



Monthly Report - November 2023

Electricity and NGAS Markets

Summary

Nov 2023
Oct 2023
Nov 2022

DAM

CRIDA1

CRIDA2

CRIDA3

XBID*

NGAS*



€/MWh

105.40
111.19
227.75

106.54
109.27
225.09

105.14
105.15
212.60

117.35
113.33
226.36

95.34
96.37

41.95
35.74
90.63



GWh

3,911
4,292
4,109

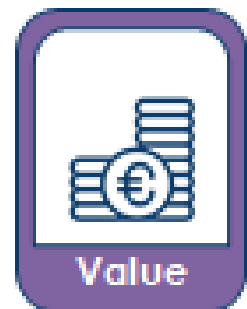
38.9
45.8
59.7

29.6
41.4
59.3

15.1
20.8
29.4

297.55
288.5

766.34
947.2
503.5



M €

424.0
482.7
973.67

4.14
5.21
13.67

3.09
4.21
13.64

1.62
2.40
7.19

28.37
27.80

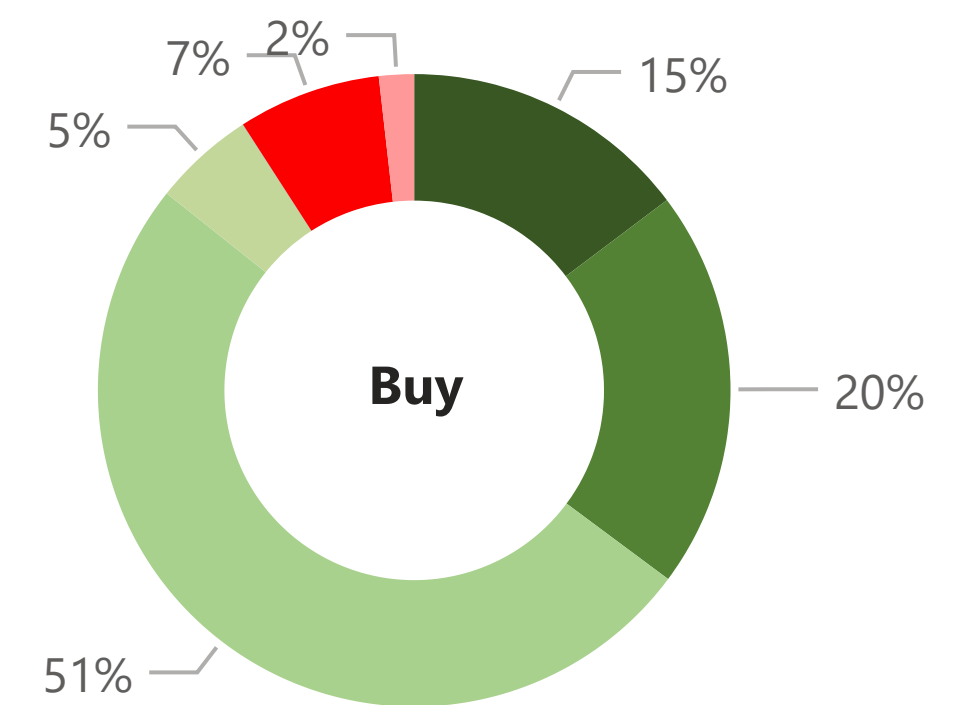
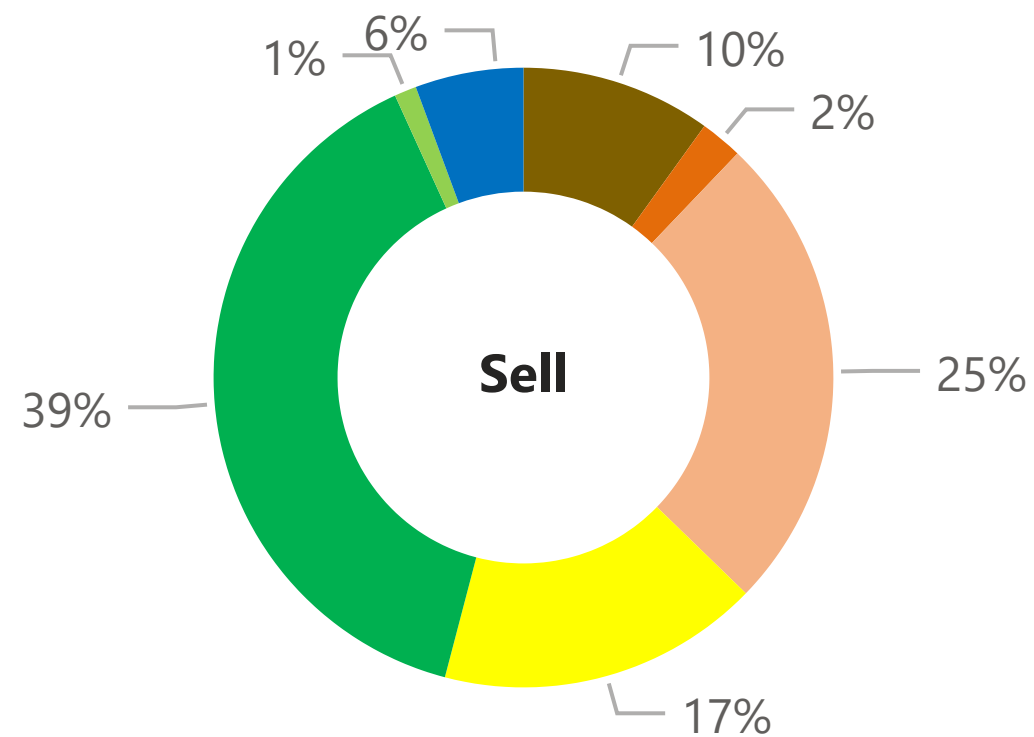
32.15
33.85
45.63

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

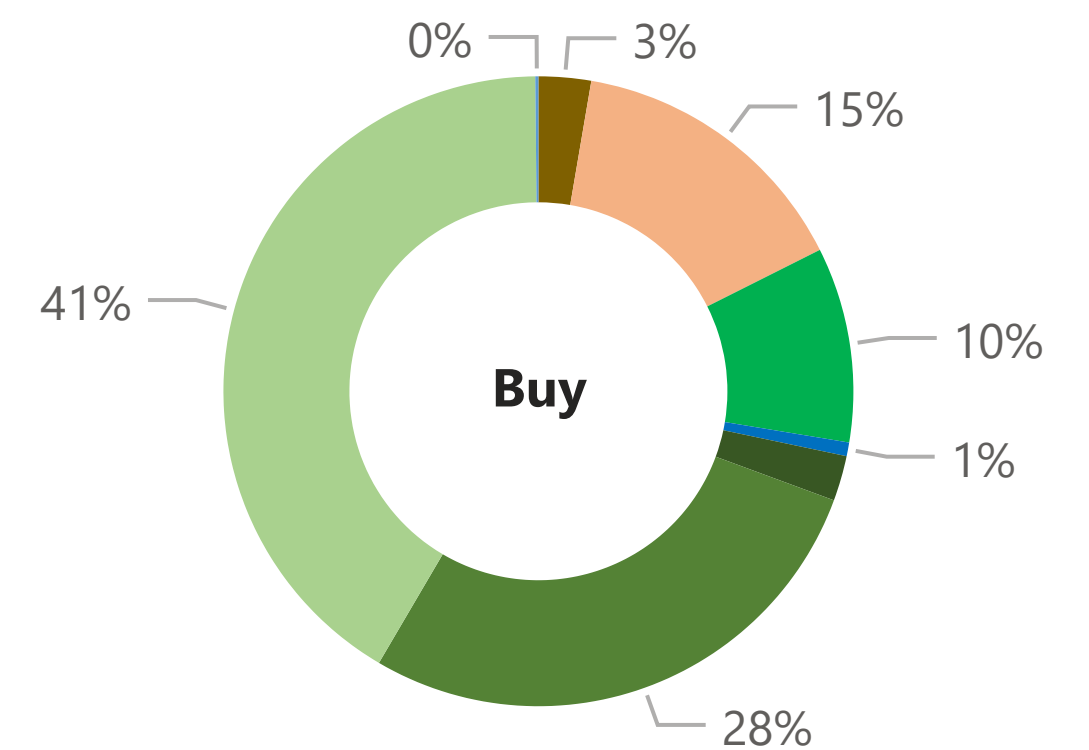
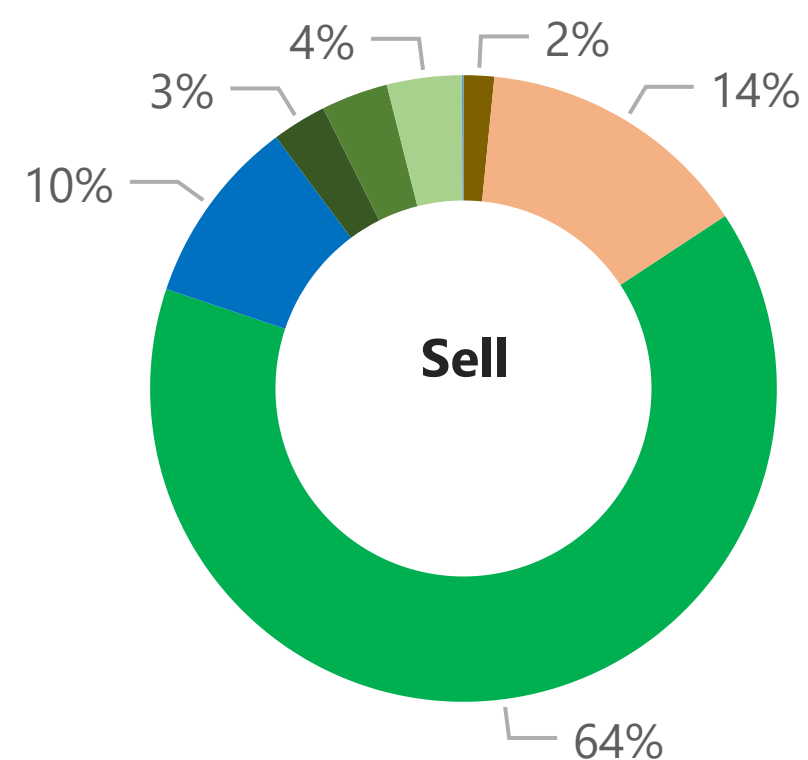
All volumes are one sided. XBID volumes are the average of all sell/buy trades.

Volume mix

DAM



IDM



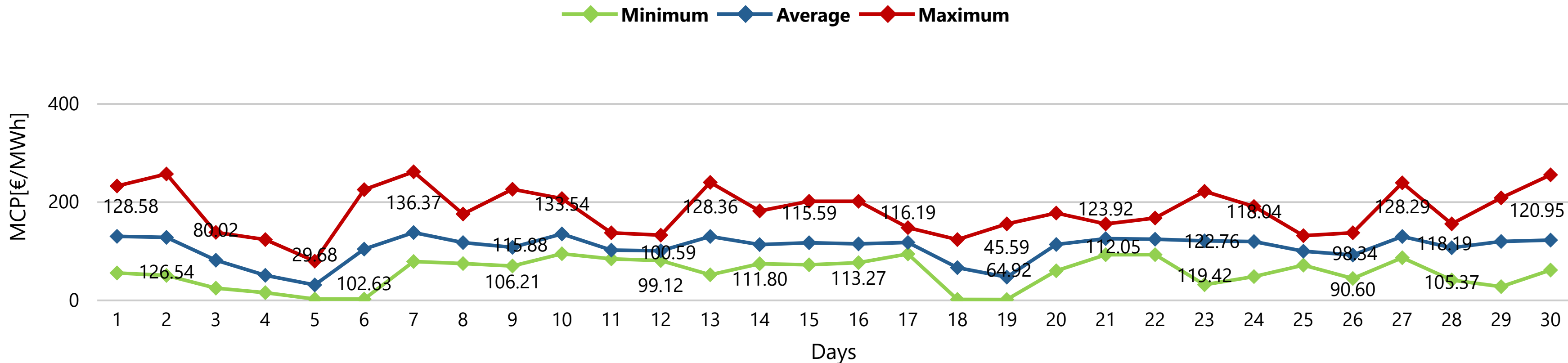
1. DAM

Market Clearing Price (MCP)

