

# Monthly report



## January 2010

Monthly provisional values as of 14 July 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 identifiable	Total			monthly	variation [%]
AT	0	3023	2327	0	0	663	<b>6013</b>	677	342	6348	1,4
BA	0	706	951	0	0	0	<b>1657</b>	-584	0	1073	-2,5
BE <sup>2</sup>	3789	4024	149	400	73	0	<b>8362</b>	216	144	8434	4,6
BG	1248	2121	490	17	17	0	<b>3876</b> <sup>1</sup>	-319	74	3483	-3,5
CH	2423	200	2805	126	2	0	<b>5554</b> <sup>1</sup>	912	137	6329	0,5
CY <sup>3</sup>	0	415	0	0	0	0	<b>415</b>	0	0	409	-1,5
CZ	2683	4894	271	18	13	0	<b>7866</b> <sup>1</sup>	-1488	75	6303	0,3
DE	12546	35871	1574	5507	3114	0	<b>55498</b> <sup>1</sup>	-3562	838	51098	0,6
DK	0	3052	2	987	762	0	<b>4041</b> <sup>1</sup>	-534	0	3507	n.a.
EE	0	1023	2	49	14	0	<b>1074</b>	-190	0	884	n.a.
ES	4491	10421	5605	4617	4169	37	<b>25171</b>	-310	737	24123	-0,3
FI <sup>4</sup>	2021	3827	1102	1148	23	63	<b>8161</b> <sup>1</sup>	1019	0	9180	n.a.
FR	40313	8833	6228	1077	670	0	<b>56451</b>	415	598	56268	2,8
GB	5616	24729	456	108	108	0	<b>30909</b>	171	0	31080	n.a.
GR	0	3398	817	267	231	0	<b>4482</b> <sup>1</sup>	192	9	4665	0,3
HR	0	417	923	6	5	1	<b>1347</b>	352	16	1683	3,6
HU	1520	2116	0	0	0	0	<b>3636</b>	167	0	3803	8,2
IE <sup>5</sup>	0	2166	127	239	239	20	<b>2552</b> <sup>1</sup>	133	50	2635	n.a.
IS <sup>6</sup>	0	1	1064	376	0	0	<b>1441</b>	0	0	1441	n.a.
IT	0	19665	3500	1272	842	0	<b>24437</b>	3452	514	27375	0,0
LT	0	587	118	29	17	0	<b>734</b> <sup>1</sup>	337	117	955	n.a.
LU	0	258	130	11	3	0	<b>399</b>	362	164	597	5,7
LV	0	481	240	7	4	0	<b>728</b>	21	0	749	n.a.
ME <sup>7</sup>	0	138	320	0	0	0	<b>458</b>	-68	0	390	n.a.
MK	0	426	250	0	0	0	<b>676</b>	187	0	863	0,1
NI <sup>8</sup>	0	711	1	74	69	1	<b>787</b>	105	0	892	n.a.
NL	322	9748	0	640	328	0	<b>10710</b>	-559	0	10151	-5,7
NO	0	477	14256	94	94	0	<b>14827</b> <sup>1</sup>	152	54	14925	n.a.
PL <sup>9</sup>	0	13276	259	134	116	0	<b>13669</b> <sup>1</sup>	-164	103	13402	3,0
PT	0	1637	2571	1139	975	0	<b>5347</b> <sup>1</sup>	-263	23	5061	0,7
RO	921	2582	1481	0	n.a.	0	<b>4984</b>	-96	19	4869	2,8
RS	0	2836	1153	0	0	0	<b>3989</b>	-237	102	3650	-2,5
SE	4670	1150	7250	1580	250	0	<b>14650</b> <sup>1</sup>	1536	2	16184	n.a.
SI	505	486	282	0	0	0	<b>1273</b>	-193	0	1080	2,1
SK	1299	676	369	39	0	0	<b>2383</b> <sup>1</sup>	134	44	2473	0,2
<b>ENTSO-E</b>	<b>84367</b>	<b>166371</b>	<b>57073</b>	<b>19961</b>	<b>12138</b>	<b>785</b>	<b>328557</b> <sup>1</sup>	<b>1973</b>	<b>4162</b>	<b>326362</b>	n.a.
UA_W	0	731	13	0	0	0	<b>744</b>	-291	0	453	2,7

<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> Units sent out from power stations

<sup>4</sup> Fossil fuels, Mixed fuel means peat.

