

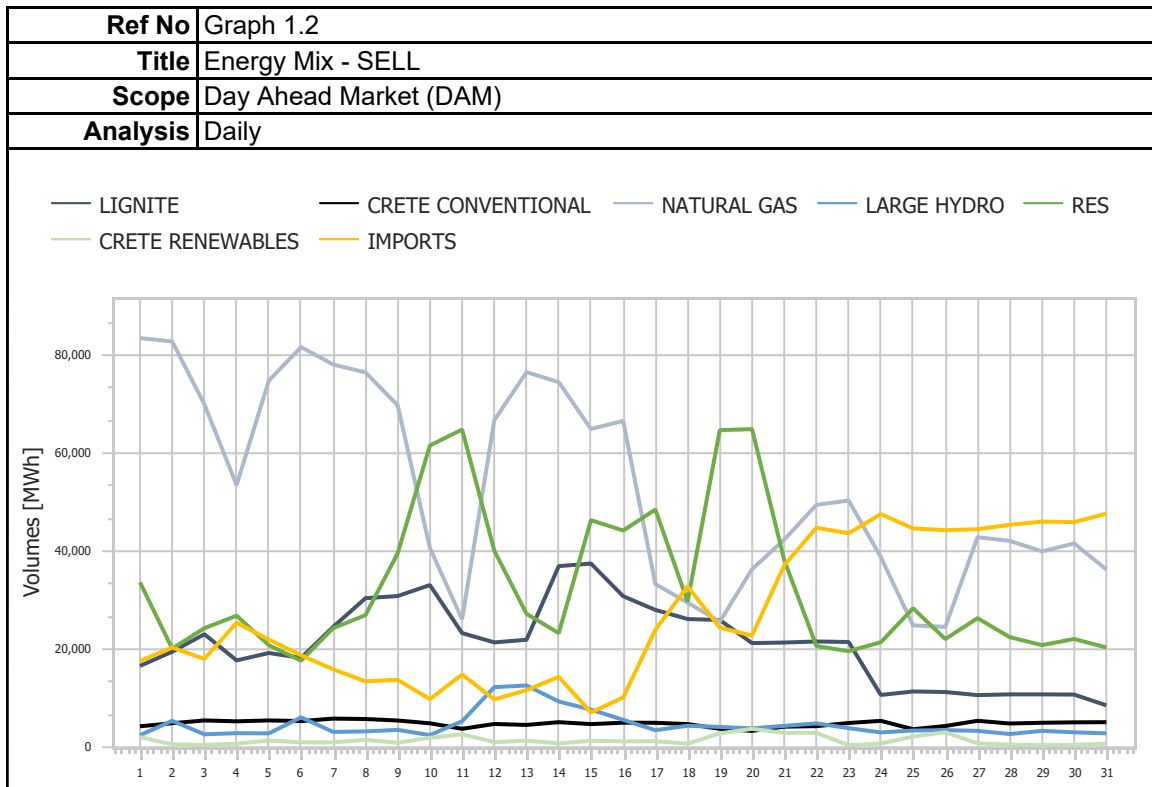
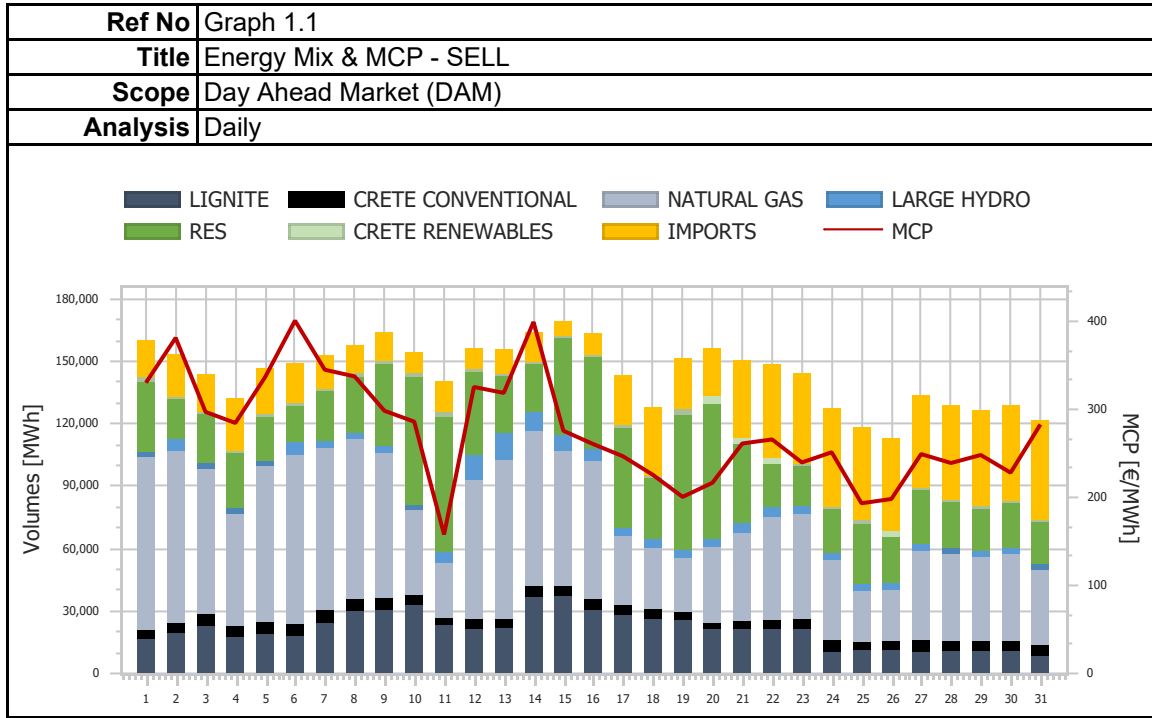
Market Monitoring Report

Monthly - Public - 2

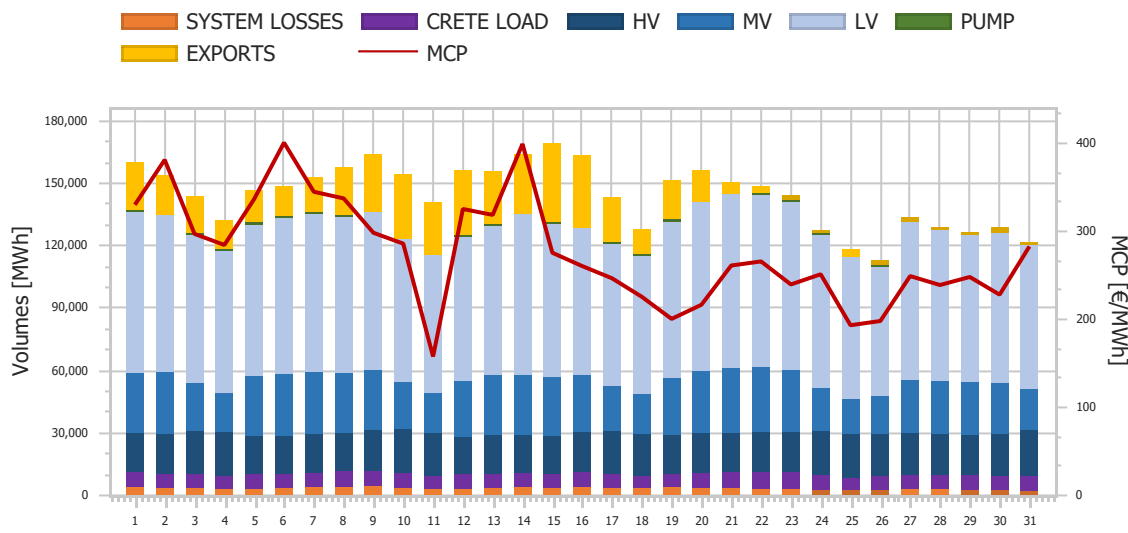
12-2022



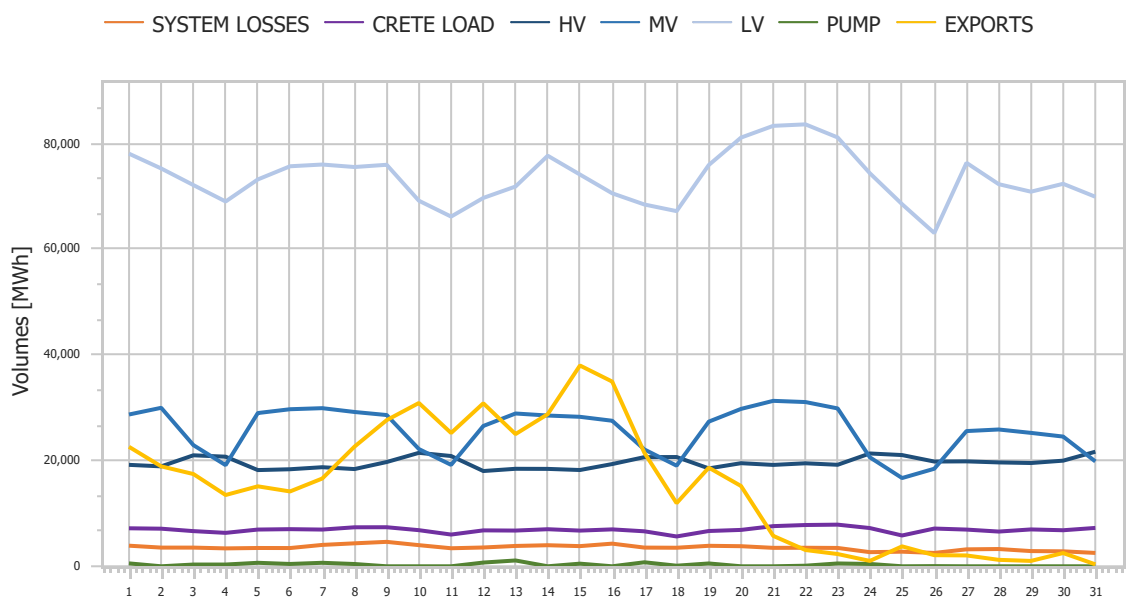
1. Day Ahead Market (DAM)



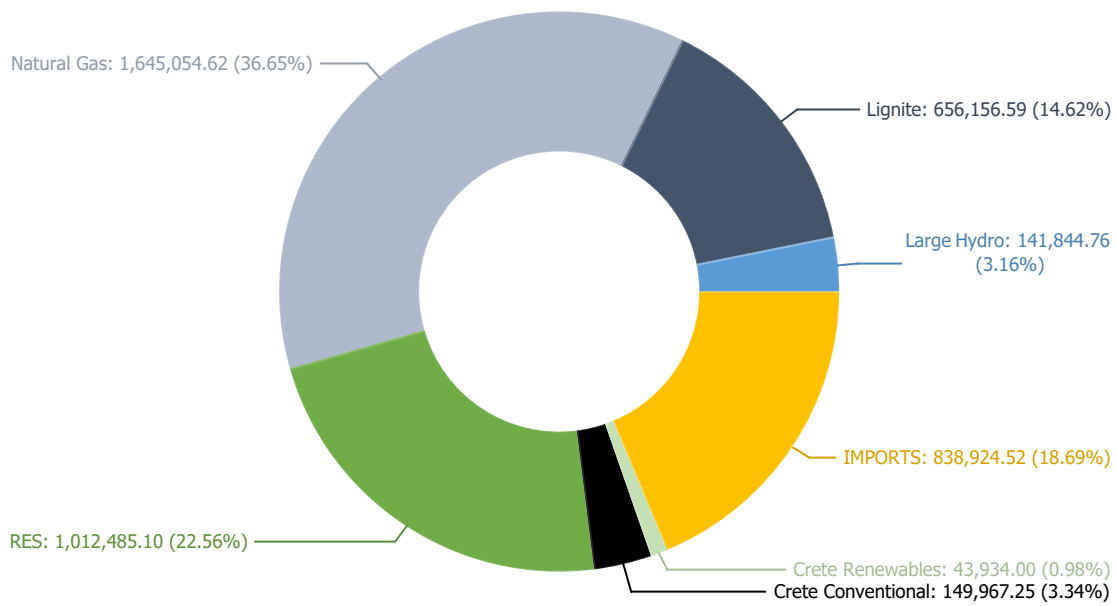
Ref No	Graph 1.3
Title	Energy Mix & MCP - BUY
Scope	Day Ahead Market (DAM)
Analysis	Daily



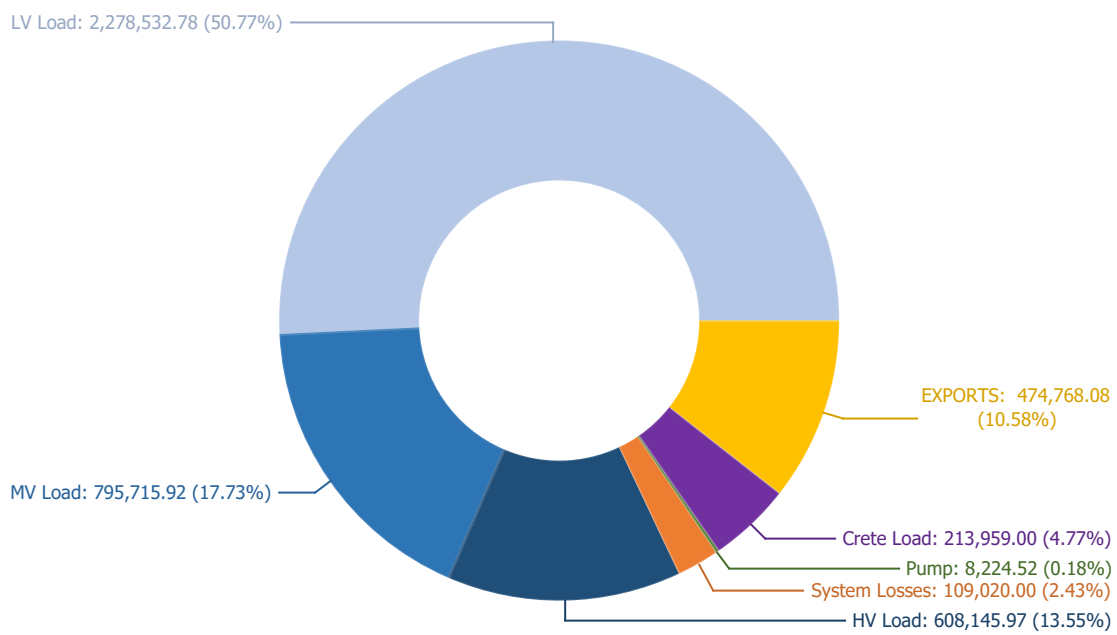
Ref No	Graph 1.4
Title	Energy Mix - BUY
Scope	Day Ahead Market (DAM)
Analysis	Daily