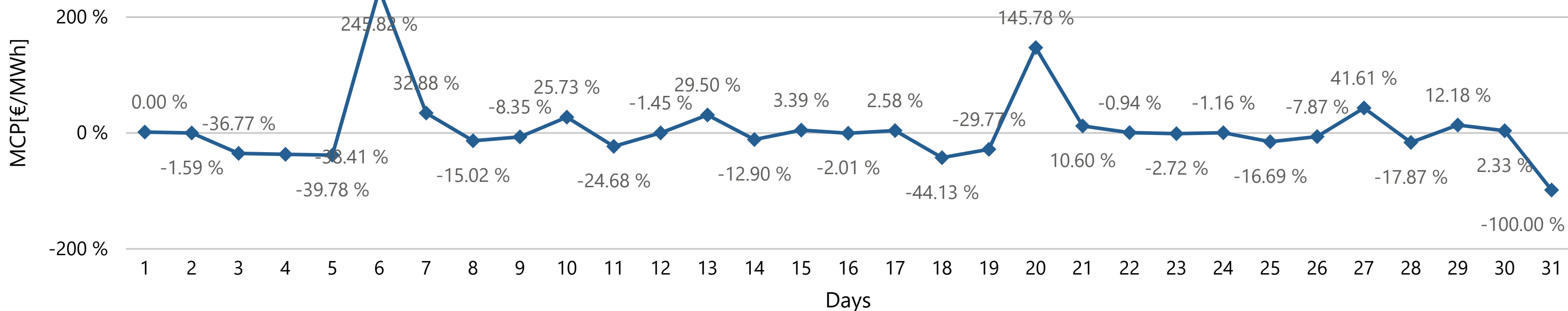
Volumes, technologies and order types

Interconnections

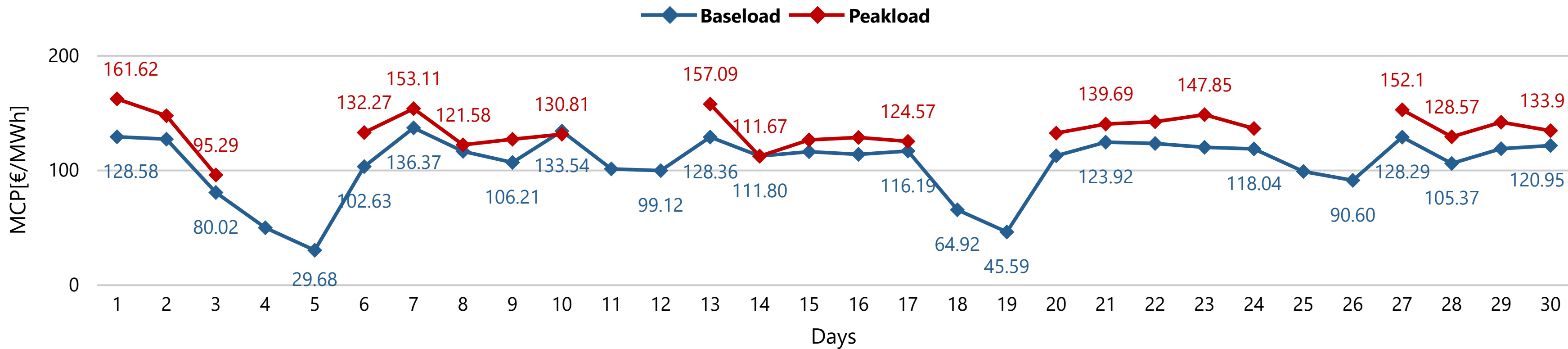
1.1 Daily MCP data of GR BZ



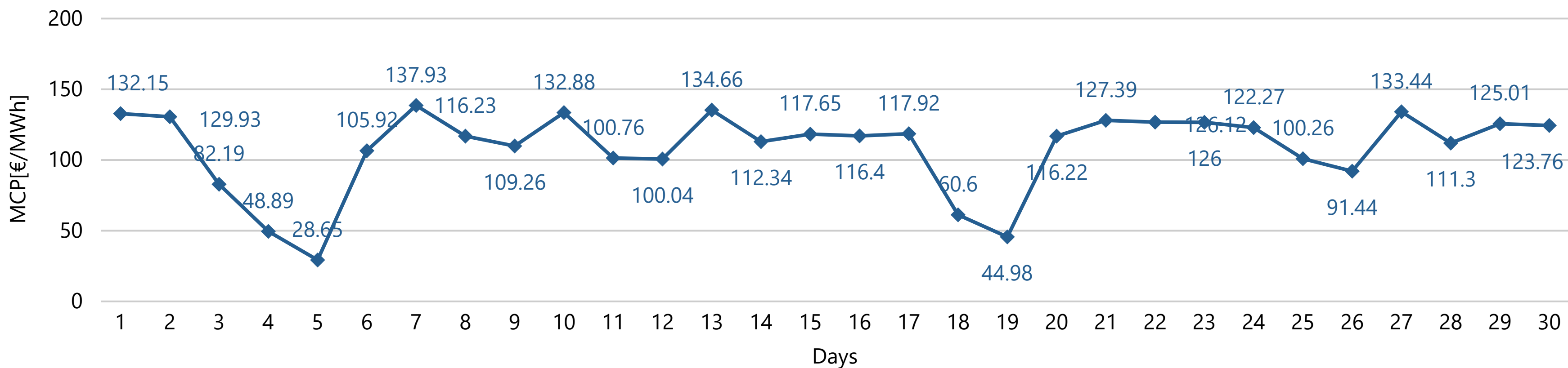
1.2 Daily percentage change in price

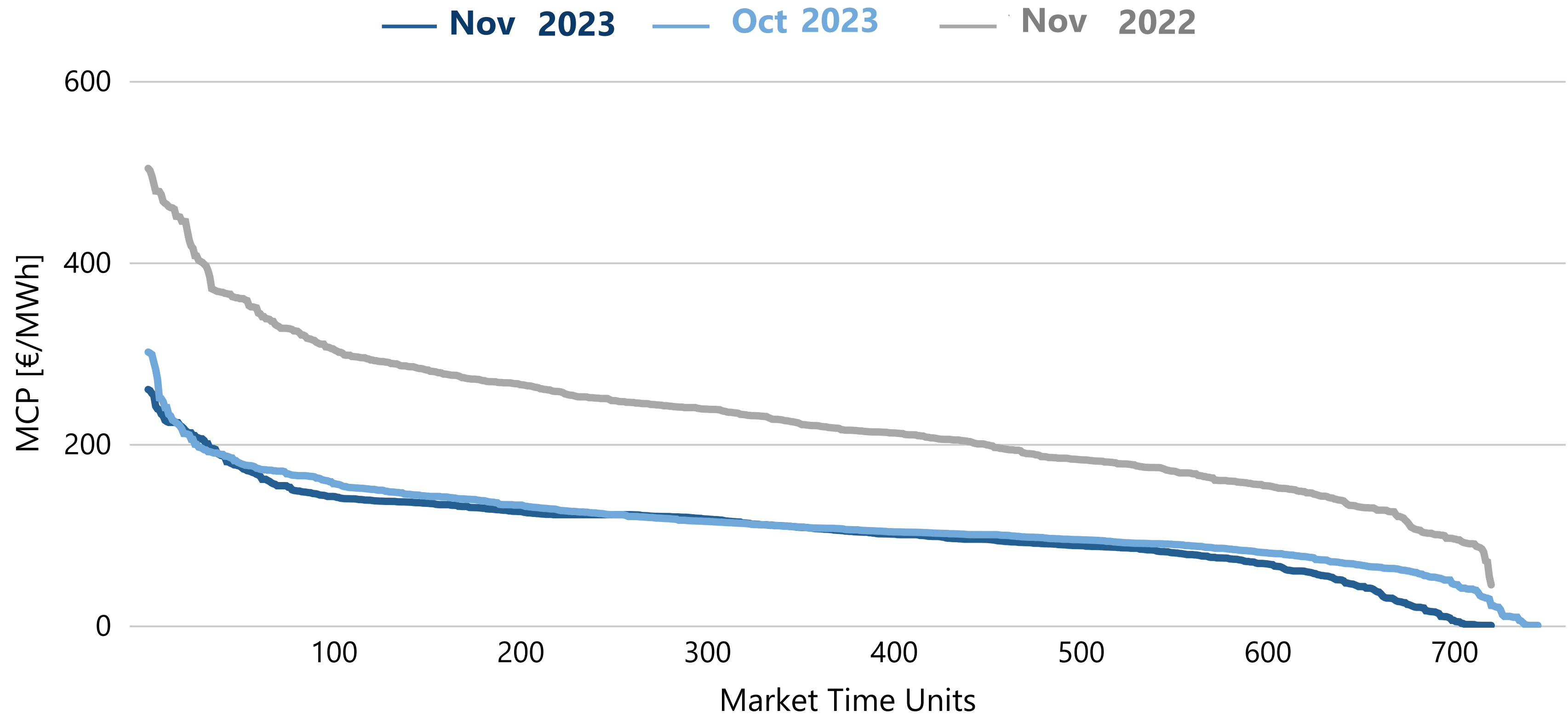


1.3 Daily average prices

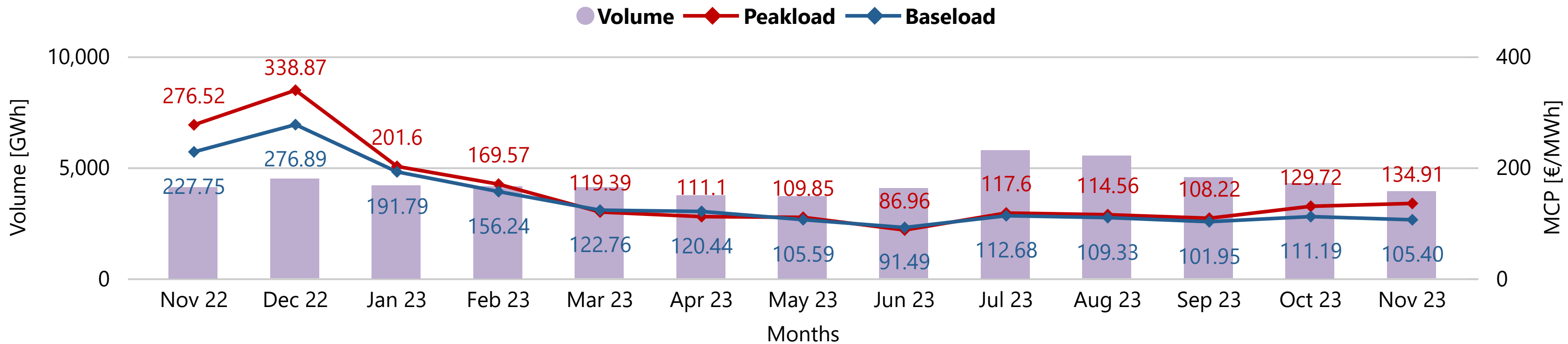


1.4 Daily weighted average baseload price

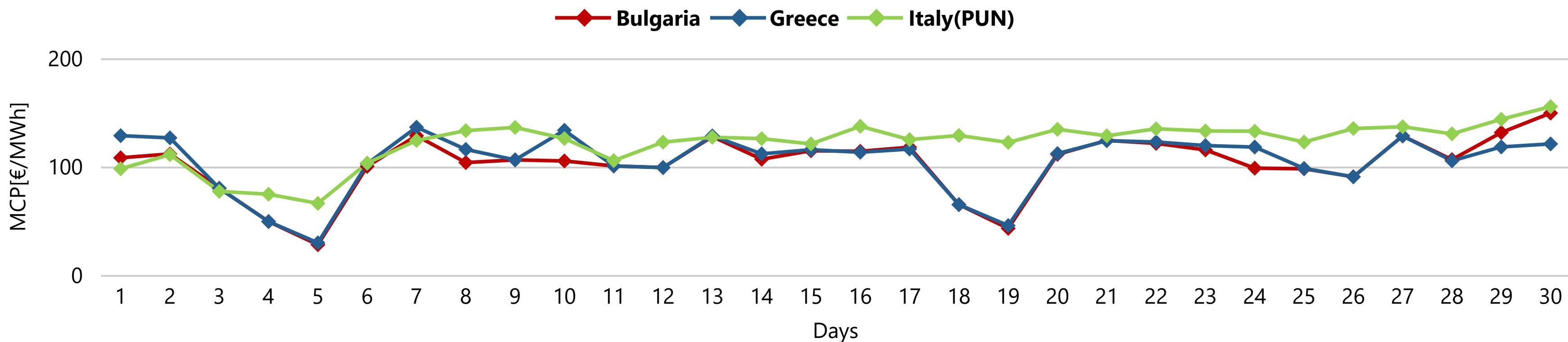


1.5 MCP duration curve

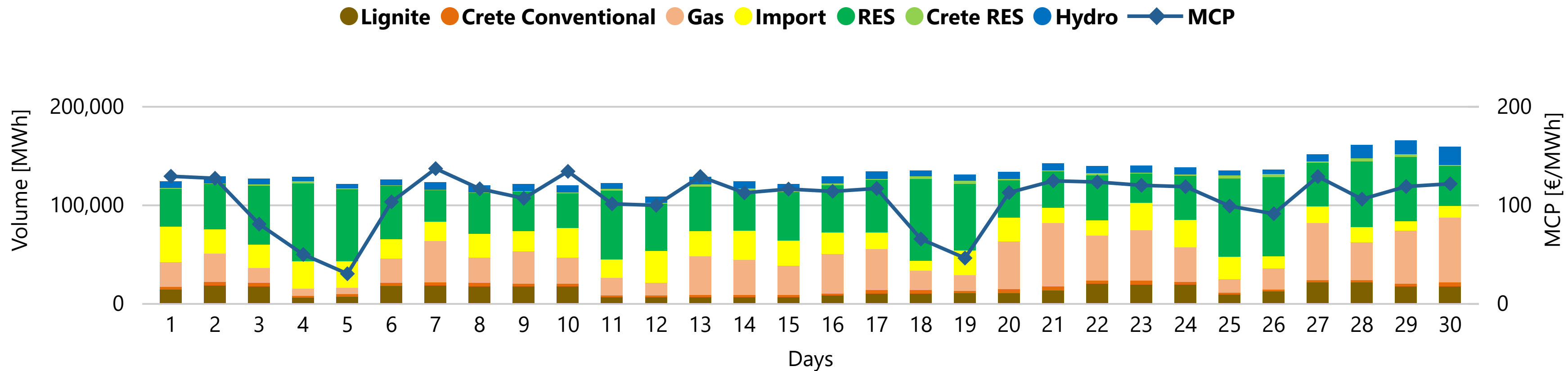
1.6 Monthly volume and average prices



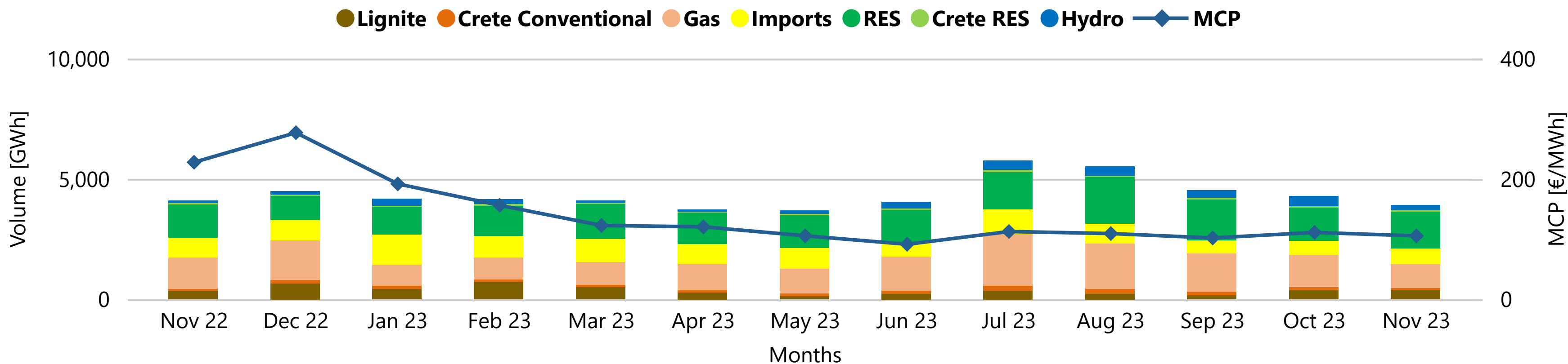
1.7 Daily average MCP of GR, IT, BG



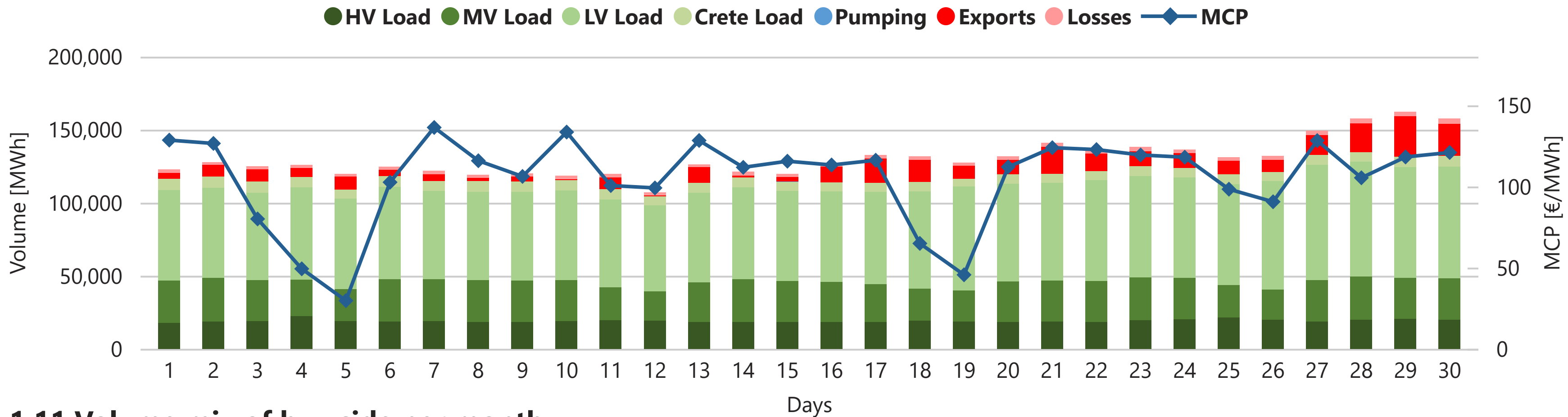
1.8 Volume mix of sell side per day



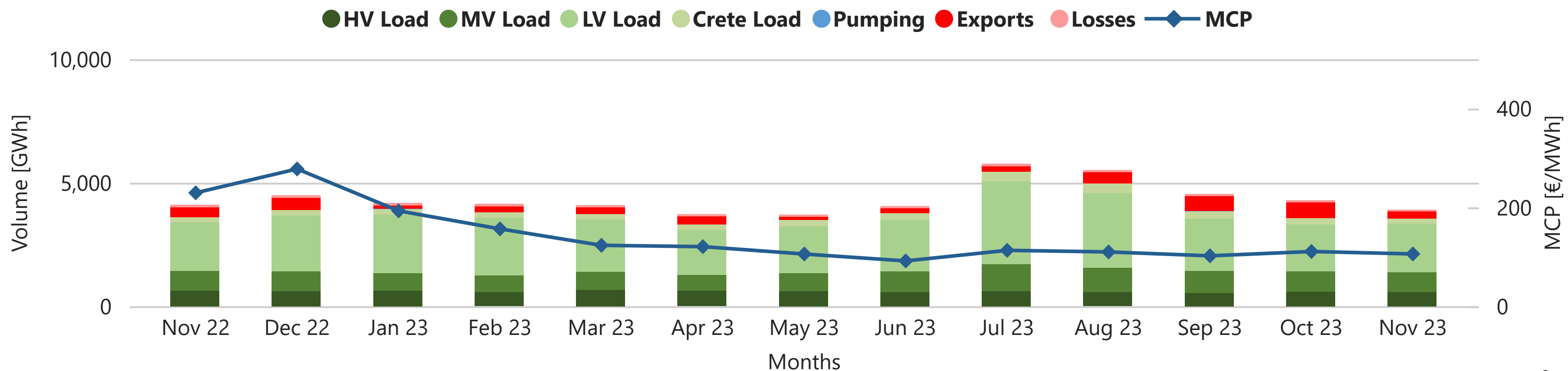
1.9 Volume mix of sell side per month



1.10 Volume mix of buy side per day



1.11 Volume mix of buy side per month

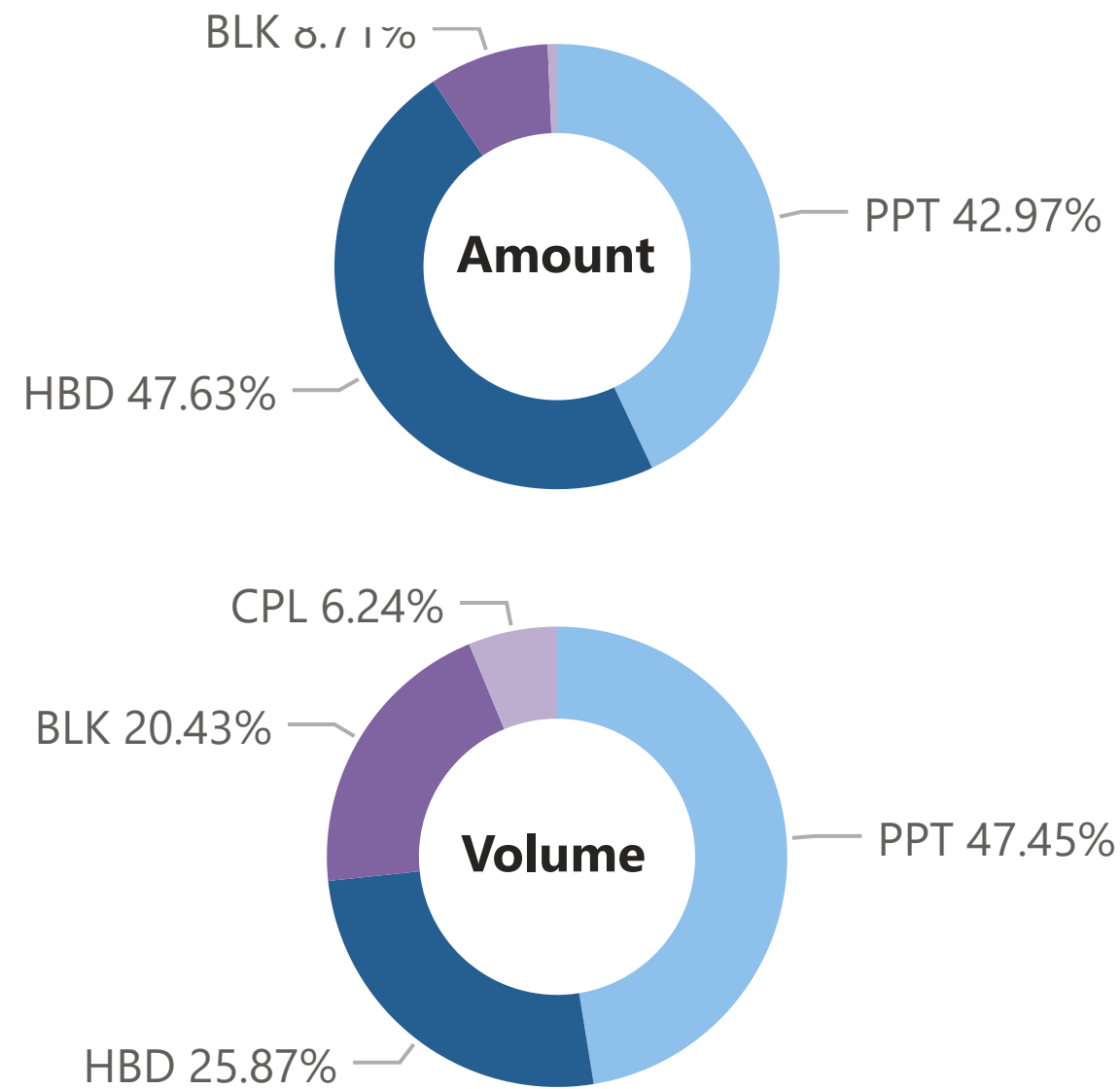


1.12 Table with MCP and volume per month

Year	Month	Minimum MCP[€/MWh]	Average MCP[€/MWh]			Maximum MCP[€/MWh]	Peakload MCP[€/MWh]			Volume [GWh]
2022	November	44.70	227.75	↘	-2%	503.55	276.52	↗	7%	4,108.86
2022	December	-0.01	276.89	↑	22%	600.10	338.87	↑	23%	4,488.37
2023	January	0.49	191.79	↓	-31%	369.17	201.60	↓	-41%	4,188.01
