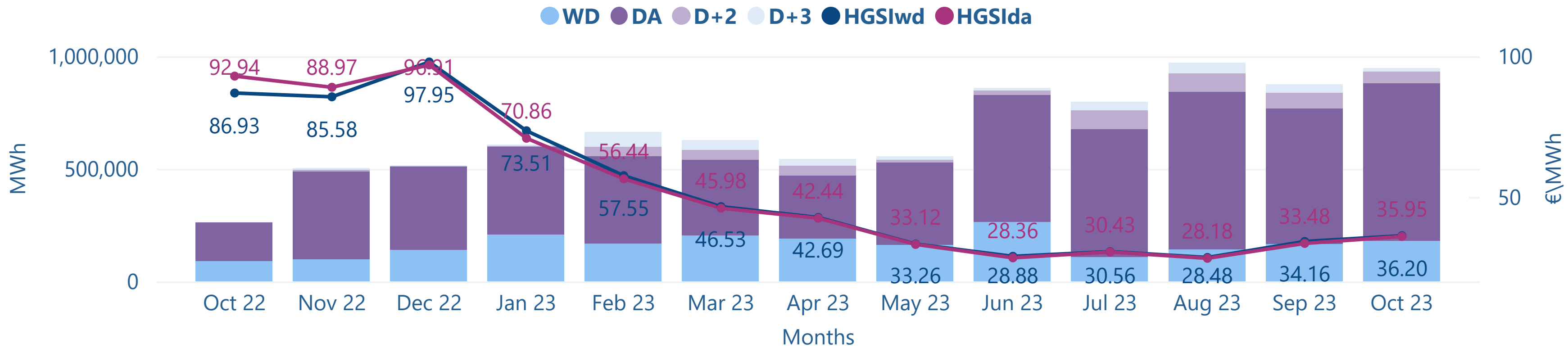
4.3 Trading Volume per Product & Session