<sup>5</sup> Normal

<sup>6</sup> Other renewable net production = geothermal

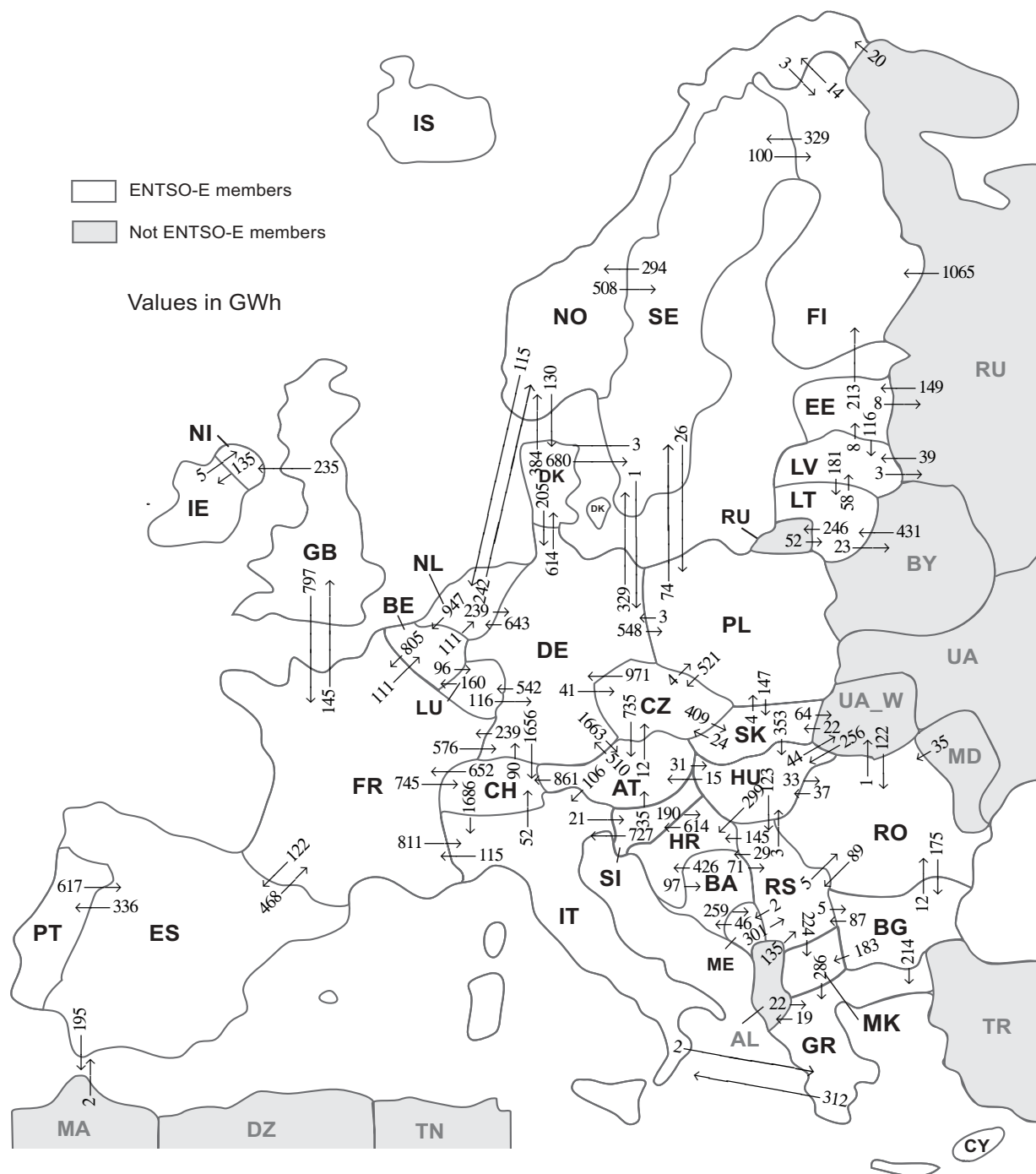
<sup>7</sup> National monthly values as of January 2009

<sup>8</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>9</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	98
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	91	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: **30016GWh**

Total physical energy flows: **32969GWh**

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 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

