

# Monthly report



## June 2010

Monthly provisional values as of 19 November 2010

European Network of  
Transmission System Operators  
for Electricity



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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 identifiable	Total			monthly	variation [%]
AT	0	1375	4069	0	0	1014	6458	-759	435	5264	6,0
BA	0	616	458	0	0	0	1074	-198	1	875	7,6
BE <sup>2</sup>	3770	2779	126	363	66	0	7038 <sup>1</sup>	127	152	7013	8,2
BG	1084	1354	518	17	17	0	2973	-920	32	2021	-11,1
CH	1562	182	4328	114	2	0	6186 <sup>1</sup>	-868	372	4946	5,8
CY	0	448	0	0	0	0	448	0	0	448	-1,5
CZ	1927	3255	344	103	25	0	5629 <sup>1</sup>	-880	36	4713	4,8
DE	9125	27520	2058	5220	1794	0	43923 <sup>1</sup>	1363	557	44729	7,8
DK	0	1317	1	581	401	0	1899 <sup>1</sup>	756	0	2655	n.a.
EE	0	730	2	104	22	0	836	-333	0	503	n.a.
ES	4653	9828	3576	3884	2563	32	21973	-821	239	20913	0,0
FI	1670	1244	1228	635	20	48	4825 <sup>1</sup>	970	0	5795	n.a.
FR	29575	2374	7213	975	576	0	40137	-5251	370	34516	1,8
GB	4088	18415	319	0	172	0	22822	1767	661	23928	n.a.
GR	0	3230	364	145	106	0	3739 <sup>1</sup>	832	2	4569	-1,7
HR	0	340	580	10	8	0	930	421	8	1343	2,8
HU	1097	1608	0	0	0	0	2705	724	0	3429	16,6
IE	0	1799	32	152	152	17	2000 <sup>1</sup>	33	47	1986	n.a.
IS	0	1	1061	261	0	0	1323	0	0	1323	n.a.
IT	0	16464	5781	1015	534	0	23260	3802	403	26659	0,8
LT	0	145	104	17	9	0	266 <sup>1</sup>	524	84	707	n.a.
LU	0	236	115	10	3	0	361	309	152	518	9,7
LV	0	43	301	0	0	55	399	101	0	500	n.a.
ME <sup>3</sup>	0	1	96	0	0	0	97	-169	0	-72	n.a.
MK	0	389	203	0	0	0	592	1	0	593	18,4
NI <sup>4</sup>	0	585	0	40	36	0	625	59	0	684	n.a.
NL	345	6963	0	511	199	0	7819	1069	0	8888	-1,1
NO	0	481	6348	59	59	0	6888 <sup>1</sup>	1455	191	8152	n.a.
PL <sup>5</sup>	0	10573	313	125	101	0	11011 <sup>1</sup>	-94	66	10851	5,9
PT	0	2010	959	765	549	0	3734 <sup>1</sup>	415	26	4123	2,3
RO	898	1582	1742	0	n.a.	0	4222	-158	28	4036	3,3
RS	0	2047	935	0	0	0	2982	182	12	3152	-9,9
SE	5082	375	5360	884	188	0	11701 <sup>1</sup>	-2057	0	9644	n.a.
SI	494	320	413	0	0	0	1227	-240	0	987	11,5
SK	1159	351	640	38	1	0	2188 <sup>1</sup>	-121	41	2026	8,2
<b>ENTSO-E</b>	<b>66529</b>	<b>120980</b>	<b>49587</b>	<b>16028</b>	<b>7603</b>	<b>1166</b>	<b>254290<sup>1</sup></b>	<b>2041</b>	<b>3915</b>	<b>252417</b>	<b>n.a.</b>
UA_W	0	272	15	0	0	0	287	-5	0	282	6,8

<sup>1</sup> Including deliveries from industry

<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.

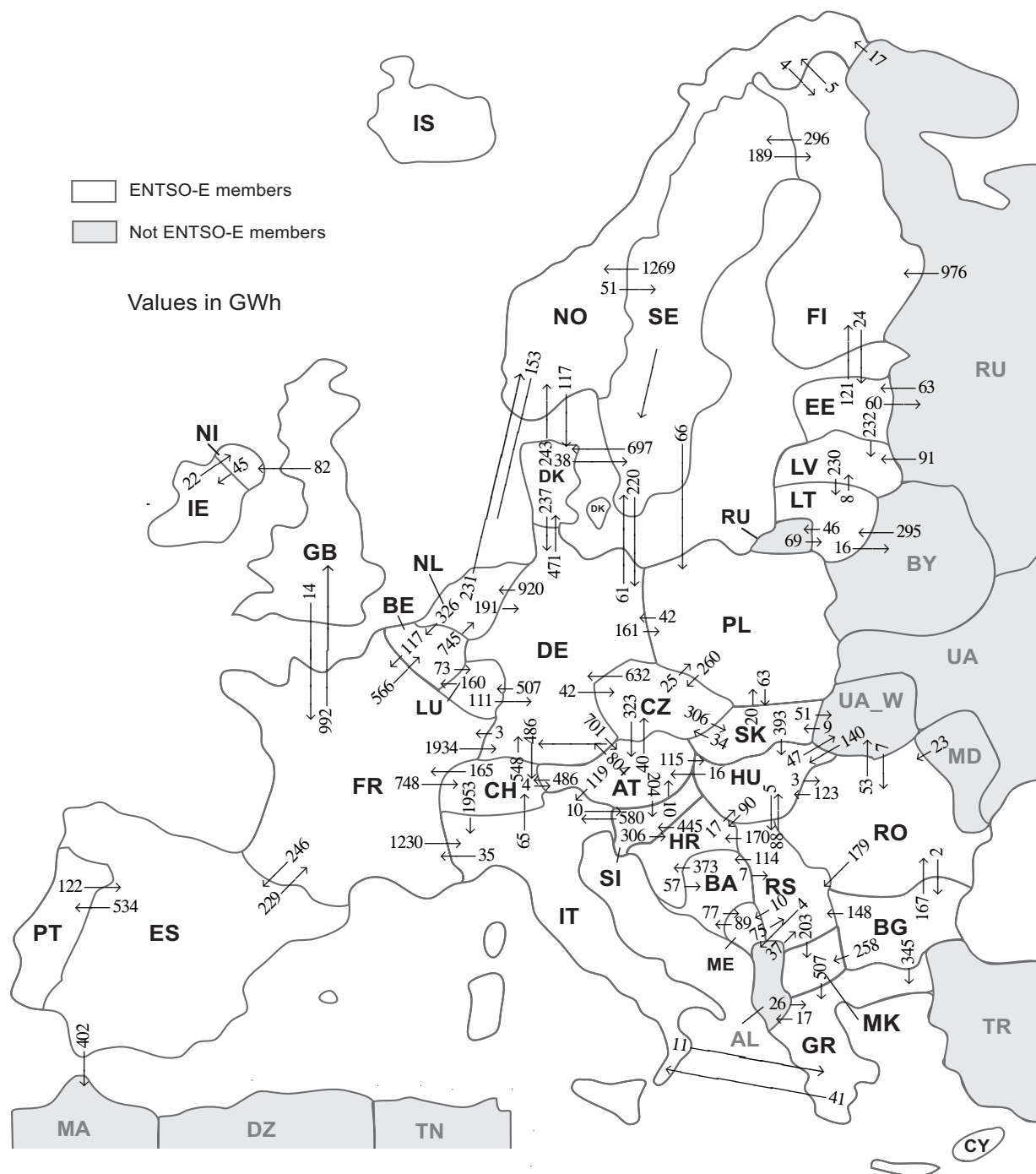
<sup>3</sup> National monthly values as of June 2009

<sup>4</sup> 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.

