

Monthly report



April 2010

Monthly provisional values as of 22 October 2010

European Network of
Transmission System Operators
for Electricity

entsoe

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General remarks and abbreviations used in the tables

- All values of production and consumption in chapter 1, 9, 10 and 11 are calculated to represent 100% of the national values.
- UA_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with ENTSO-E
- CET Central European Time

Countries	Net generation in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh	
	Therm. nuclear	Fossil fuels	Hydro prod	Other renew.	of which wind	Non identi- fiable	Total			monthly	variation [%]
AT	0	1581	2264	0	0	782	4627	116	401	4342	-13,3
BA	0	469	782	0	0	0	1251	-340	0	911	11,6
BE ²	3659	3145	143	401	96	0	7348	-61	142	7145	9,7
BG	1202	1089	592	17	17	0	2900 ¹	-389	71	2440	-3,7
CH	2326	182	2116	114	2	0	4738 ¹	530	161	5107	6,5
CY	0	322	0	0	0	0	322	0	0	322	-1,5
CZ	2443	3697	329	83	24	0	6552 ¹	-1414	76	5062	9,4
DE	10133	27053	1648	6260	2974	0	45094 ¹	-2470	544	42080	4,6
DK	0	2197	2	837	632	0	3036 ¹	-313	0	2723	n.a.
EE	0	652	4	77	18	0	733	-119	0	614	n.a.
ES	4903	7852	4868	3794	2708	32	21449	-729	290	20429	5,7
FI	1954	2667	1061	897	20	61	6640 ¹	252	0	6892	n.a.
FR	31294	3548	5687	1078	727	0	41607	-2531	530	38546	3,0
GB	4817	19184	407	74	74	0	24482	n.a.	n.a.	n.a.	n.a.
GR	0	2681	390	214	180	0	3285 ¹	635	7	3913	0,5
HR	0	312	836	14	13	0	1162	214	19	1357	2,5
HU	1151	1611	0	0	0	0	2762	551	0	3313	14,4
IE	0	1828	102	180	180	23	2133 ¹	70	46	2157	n.a.
IS	0	1	997	364	0	0	1362	0	0	1362	n.a.
IT	0	16767	3606	984	504	0	21357	3883	393	24847	3,0
LT	0	157	111	23	12	0	291 ¹	506	62	735	n.a.
LU	0	235	140	14	5	0	389	355	177	567	13,4
LV	0	46	935	7	3	0	988	-418	0	570	n.a.
ME ³	0	125	146	0	0	0	271	2	0	273	n.a.
MK	0	289	258	0	0	0	547	94	0	641	12,1
NI ⁴	0	517	1	44	39	1	563	160	0	723	n.a.
NL	21	7299	0	599	287	0	7919	521	0	8440	-4,0
NO	0	519	8072	66	66	0	8657 ¹	1538	59	10136	n.a.
PL ⁵	0	10626	307	147	126	0	11080 ¹	50	48	11082	5,7
PT	0	1292	1988	829	616	0	4109 ¹	46	36	4119	4,4
RO	905	1565	1691	0	n.a.	0	4161	-24	31	4106	8,0
RS	0	2191	1248	0	0	0	3439	226	129	3536	27,1
SE	5522	633	3795	1274	239	0	11224 ¹	-72	0	11152	n.a.
SI	499	358	280	0	0	0	1137	-199	0	938	13,7
SK	1239	509	391	37	0	0	2176 ¹	-36	35	2105	11,5
ENTSO-E ⁶	72068	123199	45197	18428	9562	899	259791 ¹	634	3257	232685	n.a.
UA_W	0	307	11	0	0	0	318	-5	0	313	9,8

¹ Including deliveries from industry

² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of April 2009

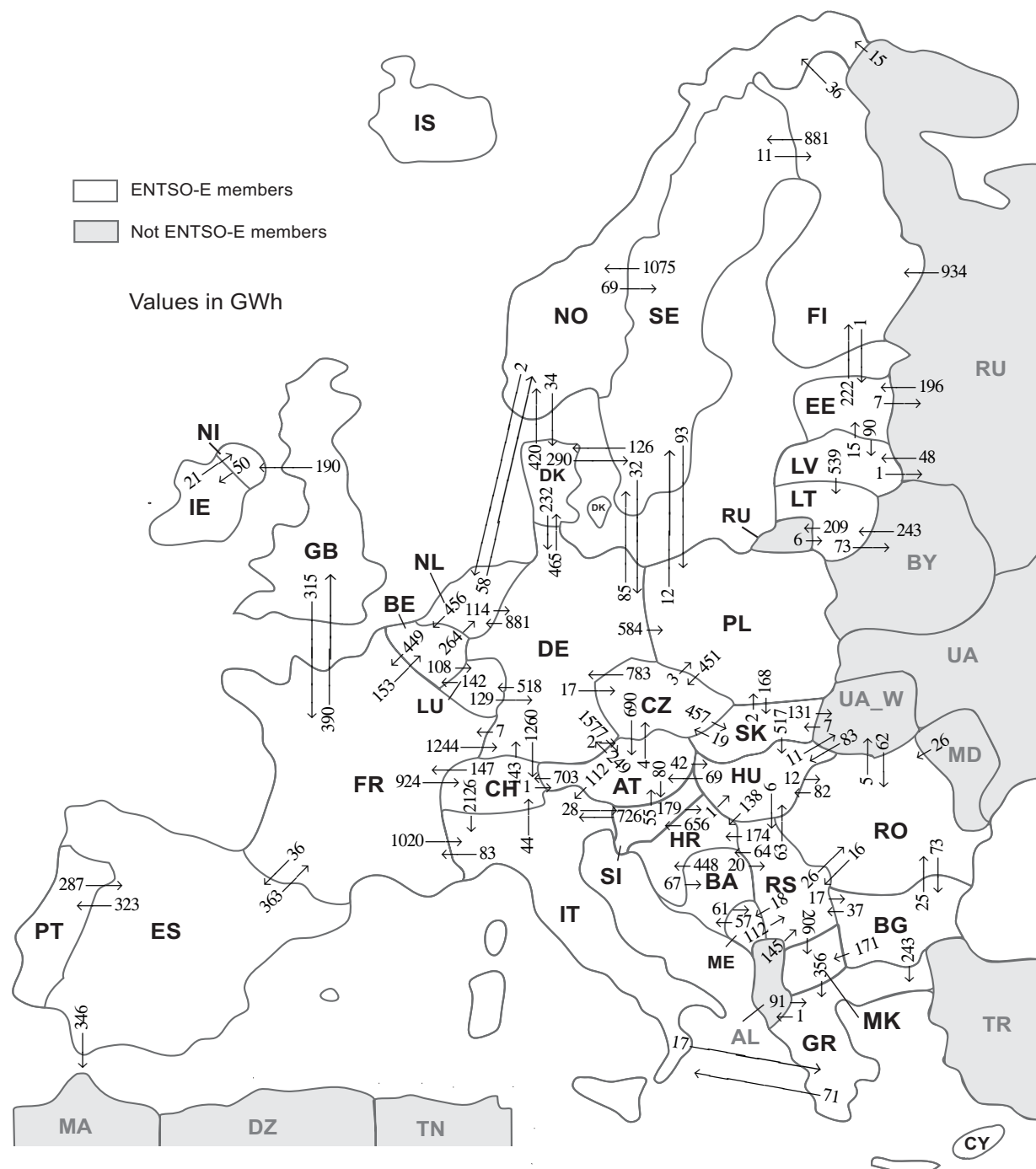
⁴ 9 Generating Units (1805MW) are capable of running on mixed fuels - The data has identified which fuel type these have been run on and been added into the appropriate fuel type.