# 4

## Monthly imports and exports

January 2010

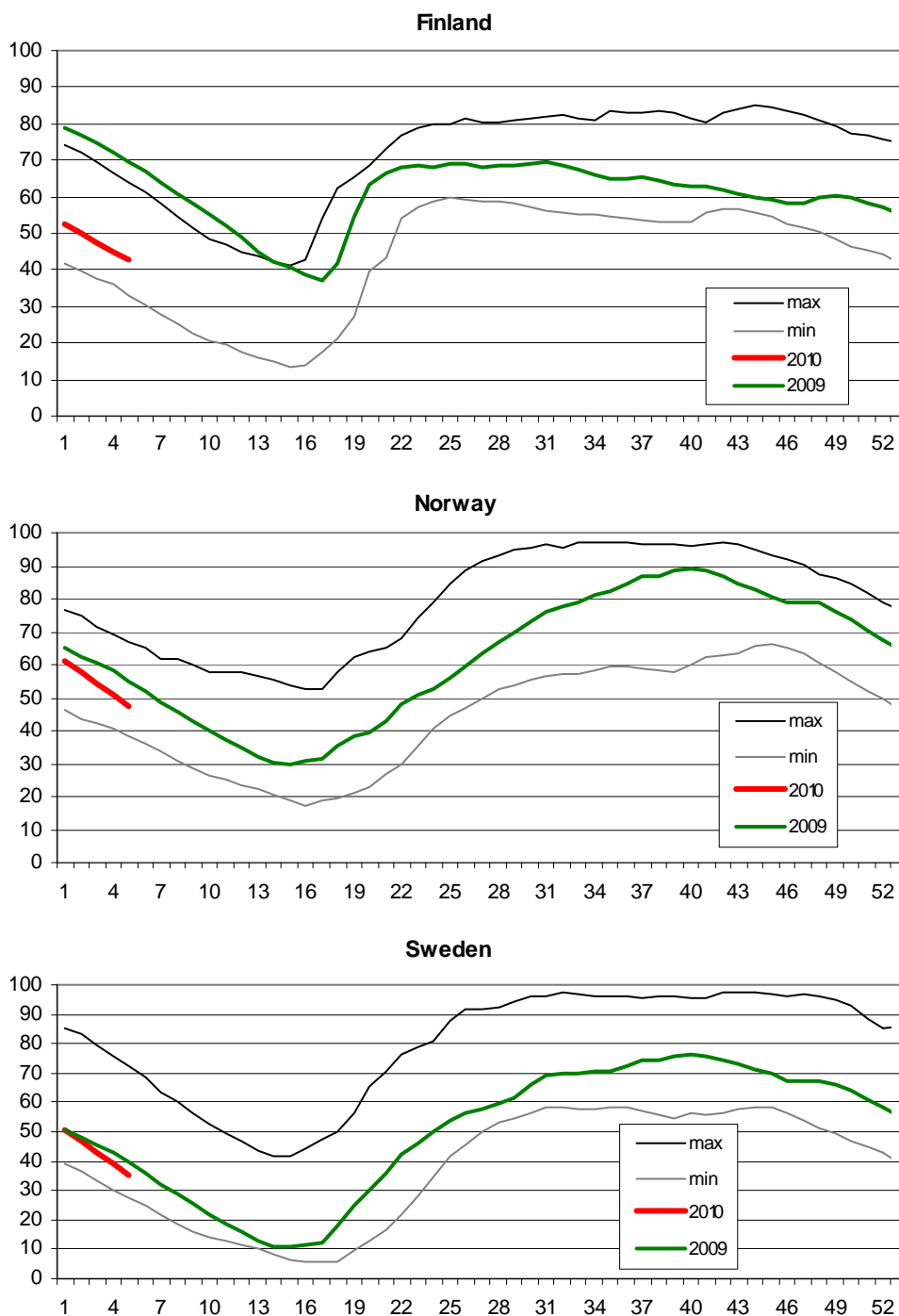
### Overview of the monthly imports and exports in GWh

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	-	-	-	-	861	12	510	-	-	-	-	-	-	-	-	31	-	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	-	-			
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	426	-	-	-	-	-	-	-	259	-	-	-	-	-	-	-	-	71	-	-	-	-				
BE	-	-	-	-	-	-	-	-	-	-	-	805	-	-	-	-	-	-	-	96	-	-	-	111	-	-	-	-	-	-	-	-	-	-	-				
BG	-	-	-	-	-	-	-	-	-	-	-	-	214	-	-	-	-	-	-	-	-	183	-	-	-	-	-	12	87	-	-	-	-	-	0				
CH	0	-	-	-	-	90	-	-	-	-	-	652	-	-	-	-	-	1686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CZ	735	-	-	-	-	971	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	409	-	-				
DE	1663	-	-	-	1656	41	614	-	-	-	239	-	-	-	-	-	-	-	542	-	-	-	643	548	-	-	-	-	-	329	-	-	-	-	-				
DK	-	-	-	-	-	205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	384	-	-	-	-	680	-	-	-	-	-				
EE	-	-	-	-	-	-	-	-	-	213	-	-	-	-	-	-	-	-	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8			
ES	-	-	-	-	-	-	-	-	-	-	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	336	-	-	-	-	-	-	-	-	195			
FI	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	329	-	-	-	-	-	0				
FR	-	-	111	-	745	576	-	-	122	-	145	-	-	-	-	-	-	811	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
GB	-	-	-	-	-	-	-	-	-	-	797	-	-	-	-	-	-	-	-	-	-	-	-	235	-	-	-	-	-	-	-	-	-	-	-	-	-		
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	312	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	19			
HR	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	614	-	-	-	-				
HU	15	-	-	-	-	-	-	-	-	-	-	-	-	299	-	-	-	-	-	-	-	-	-	-	-	-	33	123	-	-	0	44	-	-	-				
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-			
IT	0	-	-	-	52	-	-	-	-	-	-	115	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-			
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	269			
LU	-	-	160	-	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
LV	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3			
ME	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.			
MK	-	-	0	-	-	-	-	-	-	-	-	286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
NI	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NL	-	-	947	-	-	239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	242	-	-	-	-	-	-	-	-	-	-	-		
NO	-	-	-	-	-	-	130	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	-	-	-	-	-	-	-	-	-	508	-	0		
PL	-	-	-	-	521	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	147	0		
PT	-	-	-	-	-	-	-	-	617	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RO	-	-	-	175	-	-	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	-	1	0
RS	-	29	-	5	-	-	-	-	-	-	-	-	-	145	3	-	-	-	-	-	-	2	224	-	-	-	-	-	5	-	-	-	-	-	-	-	0		
SE	-	-	-	-	-	1	3	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	294	26	-	-	-	-	-	-	-	-	-		
SI	35	-	-	-	-	-	-	-	-	-	-	-	190	-	-	-	-	727	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	24	-	-	-	-	-	-	-	-	-	353	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	64	-	-	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-		
Other III <sup>1</sup>	-	-	-	0	-	-	-	-	149	2	1065	-	-	22	-	-	-	-	483	-	39	n.a.	-	-	-	20	0	-	35	135	-	-	-	-	-	-	-		