<sup>5</sup> Operational data

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	94	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: **27432GWh**

Total physical energy flows: **29881GWh**

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 ( $\leq 110$  kV) listed in table characteristics of the cross-frontier lines published in the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

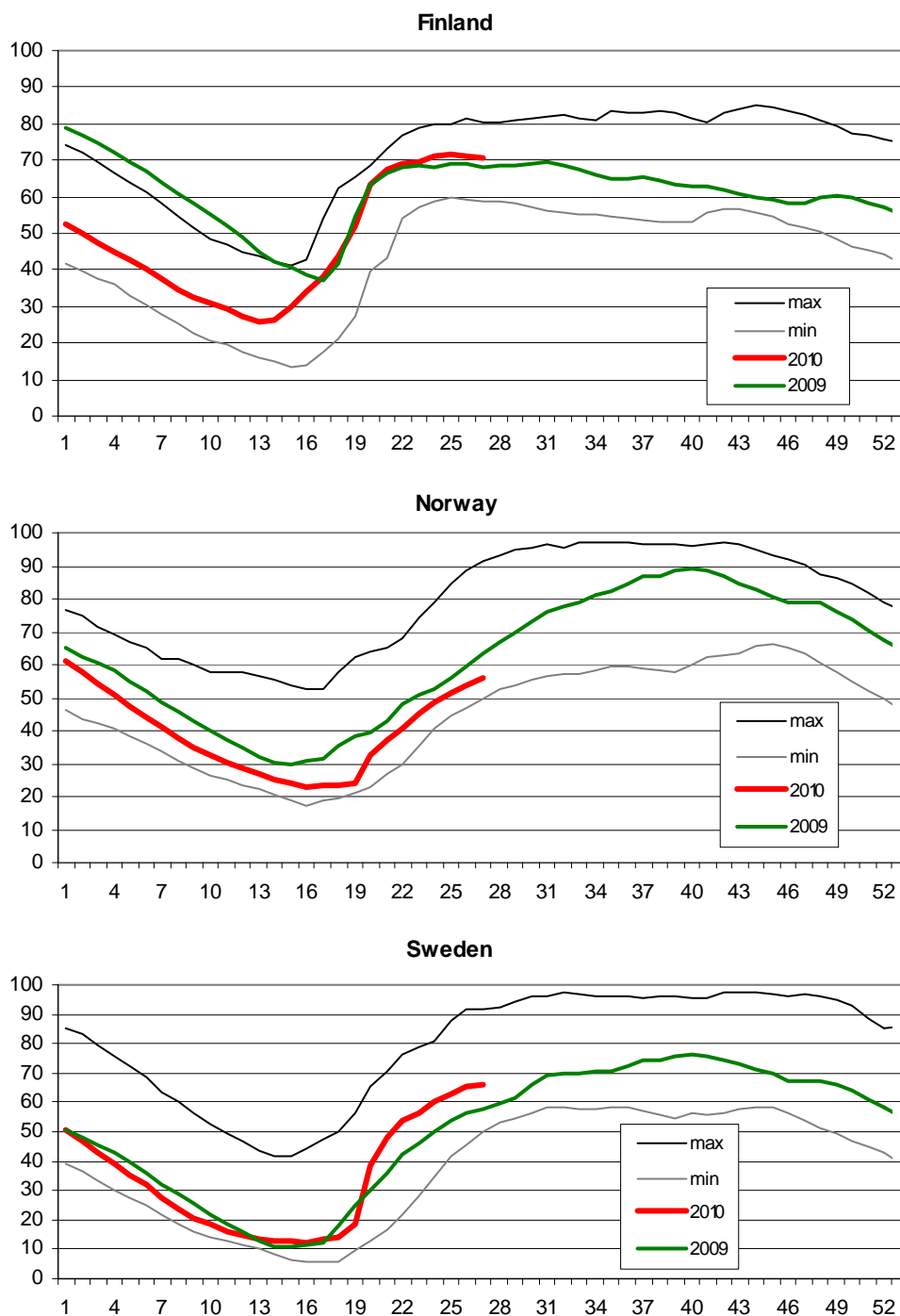
## Overview of the monthly imports and exports in GWh

Exporting countries	Importing 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 <sup>1</sup>		
AT	-	-	-	-	486	40	804	-	-	-	-	-	-	-	-	115	-	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	-	-	
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	373	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	117	-	-	-	-	-	-	-	-	73	-	-	745	-	-	-	-	-	-	167	148	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	345	-	-	-	-	-	-	-	-	258	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
CH	4	-	-	-	-	548	-	-	-	-	165	-	-	-	-	-	-	1953	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	323	-	-	-	-	632	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	306	-	-	
DE	701	-	-	-	486	42	471	-	-	-	3	-	-	-	-	-	-	-	507	-	-	-	-	-	920	161	-	-	-	-	61	-	-	-	-		
DK	-	-	-	-	-	237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	38	-	-	-	-		
EE	-	-	-	-	-	-	-	-	-	121	-	-	-	-	-	-	-	-	-	-	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	
ES	-	-	-	-	-	-	-	-	-	-	229	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	534	-	-	-	-	-	-	-	-	402	
FI	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	296	-	-	-	-	-	0	
FR	-	-	566	-	748	-	1934	-	246	-	-	992	-	-	-	-	-	1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	17	
HR	-	57	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	445	-	-	-		
HU	16	-	-	-	-	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	3	5	-	-	0	47	-	-	-		
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	
IT	0	-	-	-	65	-	-	-	-	-	35	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-		
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62		
LU	-	-	160	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LV	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
ME	-	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.	
MK	-	-	-	0	-	-	-	-	-	-	-	507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NI	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NL	-	-	326	-	-	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	231	-	-	-	-	-	-	-	-	-	-	
NO	-	-	-	-	-	-	117	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	153	-	-	-	-	-	51	-	-	-	-	0	
PL	-	-	-	-	260	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	63	-	-	0	
PT	-	-	-	-	-	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RO	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	0	
RS	-	114	-	0	-	-	-	-	-	-	-	-	-	170	88	-	-	-	-	-	10	203	-	-	-	-	-	0	-	-	-	-	-	-	-	4	
SE	-	-	-	-	-	220	697	-	189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SI	10	-	-	-	-	-	-	-	-	-	-	306	-	-	-	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	34	-	-	-	-	-	-	-	-	-	393	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	51	-	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	
Other III <sup>1</sup>	-	-	-	0	-	-	-	63	0	976	-	-	26	-	-	-	-	364	-	91	n.a.	-	-	-	17	0	-	23	37	-	-	-	-	-	-		