⁵ Operational data

⁶ Sum ENTSO-E exchange balance, pump and consumption without data of GB

All representativities of the national generation and consumption values on page 2 used to calculate values at a representativity of 100% as stated in the table above:

Countries	Representativities of the national values in %					Consumption
	Thermal nuclear	Fossil fuels	Hydro prod	Other renewable	Non identifiable	
AT	100	100	100	100	100	100
BA	100	100	100	100	100	100
BE	100	100	100	100	100	100
BG	100	100	100	100	100	100
CH	100	100	100	100	100	100
CY	100	100	100	100	100	100
CZ	100	100	100	100	100	100
DE	100	100	100	100	100	100
DK	100	100	100	100	100	100
EE	100	100	100	100	100	100
ES	100	97	100	95	100	98
FI	100	100	100	100	100	100
FR	100	100	100	100	100	100
GB	100	100	100	100	100	100
GR	100	100	100	100	100	100
HR	100	100	100	100	100	100
HU	100	100	100	100	100	100
IE	100	100	100	100	100	100
IS	100	100	100	100	100	100
IT	100	100	100	100	100	100
LT	100	99	98	99	100	100
LU	100	100	100	100	100	100
LV	100	100	100	100	100	100
ME	100	100	100	100	100	100
MK	100	100	100	100	100	100
NI	100	100	100	100	100	100
NL	100	100	100	100	100	100
NO	100	100	100	100	100	100
PL	100	100	100	100	100	100
PT	100	90	100	100	100	97
RO	100	100	100	100	100	100
RS	100	100	100	100	100	100
SE	100	100	100	100	100	100
SI	100	100	100	100	100	100
SK	100	100	100	100	100	100
UA_W	100	100	100	100	100	100



Sum of physical energy flows between ENTSO-E countries: **27730GWh**

Total physical energy flows: **30370GWh**

Not ENTSO-E members:

Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia, Ukraine and Ukraine West

These physical energy flows were measured on the cross-frontier transmission lines (≤ 110 kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

Overview of the monthly imports and exports in GWh

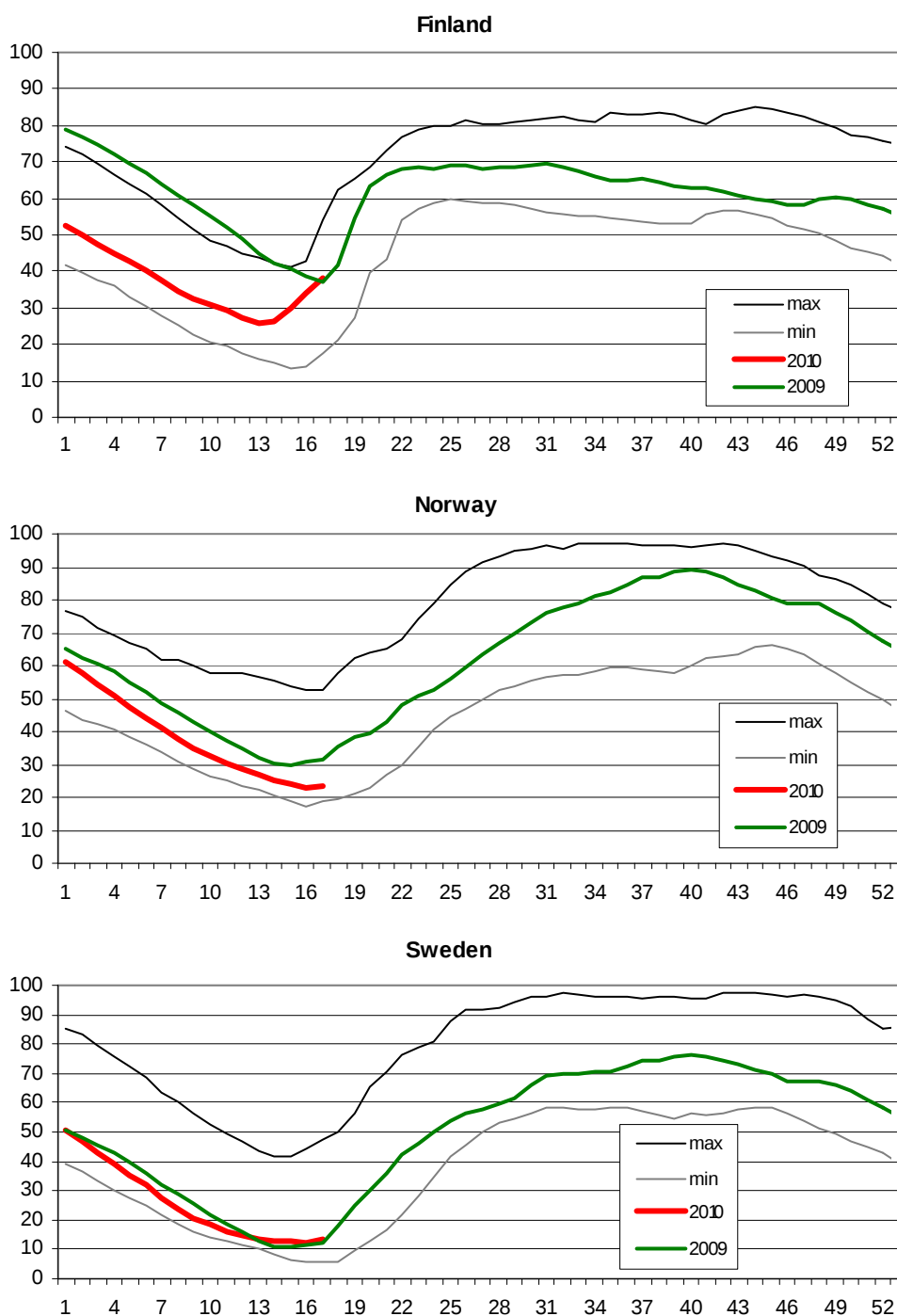
	Importing countries																																		
Exporting countries	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME	MK	NI	NL	NO	PL	PT	RO	RS	SE	SI	SK	UA_W	Other III ¹
AT	-	-	-	-	703	4	249	-	-	-	-	-	-	-	-	42	-	112	-	-	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	448	-	-	-	-	-	-	61	-	-	-	-	-	-	-	20	-	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	449	-	-	-	-	-	-	-	108	-	-	-	-	264	-	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	171	-	-	-	-	-	25	37	-	-	-	-	0	
CH	1	-	-	-	-	-	143	-	-	-	-	147	-	-	-	-	-	2126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	690	-	-	-	-	-	783	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	457	-	-	
DE	1577	-	-	-	1260	17	-	465	-	-	-	7	-	-	-	-	-	-	-	518	-	-	-	-	881	-	584	-	-	-	85	-	-	-	
DK	-	-	-	-	-	-	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420	-	-	-	-	-	290	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	222	-	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	7	
ES	-	-	-	-	-	-	-	-	-	-	-	363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323	-	-	-	-	-	-	346	
FI	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-	-	881	-	-	-	0	
FR	-	-	153	-	924	-	1244	-	-	36	-	-	390	-	-	-	-	1020	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	-	-	315	-	-	-	-	-	-	-	-	-	-	-	190	-	-	-	-	-	-	-	-	-	-	
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	1	
HR	-	67	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	656	-	-	
HU	69	-	-	-	-	-	-	-	-	-	-	-	-	-	138	-	-	-	-	-	-	-	-	-	-	-	-	12	6	-	-	0	11	-	
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	
IT	0	-	-	-	44	-	-	-	-	-	-	83	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	282	
LU	-	-	142	-	-	-	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LV	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	539	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
ME	-	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	n.a.		
MK	-	-	-	0	-	-	-	-	-	-	-	-	356	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	
NI	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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PT	-	-	-	-	-	-	-	-	-	287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RO	-	-	-	73	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0	
RS	-	64	-	17	-	-	-	-	-	-	-	-	-	174	63	-	-	-	-	-	-	18	206	-	-	-	-	26	-	-	-	-	-	0	
SE	-	-	-	-	-	-	32	126	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SI	55	-	-	-	-	-	-	-	-	-	-	-	-	179	-	-	726	-	-	-	-	-	-	-	-	1075	93	-	-	-	-	-	-	-	
SK	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	517	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	131	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-	-	-	-	-	-	-	-	-	62	-	-	-	7	-	-	
Other III ¹	-	-	-	0	-	-	-	-	196	0	934	-	-	91	-	-	-	-	249	-	48	n.a.	-	-	-	15	0	-	26	145	-	-	-	-	