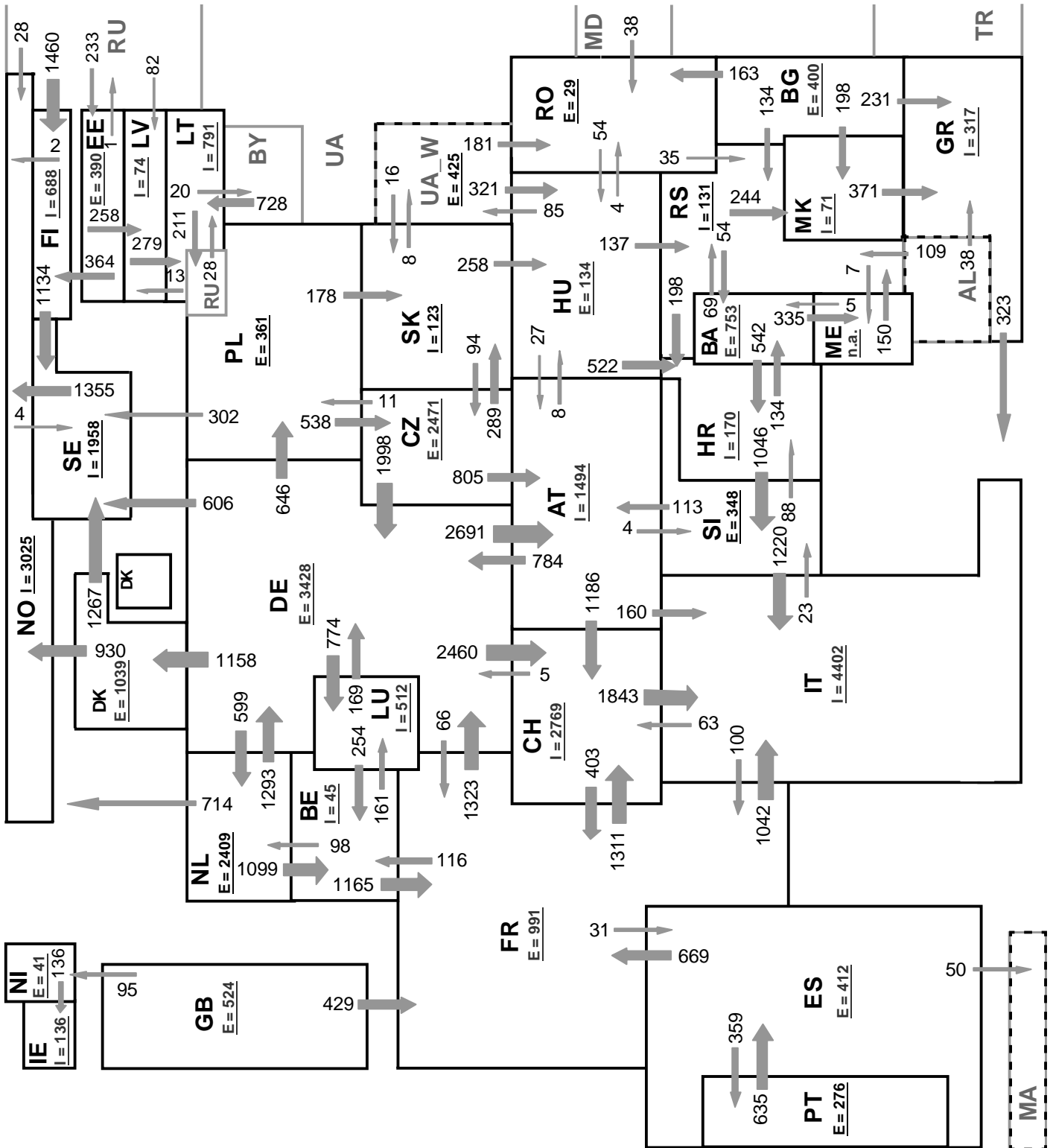
Other III<sup>1</sup>: Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia and Ukraine

### Sum of the monthly imports and exports in GWh

	import	export		import	export
AT	2448	1647	IT	3642	190
BA	172	756	LT	664	327
BE	1218	1012	LU	638	276
BG	180	496	LV	213	192
CH	3314	2428	ME	n.a.	n.a.
CZ	598	2119	MK	172	286
DE	2711	6275	NI	240	135
DK	747	1269	NL	869	1428
EE	157	337	NO	954	756
ES	741	999	PL	582	745
FI	1381	343	PT	336	617
FR	3076	2510	RO	207	302
GB	145	1032	RS	806	413
GR	524	331	SE	1920	424
HR	1060	711	SI	762	952
HU	680	514	SK	578	445
IE	135	5	UA_W	109	400