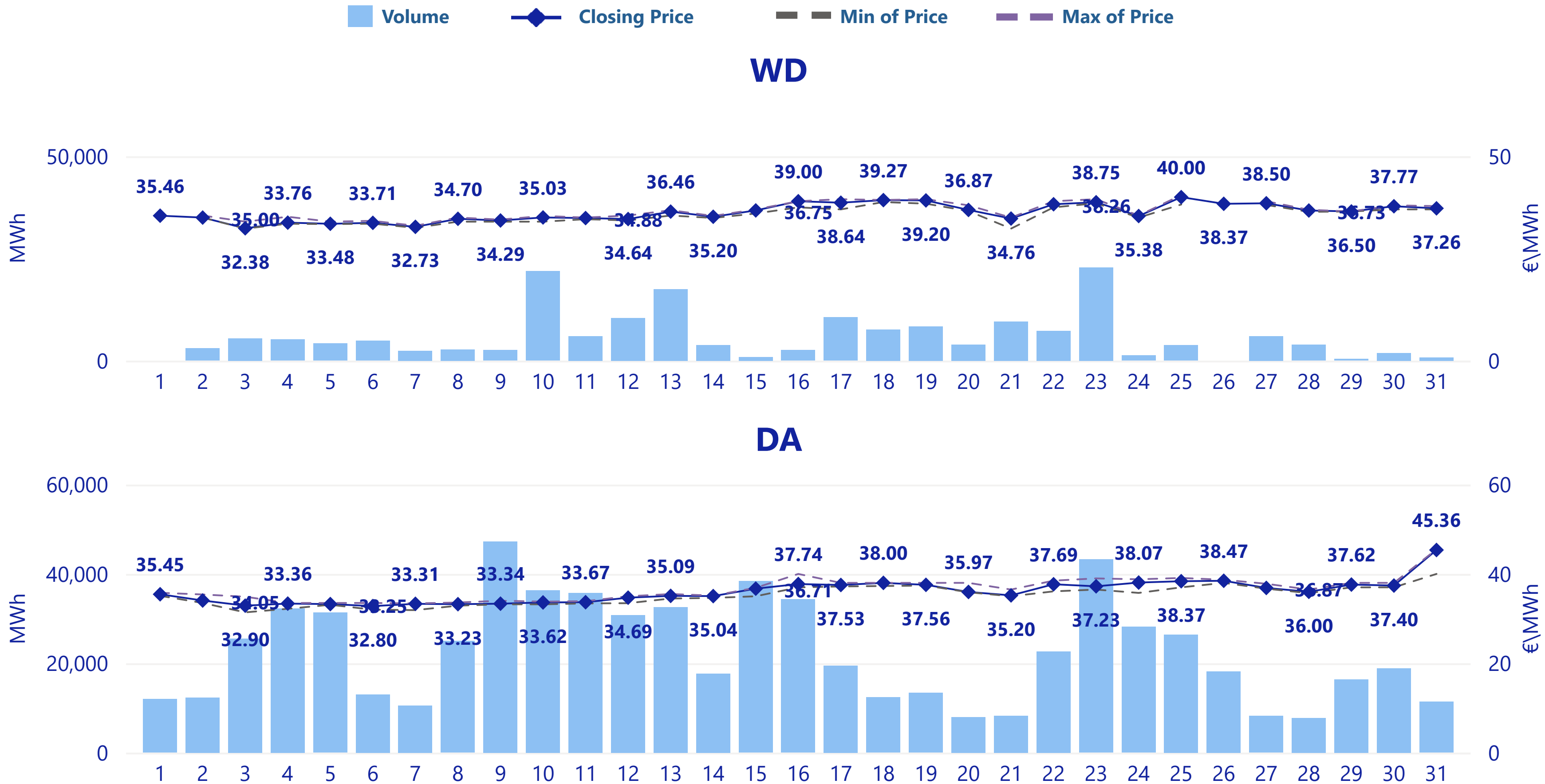
● Continuous Traded Volume ● Auction Traded Volume