Other III¹: Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia and Ukraine

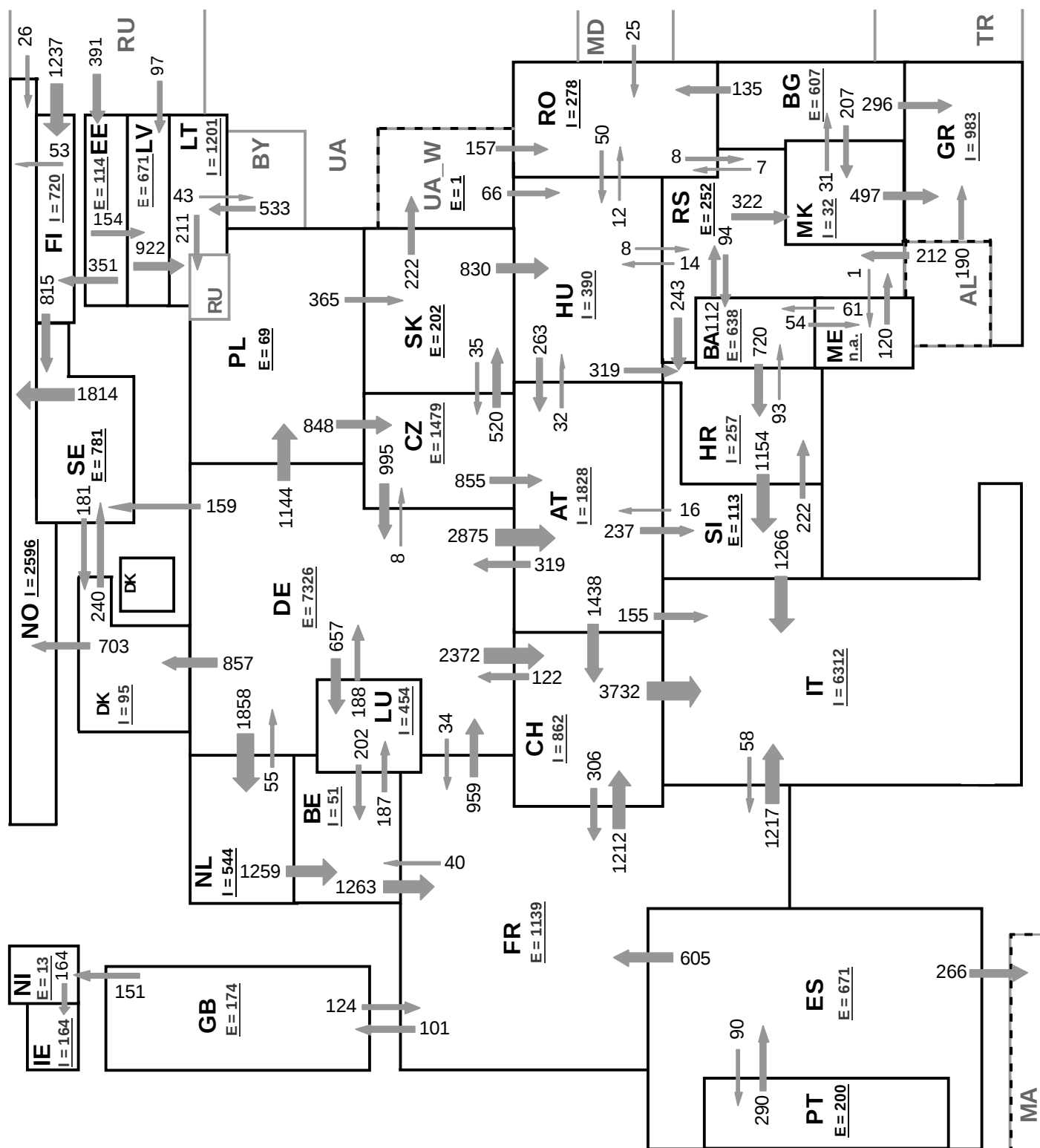
Sum of the monthly imports and exports in GWh

	import	export
AT	2392	1190
BA	188	529
BE	751	821
BG	90	476
CH	2931	2417
CZ	491	1933
DE	2926	5394
DK	625	942
EE	212	319
ES	323	1032
FI	1167	918
FR	1364	3767
GB	390	505
GR	707	72
HR	939	726
HU	788	236
IE	50	21

	import	export
IT	4055	172
LT	788	282
LU	626	271
LV	138	555
ME	n.a.	n.a.
MK	188	356
NI	211	50
NL	1147	628
NO	1604	105
PL	682	631
PT	323	287
RO	151	176
RS	338	568
SE	1337	1337
SI	764	960
SK	632	669
UA_W	147	152



- Finland:** Reservoir capacity: 5.530 GWh
Minimum and maximum limits are based on values for the years 1990-2002
- Norway:** Reservoir capacity: 81.729 GWh
The statistics are supposed to cover 97.1 percent of the total reservoir capacity.
The total reservoir capacity is 84 147 GWh
Minimum and maximum limits are based on values for the years 1990-2003
- Sweden:** Reservoir capacity: 33.758 GWh
Minimum and maximum limits are based on values for the years 1950-2006