2023	February	1.01	156.24	↓	-19%	287.32	169.57	↓	-16%	4,149.20
2023	March	4.95	122.76	↓	-21%	224.29	119.39	↓	-30%	4,098.38
2023	April	0.18	120.44	↘	-2%	211.00	111.10	↘	-7%	3,728.37
2023	May	0.00	105.59	↓	-12%	195.07	109.85	↘	-1%	3,701.48
2023	June	0.02	91.49	↓	-13%	174.99	86.96	↓	-21%	4,053.79
2023	July	0.00	112.68	↑	23%	245.30	117.60	↑	35%	5,773.24
2023	August	0.00	109.33	↘	-3%	384.82	114.56	↘	-3%	5,516.82
2023	September	0.00	101.95	↘	-7%	362.17	108.22	↘	-6%	4,545.00
2023	October	0.00	111.19	↗	9%	301.15	129.72	↑	20%	4,291.55
2023	November	0.00	105.40	↘	-5%	259.96	134.91	↗	4%	3,911.24

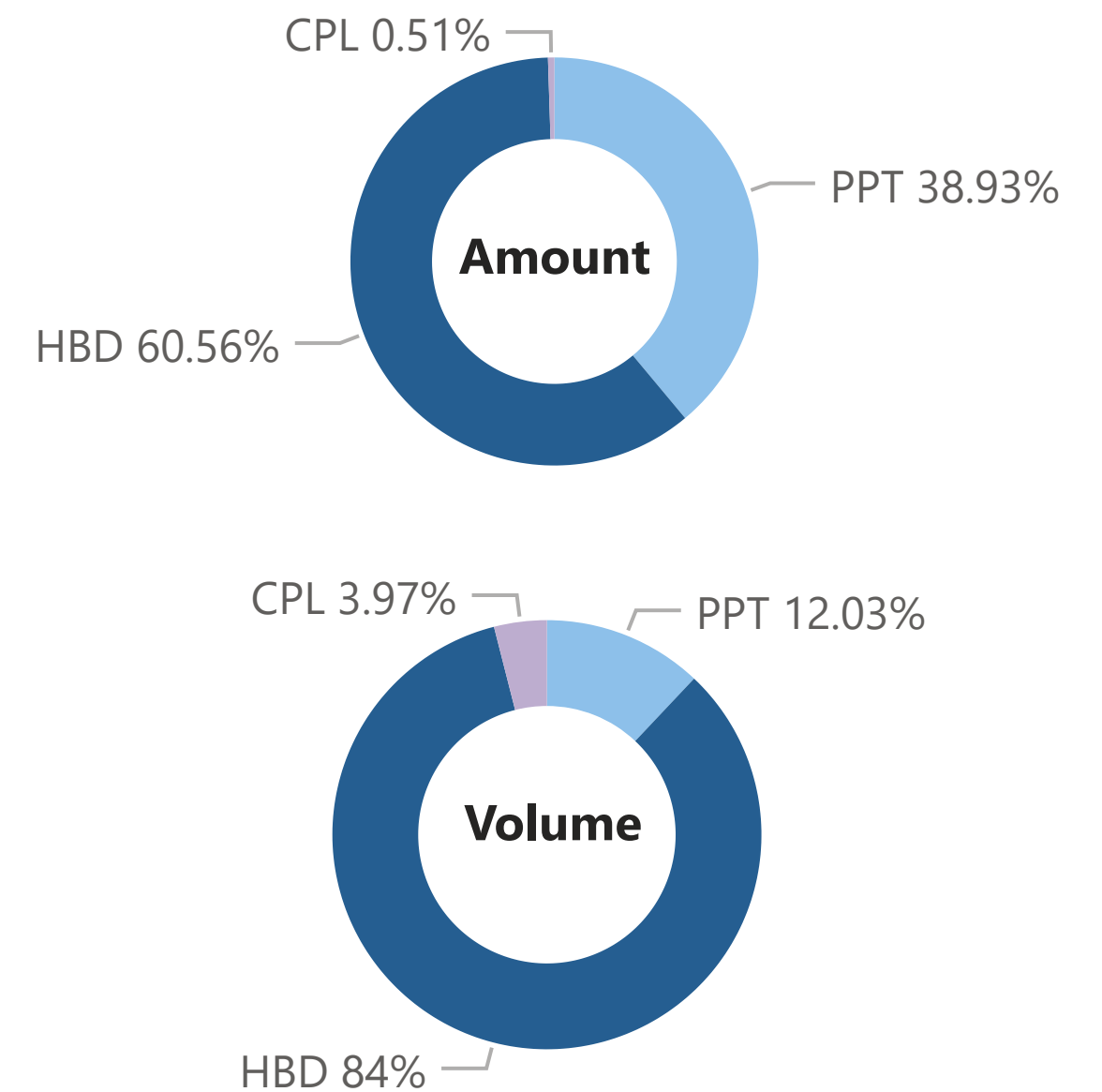
1.13 Trades per Order type

Sell Side



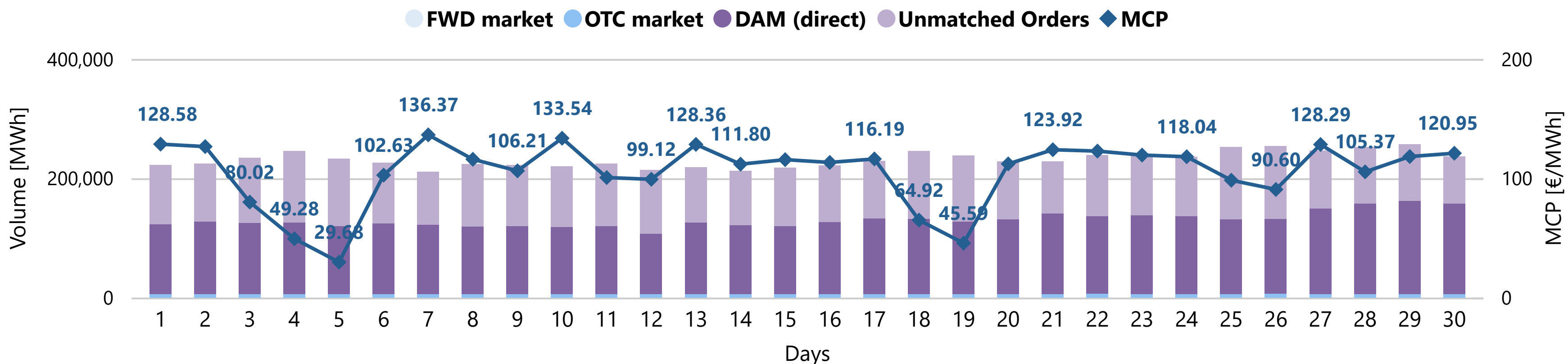
	PPT	HBD	BLK	CPL
Amount	26619	29504	5398	420
Volume [GWh]	1856	1012	799	244

Buy Side

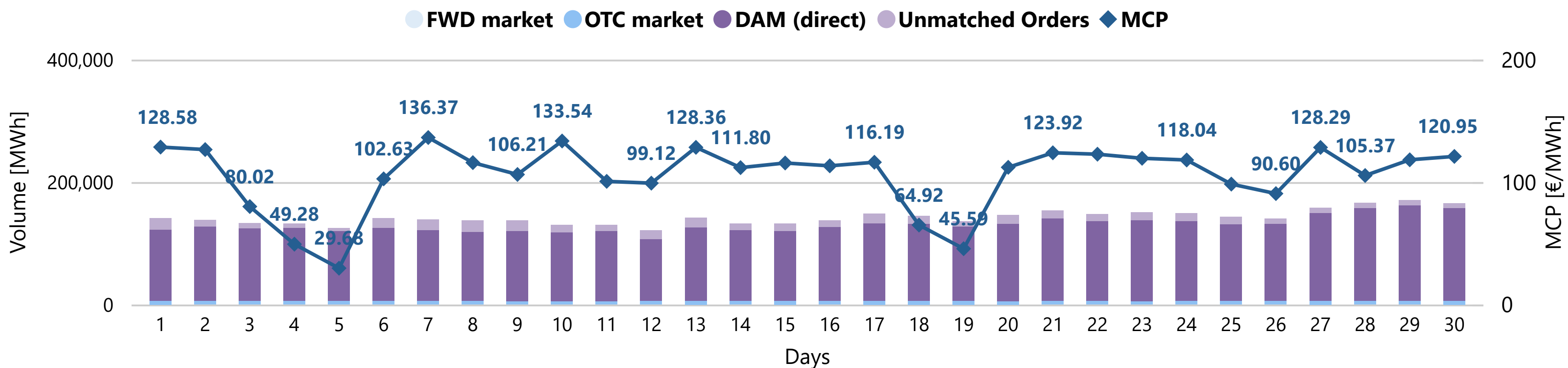


	PPT	HBD	CPL
Amount	22993	35770	300
Volume [GWh]	471	3285	155

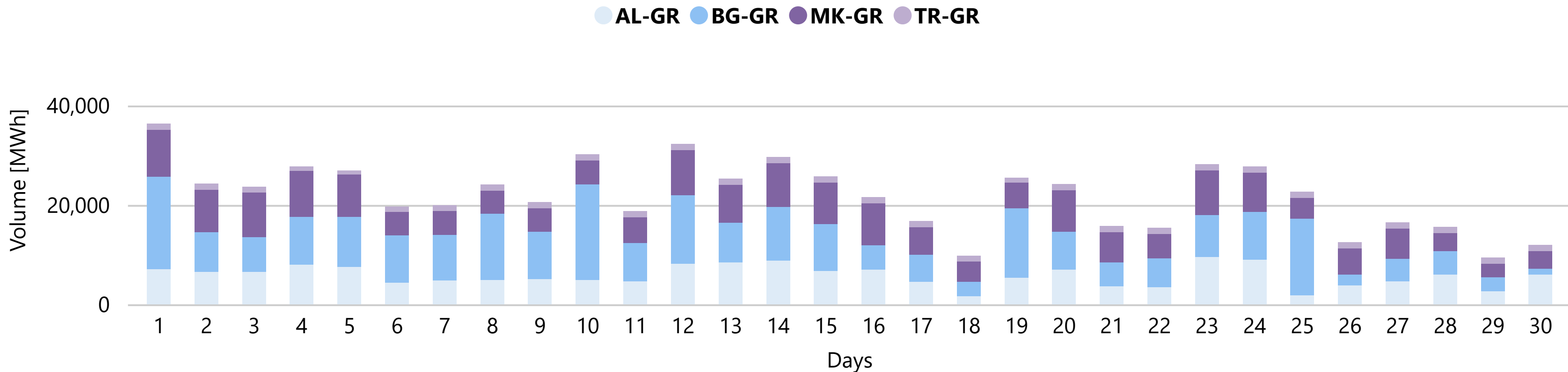
1.14 Total volume and traded volume per Market Source of sell orders



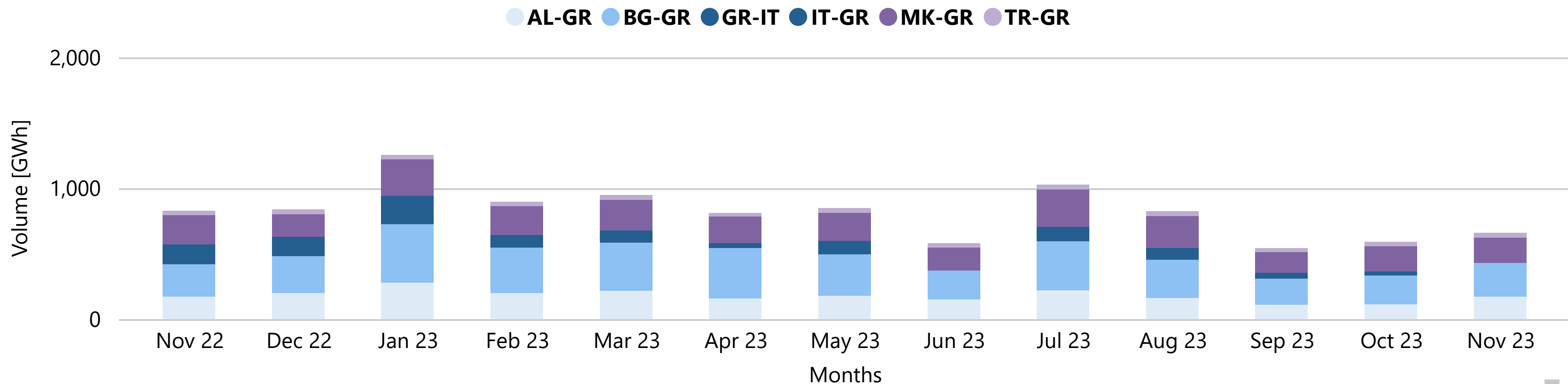
1.15 Total volume and traded volume per Market Source of buy orders



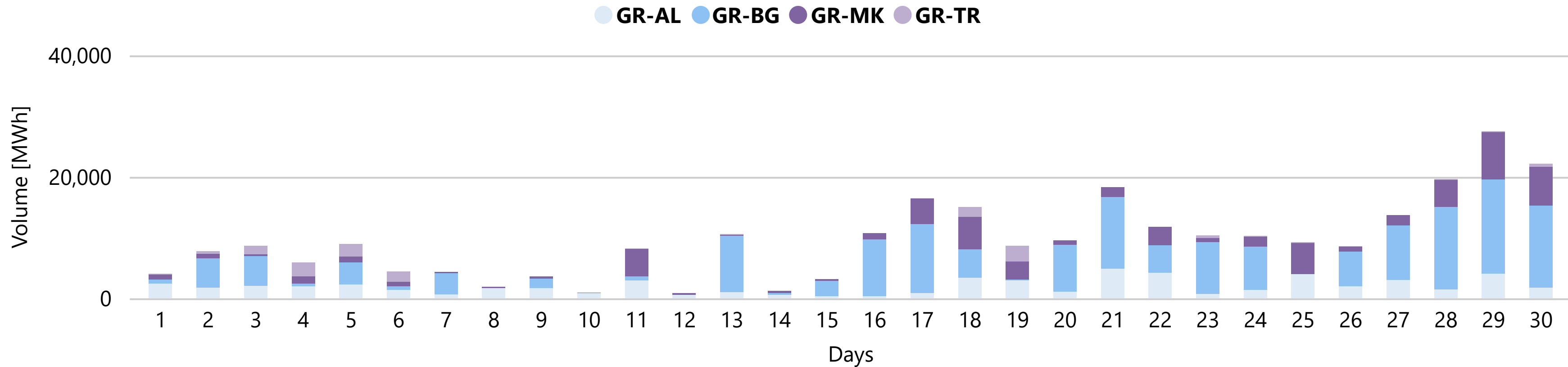
1.16 Cross Border volume · Imports per day