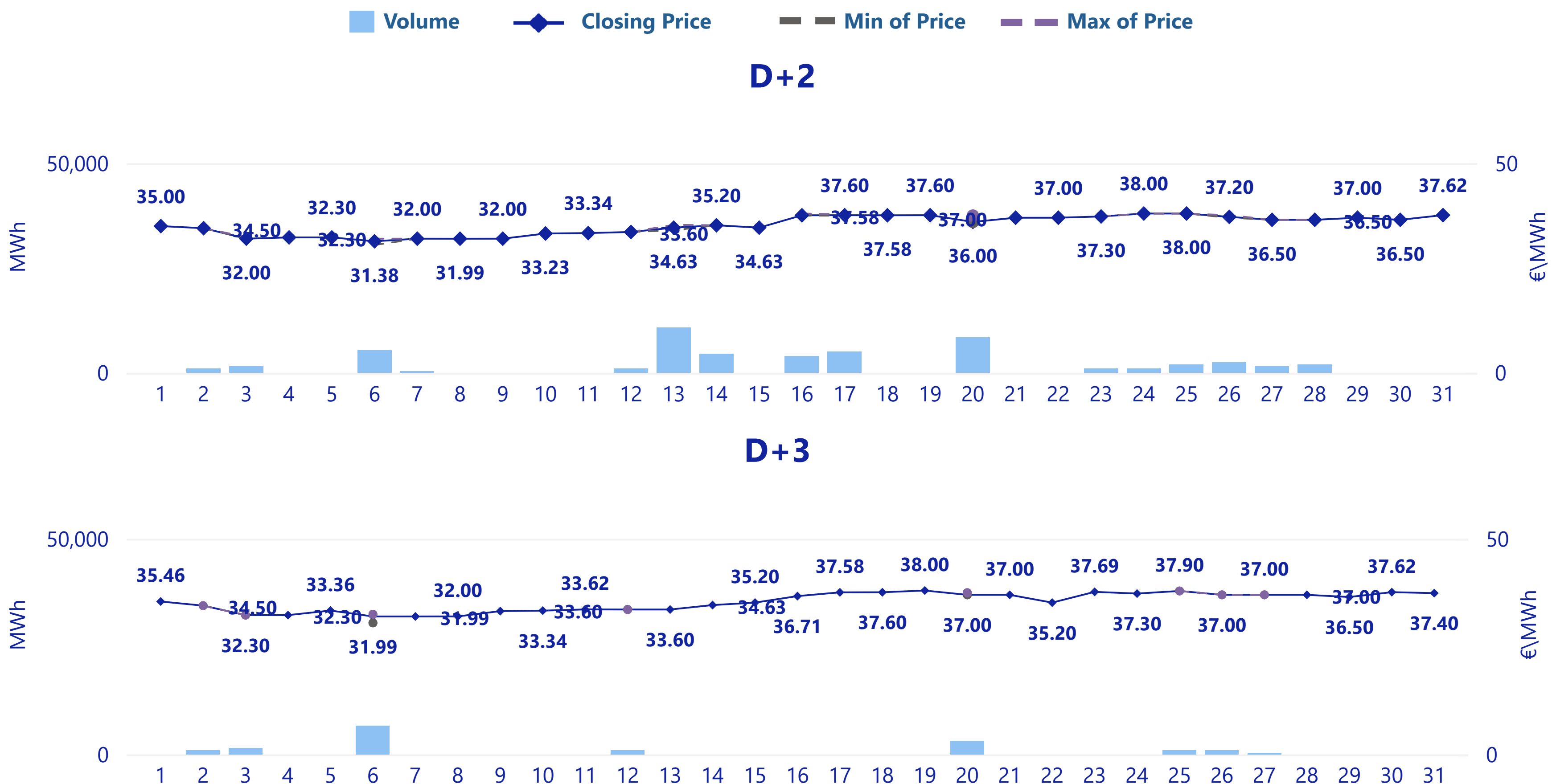
4.4 HEnEX NGAS indices and Trading Volume per Month