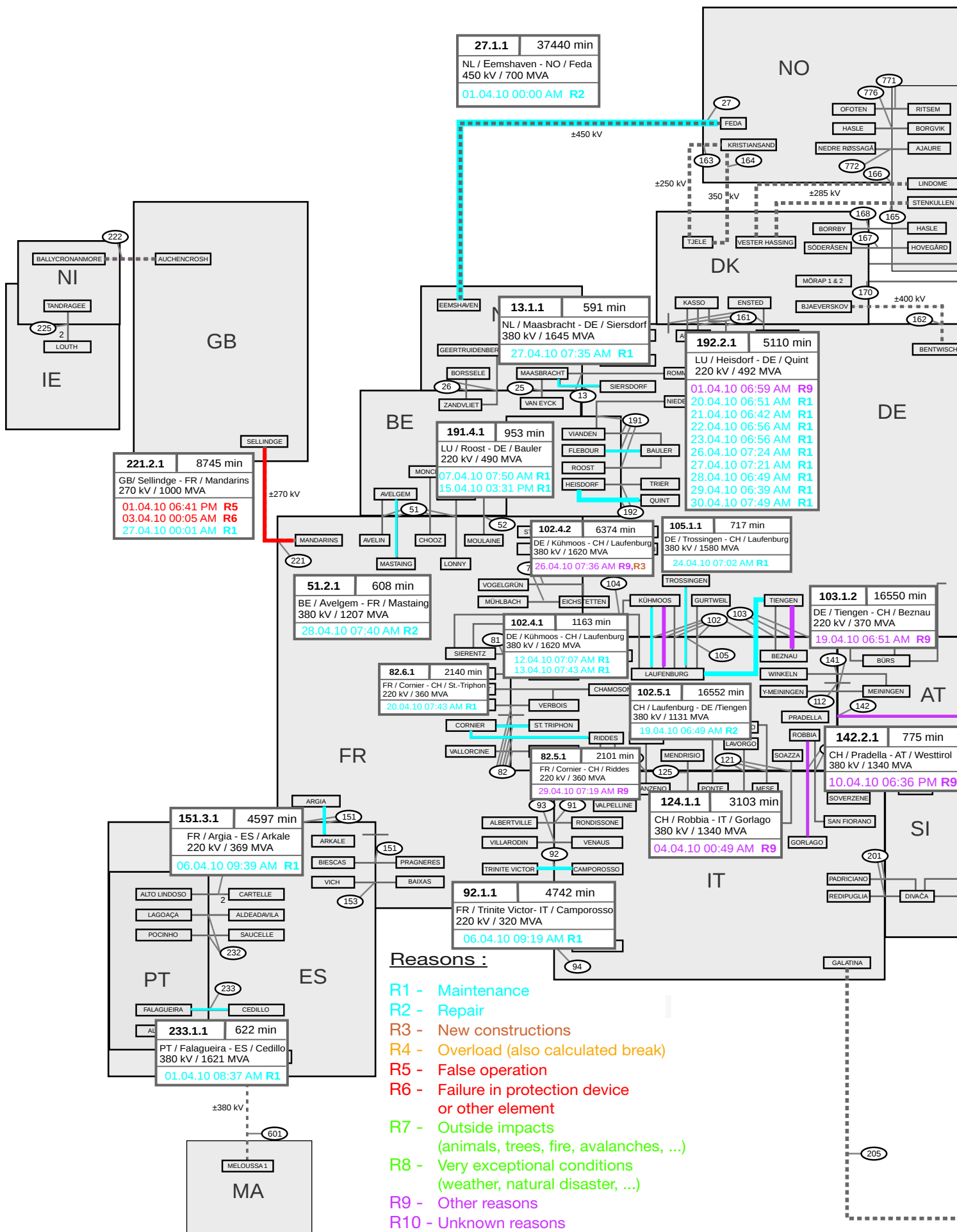
Sum of load flows in MW

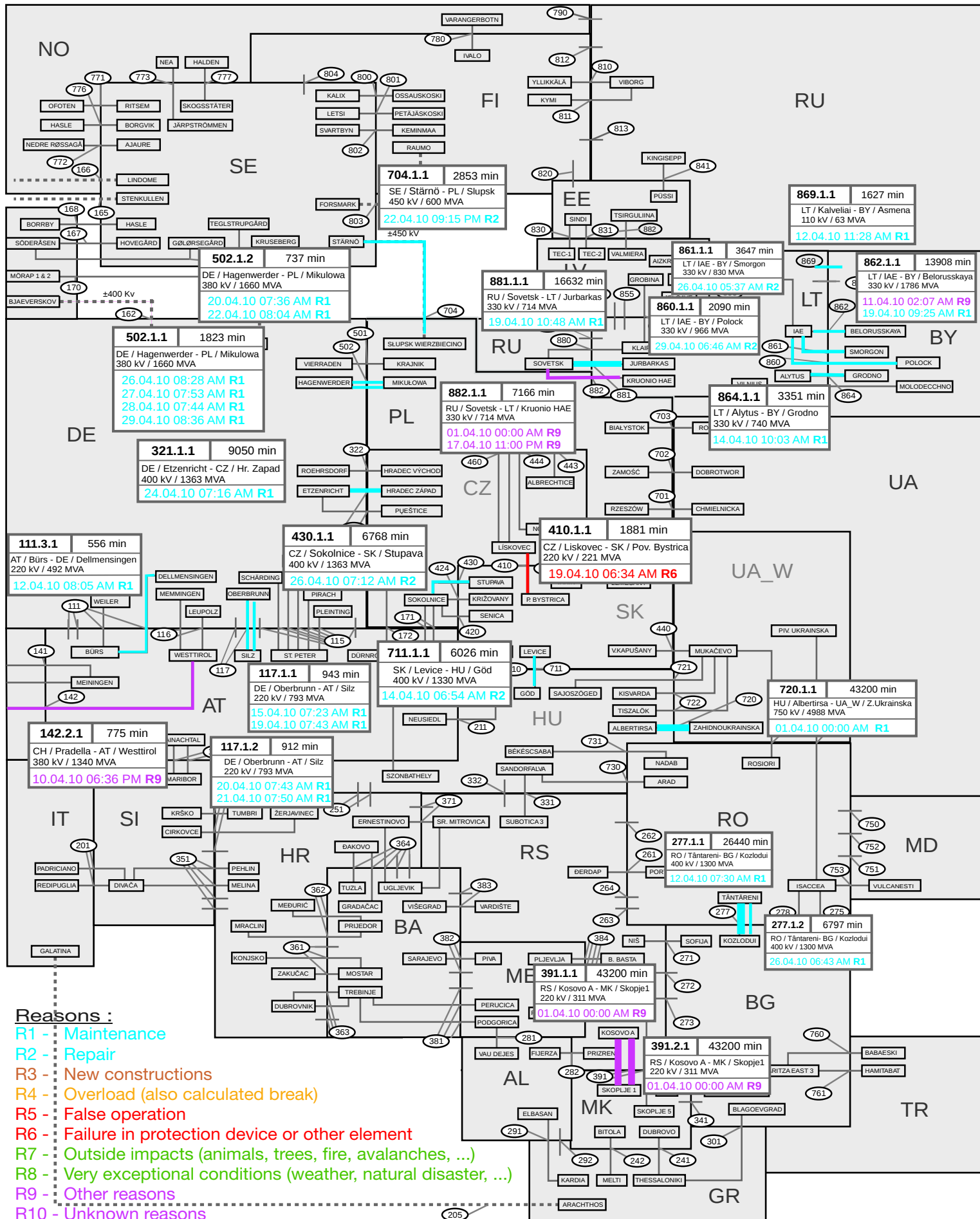
ENTSO-E = 40322 MW

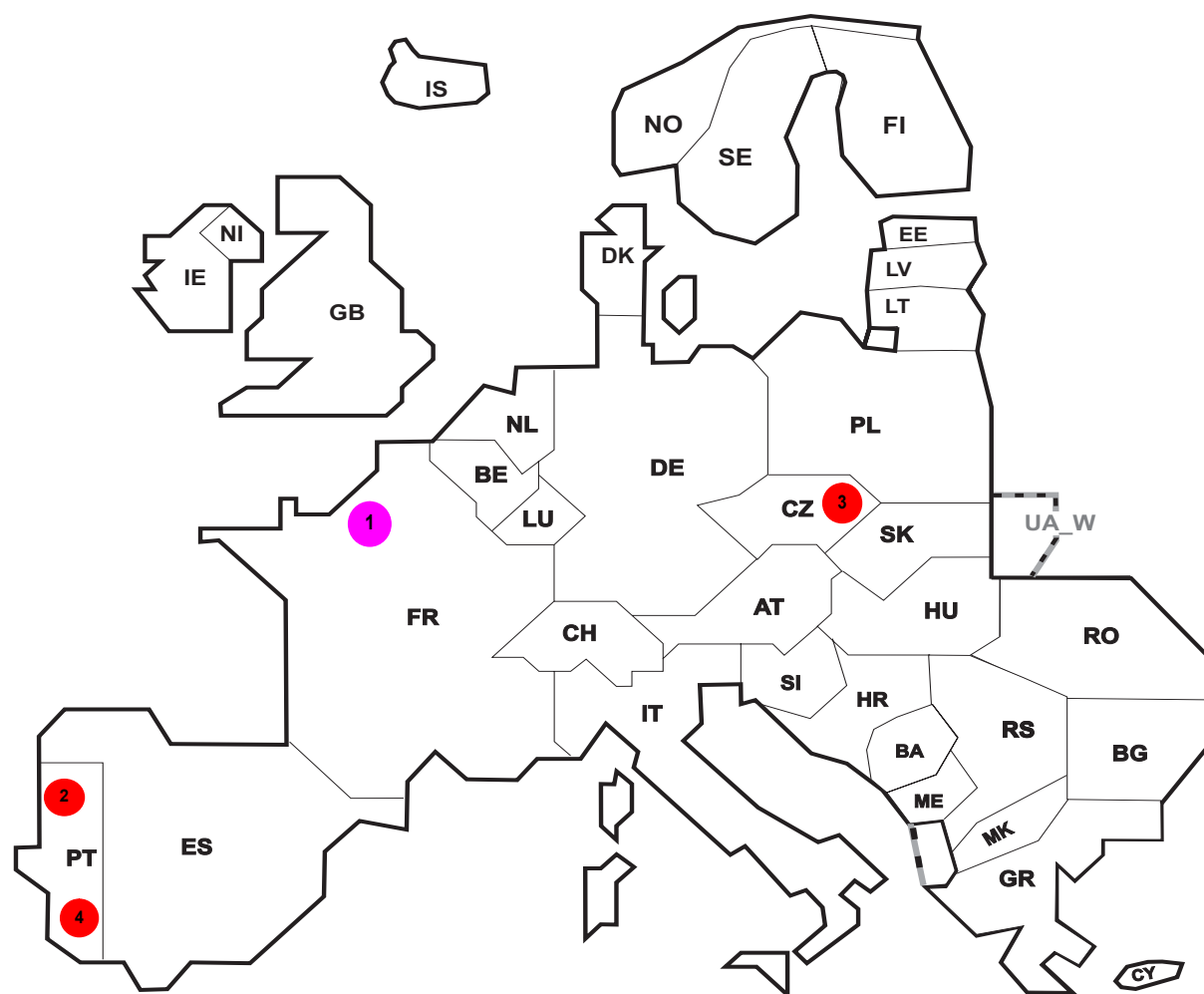
Total = 44152 MW

Synchronous operation with ENTSO-E region

I = Import balance
E = Export balance







Reasons:

R4 Overload (also calculated break)

R5 False operation

R6 Failure in protection device or other element

R7 Outside impacts (animals, trees, fire, avalanches, ...)

R8 Very exceptional conditions
(weather, natural disaster, ...)

R9 Other reasons

R10 Unknown reasons

No	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Average interruption duration [min]	Equivalent time of interruption ¹
1	FR	Alizay	R9	535	17	1889	0,568
2	PT	Subestacao de Alto de Mira	R5	30	0	9	0,298
3	CZ	Cebin	R5	9	0	6	0,076
4	PT	Subestacao do Alqueva	R6	1	0	2	0,007

Information about incidents in other countries are not shown with energy not supply equal zero or unavailable in the database.