- 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

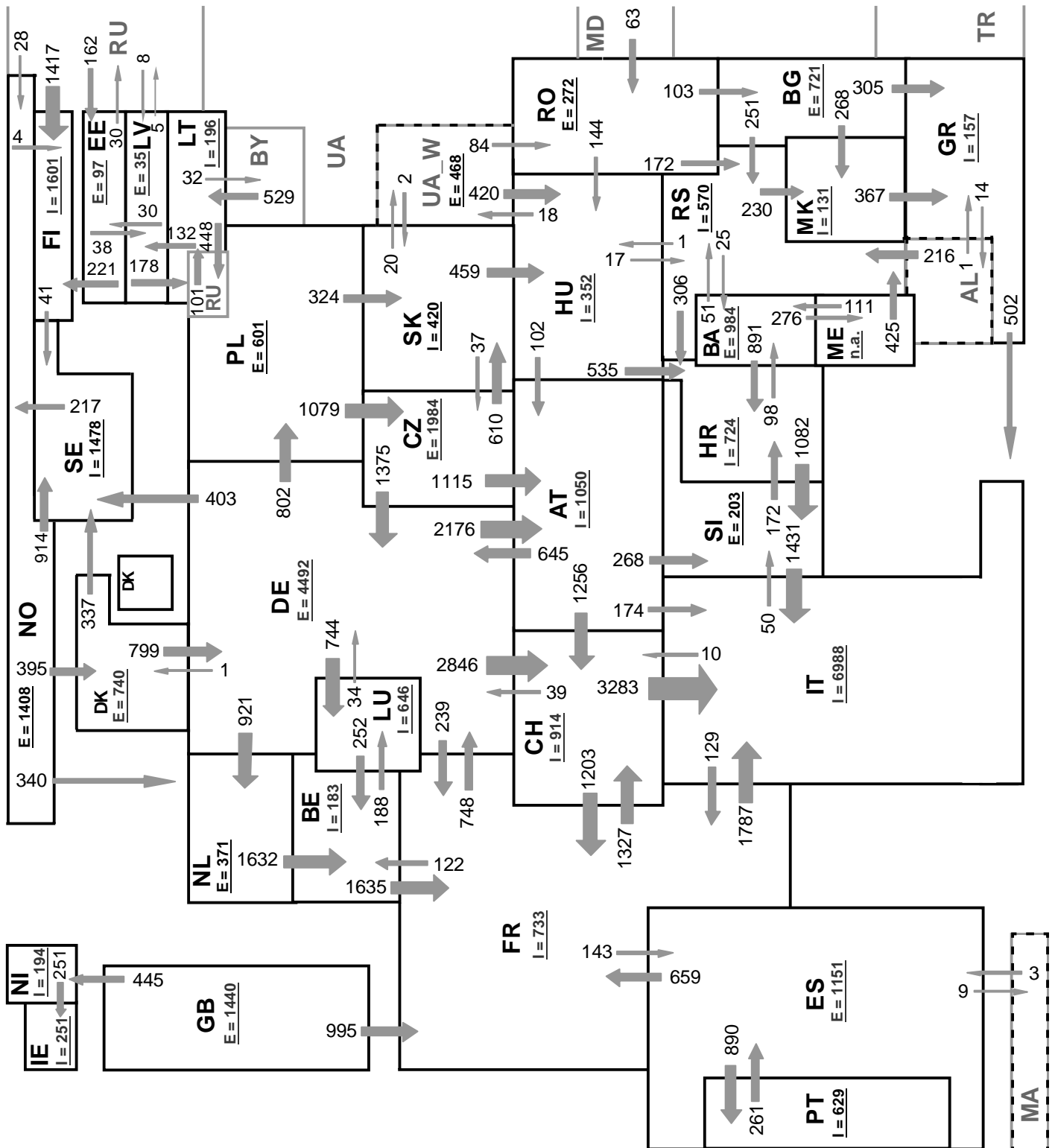
ENTSO-E = 40903 MW

Total = 44798 MW

Synchronous operation with ENTSO-E region

I = Import balance  
E = Export balance





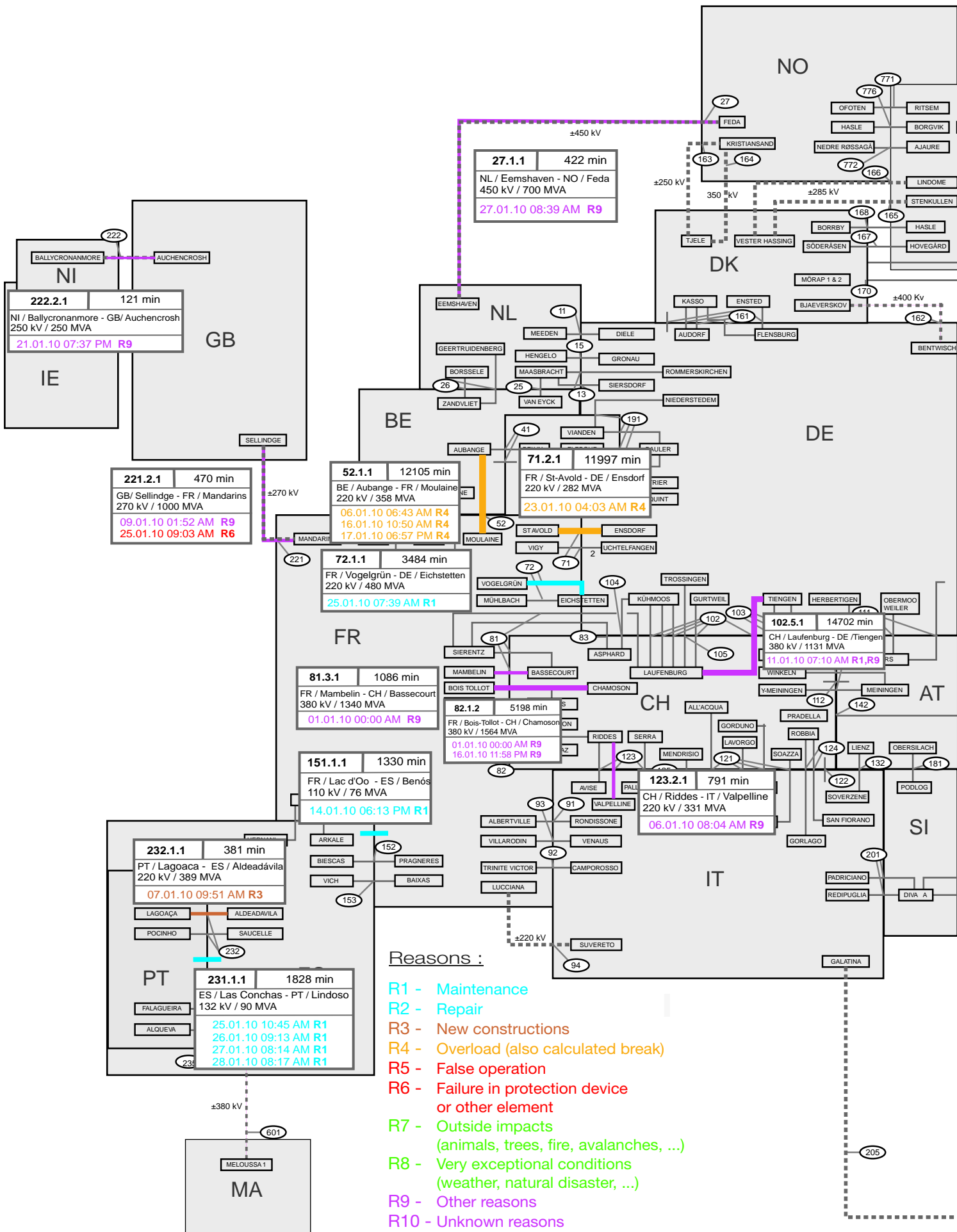
Sum of load flows in MW

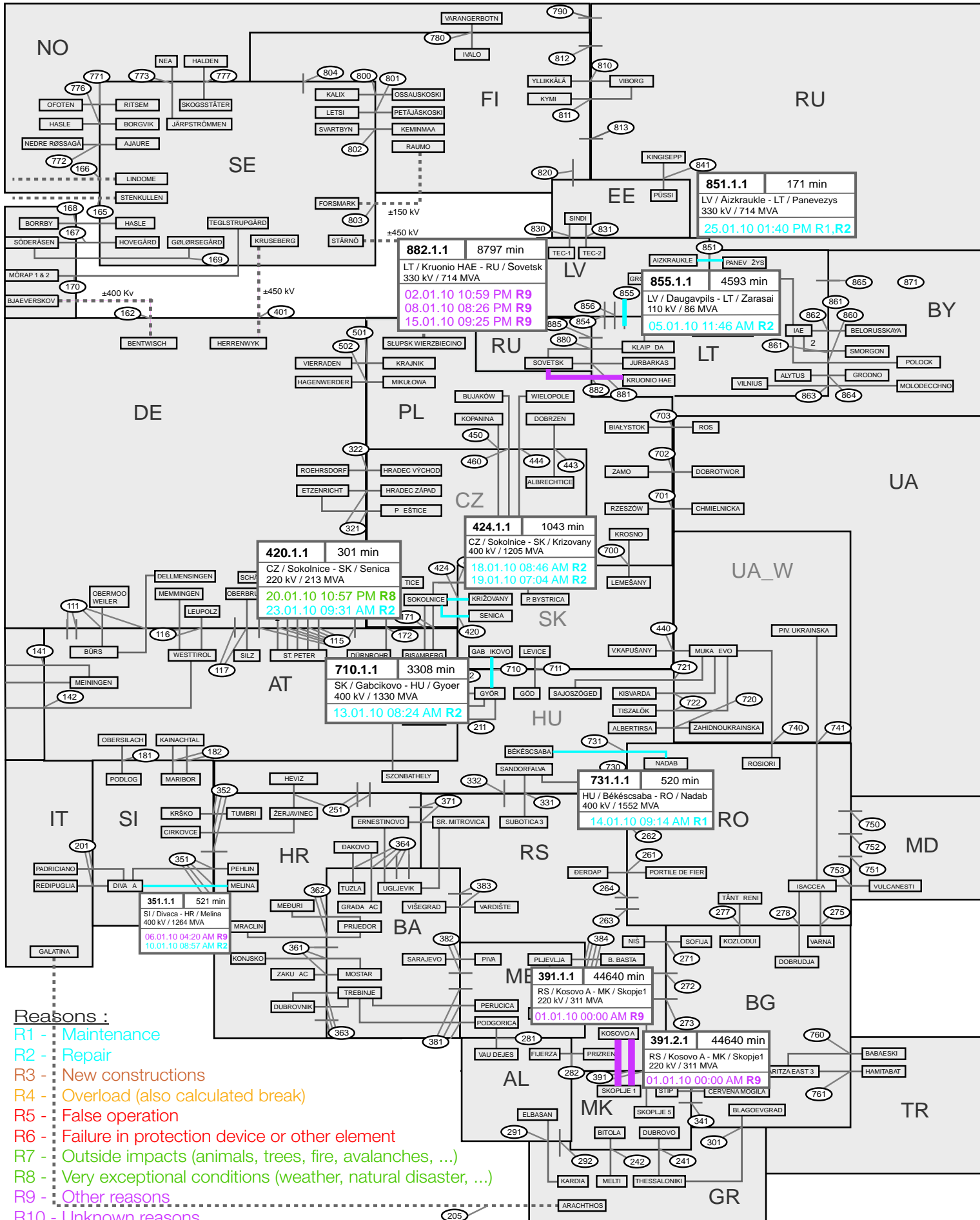
ENTSO-E = 42822 MW

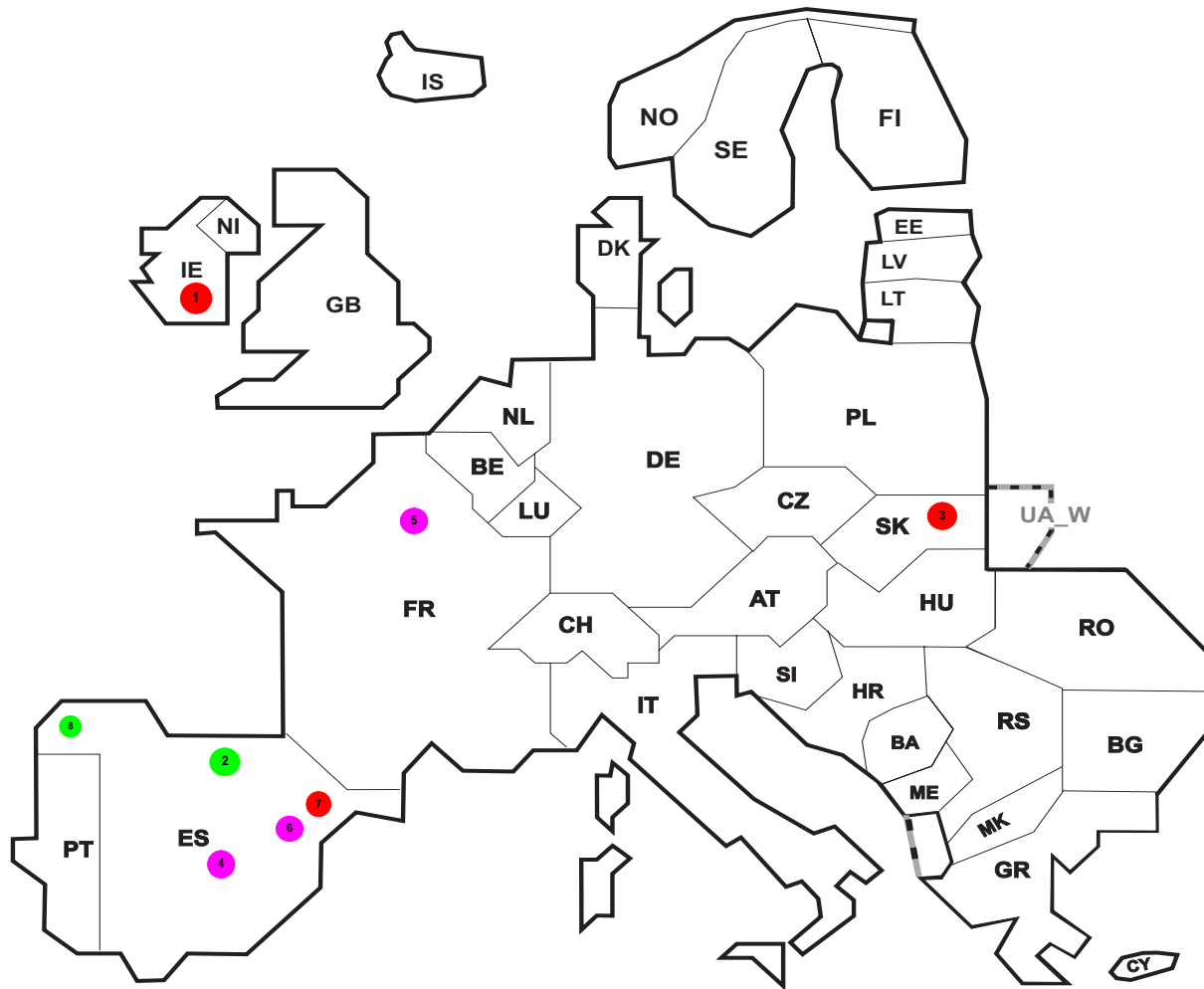
Total = 46678 MW

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	IE	Wexford	R6	79	0	118	15,758
2	ES	Güeñes	R7	34	168	12	0,068
3	SK	Sucany	R6	2	19	2	0,037
4	ES	Leganes	R9	4	29	893	0,009