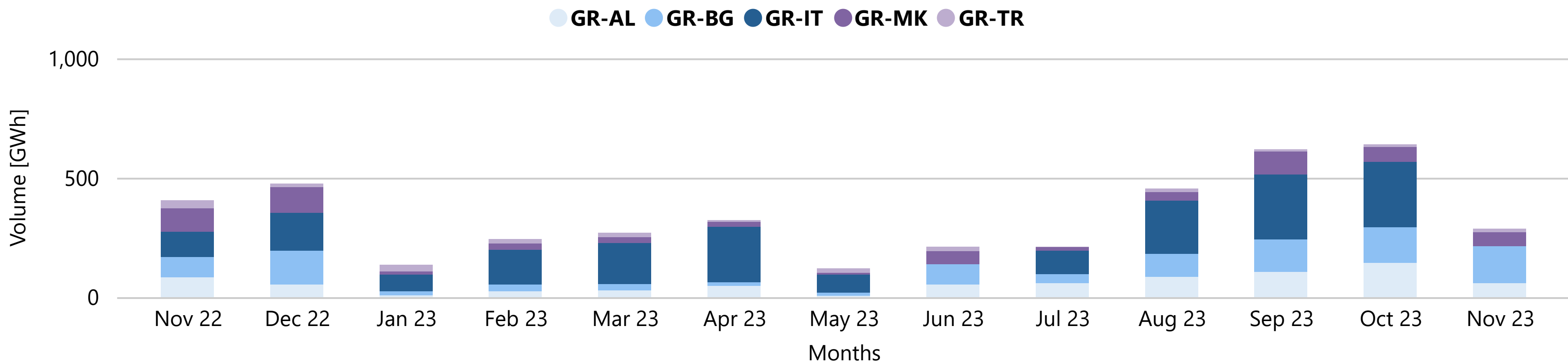
1.17 Cross Border volume · Imports per month



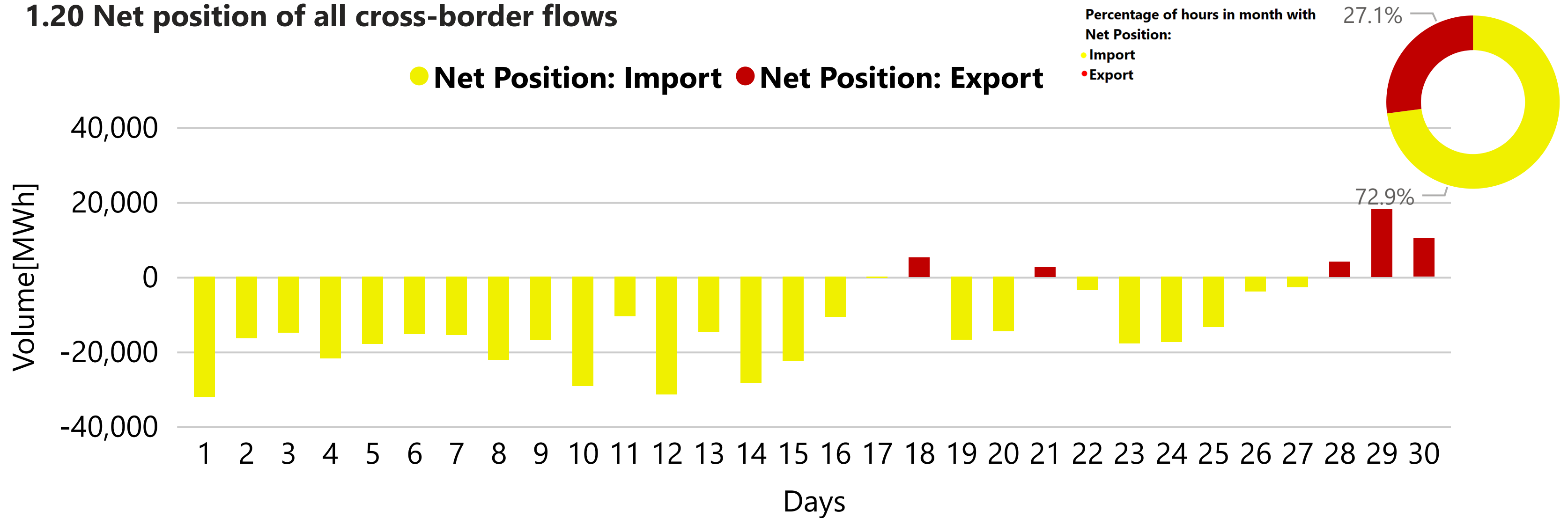
1.18 Cross Border volume · Exports per day



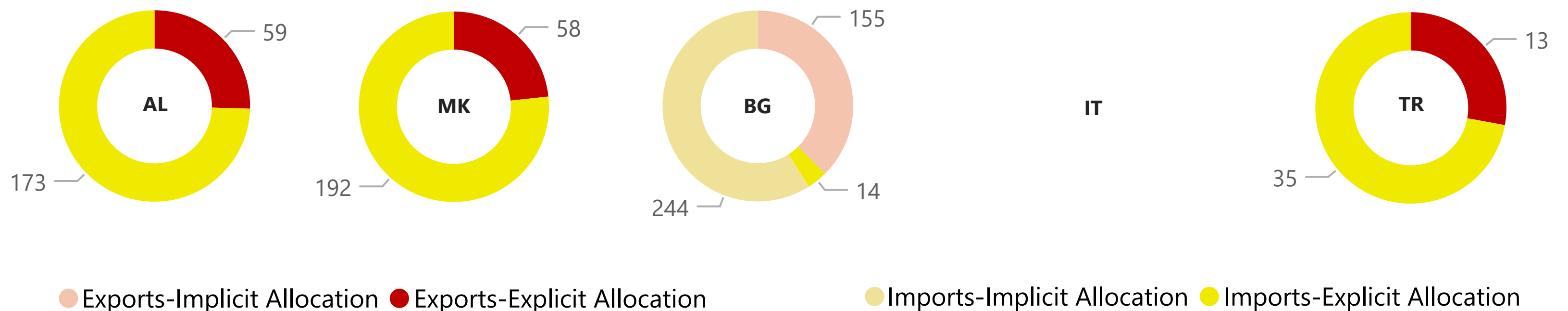
1.19 Cross Border volume · Exports per month



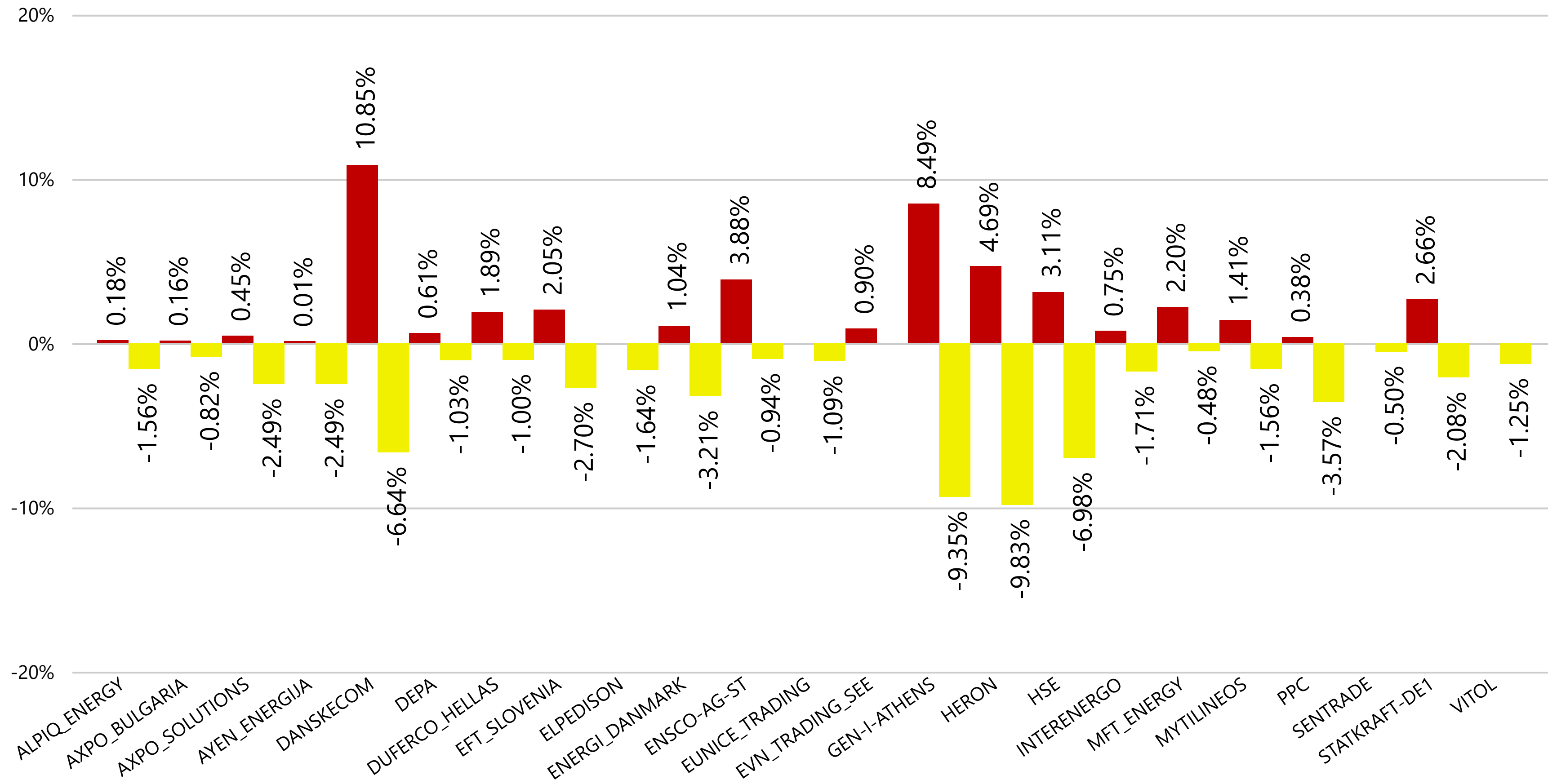
1.20 Net position of all cross-border flows



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

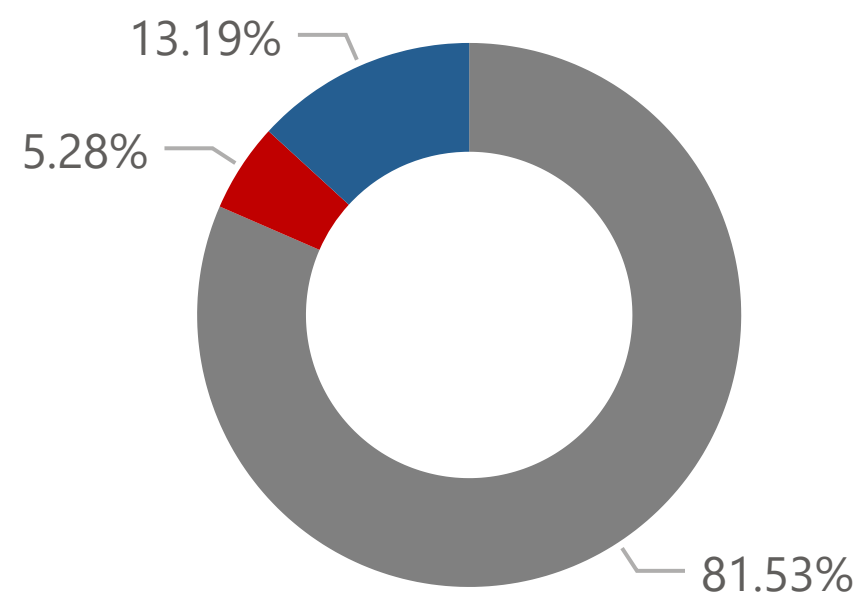
Exports - Implicit Allocation Exports - Explicit Allocation



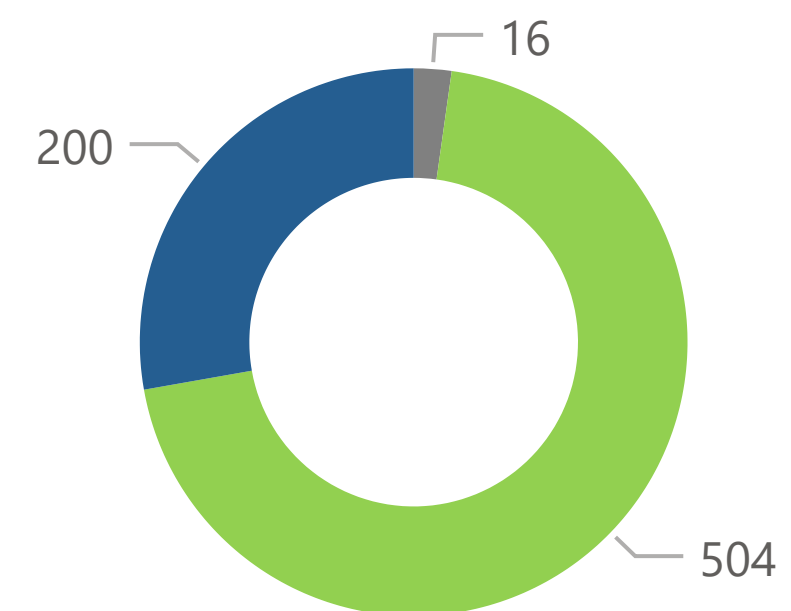
Imports - Implicit Allocation Imports - Explicit Allocation



1.24 Price Coupling Data

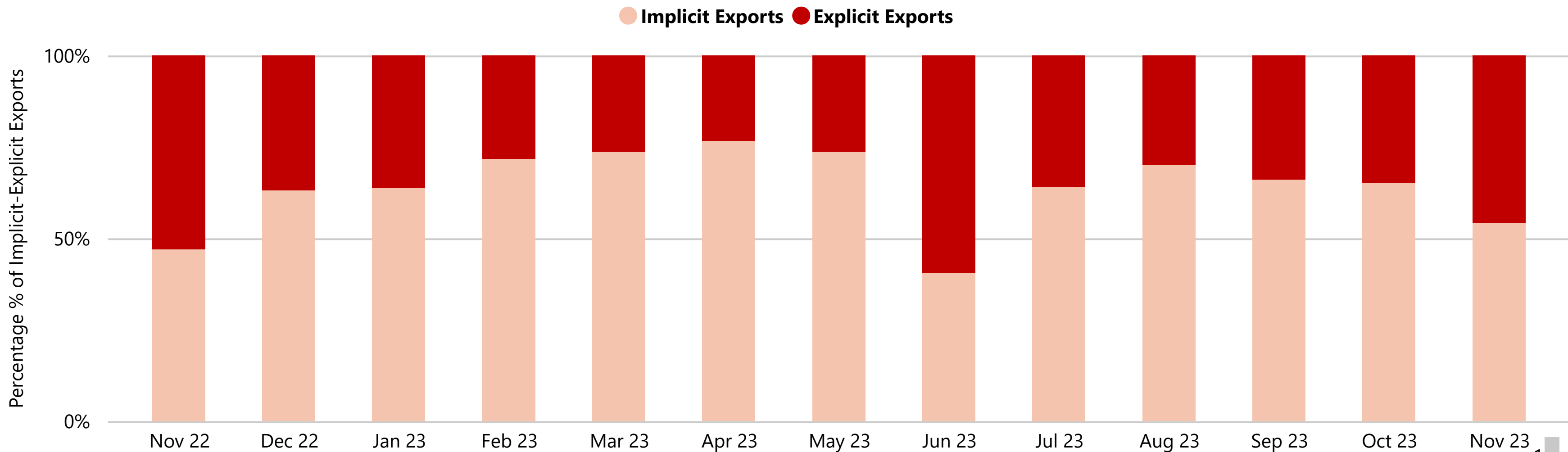
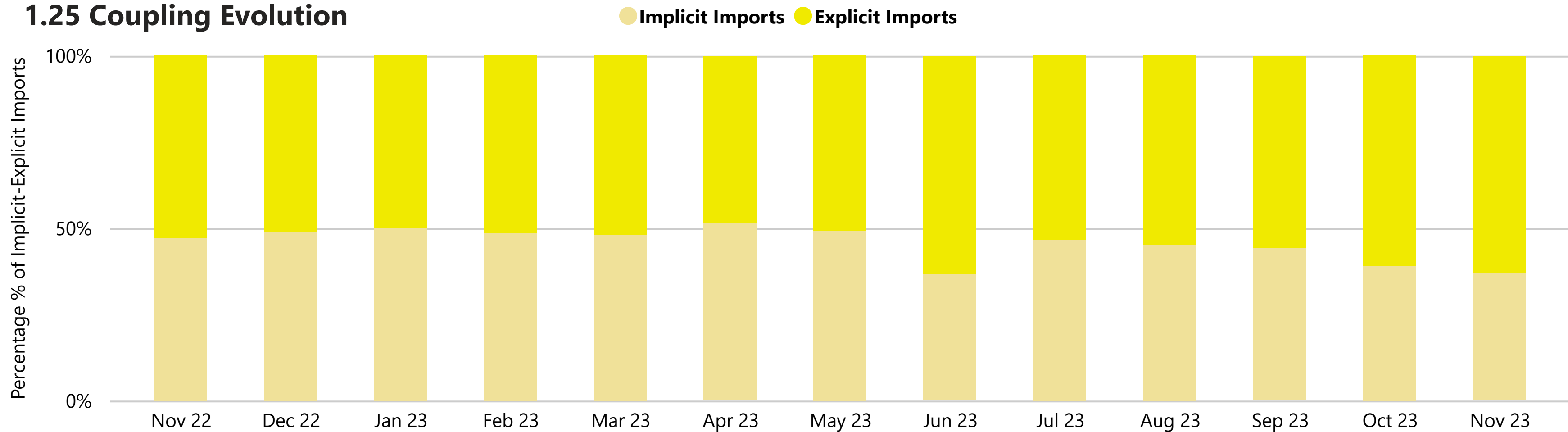