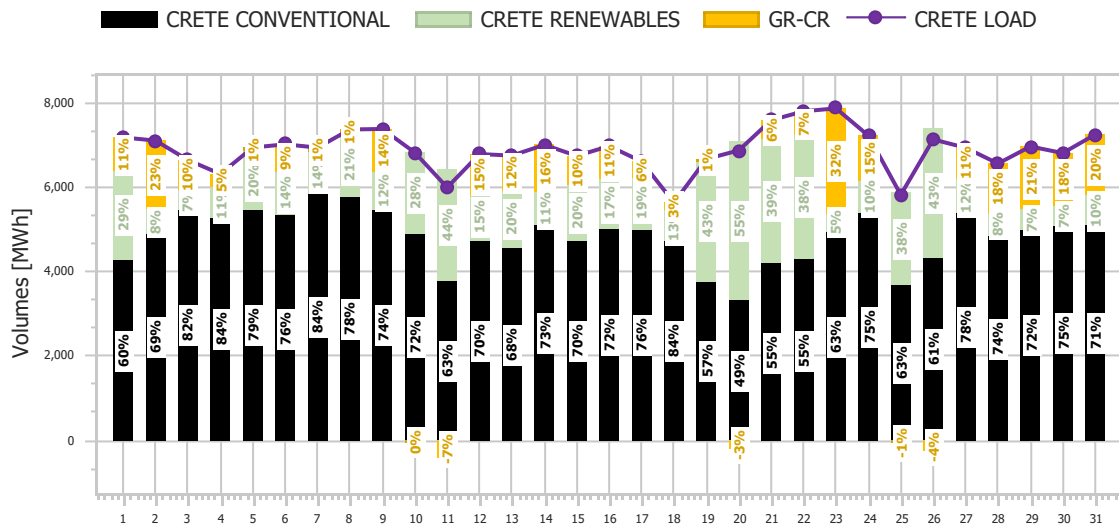
Ref No	Graph 1.5
Title	Energy Mix - SELL
Scope	Day Ahead Market (DAM)
Analysis	Daily



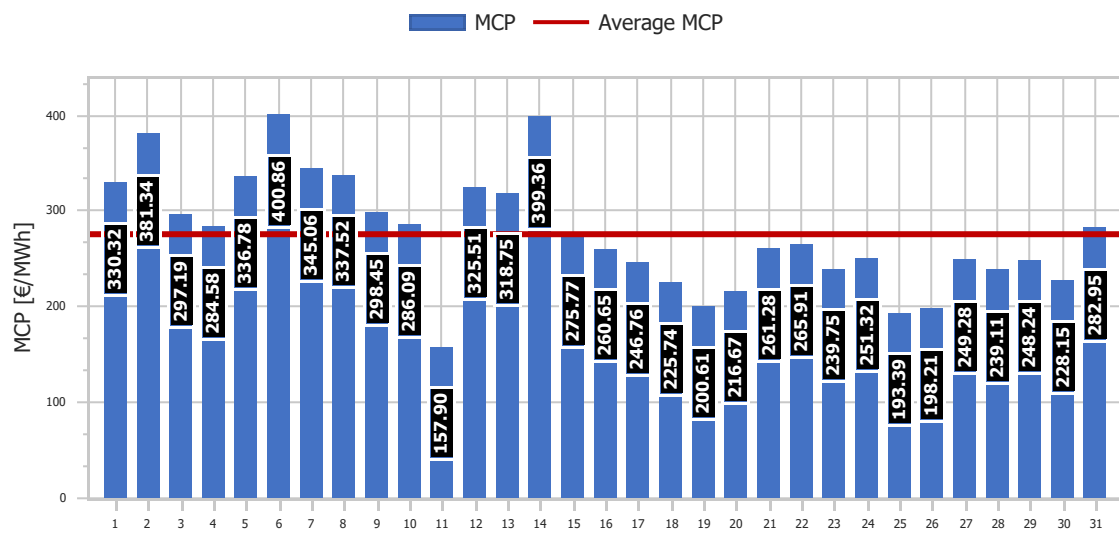
Ref No	Graph 1.6
Title	Energy Mix - BUY
Scope	Day Ahead Market (DAM)
Analysis	Daily



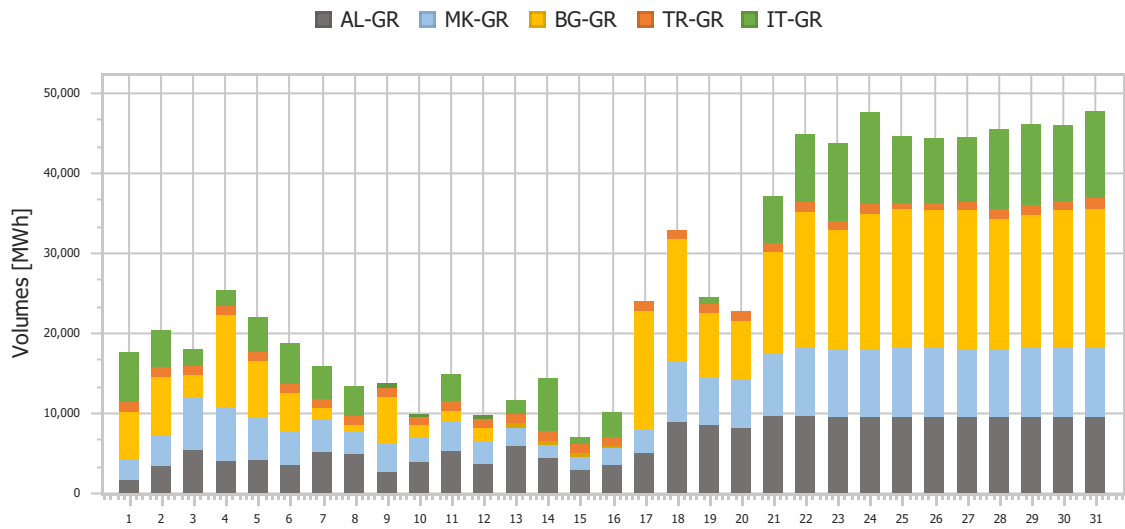
Ref No	Graph 1.7
Title	Crete Energy Mix
Scope	Day Ahead Market (DAM)
Analysis	Daily



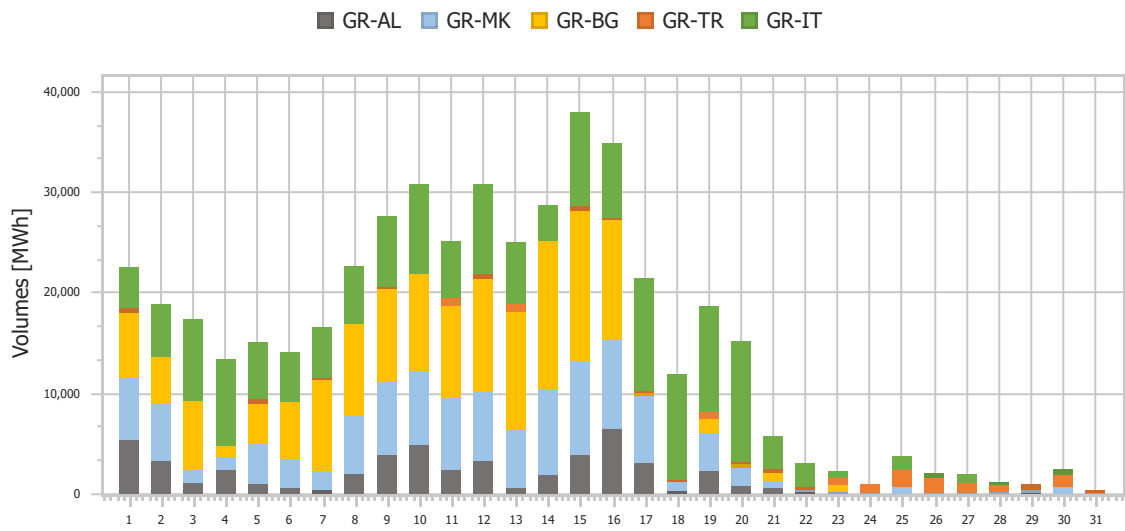
Ref No	Graph 1.8
Title	Market Clearing Price (MCP)
Scope	Day Ahead Market (DAM)
Analysis	Daily



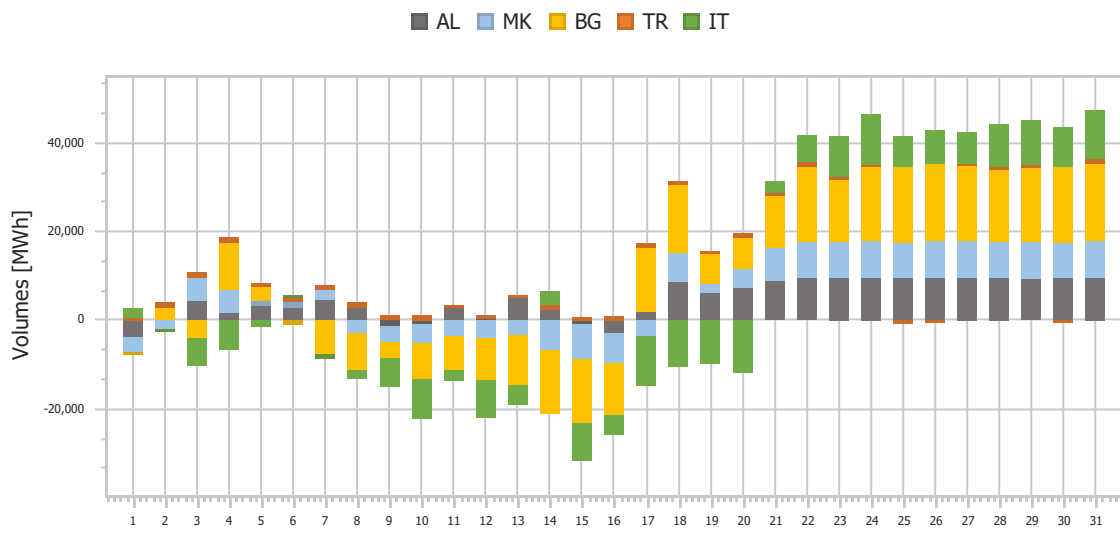
Ref No	Graph 1.9
Title	Imports per Border
Scope	Day Ahead Market (DAM)
Analysis	Daily



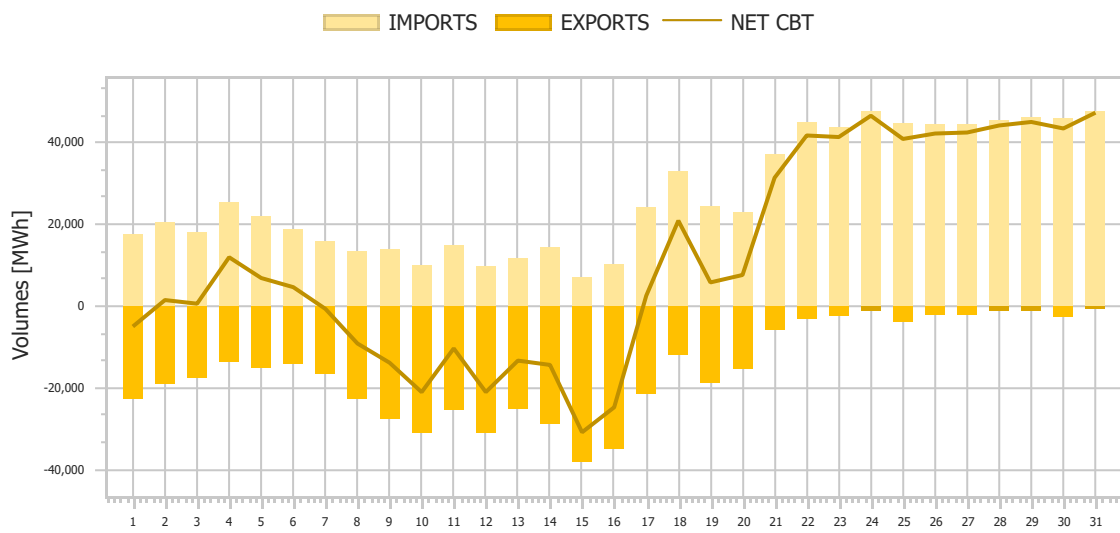
Ref No	Graph 1.10
Title	Exports per Border
Scope	Day Ahead Market (DAM)
Analysis	Daily



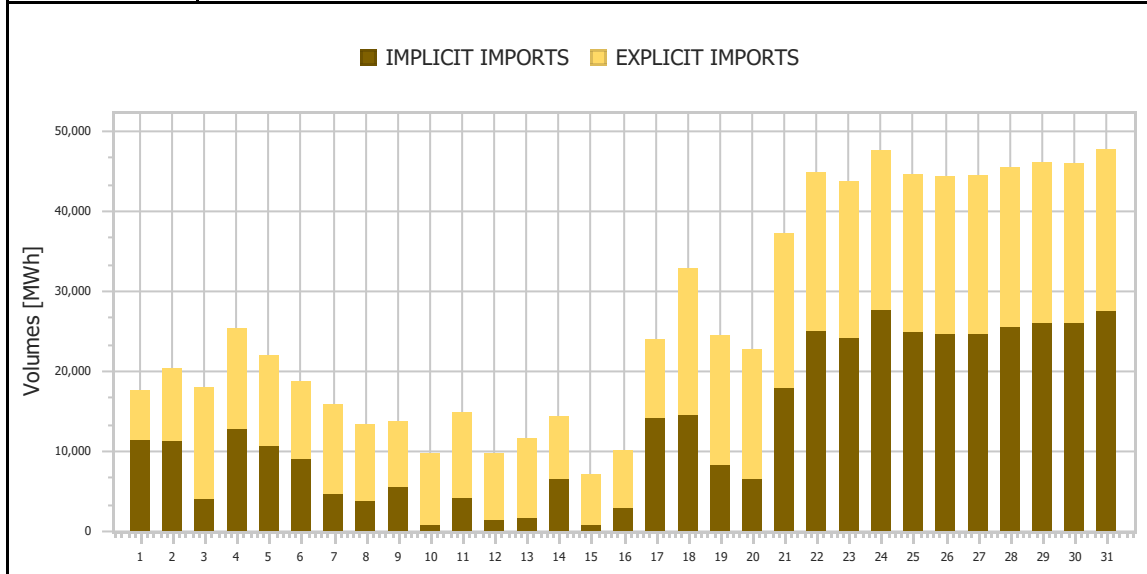
Ref No	Graph 1.11
Title	Net Imports per Border
Scope	Day Ahead Market (DAM)
Analysis	Daily