Other III<sup>1</sup>: Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia and Ukraine

## Sum of the monthly imports and exports in GWh

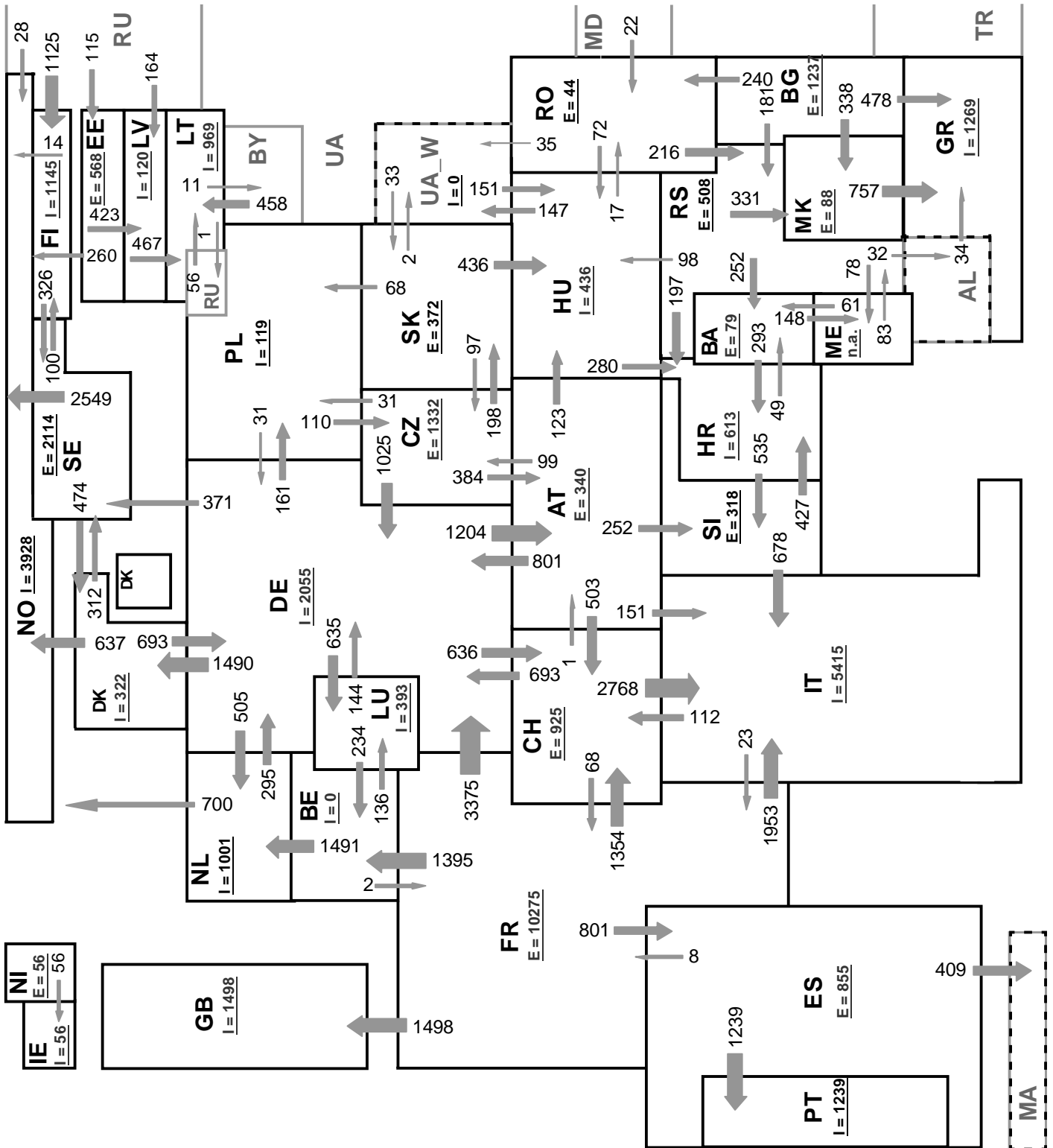
	import	export		import	export
AT	1054	1768	IT	3923	121
BA	260	457	LT	594	70
BE	1052	935	LU	580	271
BG	2	918	LV	331	230
CH	1785	2670	ME	n.a.	n.a.
CZ	376	1286	MK	260	507
DE	4719	3352	NI	104	45
DK	1285	518	NL	1818	748
EE	87	413	NO	1765	325
ES	368	1165	PL	272	365
FI	1290	325	PT	534	122
FR	563	5716	RO	200	357
GB	992	96	RS	451	589
GR	889	58	SE	446	2441
HR	939	519	SI	659	896
HU	876	161	SK	378	498
IE	45	22	UA_W	151	156