MTUs GR = BG MTUs GR < BG MTUs GR > BG



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

1.25 Coupling Evolution

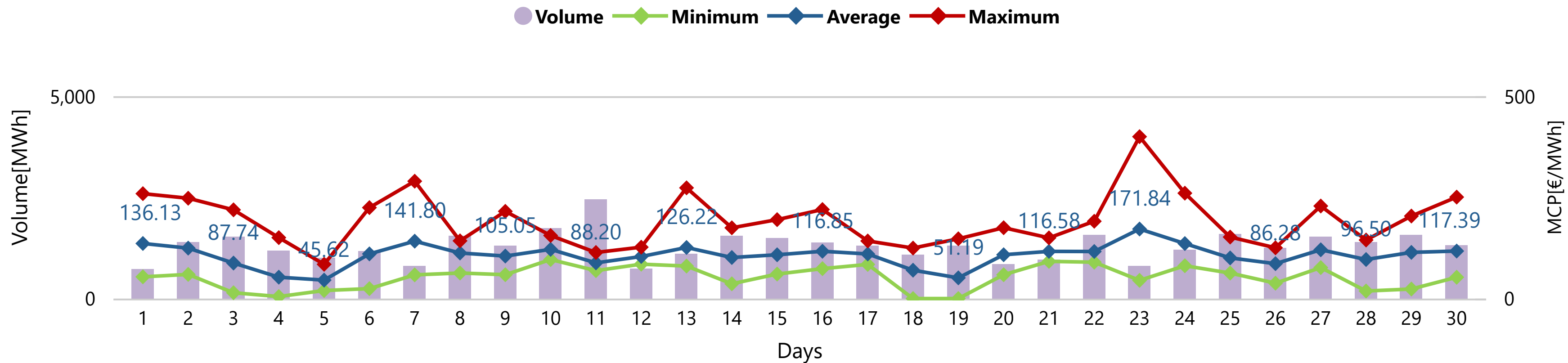


2. IDM

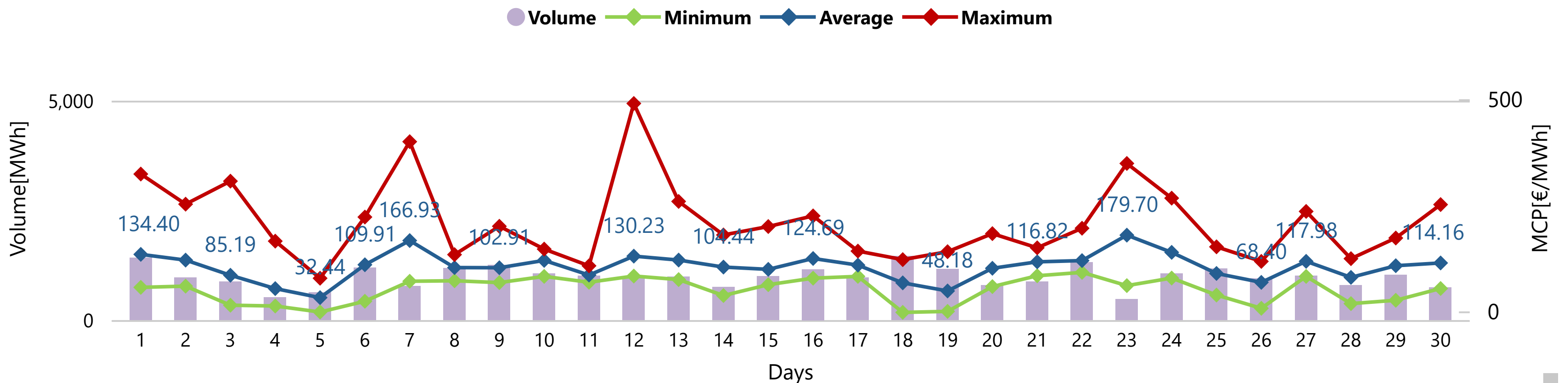
Market Clearing Prices (MCP)

Volumes, technologies and order types

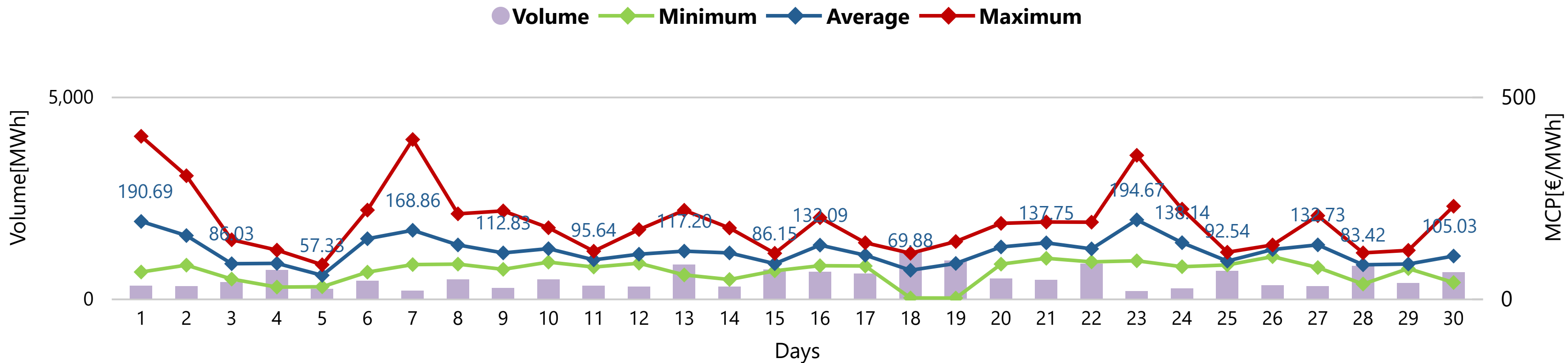
2.1 Daily MCP and Volume •CRIDA1



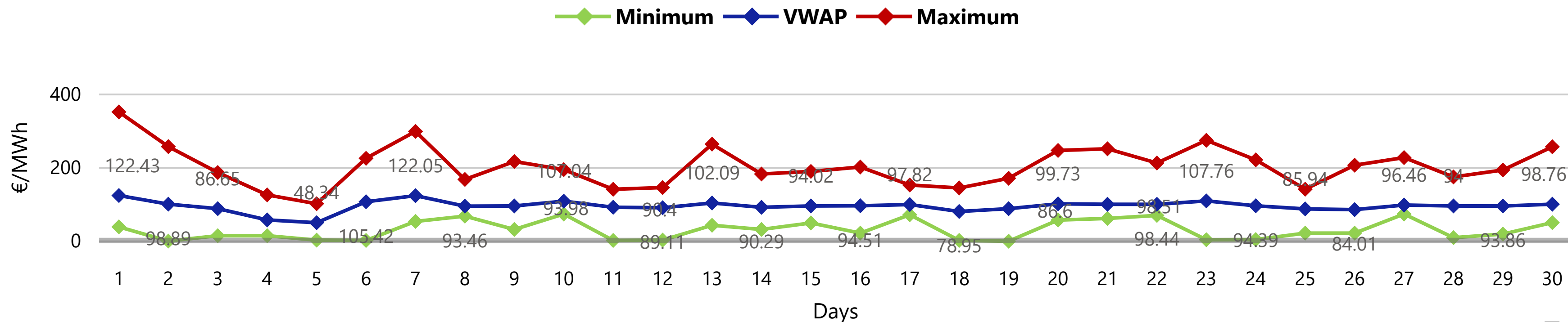
2.2 Daily MCP and Volume •CRIDA2



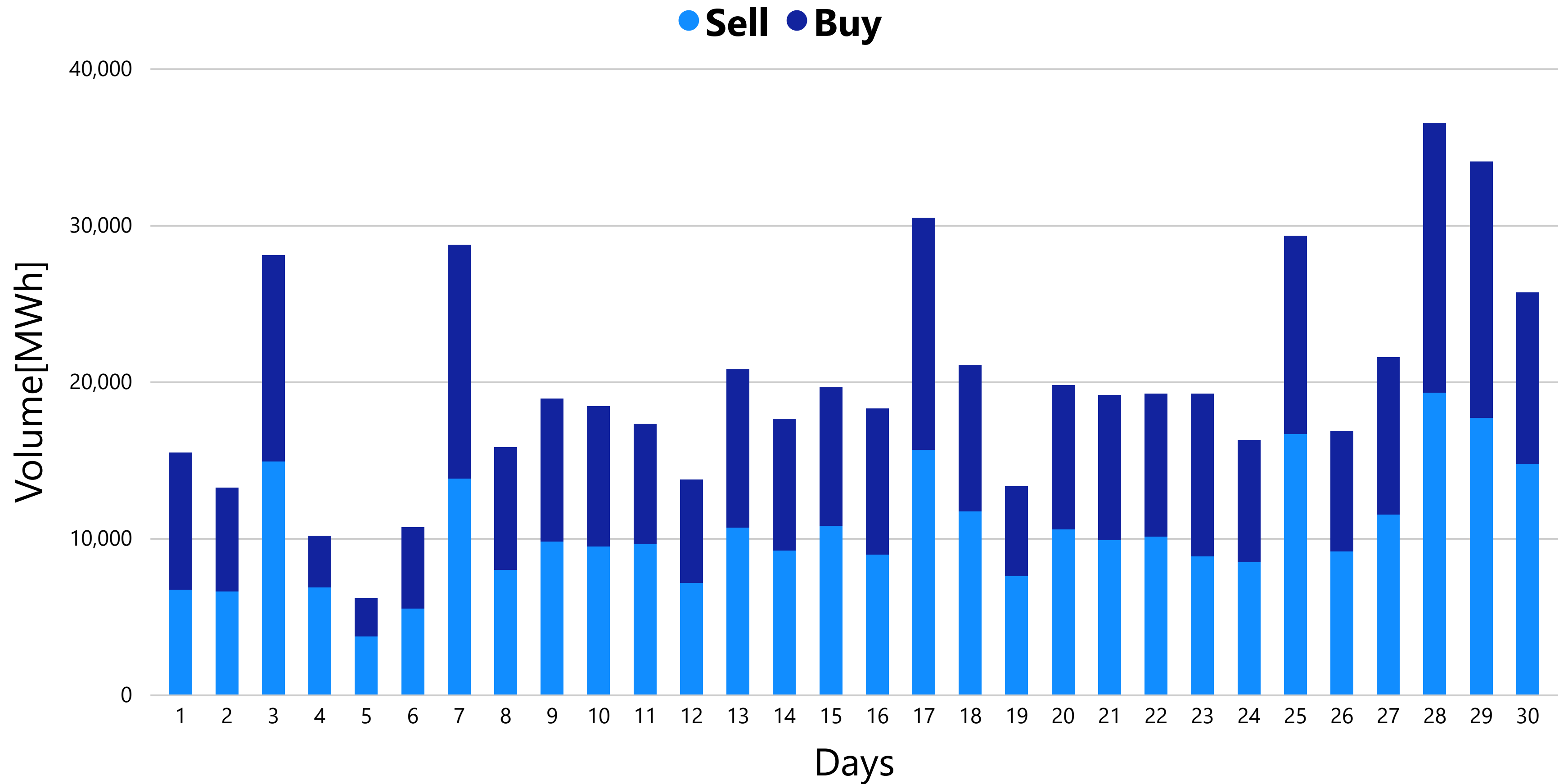
2.3 Daily MCP and Volume •CRIDA3



2.4 Daily XBID Weighted Average Prices



2.5 Daily XBID Volumes

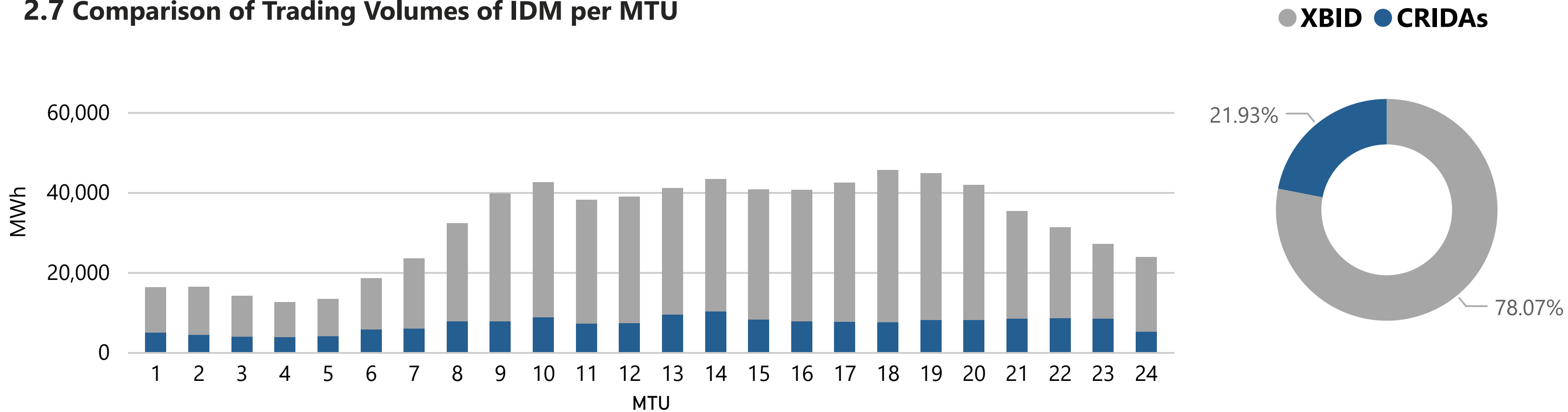


Electricity and NGAS Markets · Monthly Report

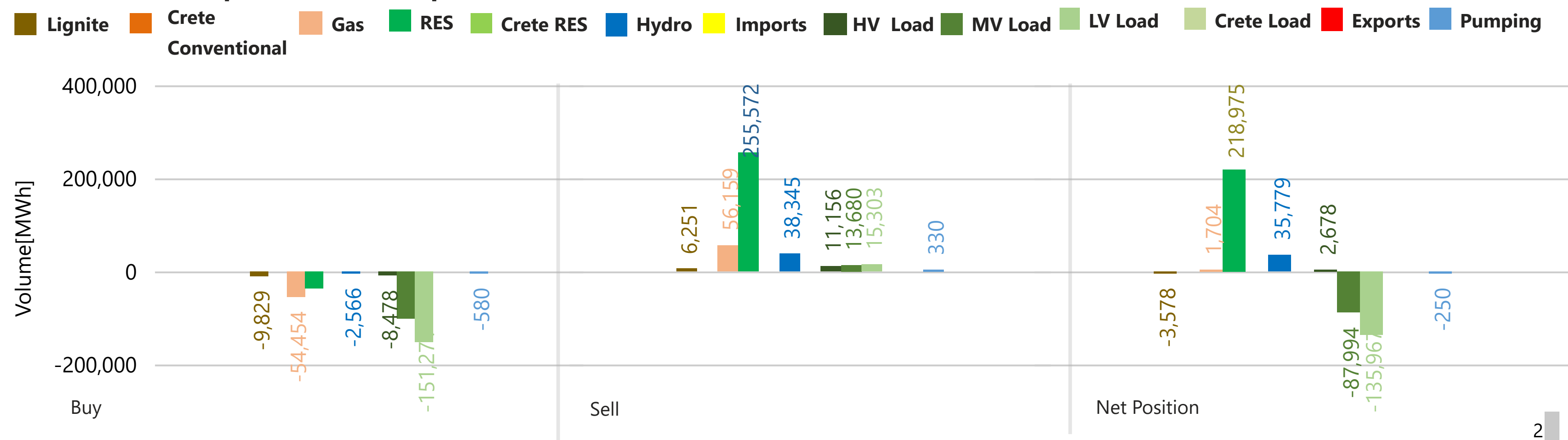
2.6 Table with MCP and volume

Year			2022	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Month			Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
CRIDA1	Price [€/MWh]	min	0	-90.28	0.90	3.95	7.50	-0.01	3.29	0	-1	-1	0	0.04
		avg	281.89	191.07	149.98	118.00	115.37	105.18	90.52	111.40	103.26	99.93	109.27	106.54
		max	1.06K	700	267	218.22	216.37	2.95K	190.92	300	404.90	342.17	400	400
	Volume [MWh]		32,236	31,952	41,868	50,834	41,365	45,131	31,612	58,530	57,680	54,474	45,751	38,874
CRIDA2	Price [€/MWh]	min	0.2	-47.45	-0.01	0	0.34	-4.18	0.14	-2.50	-25.51	-4	-8	-2.30
		avg	273.38	173.21	138.04	109.27	108.38	96.24	89.23	107.55	100.36	97.19	105.15	105.14
		max	1.05K	531	500	244.22	226.37	190	400	415.82	571.54	331.27	415	490
	Volume [MWh]		18,677	44,385	53,775	51,859	48,714	60,218	43,967	46,690	37,297	45,738	41,353	29,557
CRIDA3	Price [€/MWh]	min	-0.4	0	-0.99	1	0.02	0.03	0.50	-3	0	0	0	0.99
		avg	277.57	180.25	141.56	103.40	107.07	92.49	104.72	126.30	117.56	100.78	113.33	117.35
		max	750	700	600	349.22	242.50	200	262.89	300	521.10	341.19	359.14	401.58
	Volume [MWh]		16,216	33,372	36,150	34,449	28,606	38,300	22,771	22,664	33,656	26,300	20,845	15,135
XBID	Price [€/MWh]	min	-3	-3.80	-1.90	0	-25	-32	-38	-21.10	-80	-23.12	-20	-2
		VWAP	276.88	109.69	103.78	96.39	96.55	90.19	86.88	96.19	94.85	92.55	96.37	95.34
		max	660	413.90	300	1005	299.89	209.52	251	425.82	446	360	894	350
	AV.Volume [MWh]		339,205	261,922	356,502	342,283	335,968	348,346	312,678	398,199	365,551	310,182	288,476	297,555