¹ (year [in min] * energy not supplied) / consumption last 12 months

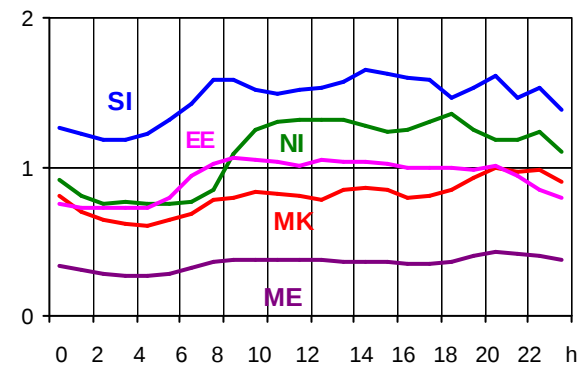
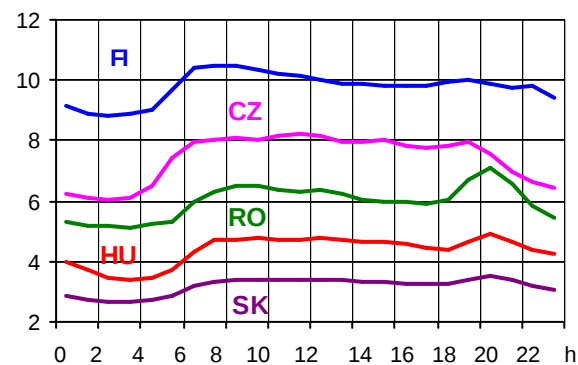
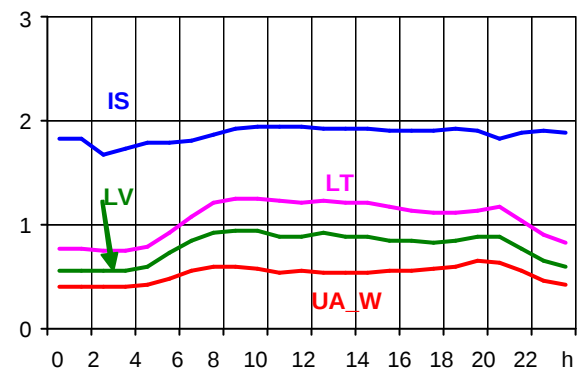
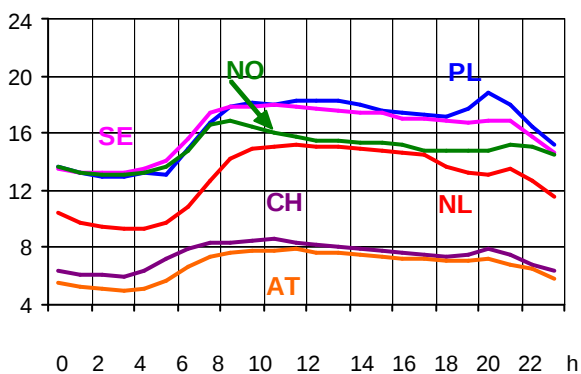
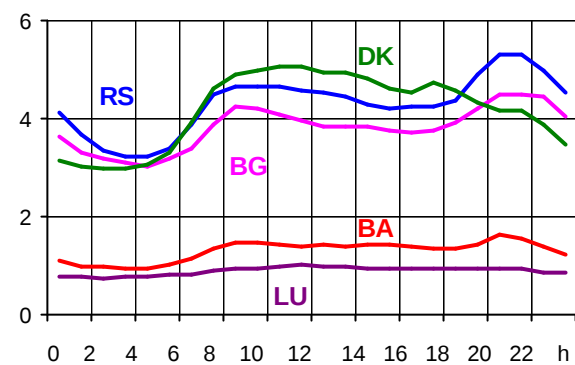
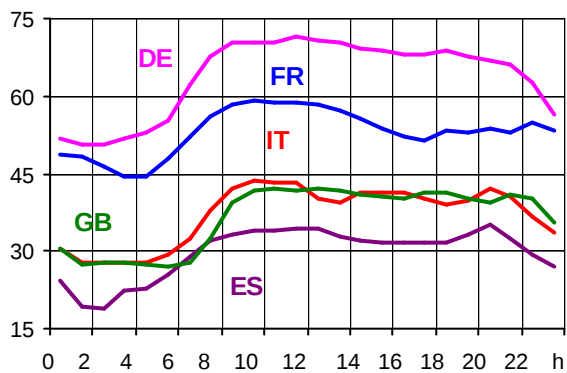
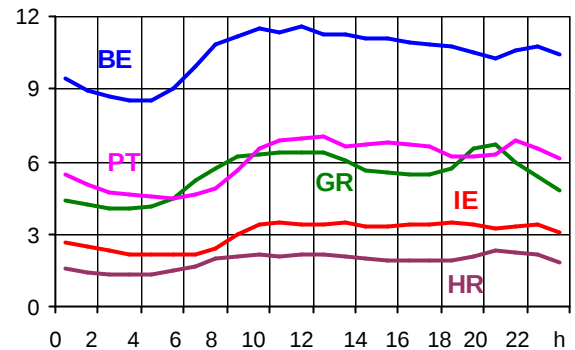
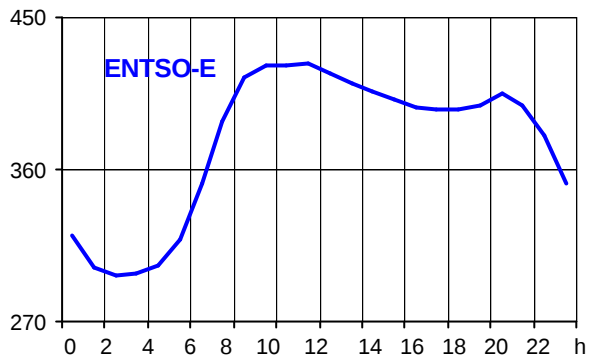
Highest and lowest load on the 21.04.2010 CET of each country