4.5 Volume, Closing, Min, & Max Prices per Trading Day & Product



4.5 Volume, Closing, Min, & Max Prices per Trading Day & Product



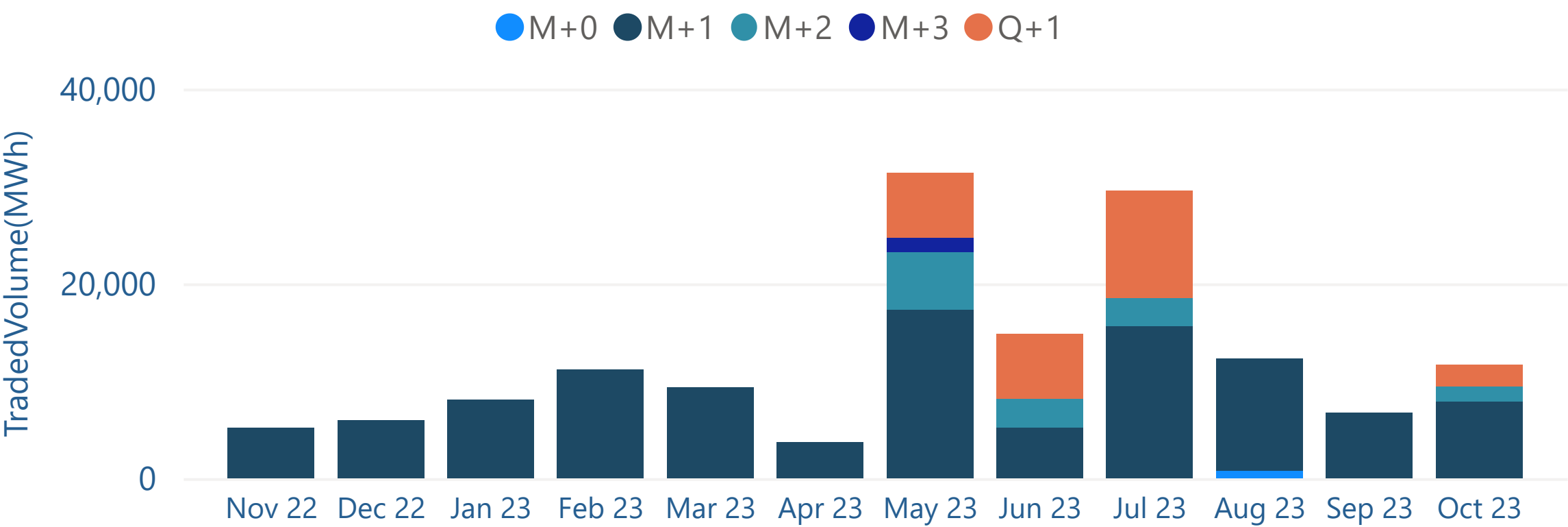
5. Derivatives Market

Traded Volume by Instrument and Month - Baseload

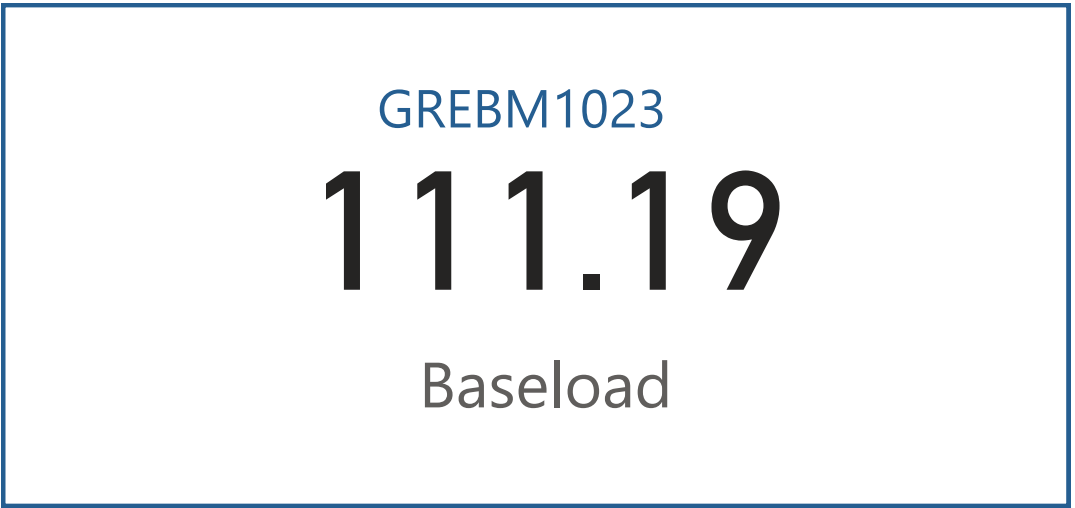
Daily Settlement prices for Baseload Instruments - Baseload