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

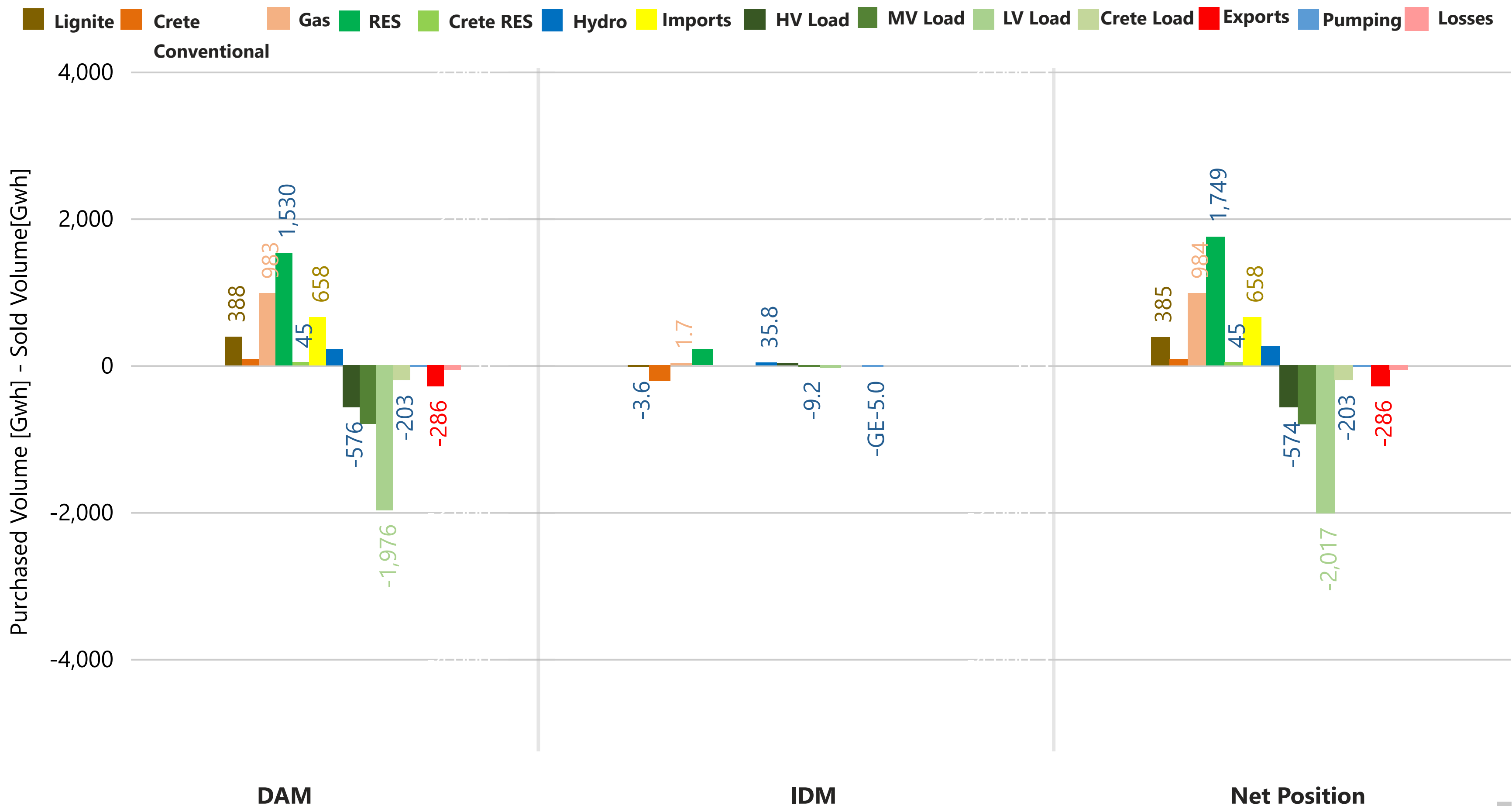
Final Market Schedules

Domestic Production

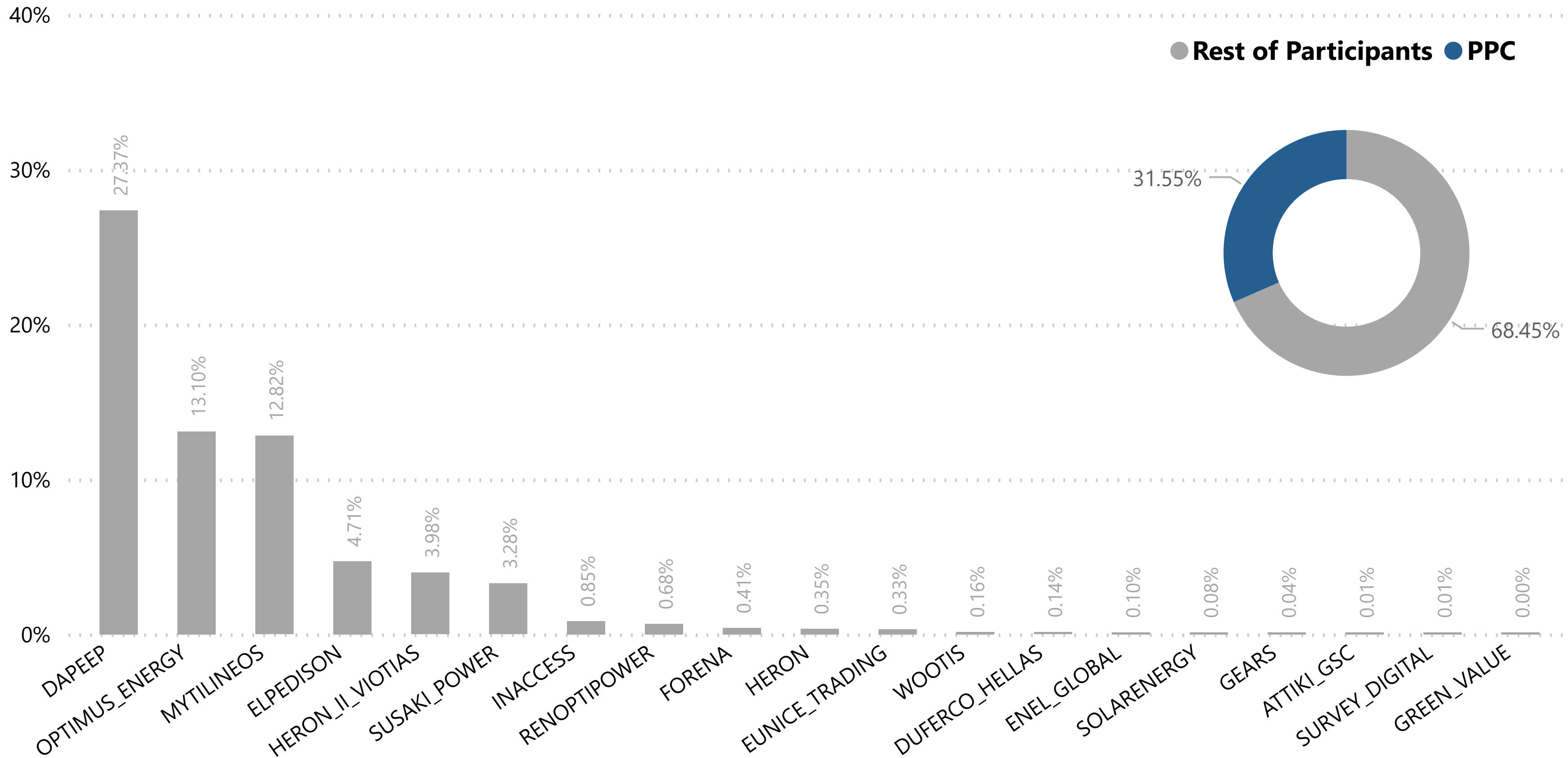
Domestic Consumption

Domestic Consumption per Voltage level

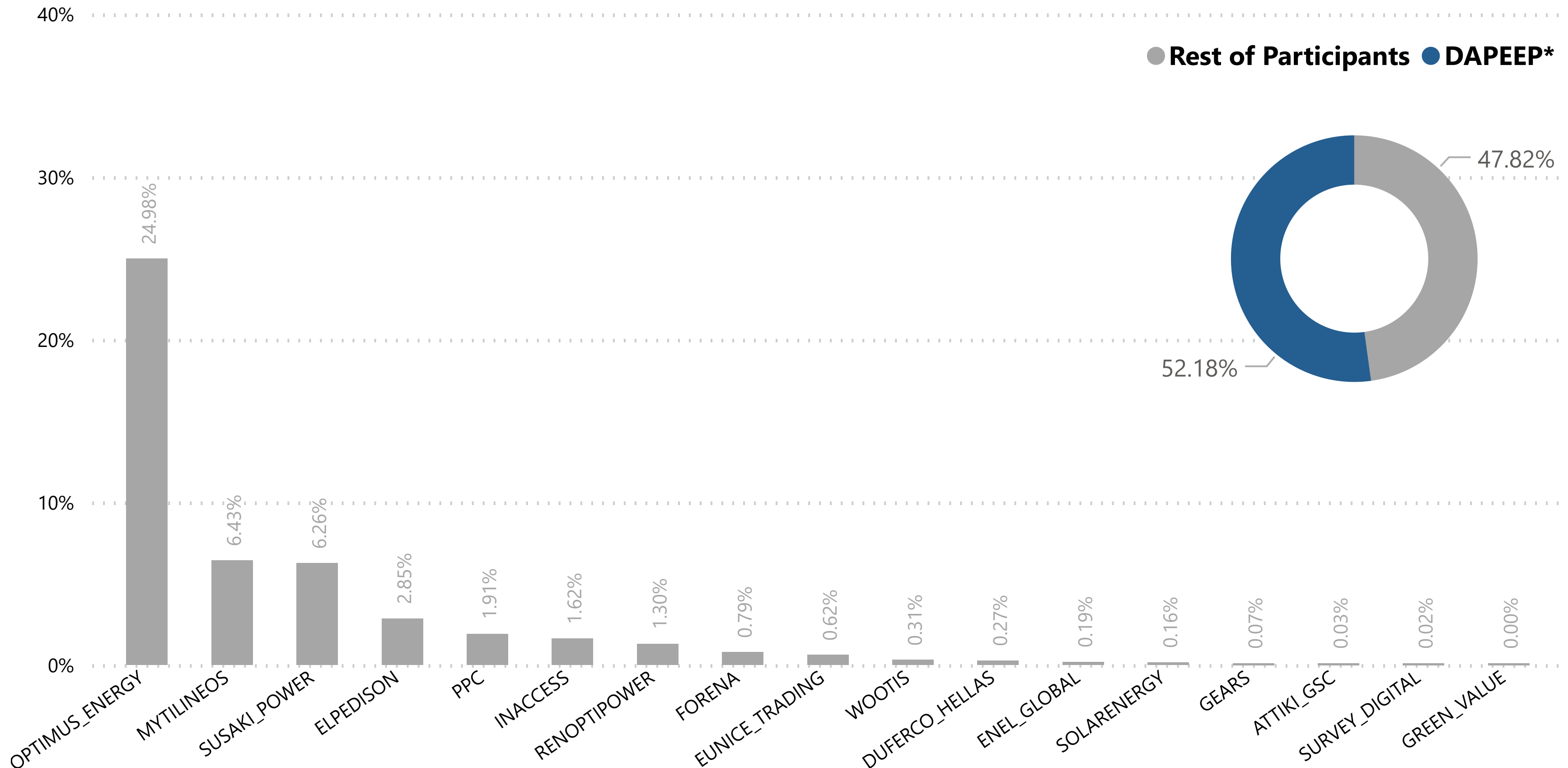
3.1 Market Schedules



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

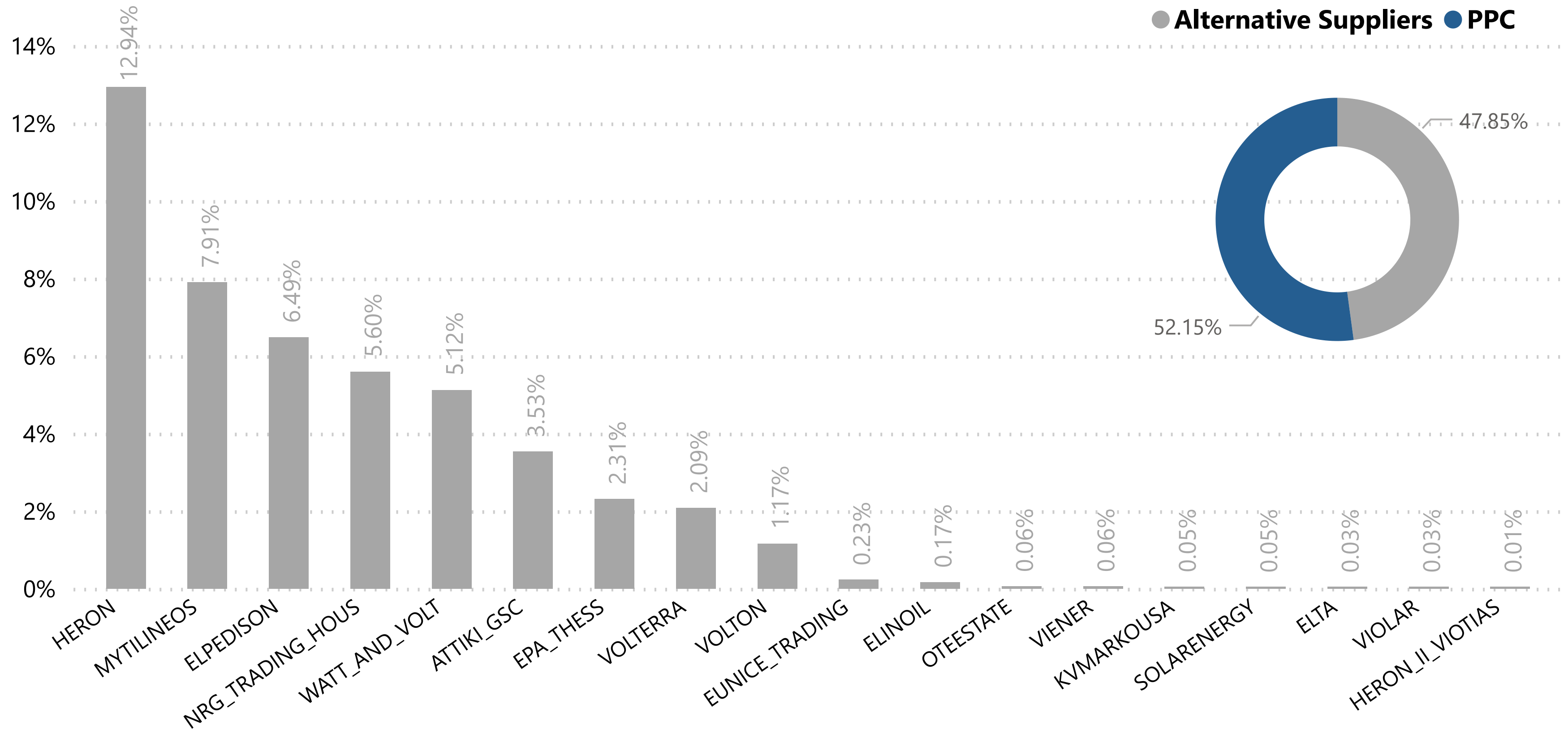


3.3 Final Market Schedule shares for RES production units per Market Participant · Greek Bidding Zone

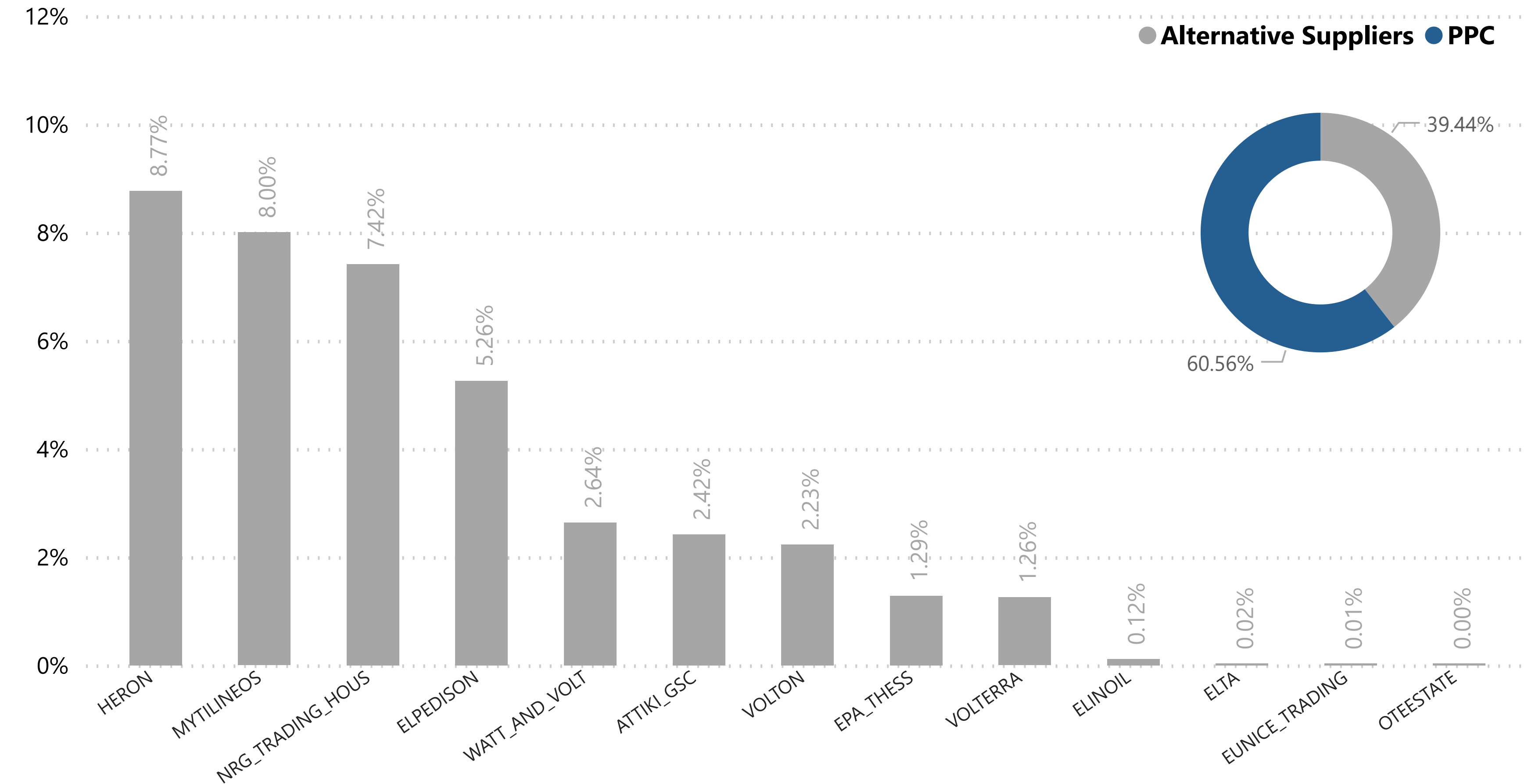


*The percentage of DAPEEP includes 0.38% its role as a Last Resort RES Aggregator (FOSETEK)