**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 = 39721 MW

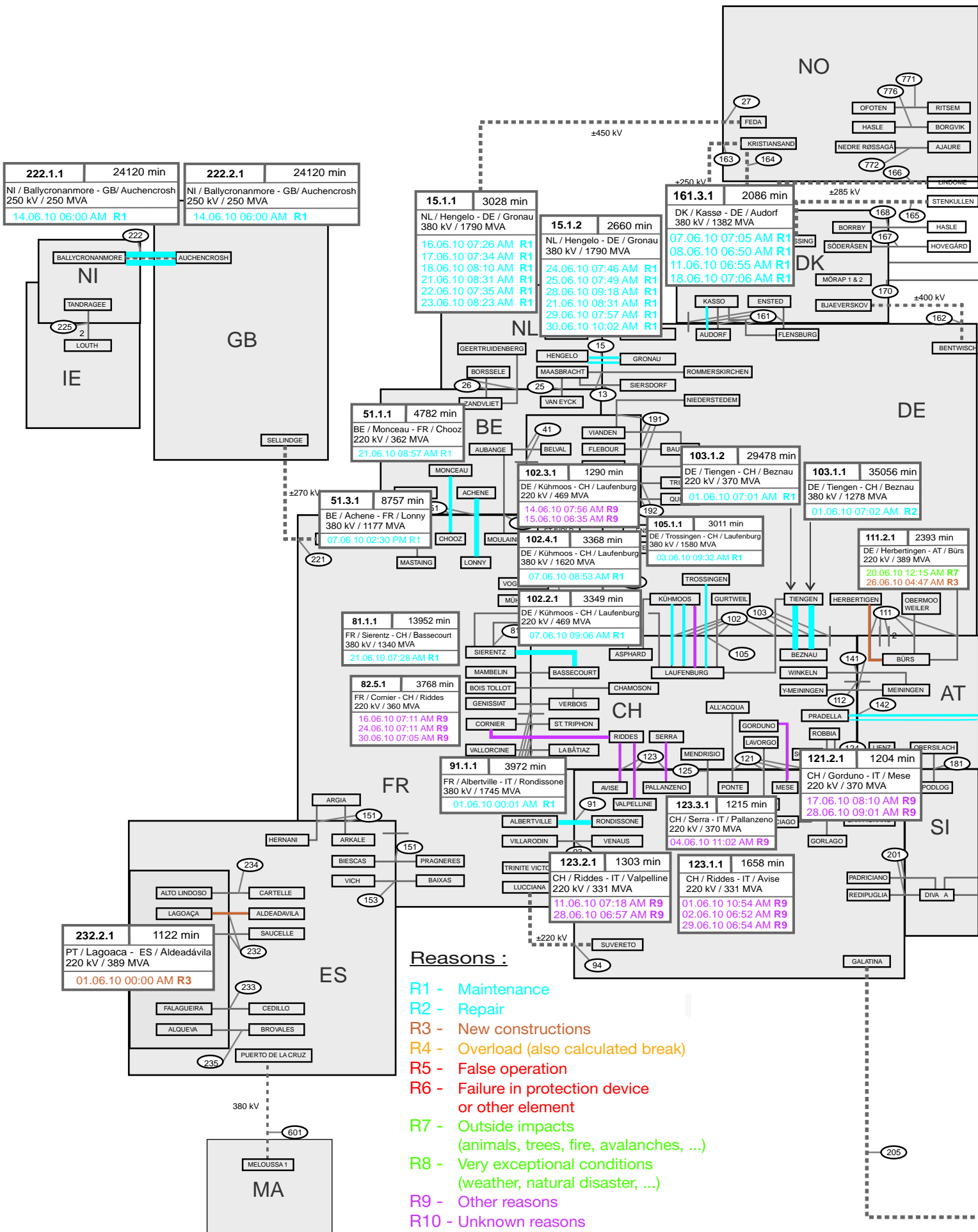
Total = 42544 MW

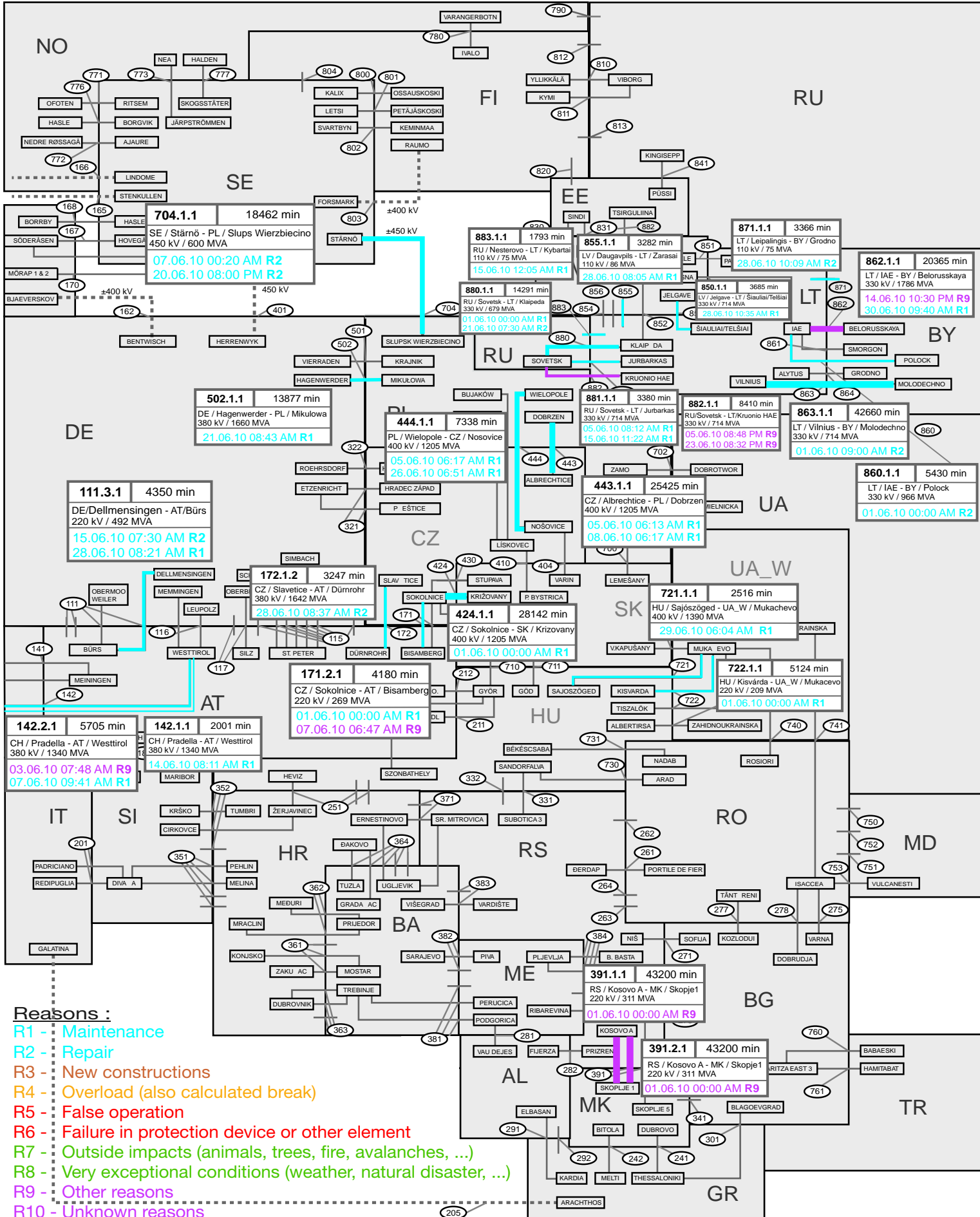
Synchronous operation with ENTSO-E region