5	FR	Sénart	R9	8	13	36	0,009
6	ES	Ascó	R9	2	55	2	0,004
7	ES	Centelles	R5	1	24	375	0,003
8	ES	Vimianzo	R8	1	11	1417	0,002

Information about incidents in other countries is unavailable.

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

## Highest and lowest load on the 20.01.2010 CET of each country

	Highest		Lowest		Load representativity %
	load MW	variation % <sup>1</sup>	load MW	variation % <sup>1</sup>	
AT	9255	-0,8	6037	3,2	100
BA	1767	2,4	1078	6,9	100
BE <sup>2</sup>	13245	3,5	9911	6,1	100
BG	6562	4,1	4346	-1,5	100
CH	10123	3,8	7465	1,7	100
CY <sup>3</sup>	771	3,1	381	-2,8	100
CZ	9597	-0,7	7357	0,5	100
DE	77609	2,3	59977	2,4	91
DK	6101	n.a.	3476	n.a.	100
EE	1495	n.a.	1031	n.a.	100
ES	39364	-8,2	24808	-5,0	98
FI	13528	n.a.	10957	n.a.	100
FR	84512	2,1	65421	3,1	100
GB	55098	n.a.	31552	n.a.	100
GR	7921	7,5	4634	5,4	100
HR	2895	5,4	1590	3,7	100
HU	5599	-9,0	3669	-11,2	100
IE <sup>4</sup>	4411	n.a.	2580	n.a.	99
IS	2015	n.a.	1850	n.a.	100
IT	51502	4,5	28877	2,8	100
LT	1559	n.a.	937	n.a.	100
LU	1047	7,7	699	13,3	100
LV	1257	n.a.	729	n.a.	100
ME <sup>5</sup>	557	n.a.	376	n.a.	100
MK	1259	-0,4	781	-3,5	100
NI <sup>6</sup>	1616	n.a.	826	n.a.	100