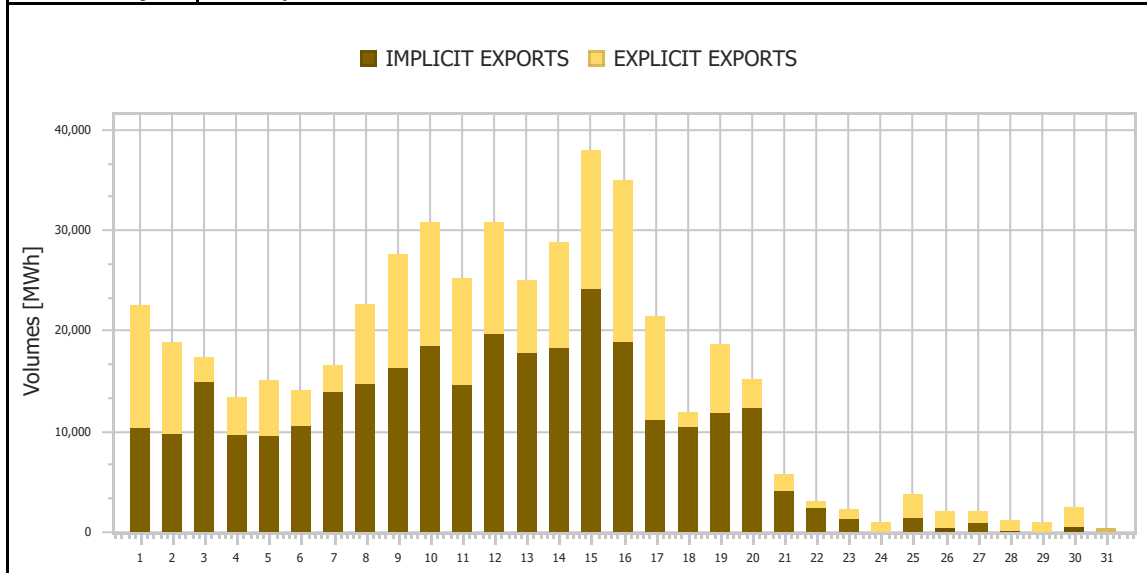
Ref No	Graph 1.12
Title	Total Imports & Exports
Scope	Day Ahead Market (DAM)
Analysis	Daily



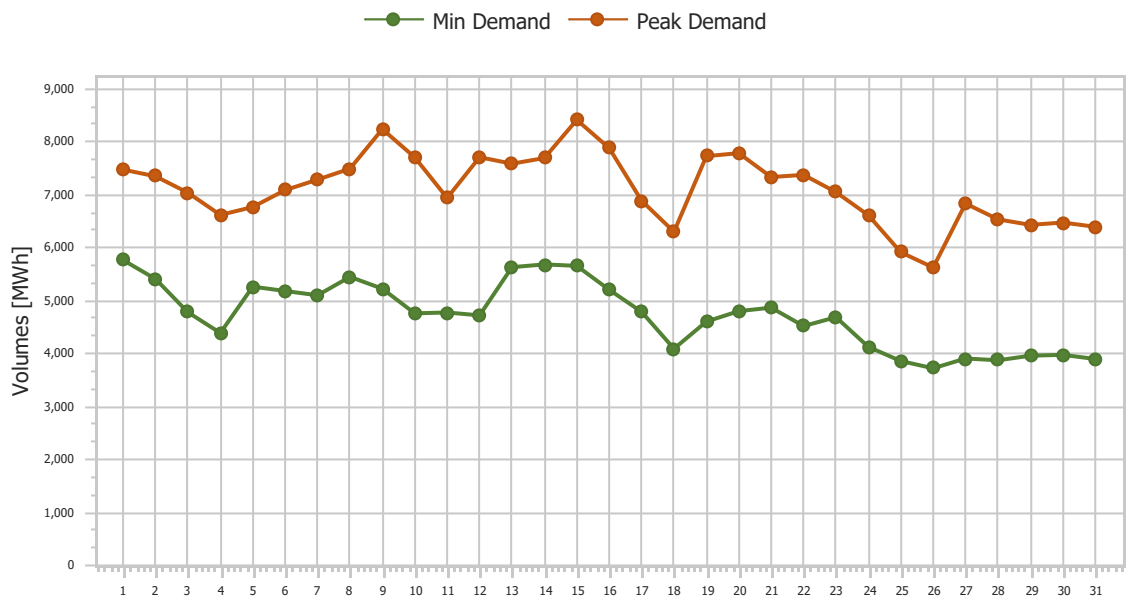
Ref No	Graph 1.13
Title	Imports (Implicit/Explicit)
Scope	Day Ahead Market (DAM)
Analysis	Daily



Ref No	Graph 1.14
Title	Exports (Implicit/Explicit)
Scope	Day Ahead Market (DAM)
Analysis	Monthly

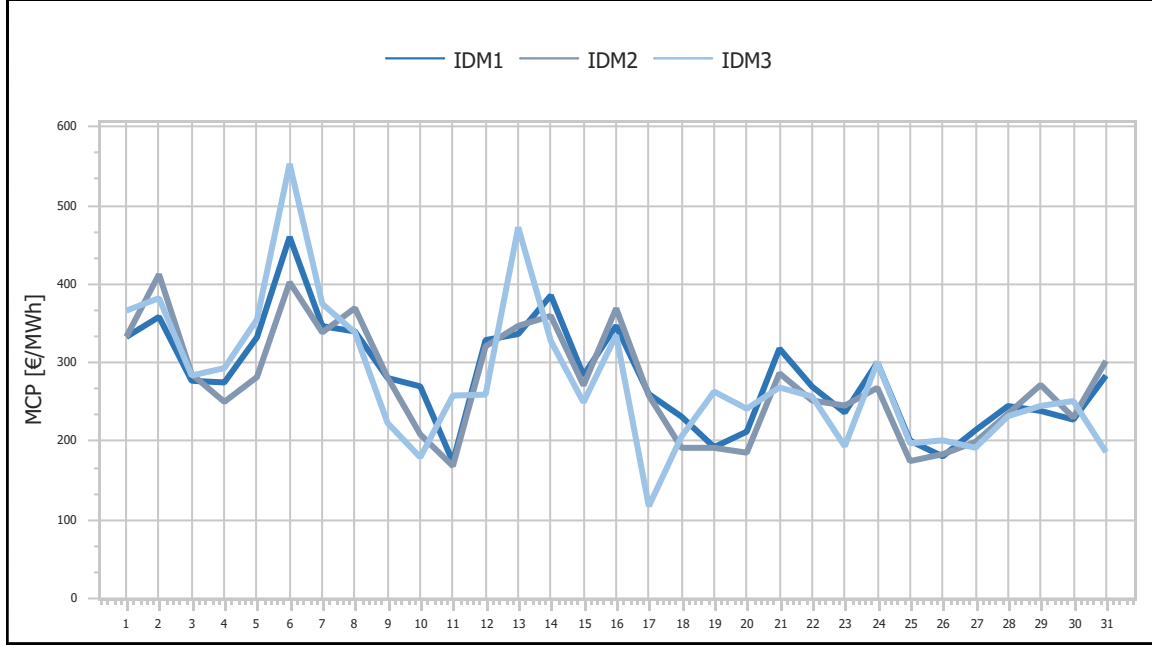


Ref No	Graph 1.15
Title	Min & Peak Demand
Scope	Day Ahead Market (DAM)
Analysis	Daily

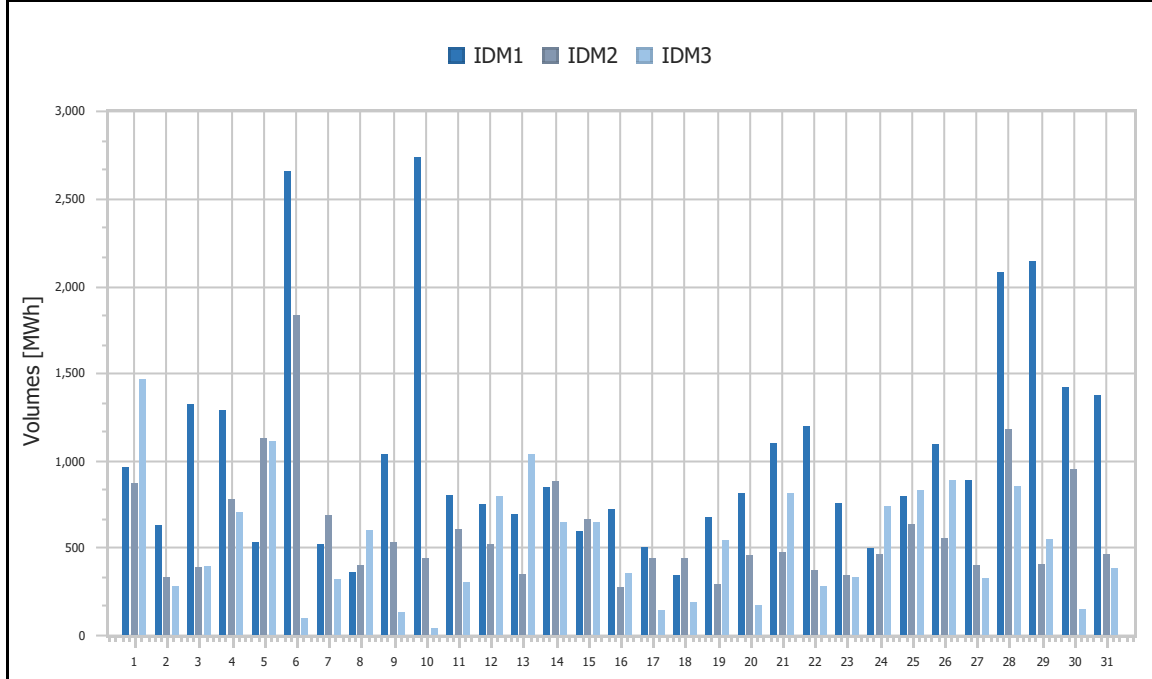


2. Intra-Day Market (IDM)

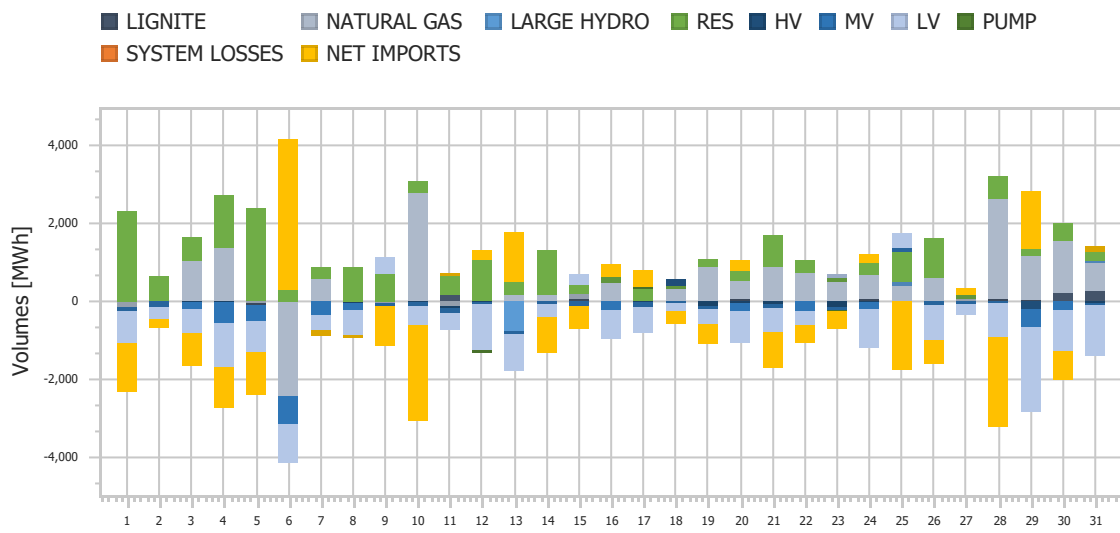
Ref No	Graph 2.1
Title	Market Clearing Price (MCP)
Scope	Intra-Day Market (IDM)
Analysis	Daily