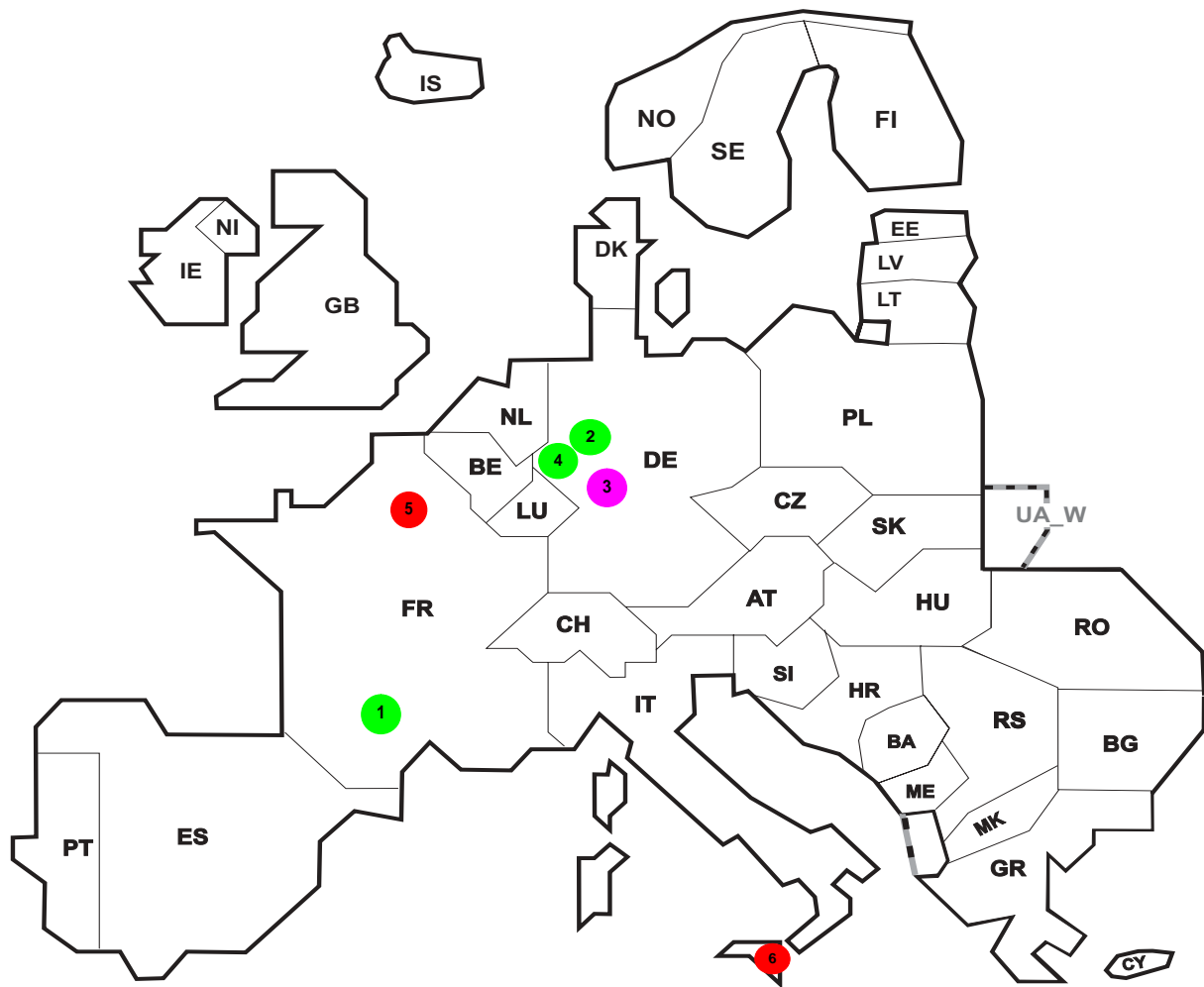
I = Import balance  
E = Export balance











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 <sup>1</sup>
1	FR	Trans	R8	1074	585	110	1,133
2	DE	Norf	R7	942	314	180	0,920
3	DE	Krupp	R9	690	120	345	0,674
4	DE	Rommerskirchen	R7	75	150	30	0,073
5	FR	Herblay	R6	25	61	25	0,026
6	IT	Misterbianco	R6	5	80	4	0,009

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

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

## Highest and lowest load on the 16.06.2010 CET of each country

	Highest		Lowest		Load representativity %
	load MW	variation % <sup>1</sup>	load MW	variation % <sup>1</sup>	
AT	8131	3,5	4606	3,5	100
BA	1524	5,4	941	5,3	100
BE <sup>2</sup>	11673	4,8	8099	8,6	100
BG	4301	3,2	3046	2,7	100
CH	8914	6,9	5109	4,8	100
CY <sup>3</sup>	828	n.a.	430	n.a.	100
CZ	7530	1,9	5468	3,1	100
DE	69809	4,9	47118	0,3	91
DK	4679	n.a.	2717	n.a.	100
EE	927	n.a.	524	n.a.	100
ES	34277	-9,3	22948	-3,5	98
FI	9600	n.a.	7478	n.a.	100
FR	57181	0,4	39258	1,7	100
GB	39869	n.a.	23111	n.a.	100
GR	9732	9,7	5512	8,1	100
HR	2375	2,4	1421	1,7	100
HU	5105	-4,7	3540	-5,2	100
IE	3473	n.a.	1907	n.a.	100
IS	1974	n.a.	1790	n.a.	100
IT	48766	0,3	30775	1,3	100
LT	1211	n.a.	714	n.a.	100
LU	927	2,5	683	3,0	100
LV	867	n.a.	455	n.a.	100
ME <sup>4</sup>	445	n.a.	279	n.a.	100
MK	1058	22,9	587	21,5	100
NI	1244	n.a.	625	n.a.	100
NL	14980	9,3	9125	11,1	100
NO	13210	n.a.	10237	n.a.	100
PL <sup>5</sup>	17649	2,1	12043	3,9	100
PT	7205	-1,0	4541	-3,3	97
RO	6779	8,5	5006	7,7	100
RS	4665	4,0	2846	7,8	100
SE	15644	n.a.	11285	n.a.	100
SI	1631	3,4	1245	30,6	100
SK	3386	6,4	2576	10,6	100
<b>ENTSO-E</b>	<b>419756</b>	<b>n.a.</b>	<b>280256</b>	<b>n.a.</b>	
UA_W	581	-1,2	354	0,3	100