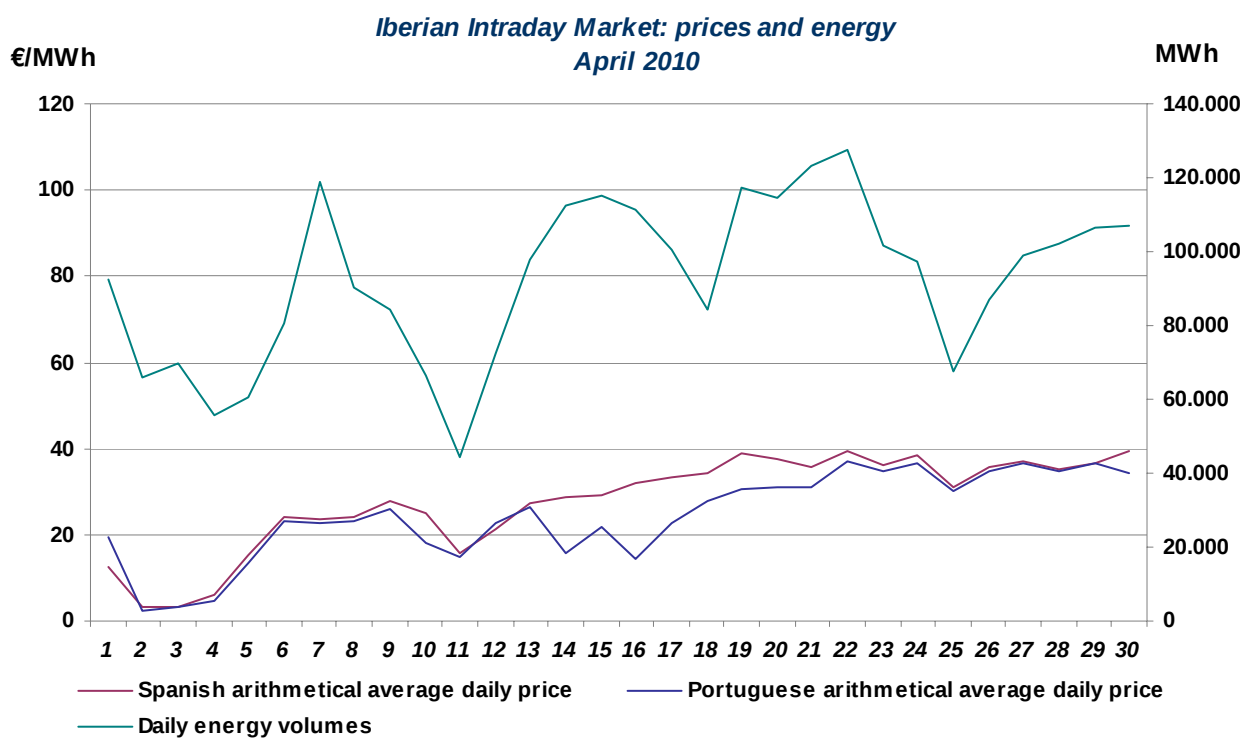
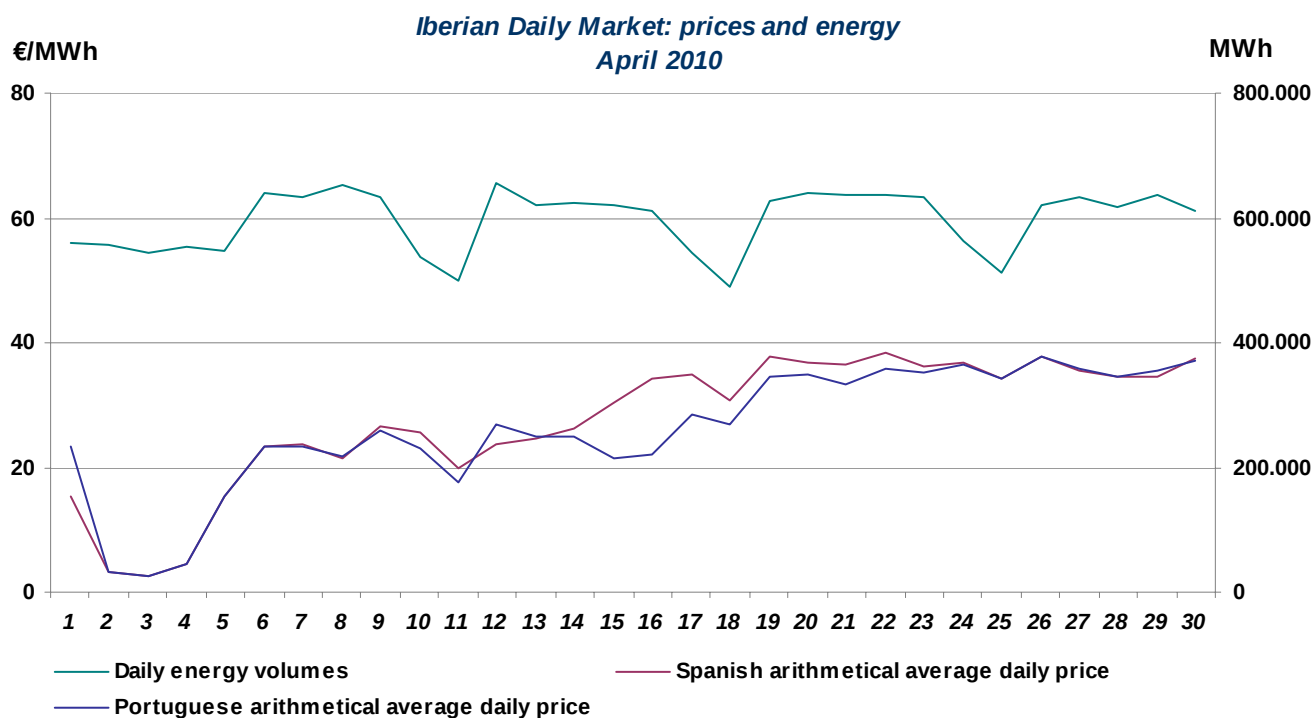
	Highest load MW	variation % ¹	Lowest load MW	variation % ¹	Load representativity %
AT	7901	2,7	4938	10,5	100
BA	1637	4,1	949	8,7	100
BE ²	11554	9,1	8520	19,3	100
BG	4482	-9,3	3015	-11,8	100
CH	8629	10,7	5927	14,5	100
CY ³	606	n.a.	337	n.a.	100
CZ	8194	11,5	6033	10,1	100
DE	71358	10,4	55568	27,8	91
DK	5065	n.a.	2979	n.a.	100
EE	1057	n.a.	719	n.a.	100
ES	35134	2,4	19379	-13,2	98
FI	10445	n.a.	8812	n.a.	100
FR	59020	0,4	44346	4,8	100
GB	41999	n.a.	27117	n.a.	100
GR	6686	-2,7	4052	2,7	100
HR	2328	0,1	1332	3,8	100
HU	4934	-4,6	3376	-1,4	100
IE	3482	n.a.	2117	n.a.	100
IS	1941	n.a.	1668	n.a.	100
IT	43519	6,6	27636	16,8	100
LT	1244	n.a.	750	n.a.	100
LU	1006	15,4	755	23,8	100
LV	940	n.a.	549	n.a.	100
ME ⁴	436	n.a.	273	n.a.	100
MK	991	-6,0	606	3,9	100
NI	1352	n.a.	745	n.a.	100
NL	15227	1,8	9291	13,5	100
NO	16932	n.a.	13099	n.a.	100
PL ⁵	18894	5,6	12910	7,3	100
PT	7055	-2,7	4625	1,7	97
RO	7088	6,5	5139	2,8	100
RS	5314	1,5	3214	4,9	100
SE	17962	n.a.	13236	n.a.	100
SI	1652	12,2	1180	37,2	100
SK	3550	11,4	2668	17,3	100
ENTSO-E	422400	n.a.	297283	n.a.	
UA_W	663	-0,5	395	3,7	100

¹ Variation as compared to corresponding month of the previous year² The reported figures are best estimates based on actual measurements and extrapolations³ Only highest and lowest load value available⁴ Highest and lowest load values as of April 2009⁵ Operational data