Final Settlement prices for the monthly expired traded series

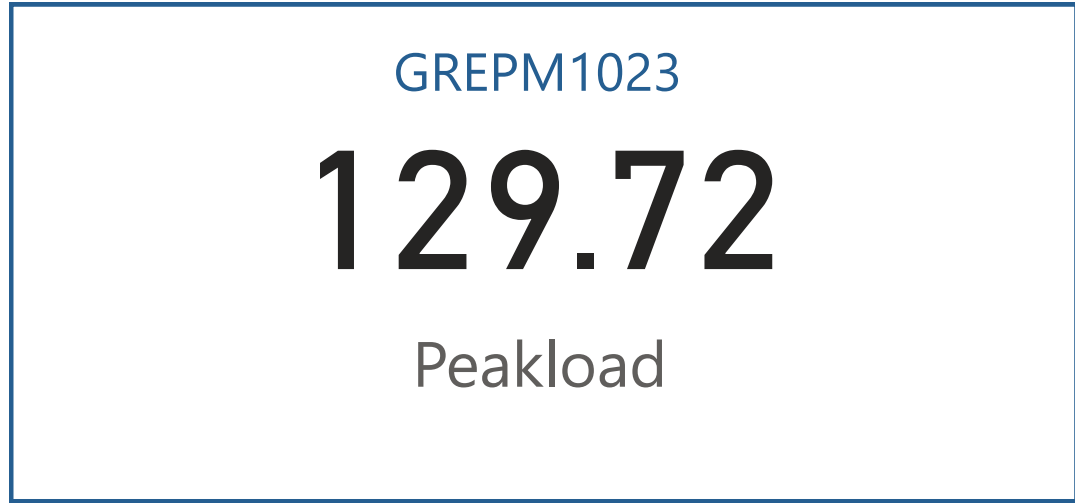
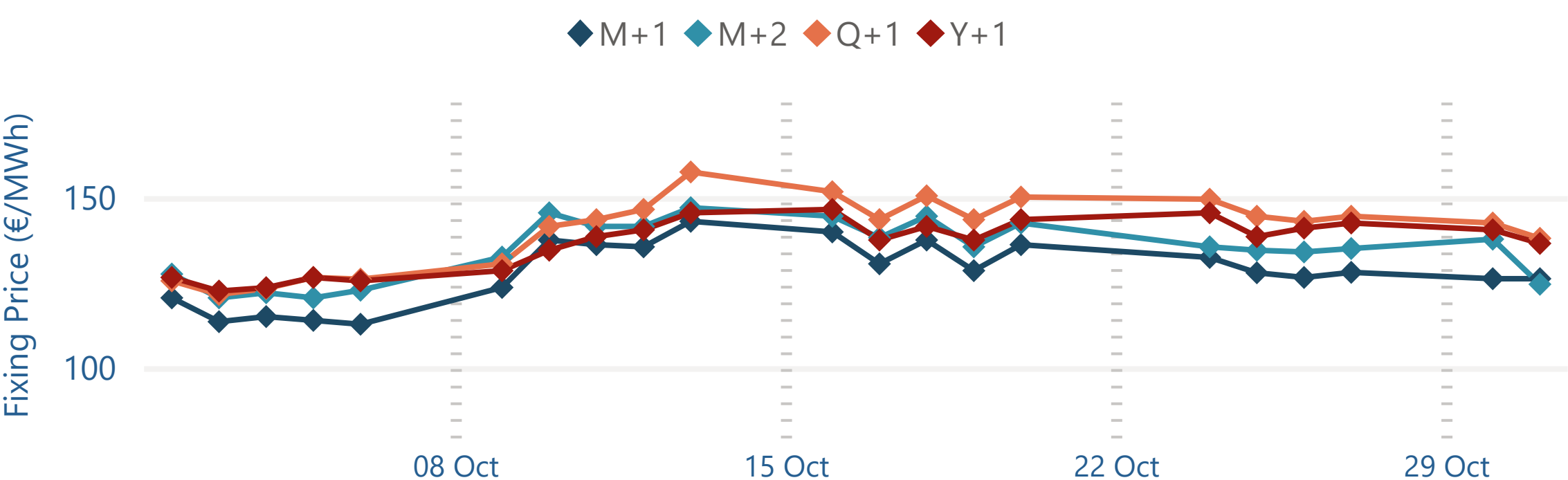
5.1 Traded Volume by Instrument and Month - Baseload



5.3 Final Settlement prices for the monthly expired traded series



5.2 Daily Fixing Prices - Baseload



6. Annex

Definitions

ACRONYM	Definition
GR BZ	Greek Bidding Zone
MCP	Market Clearing Price
NGTP	Natural Gas Trading Platform
NTC	Net Transfer Capacity

Data Sources

Figure 1.6

- 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>

Market Details

- Market Time Units of GR BZ are in CET-hr.
- Intraday Market of GR BZ consists of three Complementary Regional IntraDay Auctions (CRIDAs) and one continuous (XBID).
- The Hybrid Model for the operation of the Small Connected System (SCS) market of Crete was launched on Delivery Day 01/11/2021.
- Mainland refers to the interconnected system excluding Crete.
- There were no implicit trades on the GR-BG and GR-IT interconnection on 29/10/2023 due to partial decoupling of the Greek Bidding Zone.
- Complementary Regional Auction 1 (CRIDA1) for the Delivery Day 29/10/2023 was canceled.

Changes on Figures

Figure 3.6

- From January 2022, Figure 3.6 changed from “Final Market Schedules shares for domestic load per Voltage Level and Market Participant · Mainland” to “Final Market Schedules shares for domestic load per Market Participant at each Voltage Level · Mainland”. The reported figures were amended respectively.
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