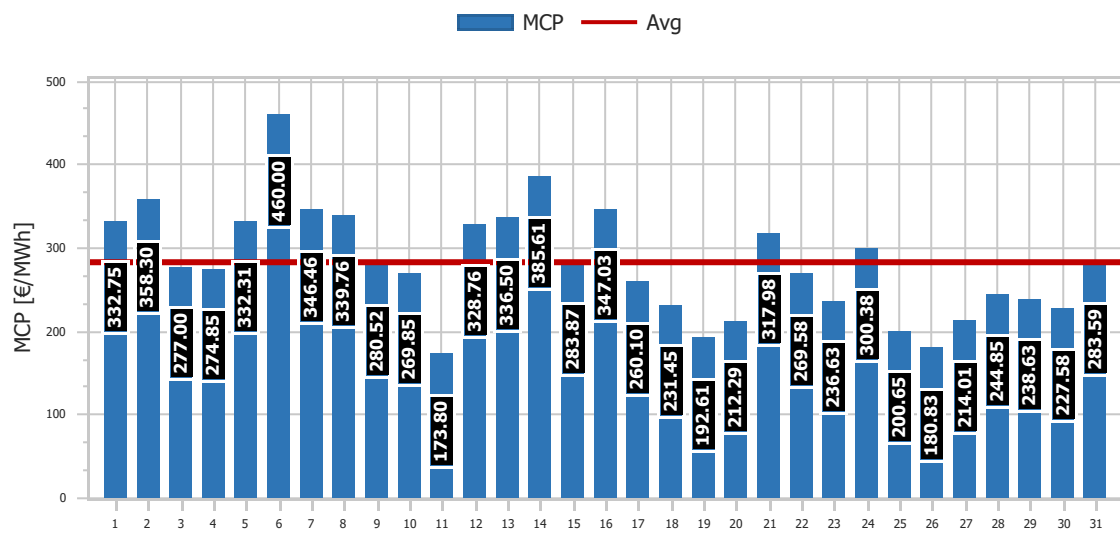
Ref No	Graph 2.2
Title	Transactions Volume
Scope	Intra-Day Market (IDM)
Analysis	Daily



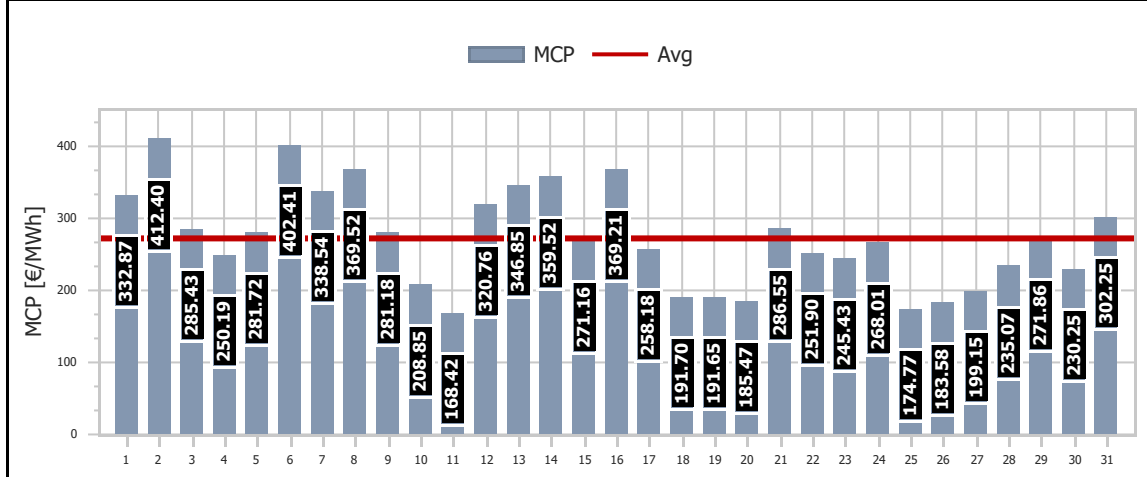
Ref No	Graph 2.3
Title	Energy Mix changes
Scope	Intra-Day Market (IDM)
Analysis	Daily



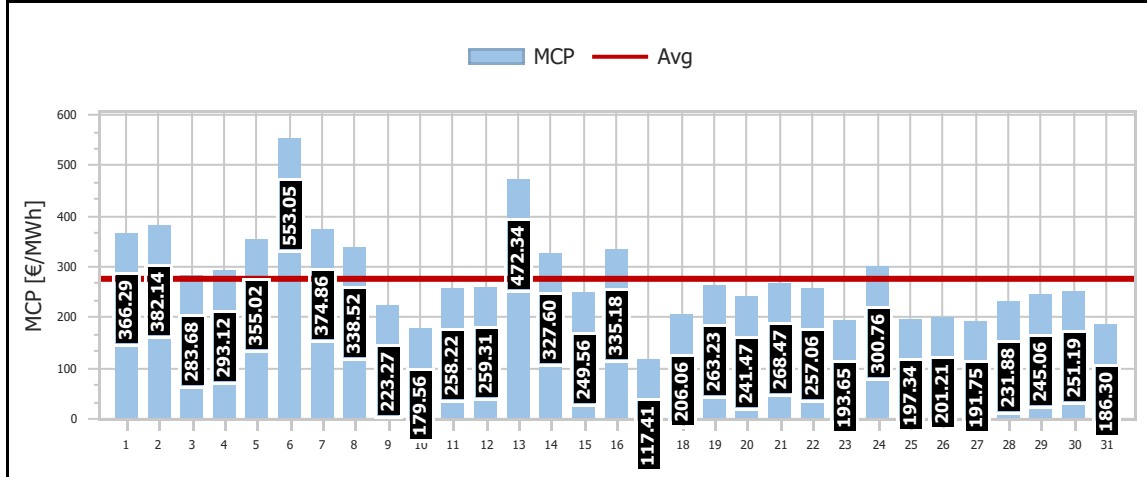
Ref No	Graph 2.4.1
Title	Market Clearing Price
Scope	Intra-Day Market Auction 1 (IDMA1)
Analysis	Daily



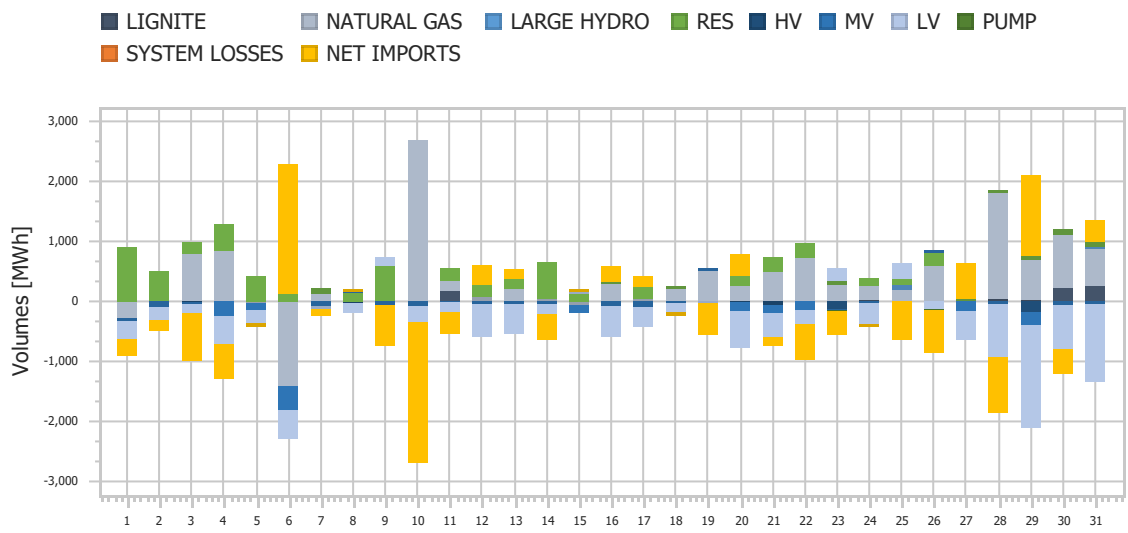
Ref No	Graph 2.4.2
Title	Market Clearing Price
Scope	Intra-Day Market Auction 2 (IDMA2)
Analysis	Daily



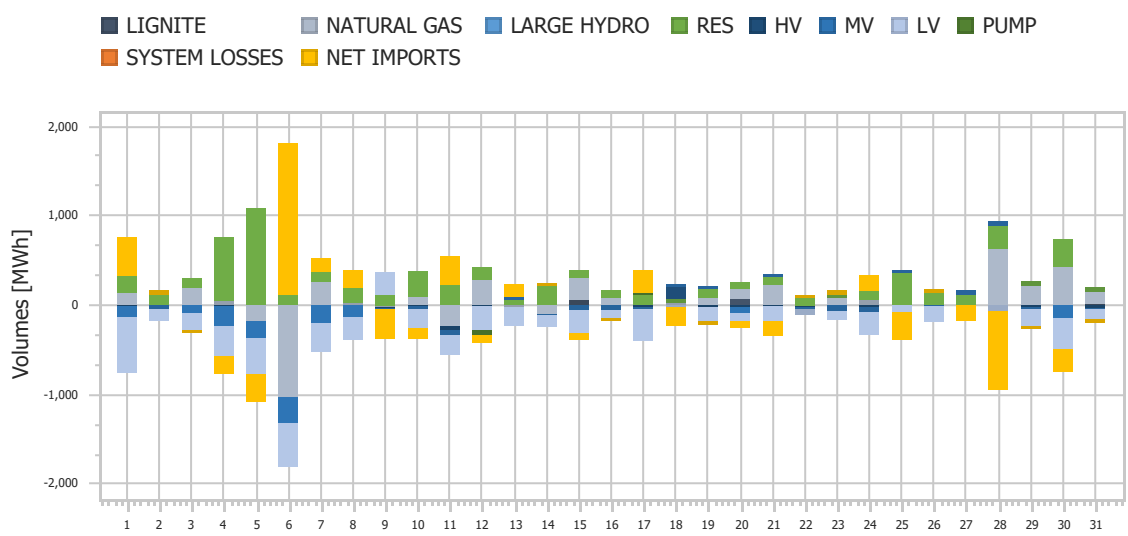
Ref No	Graph 2.4.3
Title	Market Clearing Price
Scope	Intra-Day Market Auction 3 (IDMA3)
Analysis	Daily



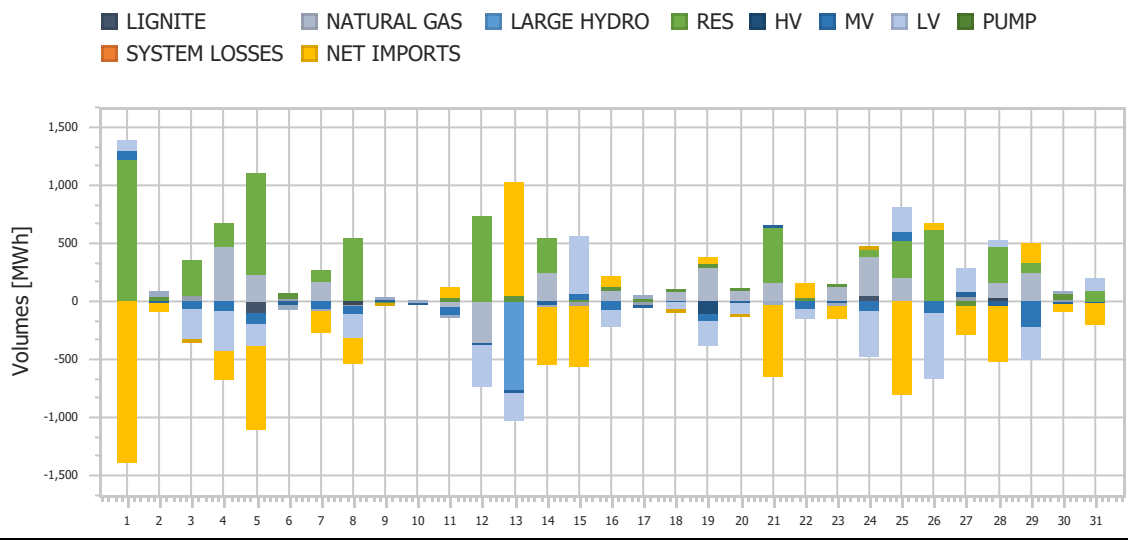
Ref No	Graph 2.5.1
Title	IDM Energy Mix Changes
Scope	Intra-Day Market Auction 1 (IDMA1)
Analysis	Daily