<sup>1</sup> Variation as compared to corresponding month of the previous year

<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations

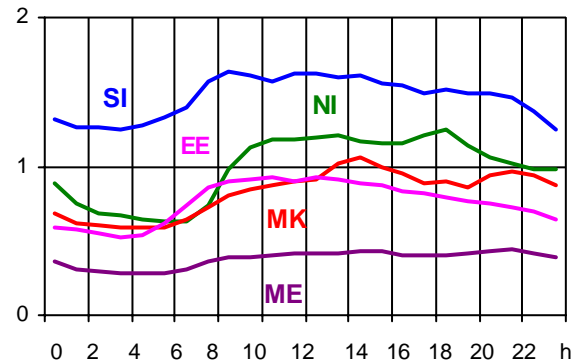
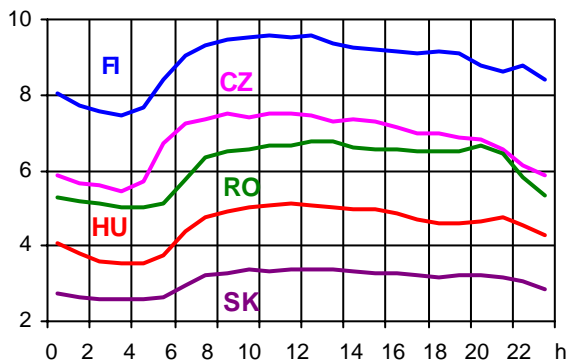
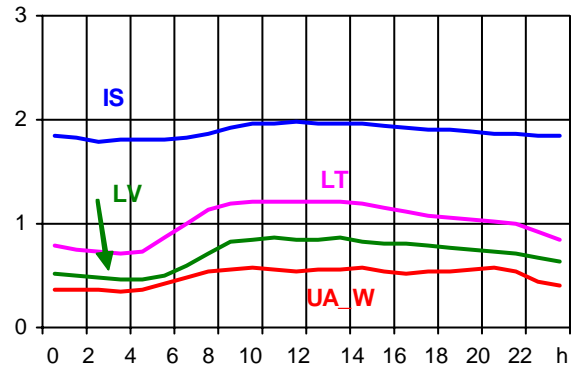
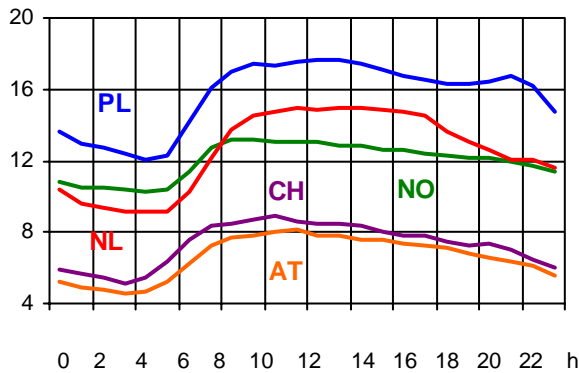
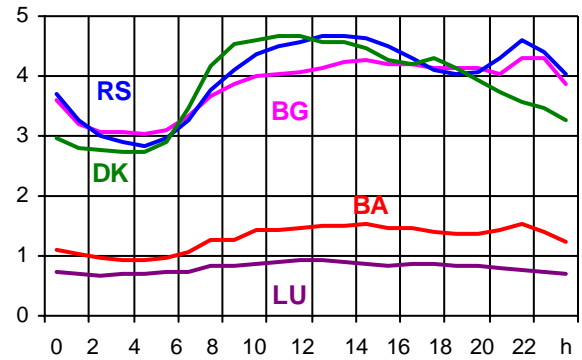
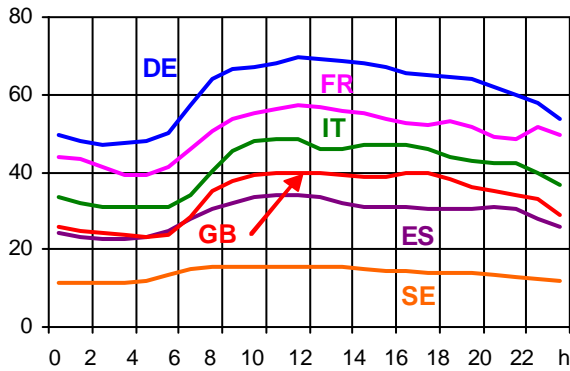
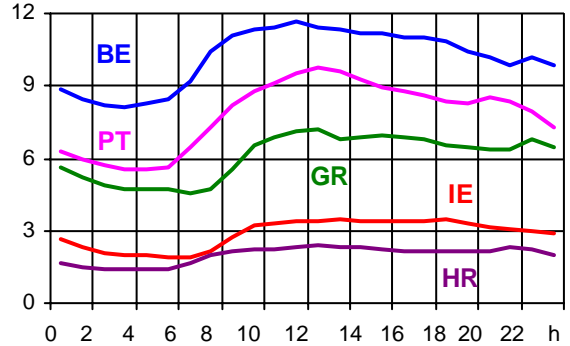
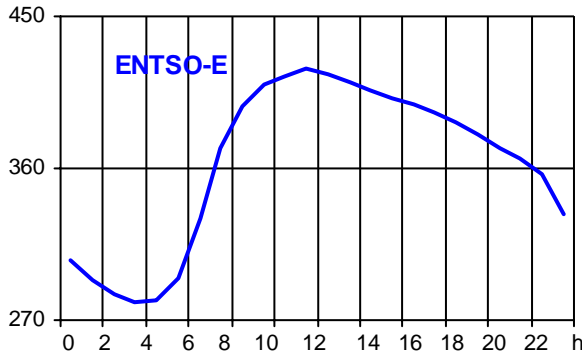
<sup>3</sup> Only highest and lowest load value available