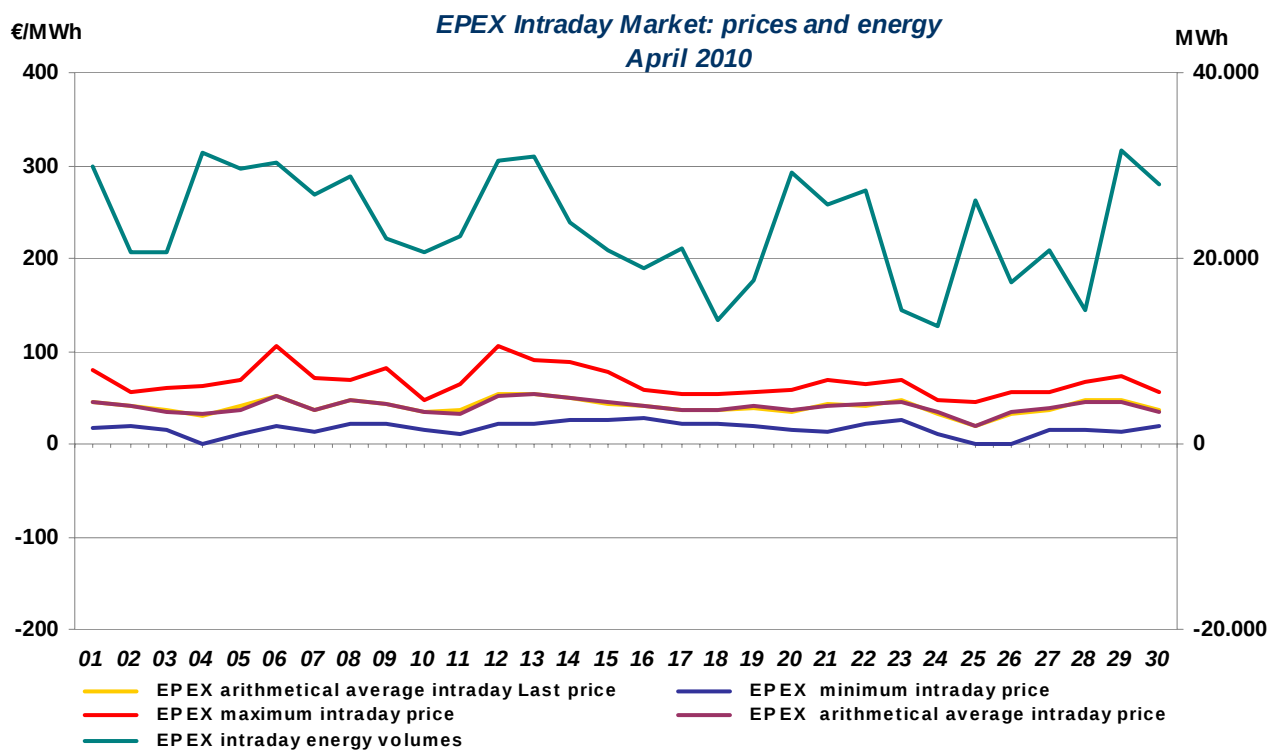
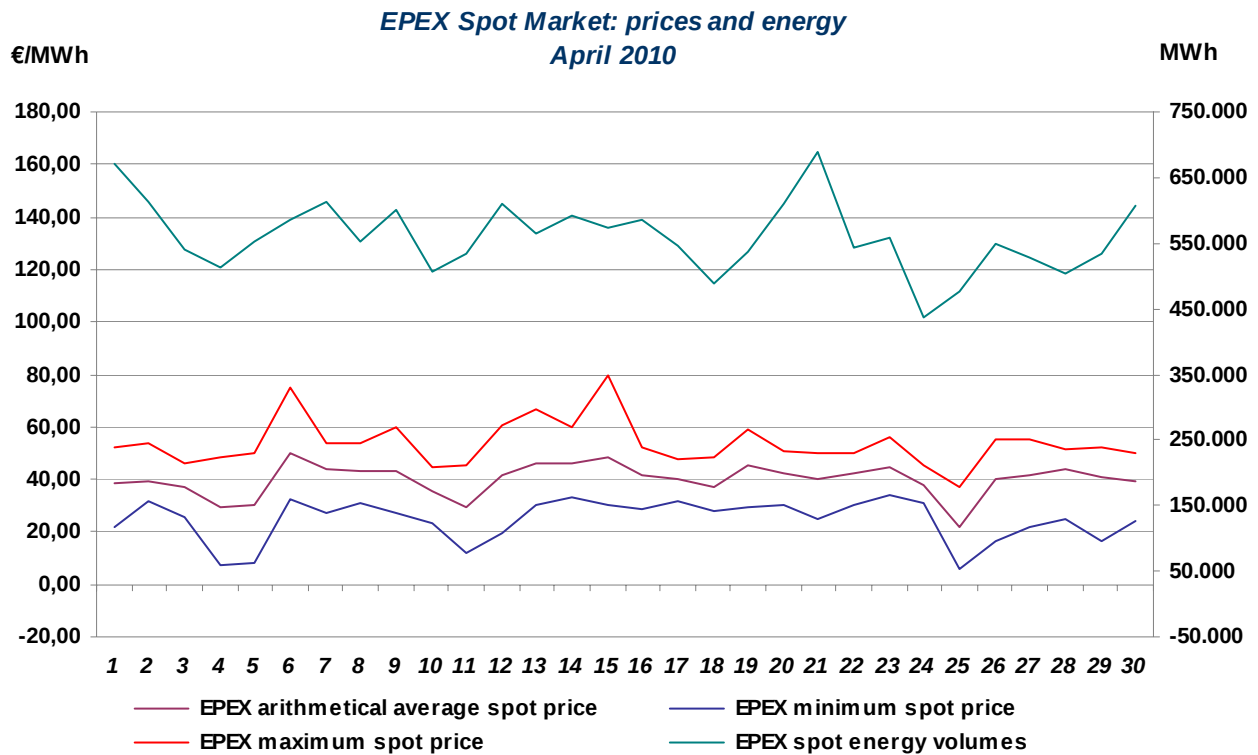
Consumption hourly load curves on 21.04.2010 CET

Values in GW

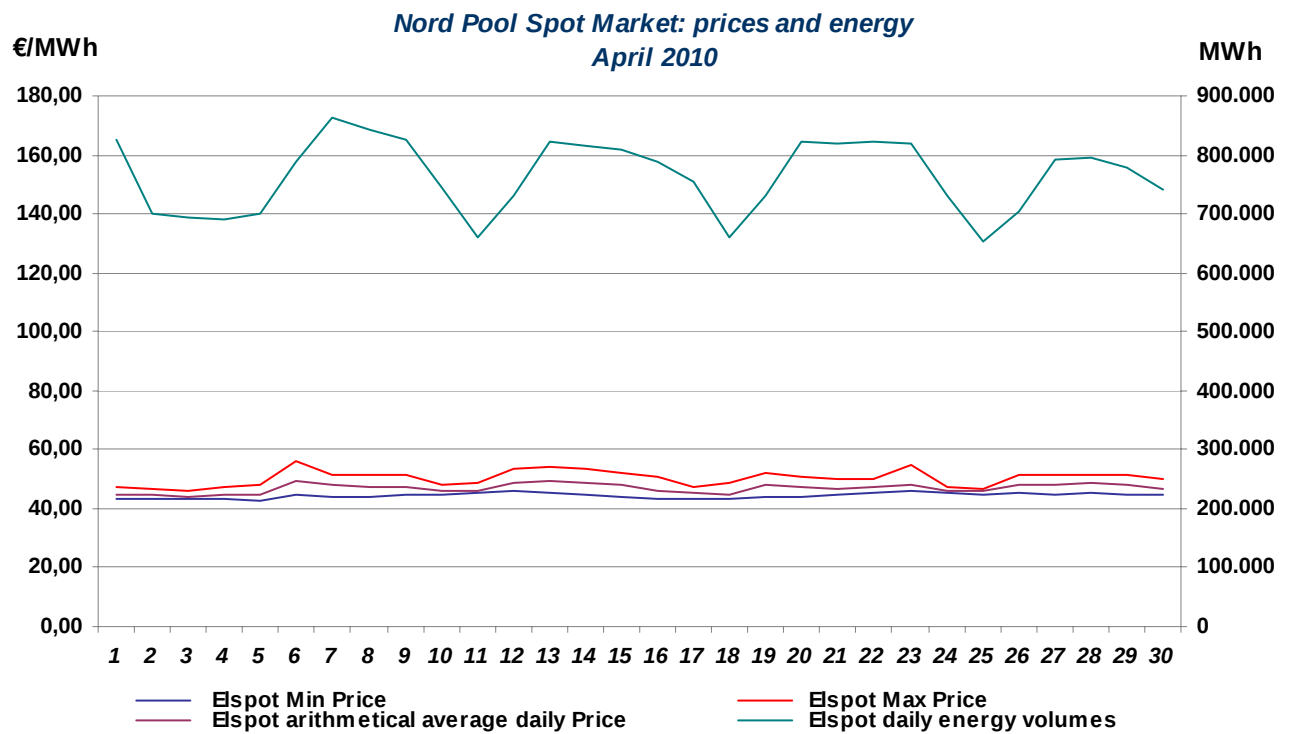
¹ Load values as of 19 March 2008



Source of the Iberian Market data: www.omel.es



Source of the EPEX Market data: www.eex.com



Source of Nord Pool Market data: www.nordpoolspot.com

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