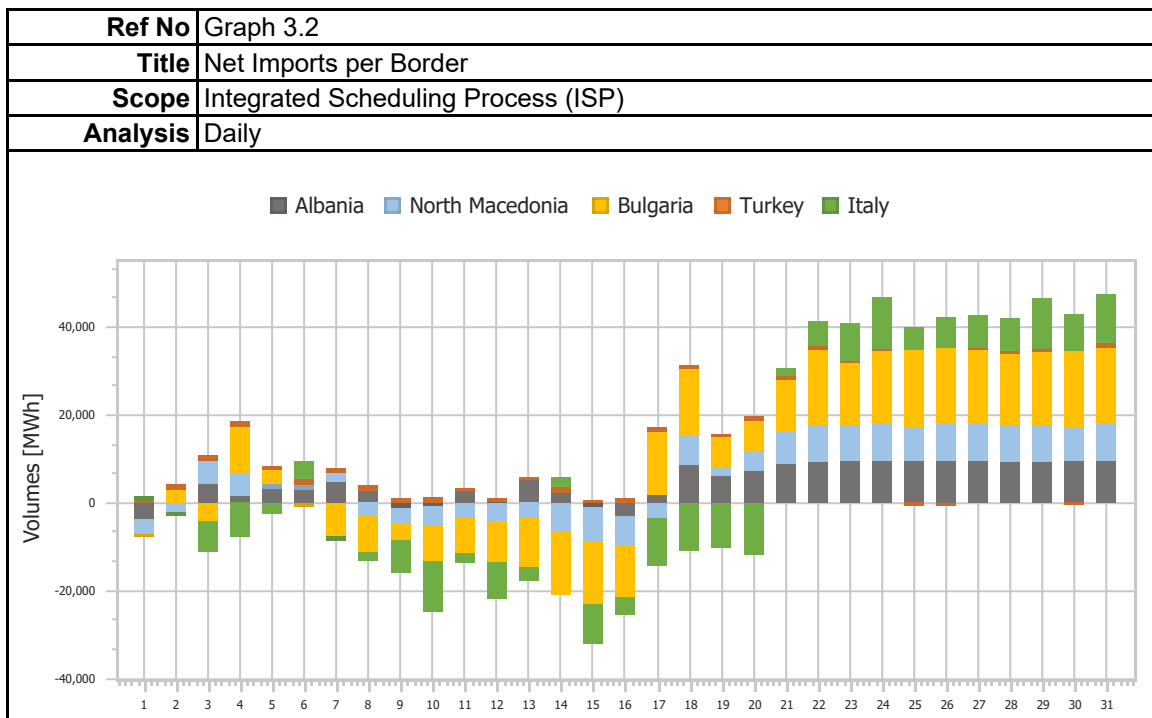
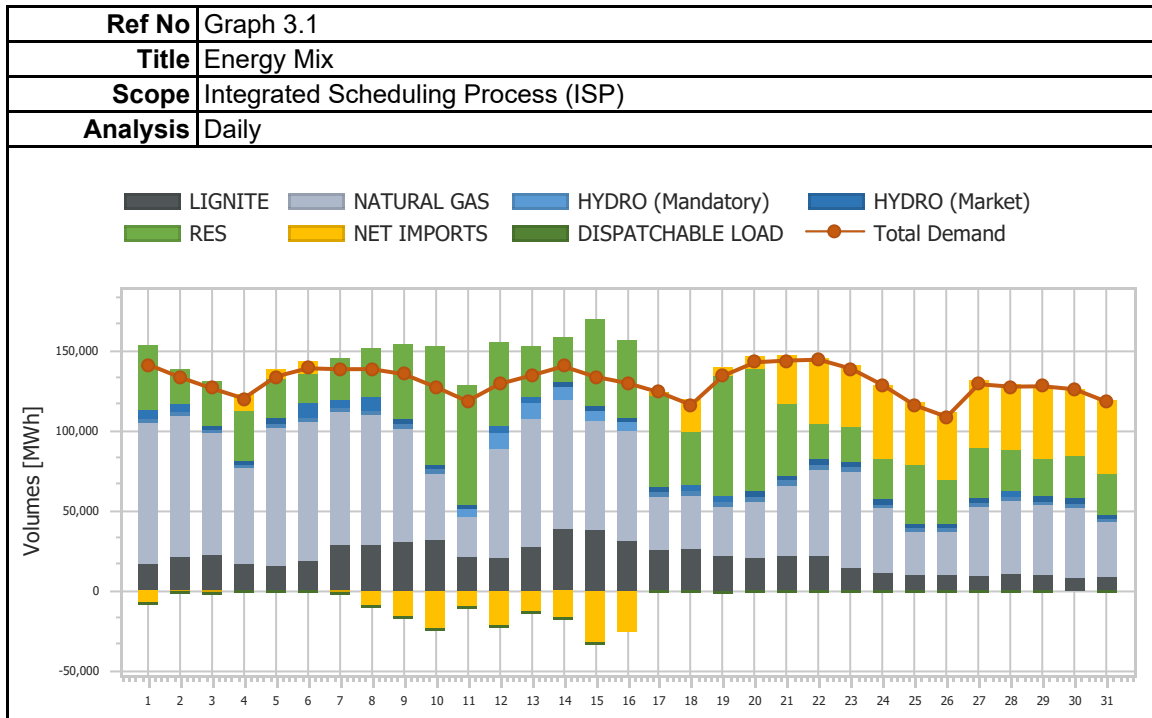
Ref No	Graph 2.5.2
Title	IDM Energy Mix Changes
Scope	Intra-Day Market Auction 2 (IDMA2)
Analysis	Daily



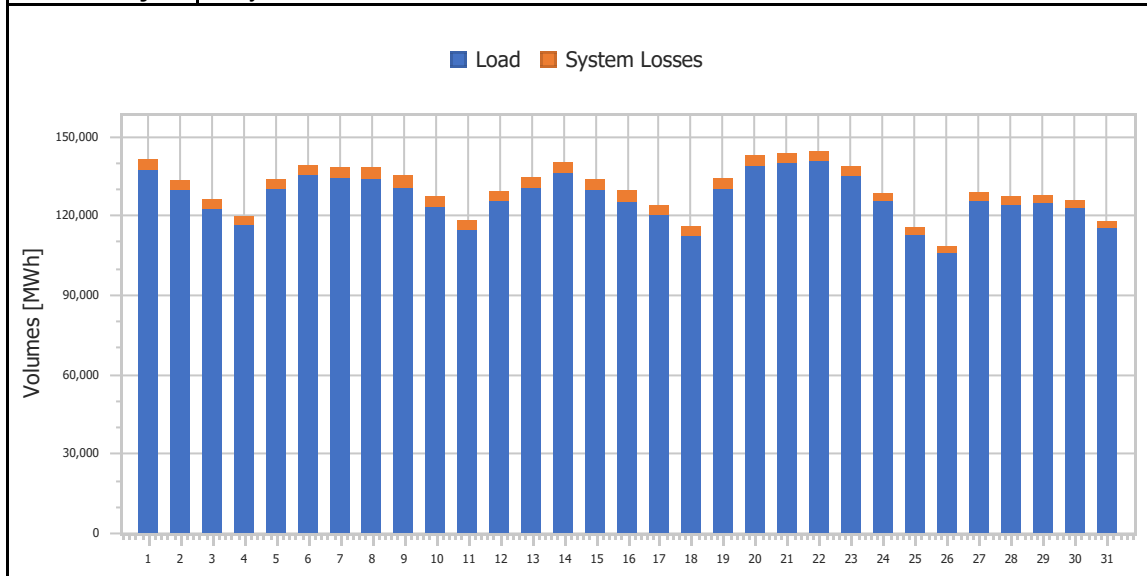
Ref No	Graph 2.5.3
Title	IDM Energy Mix Changes
Scope	Intra-Day Market Auction 3 (IDMA3)
Analysis	Daily



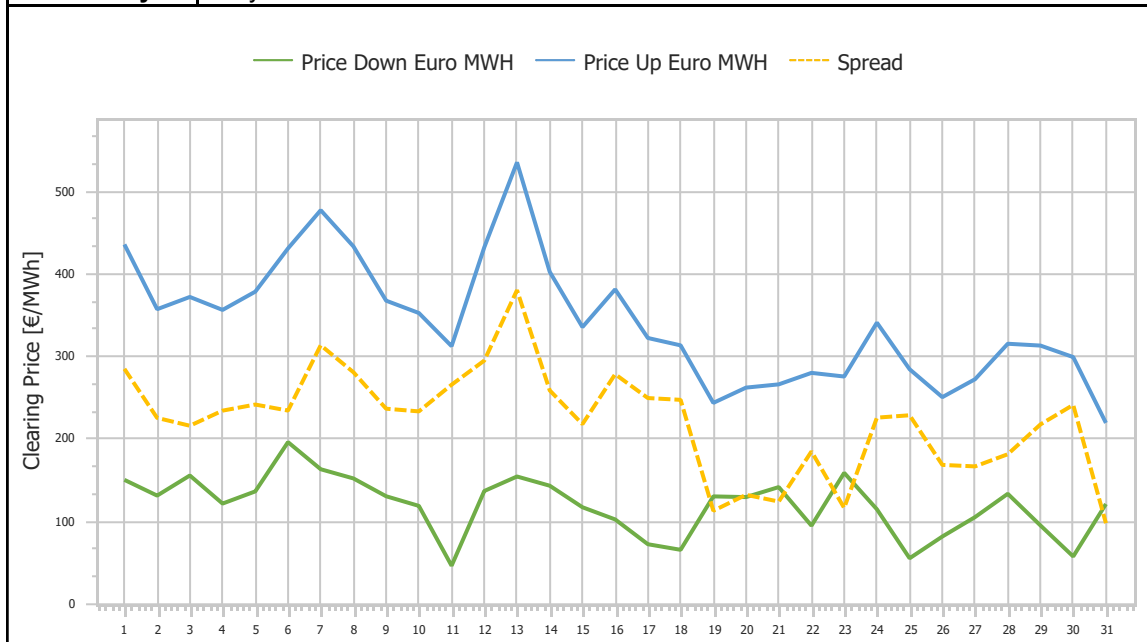
3. Integrated Scheduling Process (ISP)



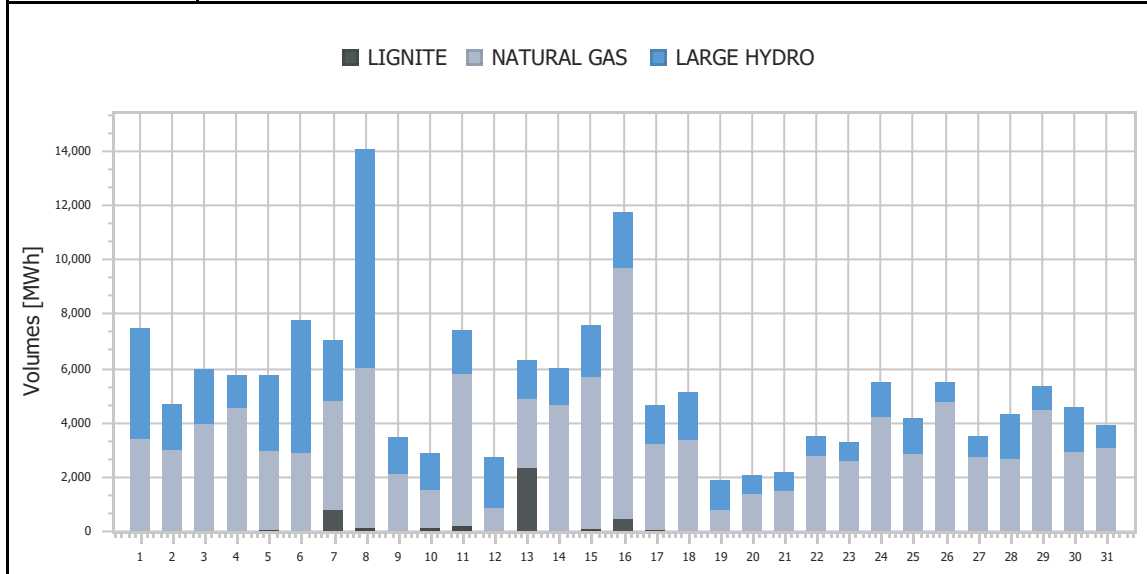
Ref No	Graph 3.3
Title	Demand & System Losses
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



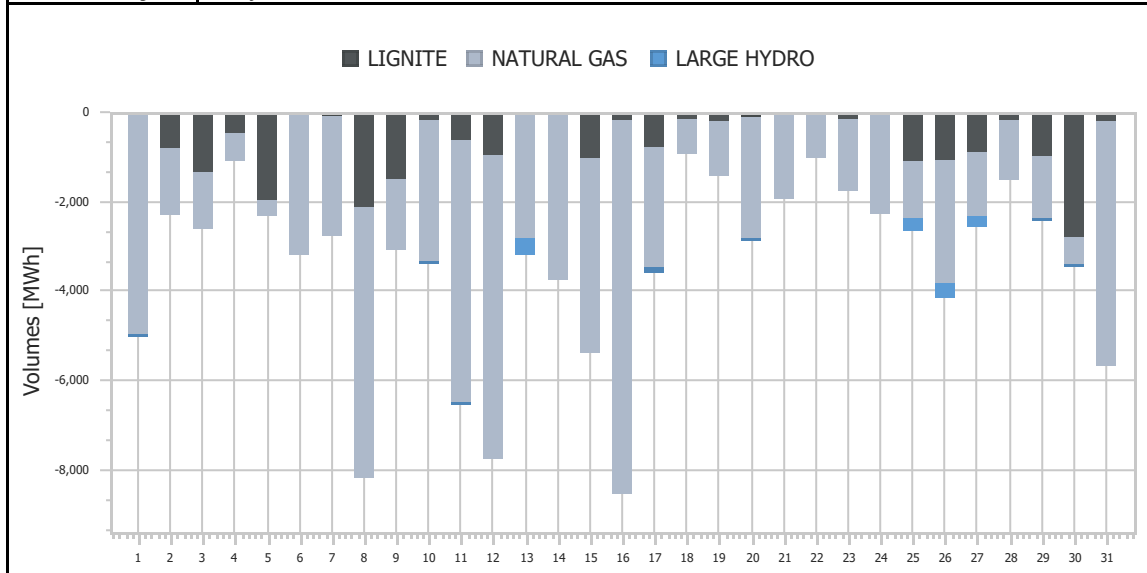
Ref No	Graph 3.4
Title	Clearing Prices
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



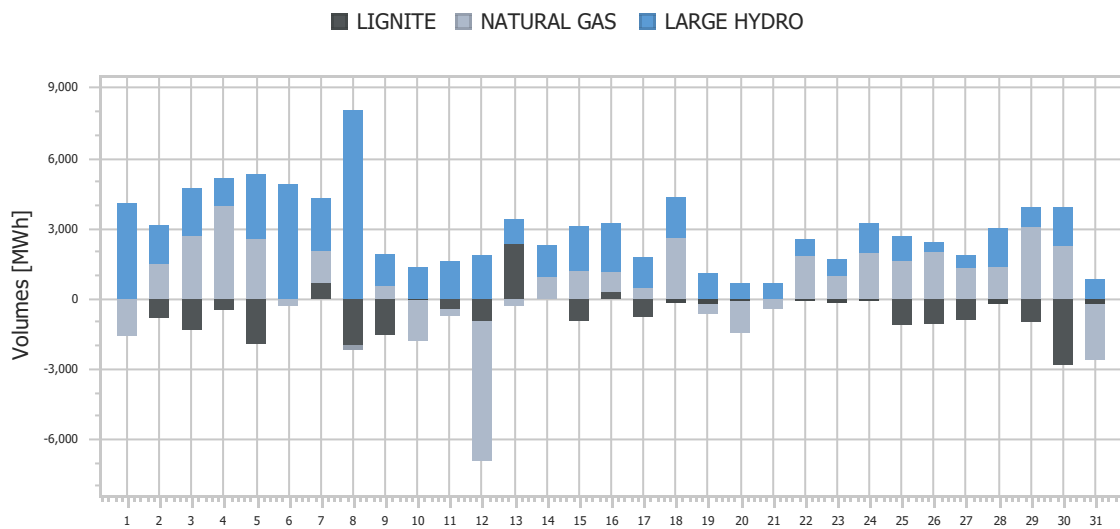
Ref No	Graph 3.5
Title	Upward Activated Balancing energy
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