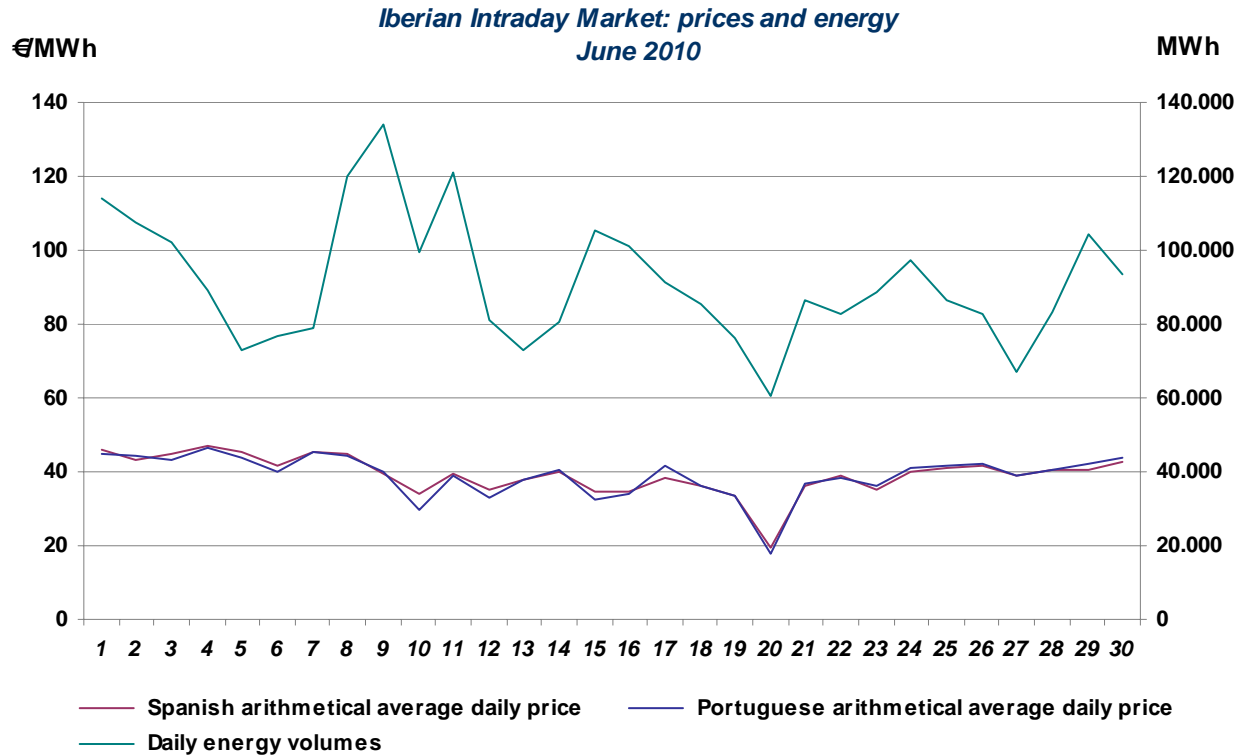
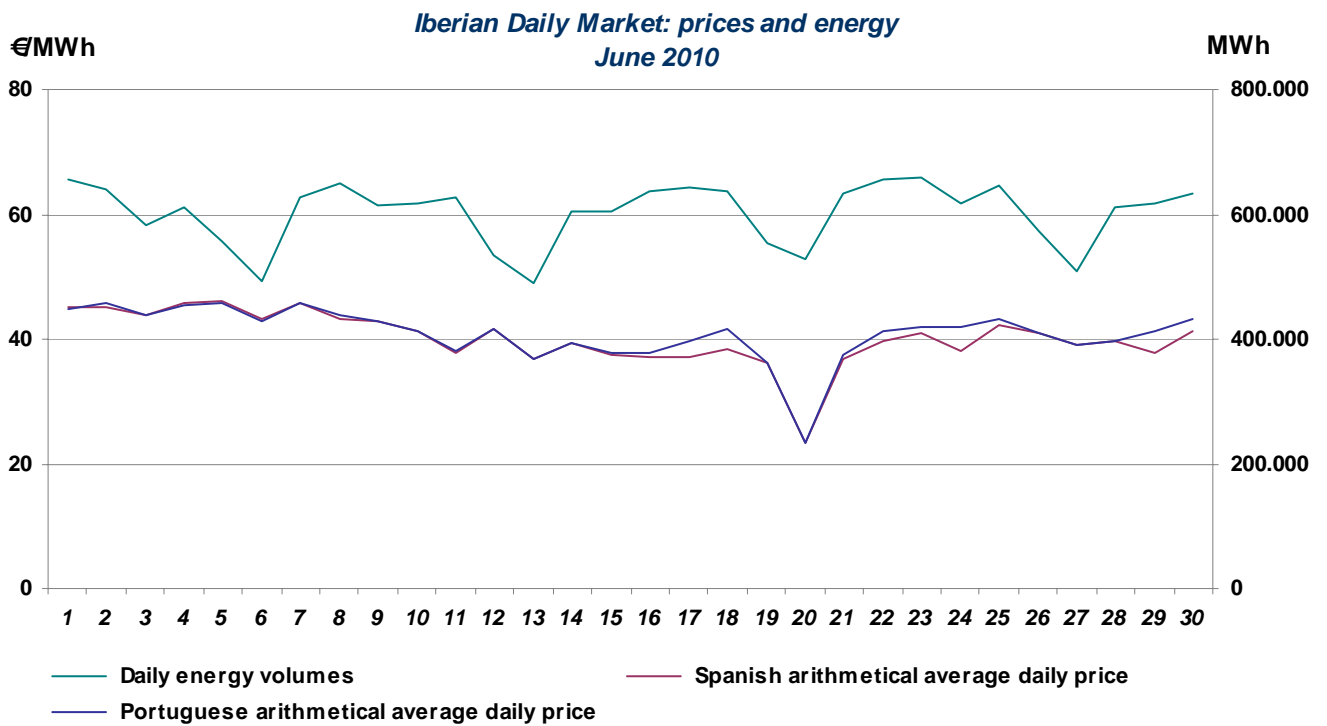
<sup>4</sup> Highest and lowest load values as of June 2009