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

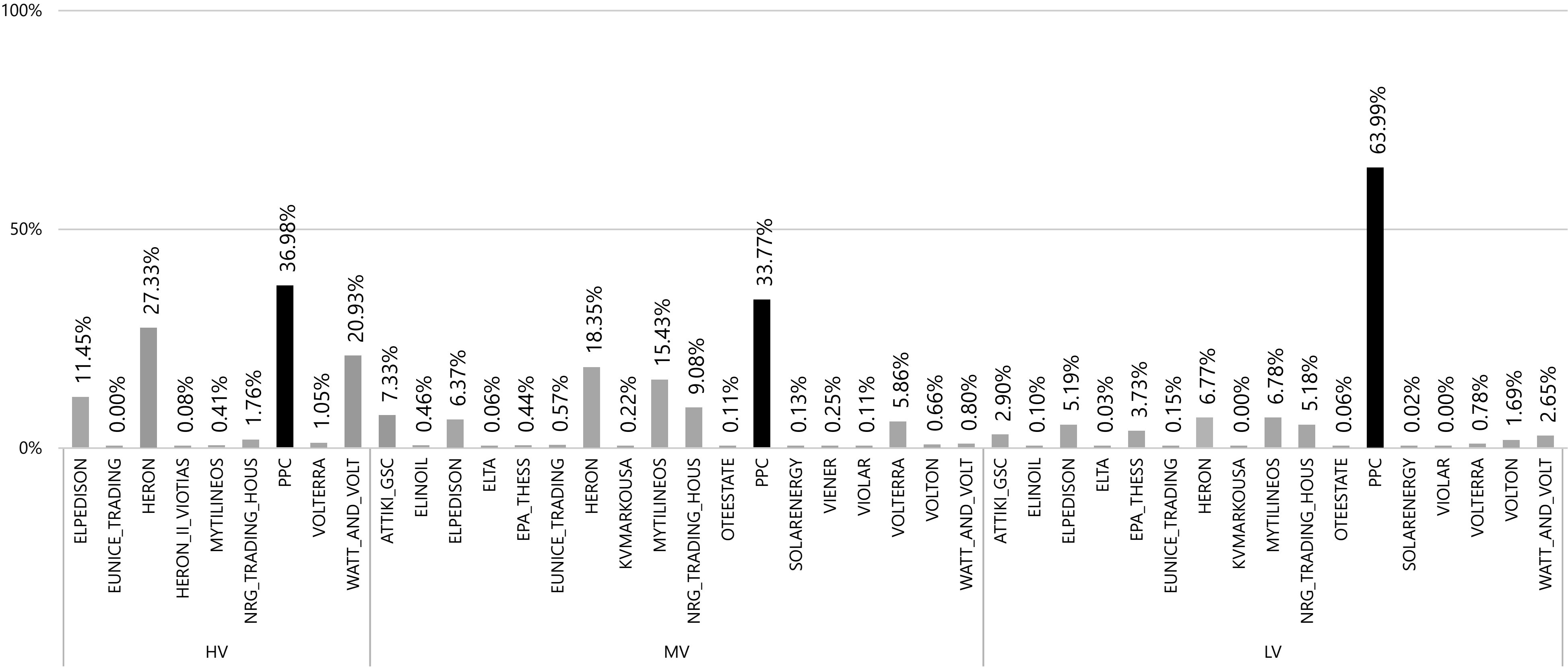


3.5 Final Market Schedule shares for domestic load per Market Participant · Crete

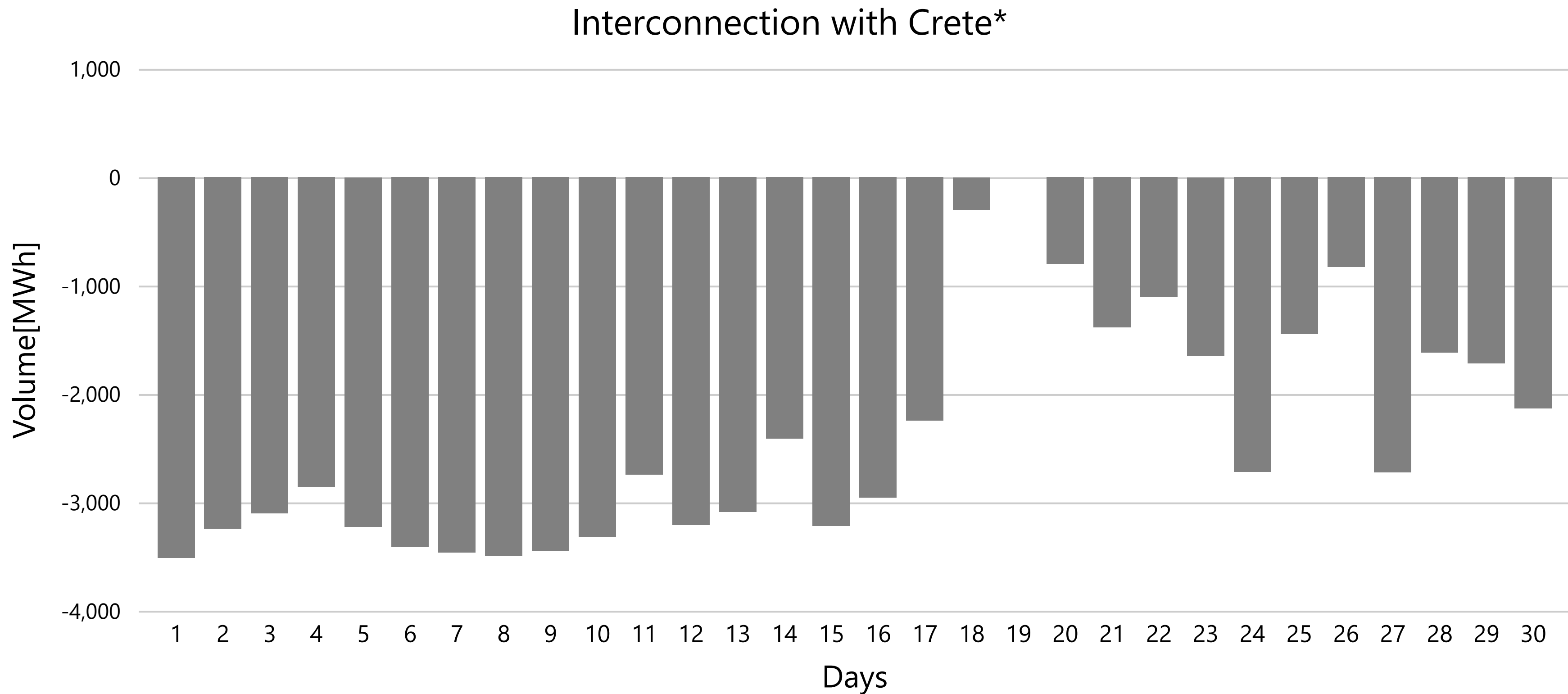




3.6 Final Market Schedule shares for domestic load per Market Participant at each Voltage Level · Mainland



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

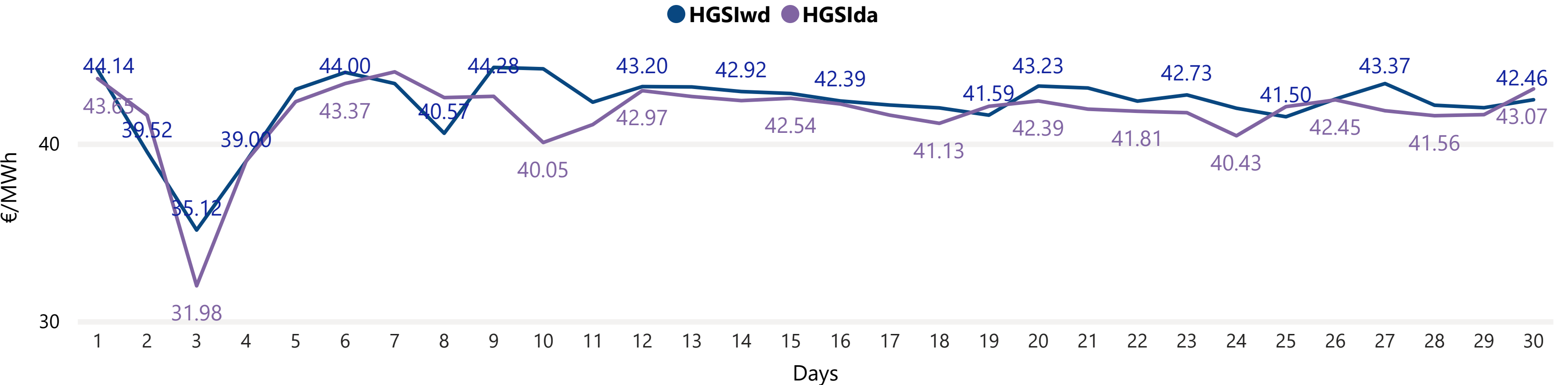
Trading Volume per Trading Date

Trading Volume per Product, Session

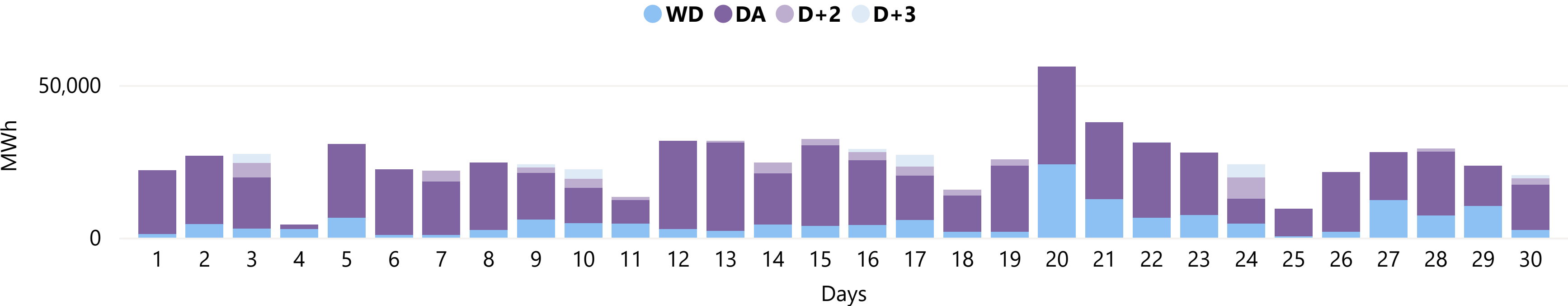
Closing, Min & Max Prices



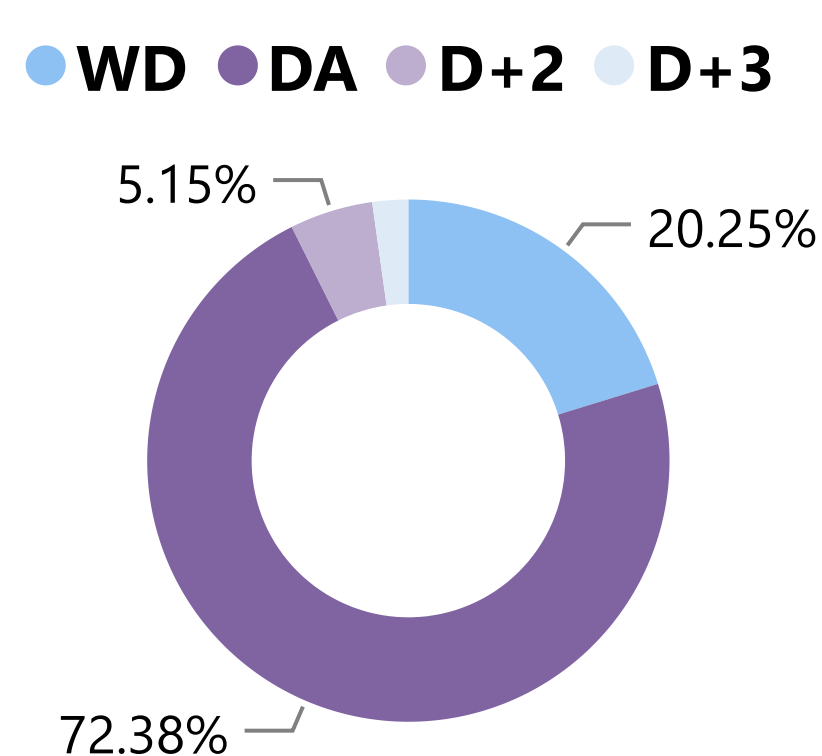
4.1 HEnEx NGAS indices



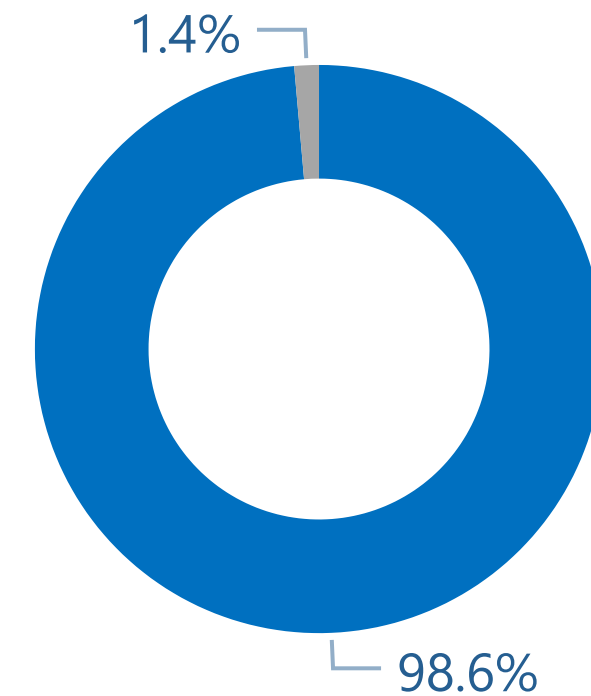
4.2 Trading Volume per Trading Day



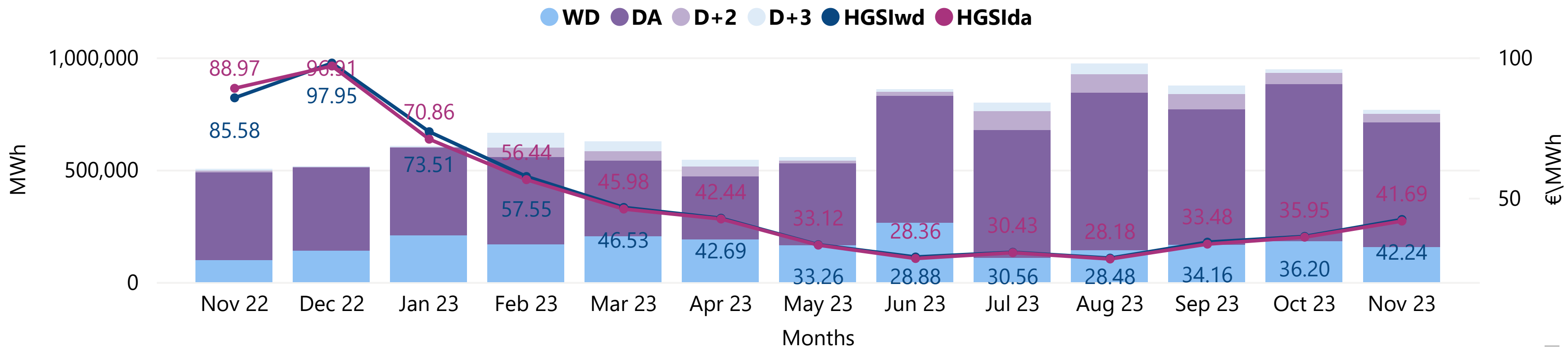
4.3 Trading Volume per Product & Session