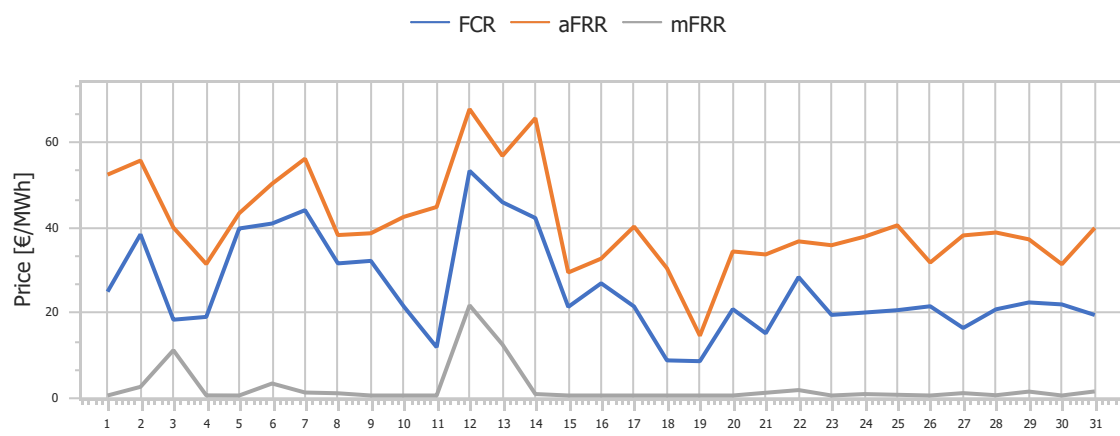
Ref No	Graph 3.6
Title	Downward Activated Balancing energy
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



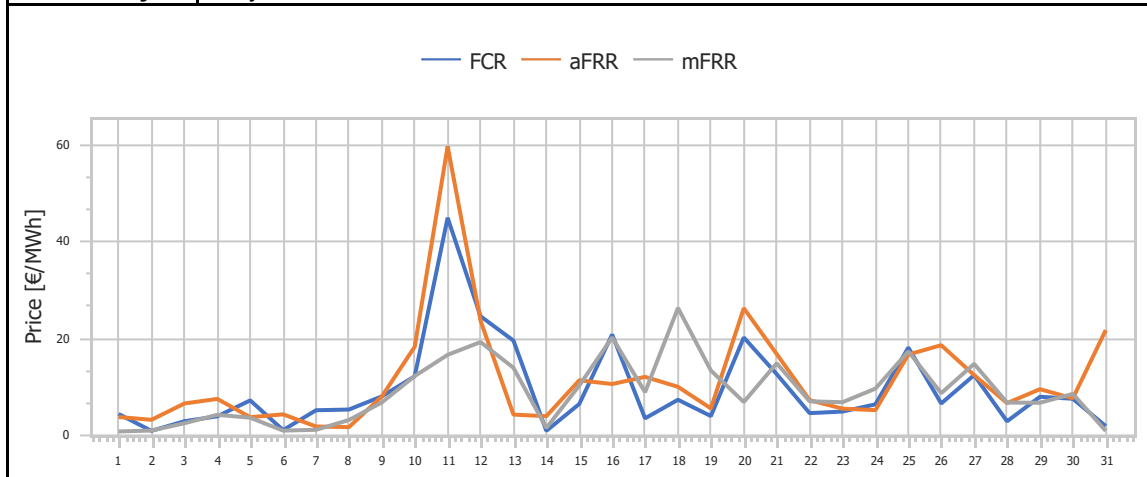
Ref No	Graph 3.7
Title	Net Activated Balancing energy
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



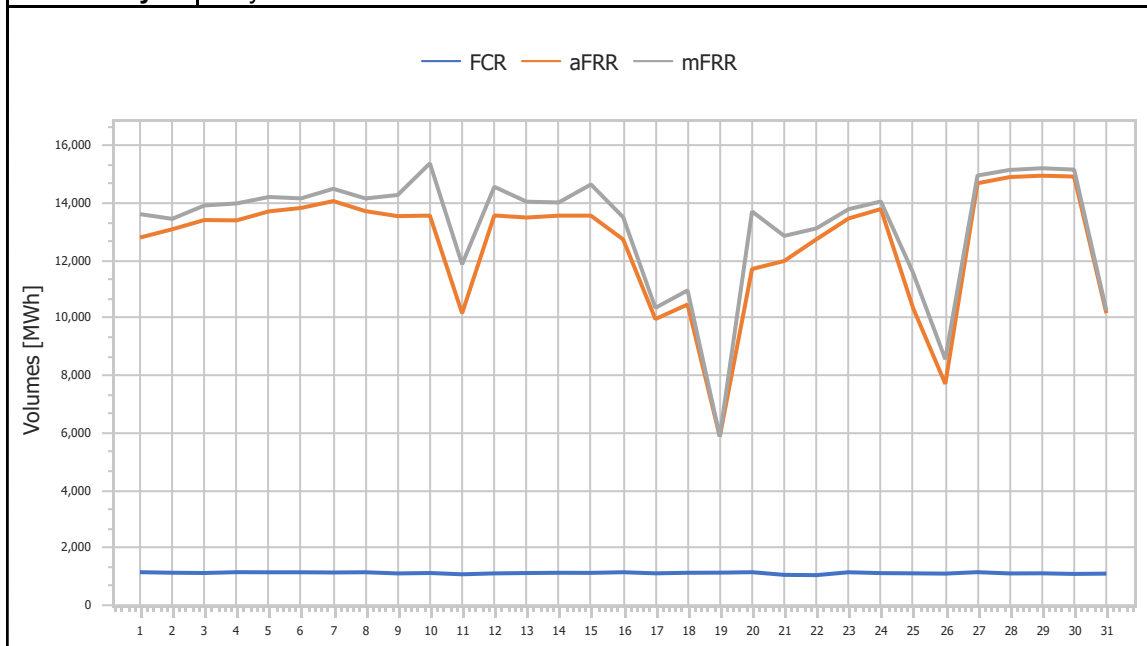
Ref No	Graph 3.8
Title	Upward Capacity Reserves Prices
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



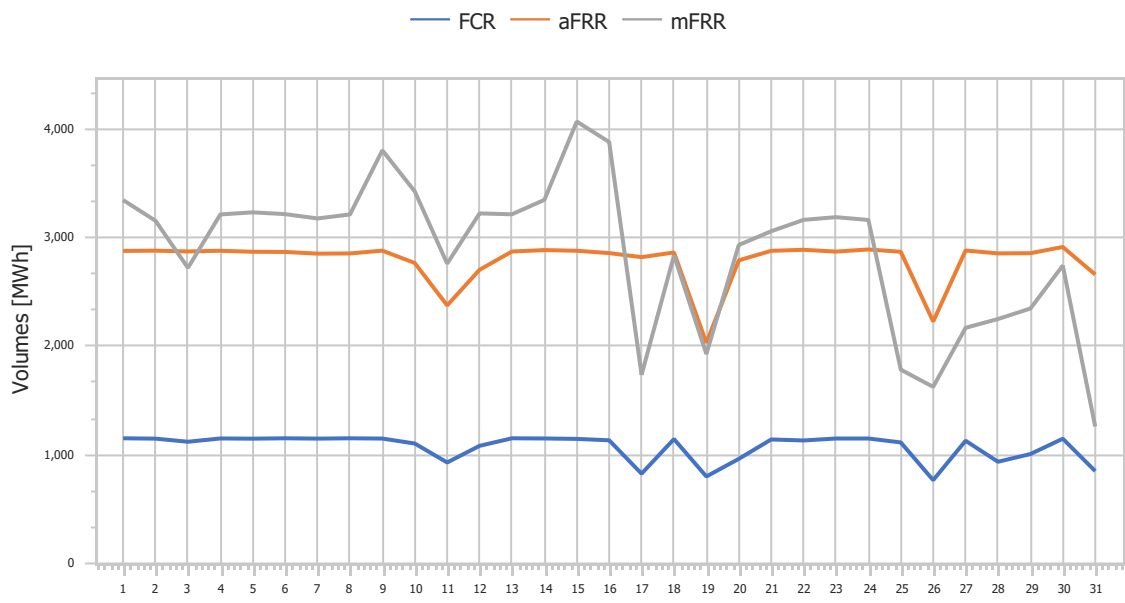
Ref No	Graph 3.9
Title	Downward Capacity Reserves Prices
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily



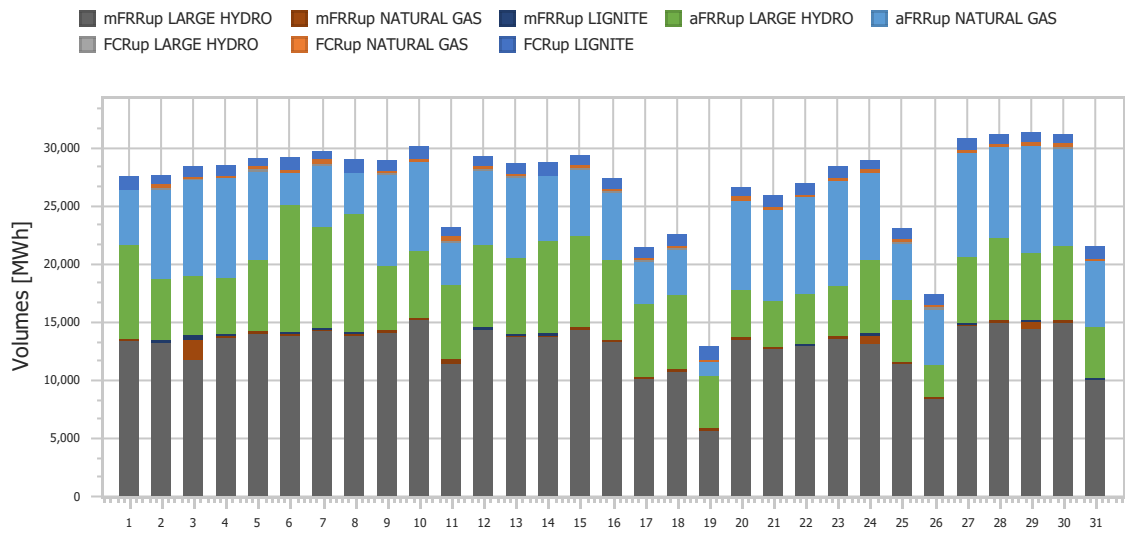
Ref No	Graph 3.10
Title	Upward Capacity Reserves Volumes
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily

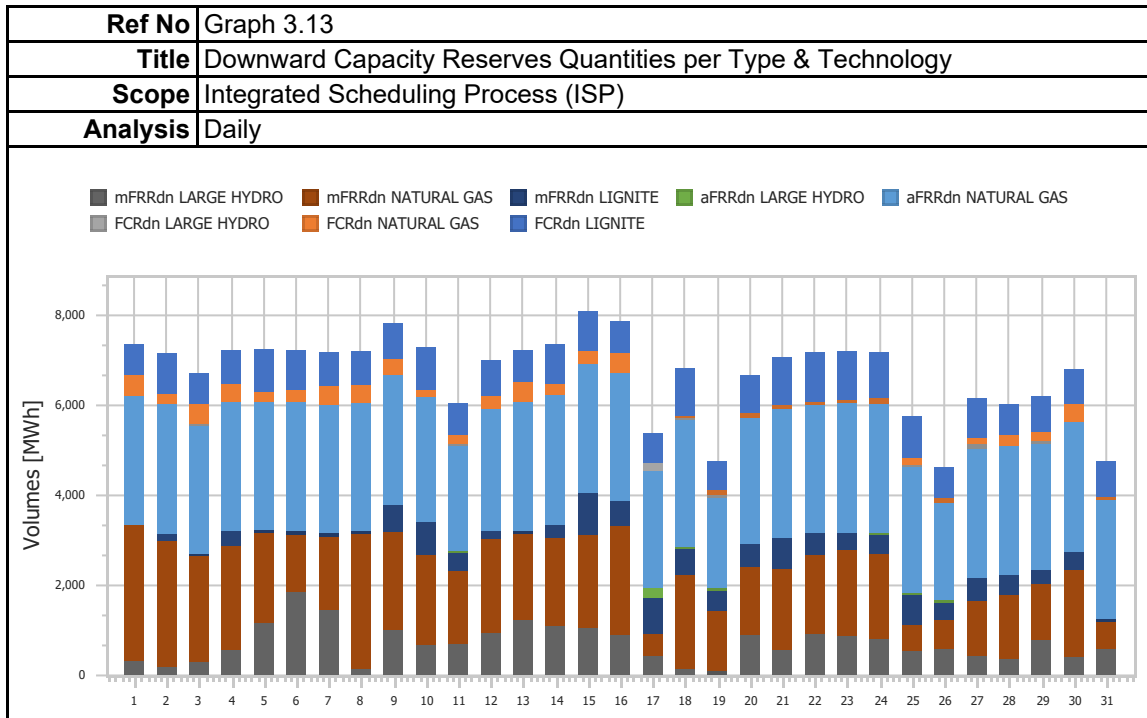


Ref No	Graph 3.11
Title	Downward Capacity Reserves Volumes
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily

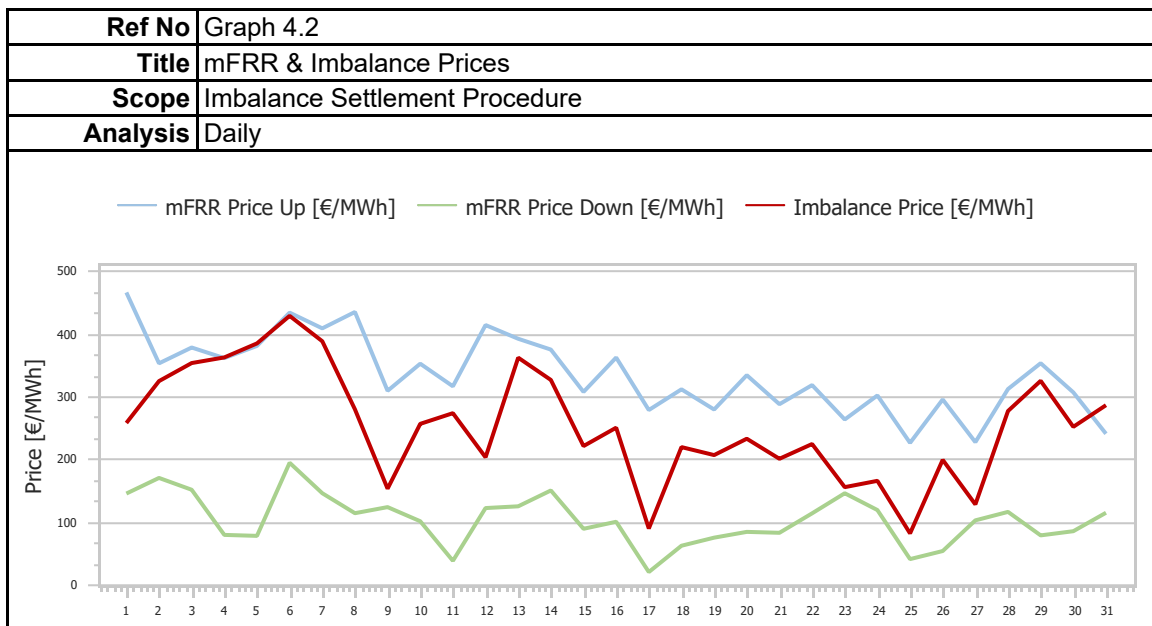
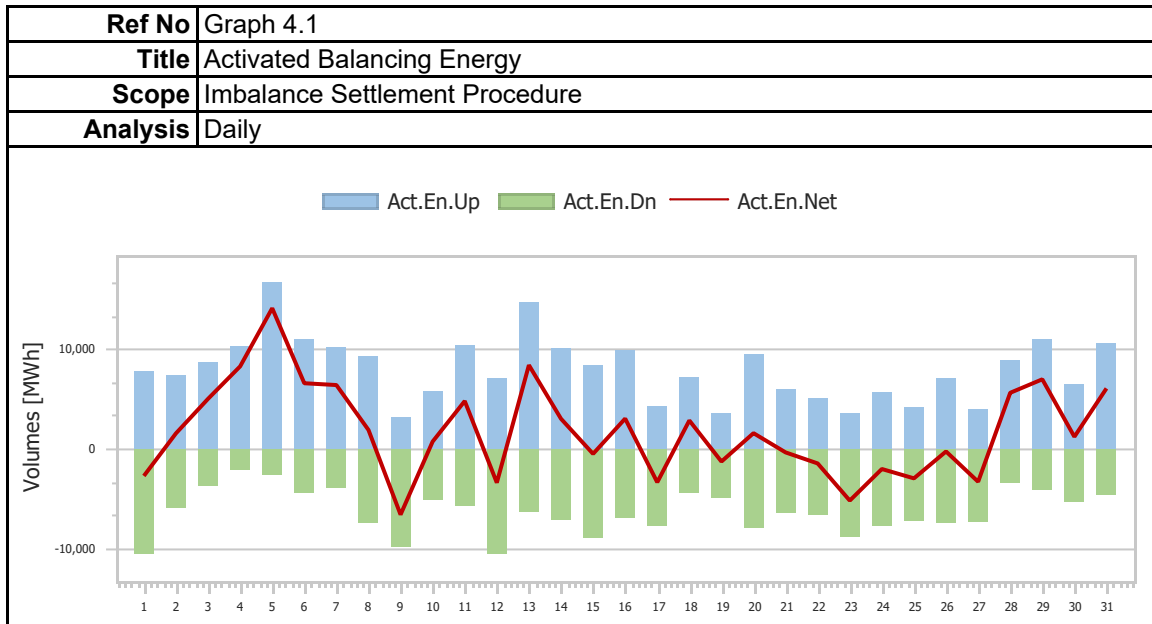


Ref No	Graph 3.12
Title	Upward Capacity Reserves Volumes per Technology
Scope	Integrated Scheduling Process (ISP)
Analysis	Daily

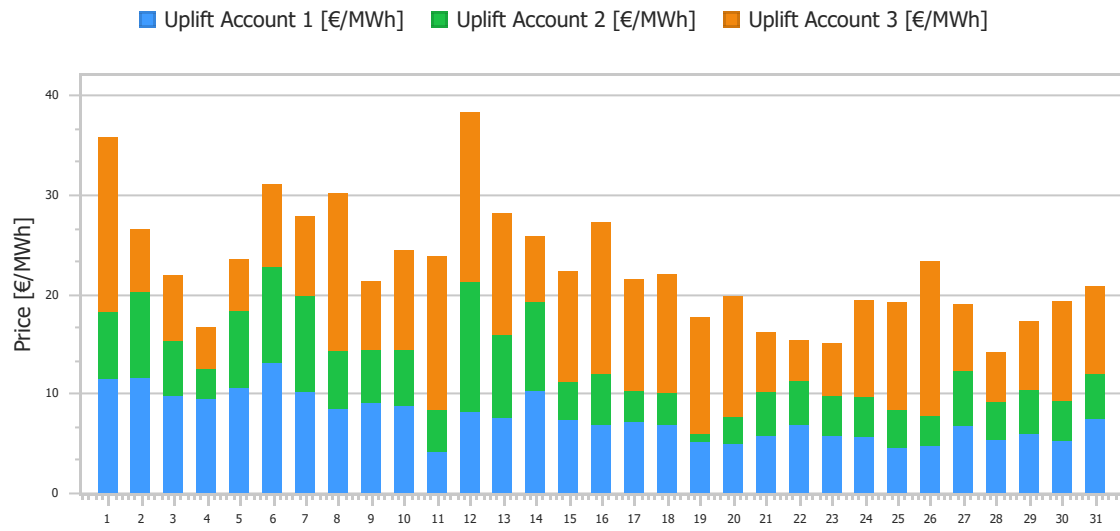




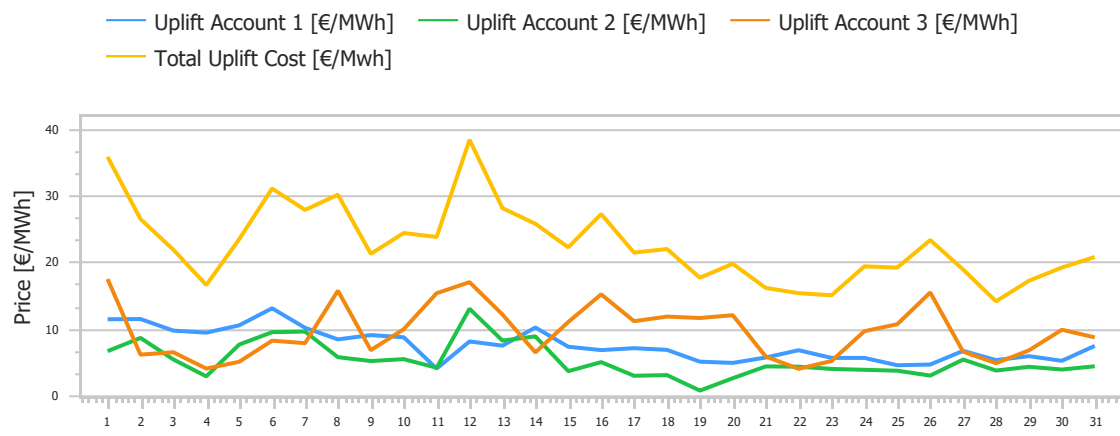
4. Imbalance Settlement Procedure



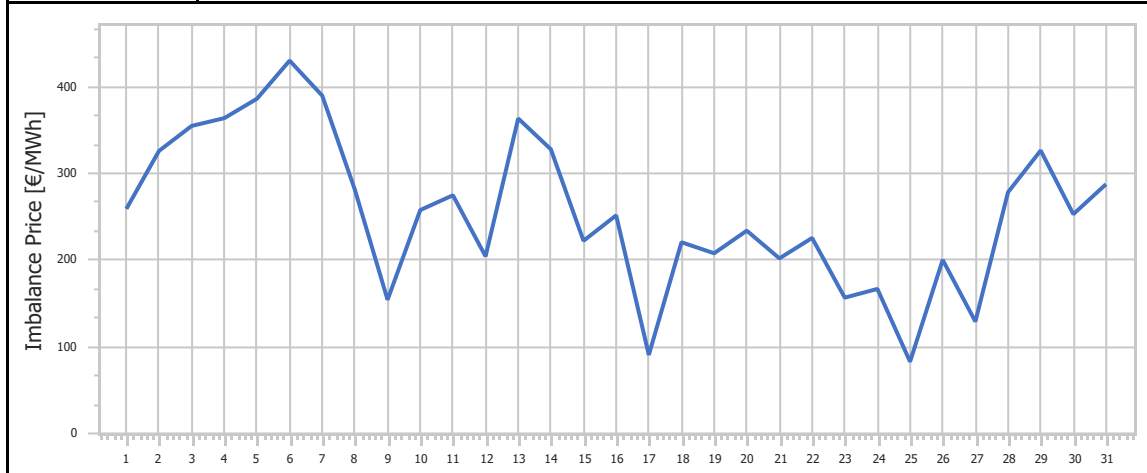
Ref No	Graph 4.3
Title	Uplift Accounts Cost
Scope	Imbalance Settlement Procedure
Analysis	Daily



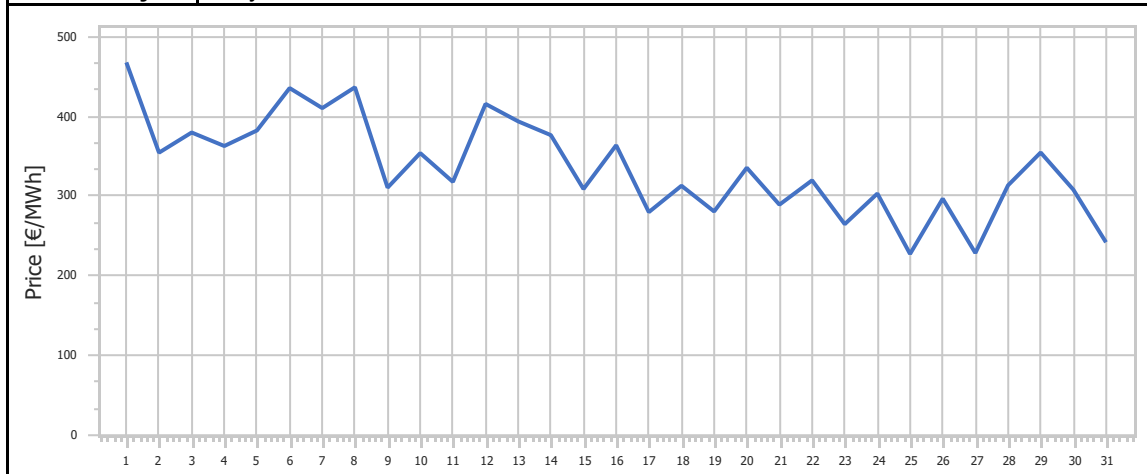
Ref No	Graph 4.4
Title	Uplift Accounts Cost
Scope	Imbalance Settlement Procedure
Analysis	Daily



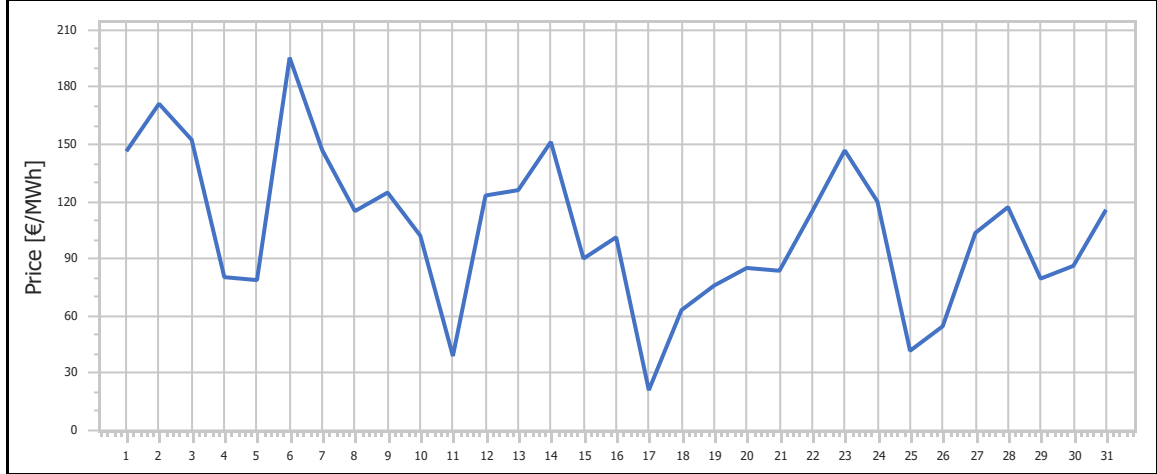
Ref No	Graph 4.5
Title	Imbalance Price
Scope	Imbalance Settlement Procedure
Analysis	Daily



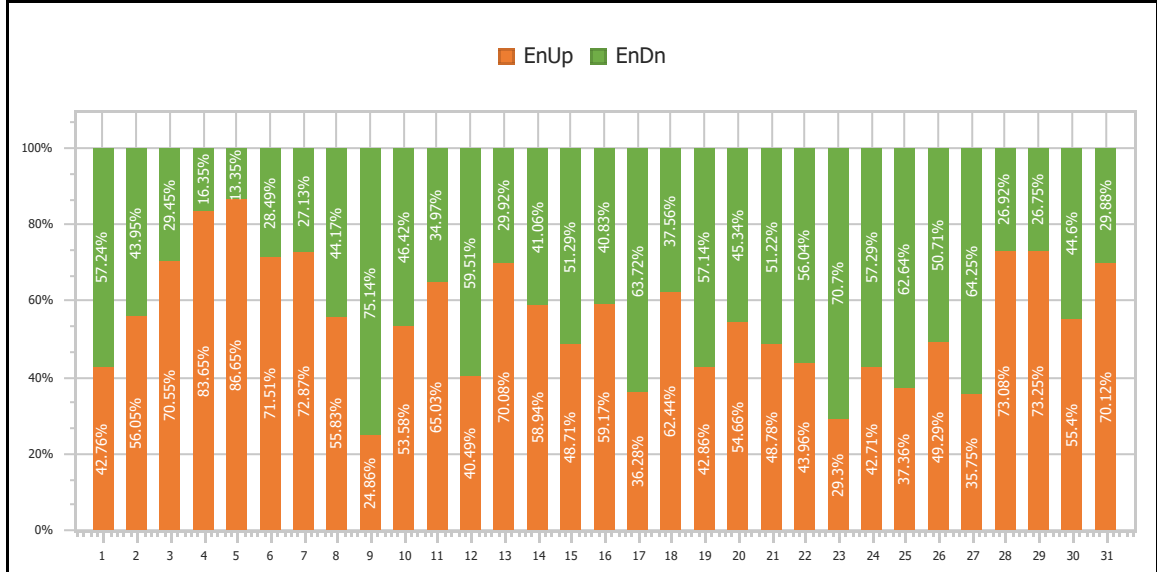
Ref No	Graph 4.6
Title	mFRR Up Price
Scope	Imbalance Settlement Procedure
Analysis	Daily