<sup>5</sup> Operational data

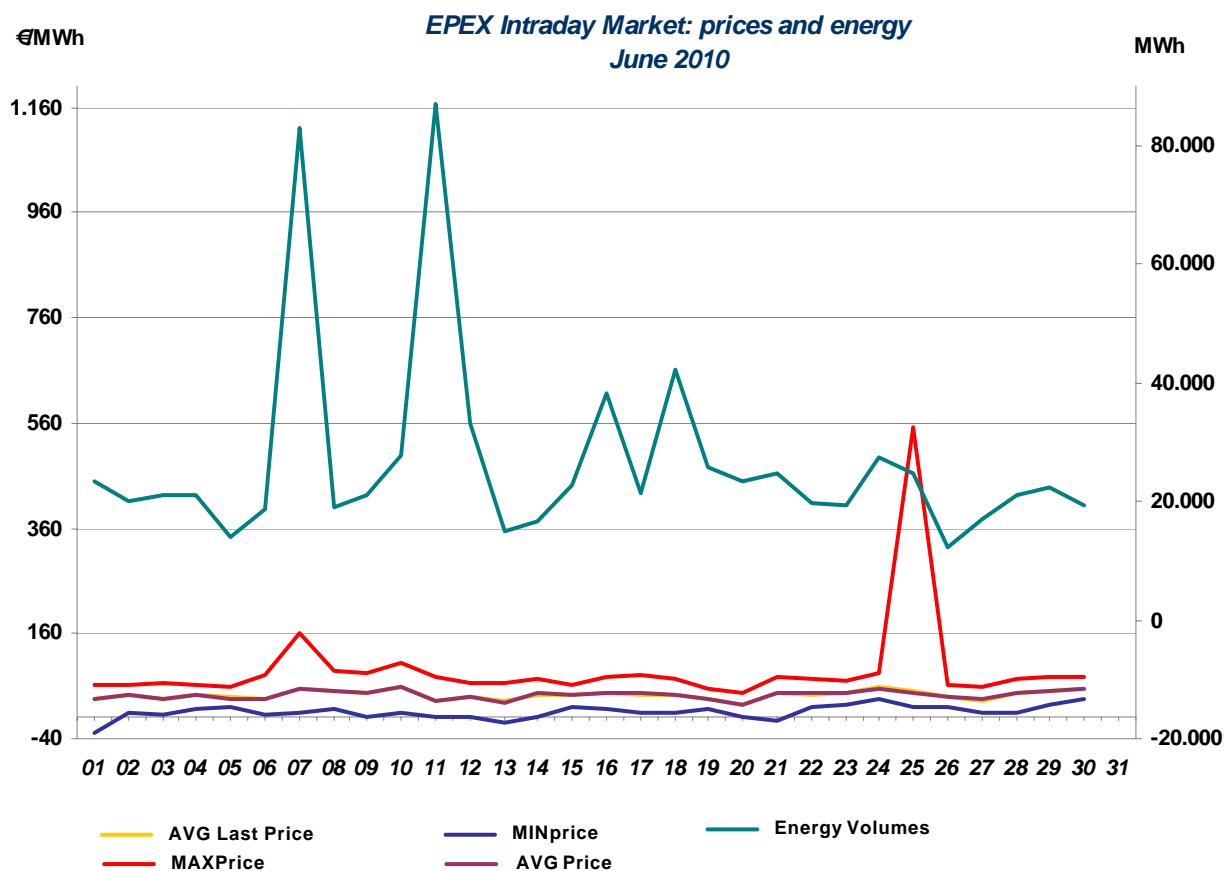
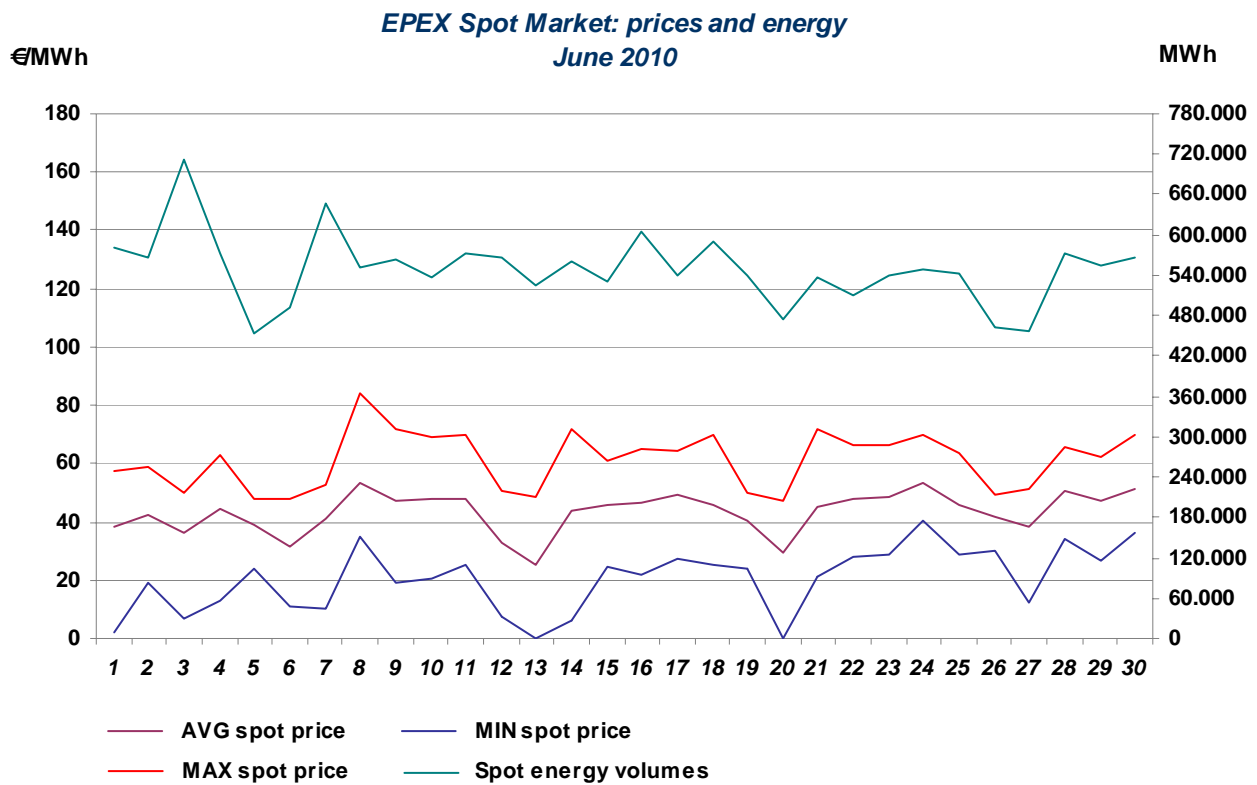
Consumption hourly load curves on 16.06.2010 CET

Values in GW



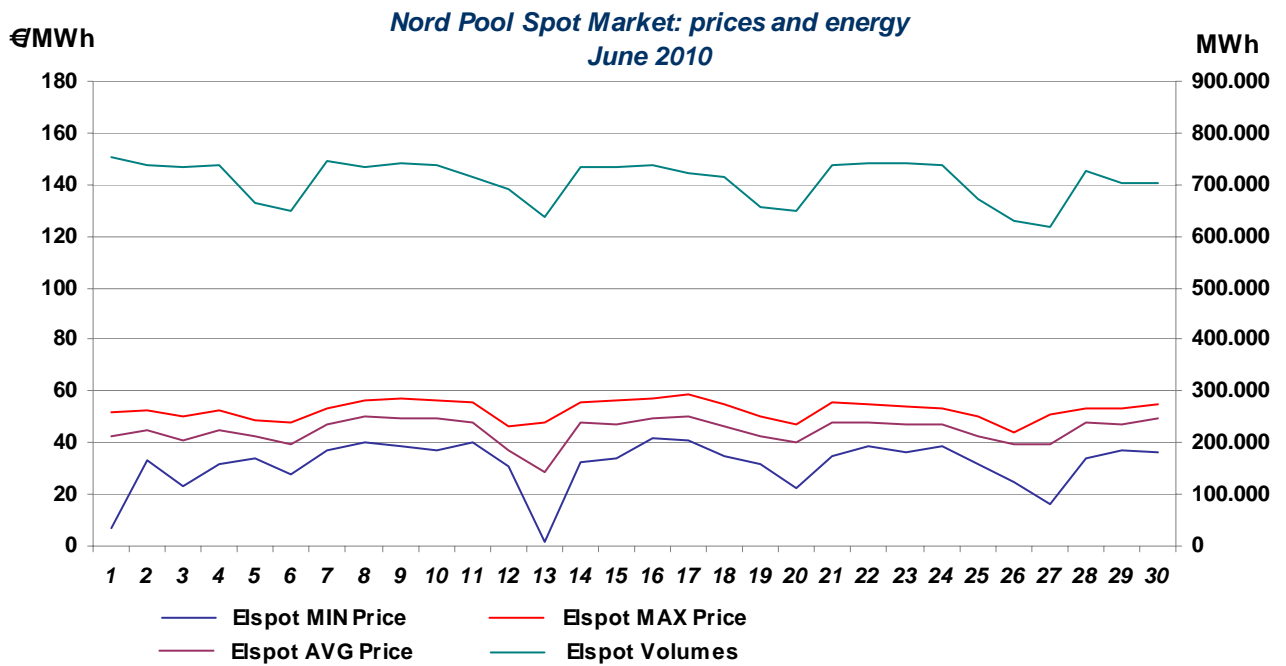


Source of the Iberian Market data: [www.omel.es](http://www.omel.es)



Source of the EPEX Market data: [www.eex.com](http://www.eex.com)





Source of Nord Pool Market data: [www.nordpoolspot.com](http://www.nordpoolspot.com)

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