● Continuous Traded Volume ● Auction Traded Volume

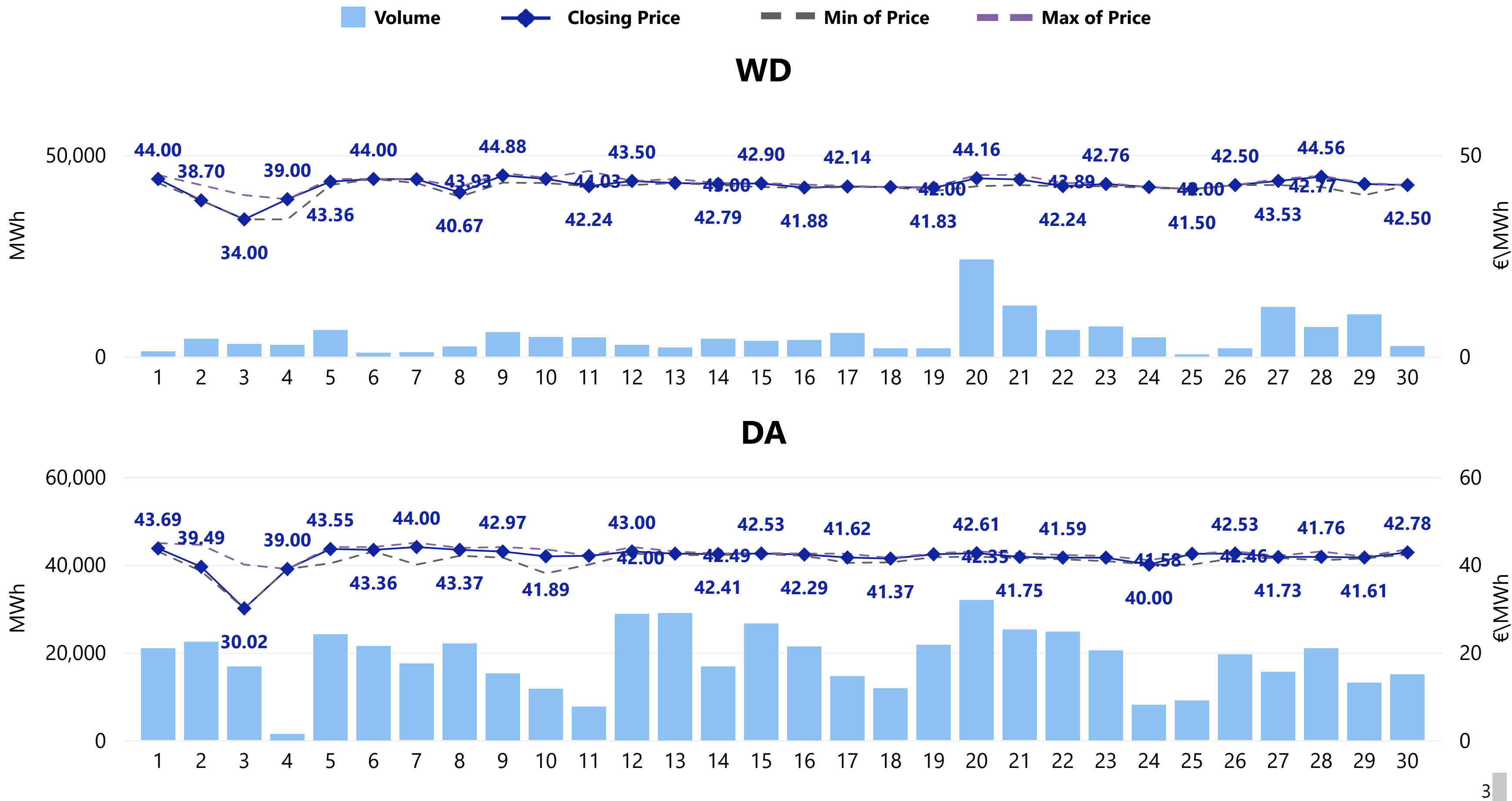


4.4 HEnEX NGAS indices and Trading Volume per Month

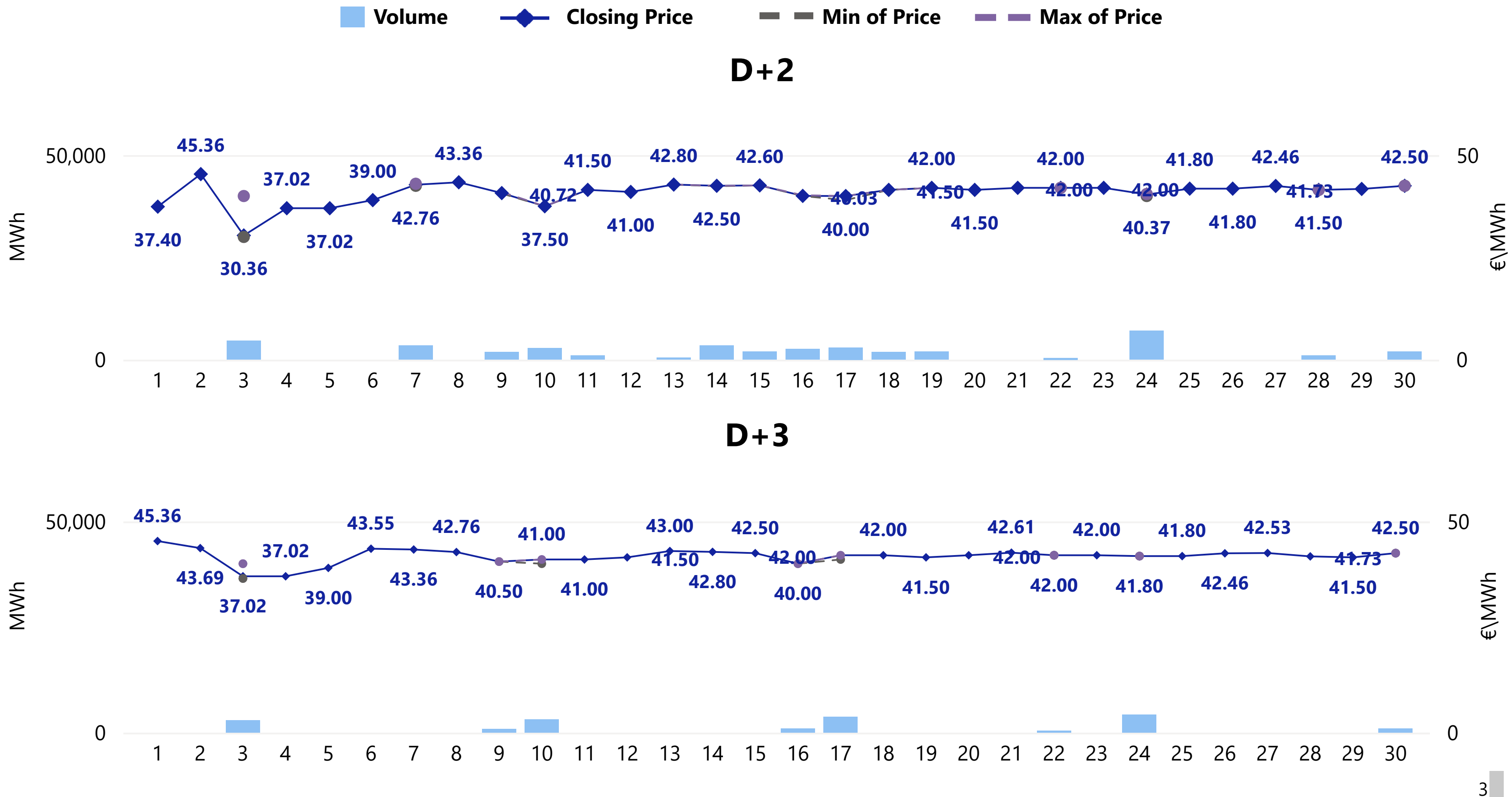




4.5 Volume, Closing, Min, & Max Prices per Trading Day & Product



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



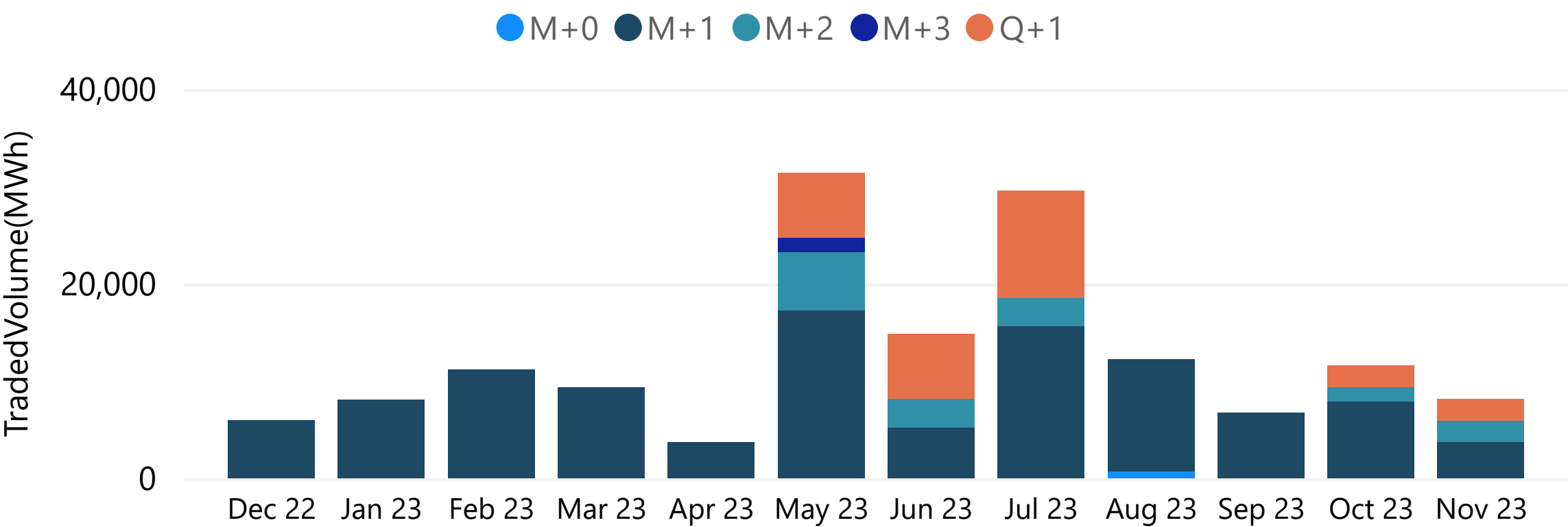
5. Derivatives Market

Traded Volume by Instrument and Month - Baseload

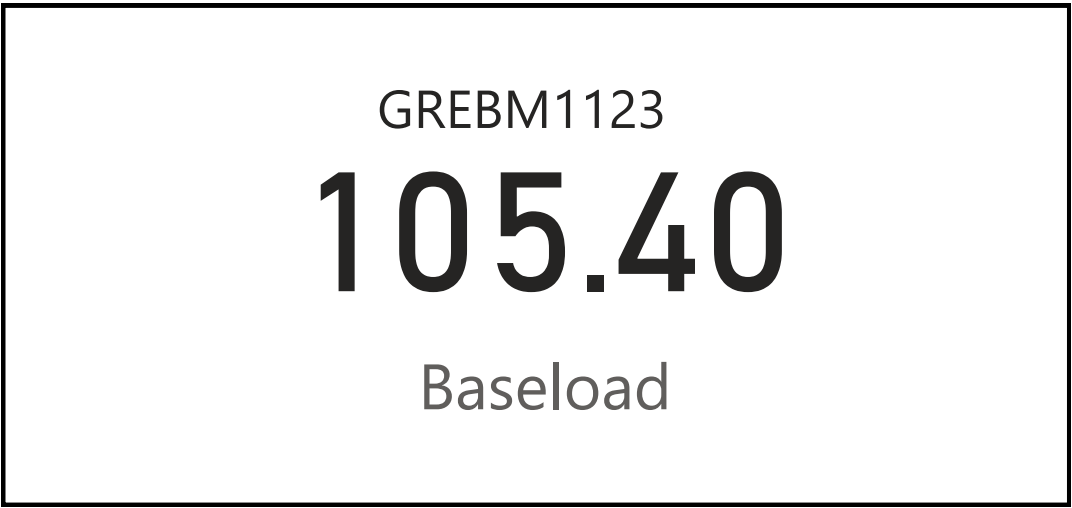
Daily Settlement prices for Baseload Instruments - Baseload

Final Settlement prices for the monthly expired traded series

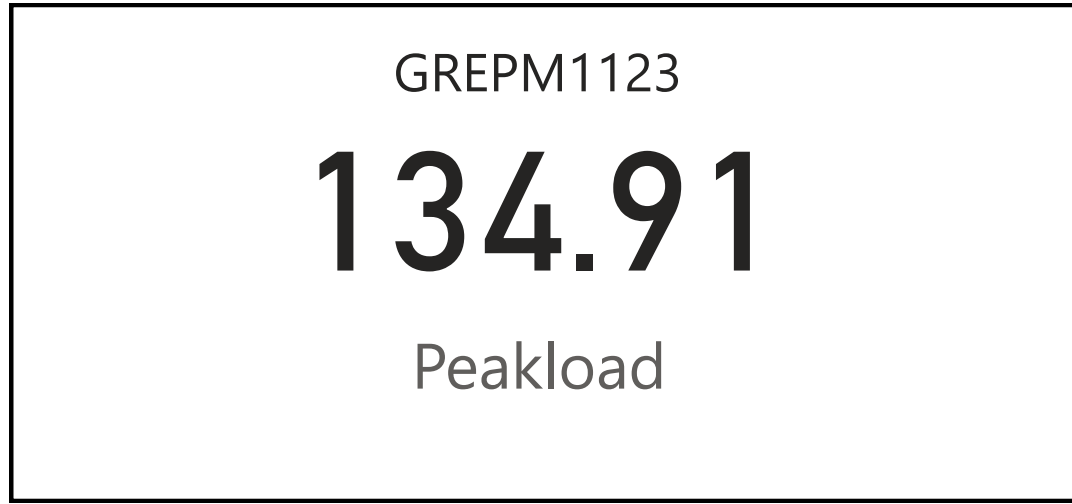
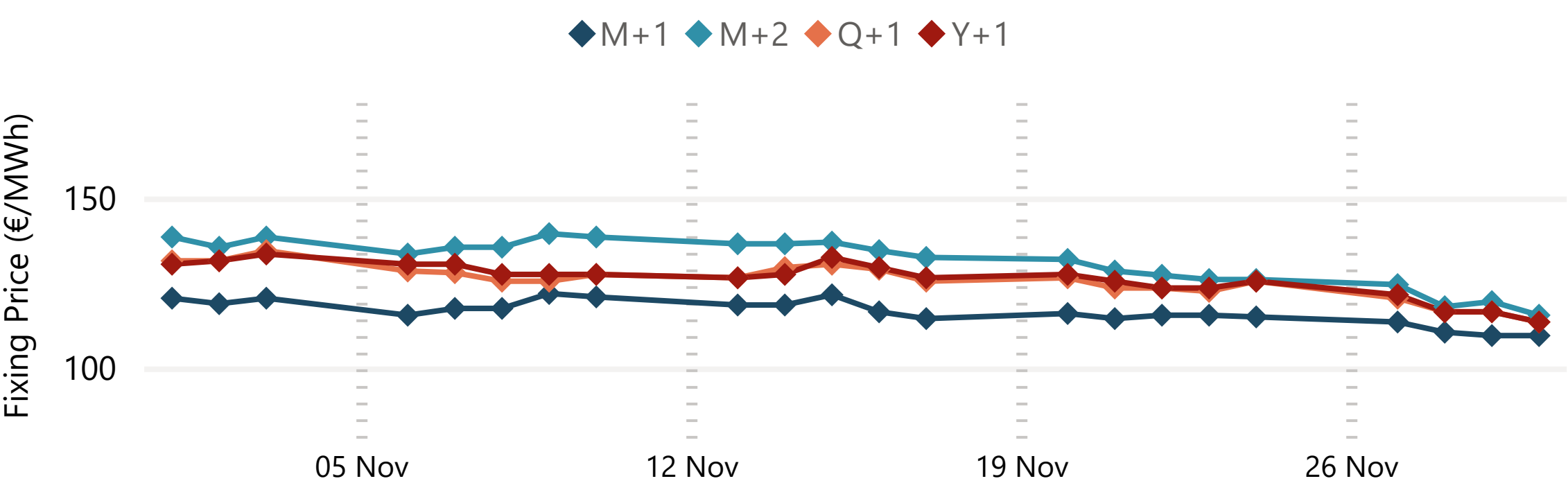
5.1 Traded Volume by Instrument and Month - Baseload



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
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.
- IT interconnection was out of order for the whole month

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.