Ref No	Graph 4.7
Title	mFRR Down Price
Scope	Imbalance Settlement Procedure
Analysis	Daily

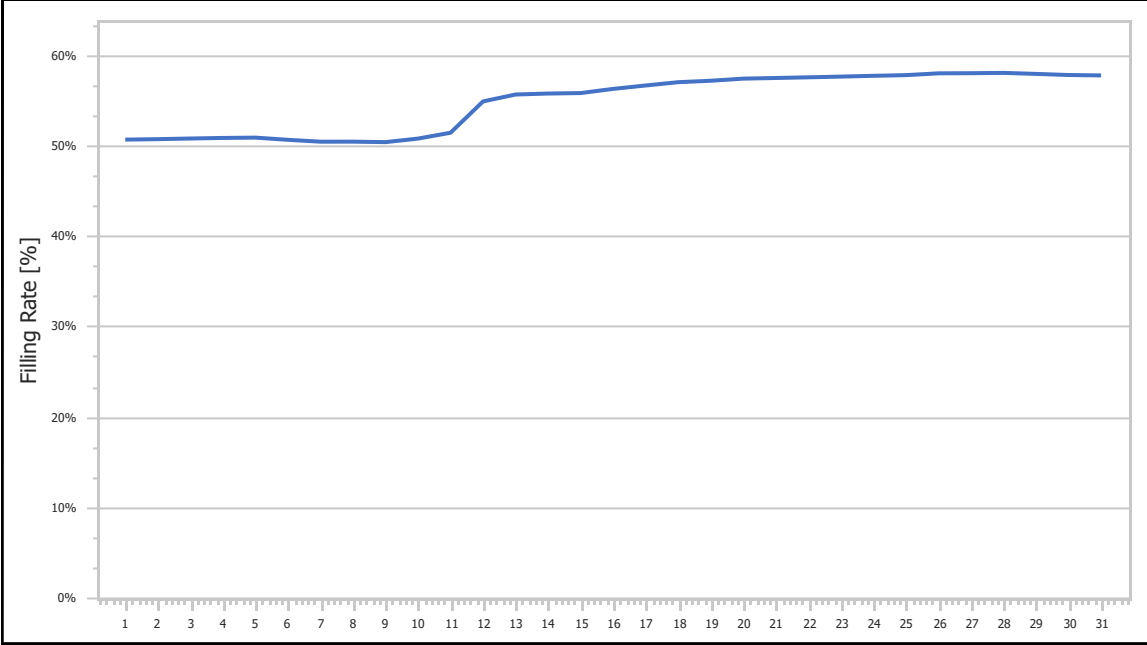


Ref No	Graph 4.8
Title	Balancing Energy Activation Direction
Scope	Imbalance Settlement Procedure
Analysis	Daily

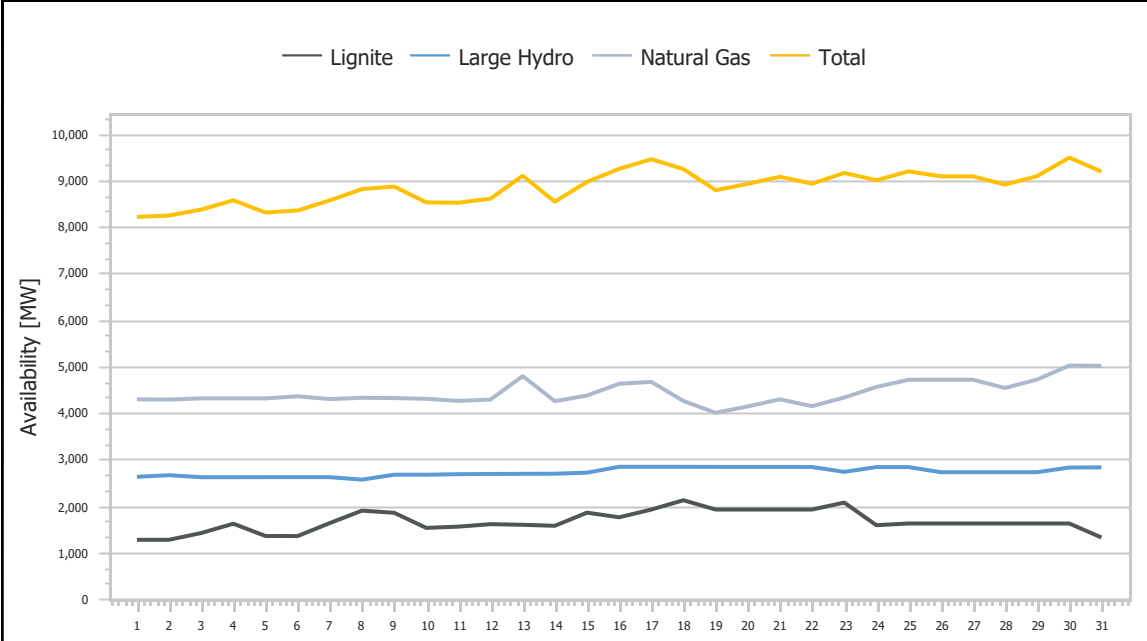


5. General Market Data

Ref No	Graph 5.1
Title	Reservoir Filling Rate
Scope	General Market Data
Analysis	Daily



Ref No	Graph 5.2
Title	Availability of Dispatchable Units per Type
Scope	General Market Data
Analysis	Daily



1. Statistics

Ref No	Table 1.1
Title	Market Shares per Aggregated Classification - SELL
Scope	Day Ahead Market (DAM)
Analysis	Monthly

Classification	Quantity [MWh]	Share [%]	Value [EUR]	Share [%]
Lignite	656,156.593	14.62%	188,329,437.88€	14.62%
Crete Conventional	149,967.250	3.34%	43,960,142.84€	3.41%
Natural Gas	1,645,054.621	36.65%	507,486,379.71€	39.40%
Large Hydro	141,844.759	3.16%	50,225,380.66€	3.90%
RES	1,012,485.096	22.56%	263,968,261.82€	20.49%
Crete Renewables	43,934.000	0.98%	11,501,853.47€	0.89%
Imports	838,924.520	18.69%	222,646,791.18€	17.28%
Total	4,488,366.840	100.00%	1,288,118,247.57€	100.00%

Ref No	Table 1.2
Title	Statistics per Aggregated Classification - SELL
Scope	Day Ahead Market (DAM)
Analysis	Monthly

	MCP [€/MWh]	Total [MWh]	Lignite [MWh]	CR Conv [MWh]	Natural Gas [MWh]	Hydro [MWh]	RES [MWh]	CR RES [MWh]	Imports [MWh]
Total	-	4,488,366.84	656,156.59	149,967.25	1,645,054.62	141,844.76	1,012,485.10	43,934.00	838,924.52
Average	276.89	144,786.03	21,166.34	4,837.65	53,066.28	4,575.64	32,660.81	1,417.23	27,062.08
Min	157.90	113,132.93	8,560.00	3,340.00	24,569.32	2,453.00	17,675.10	427.00	7,095.87
Min day	11	26	31	20	26	1	6	23	15
Max	400.86	169,660.85	37,492.00	5,856.00	83,509.16	12,611.14	64,927.96	3,751.00	47,682.00
Max day	6	15	15	7	1	13	20	20	31
Spread	242.96	56,527.93	28,932.00	2,516.00	58,939.83	10,158.14	47,252.86	3,324.00	40,586.13
Standard Deviation	59.45	14,807.77	8,016.45	614.94	19,659.74	2,562.47	14,612.36	922.24	14,141.65

Ref No	Table 1.3
Title	Market Shares per Aggregated Classification - BUY
Scope	Day Ahead Market (DAM)
Analysis	Monthly

Classification	Quantity [MWh]	Share [%]	Value [EUR]	Share [%]
System Losses	109,020.000	2.43%	31,005,364.52€	2.41%
Crete Load	213,959.000	4.77%	62,277,737.50€	4.83%
HV Load	608,145.966	13.55%	165,137,374.93€	12.82%
MV Load	795,715.918	17.73%	231,808,984.61€	18.00%
LV Load	2,278,532.780	50.77%	662,676,195.74€	51.45%
PUMP	8,224.520	0.18%	1,108,860.36€	0.09%
Exports	474,768.080	10.58%	134,103,643.04€	10.41%
Total	4,488,366.259	100.00%	1,288,118,160.70€	100.00%

Ref No	Table 1.4
Title	Statistics per Aggregated Classification - BUY
Scope	Day Ahead Market (DAM)
Analysis	Monthly

	MCP [€/MWh]	Total [MWh]	Sys Losses [MWh]	CR Load [MWh]	HV [MWh]	MV [MWh]	LV [MWh]	PUMP [MWh]	Exports [MWh]
Total	-	4,488,366.26	109,020.00	213,959.00	608,145.97	795,715.92	2,278,532.78	8,224.52	474,768.08
Average	276.89	144,786.01	3,516.77	6,901.90	19,617.61	25,668.26	73,501.06	483.80	15,315.10
Min	157.90	113,132.91	2,526.00	5,642.00	18,021.78	16,695.58	63,056.52	32.76	366.00
Min day	11	26	31	18	12	25	26	26	31
Max	400.86	169,660.89	4,622.00	7,878.00	21,675.11	31,300.10	83,611.29	1,100.00	37,986.80
Max day	6	15	9	23	31	21	22	13	15
Spread	242.96	56,527.98	2,096.00	2,236.00	3,653.33	14,604.52	20,554.76	1,067.24	37,620.80
Standard Deviation	59.45	14,807.79	511.12	490.00	1,067.19	4,314.70	4,869.19	255.78	11,343.03

2. Market Shares

Ref No	Table 2.1.1			
Title	Market Shares - Upward Capacity Reserves Volumes per Type			
Scope	Balancing Market (BM)			
Analysis	Monthly			
Type	Quantity [MW]	Share [%]	Value [EUR]	Share [%]
aFRR	1,493,009.780	71.69%	17,708,661.27€	89.75%
FCR	130,541.020	6.27%	1,414,561.94€	7.17%
mFRR	459,151.860	22.05%	607,382.37€	3.08%
Total	2,082,702.660	100.00%	19,730,605.58€	100.00%

Ref No	Table 2.1.2			
Title	Market Shares - Downward Capacity Reserves per Type			
Scope	Balancing Market(BM)			
Analysis	Monthly			
Type	Quantity [MW]	Share [%]	Value [EUR]	Share [%]
aFRR	341,266.950	41.91%	1,031,194.08€	39.57%
FCR	128,999.400	15.84%	464,251.33€	17.81%
mFRR	344,040.210	42.25%	1,110,558.96€	42.62%
Total	814,306.560	100.00%	2,606,004.37€	100.00%

Ref No	Table 2.1.3			
Title	Market Shares - Upward Activated Balancing Energy per Type			
Scope	Balancing Market (BM)			
Analysis	Monthly			
Type	Quantity [MWh]	Share [%]	Value [EUR]	Share [%]
aFRR	95,895.860	38.18%	38,569,771.14€	39.61%
mFRR	155,266.730	61.82%	58,797,634.26€	60.39%
Total	251,162.590	100.00%	97,367,405.40€	100.00%

Ref No	Table 2.1.4			
Title	Market Shares - Downward Activated Balancing Energy per Type			
Scope	Balancing Market (BM)			
Analysis	Monthly			
Type	Quantity [MWh]	Share [%]	Value [EUR]	Share [%]
aFRR	51,699.940	26.58%	4,058,183.48€	20.97%
mFRR	142,773.080	73.42%	15,291,437.34€	79.03%
Total	194,473.020	100.00%	19,349,620.82€	100.00%

3. Market Overview

Ref No	Table 3.1	
Title	Total Transactions Quantity per Market	
Scope	DAM, IDM, Balancing Energy Market	
Analysis	Monthly	
Market	Quantity [MWh]	Share [%]
DAM	4,488,366.84	97.32%
IDMA1	32,235.99	0.70%
IDMA2	18,676.62	0.40%
IDMA3	16,215.75	0.35%
IDM (Total)	67,128.36	1.46%
Balancing Energy (Up)	251,162.59	5.45%
Balancing Energy (Dn)	194,473.02	4.22%
Balancing Energy (Total)	56,689.57	1.23%
Total	4,612,184.77	100.00%

Ref No	Table 3.2	
Title	Total Transactions Value per Market	
Scope	DAM, IDM, Balancing Energy Market	
Analysis	Monthly	
Market	Value [EUR]	Share [%]
DAM	1,288,118,247.57€	91.52%
IDMA1	8,930,893.93€	0.63%
IDMA2	5,118,434.19€	0.36%
IDMA3	5,017,563.65€	0.36%
IDM (Total)	19,066,891.77€	1.35%
Balancing Capacity (Up)	19,730,605.58€	1.40%
Balancing Capacity (Dn)	2,606,004.37€	0.19%
Balancing Capacity (Total)	22,336,609.95€	1.59%
Balancing Energy (Up)	97,367,405.40€	6.92%
Balancing Energy (Dn)	19,349,620.82€	1.37%
Balancing Energy (Total)	78,017,784.58€	5.54%
Balancing Market (Total)	100,354,394.53€	7.13%
Total	1,407,539,533.87€	100.00%