NL	16849	5,6	9697	-0,1	100
NO	21372	n.a.	16872	n.a.	100
PL <sup>7</sup>	22463	7,2	15246	5,4	100
PT	8322	-8,6	5263	-0,3	97
RO	8025	4,9	5610	2,3	100
RS	6464	4,4	4661	11,2	100
SE	21256	n.a.	17270	n.a.	100
SI	1871	7,3	1109	4,9	100
SK	4036	-0,4	3034	-0,8	100
<b>ENTSO-E</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	
UA_W	925	3,5	583	9,0	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> Units sent from transmission to distribution network

<sup>4</sup> Demand higher than normal due to cold weather

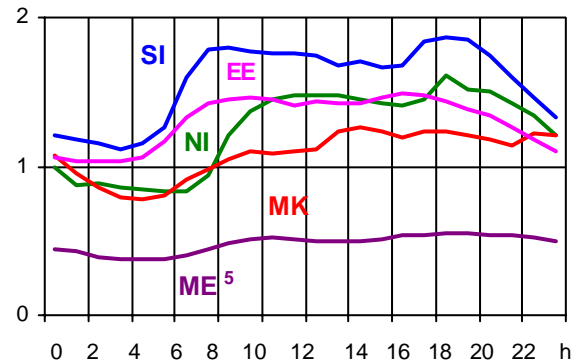
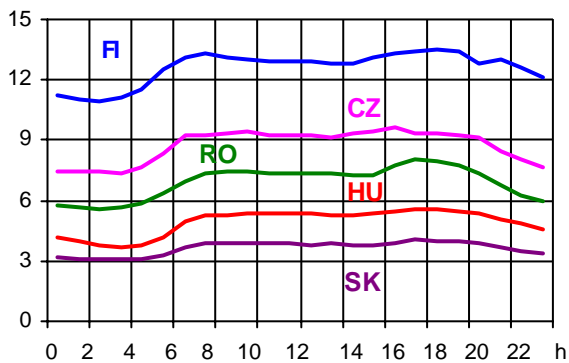
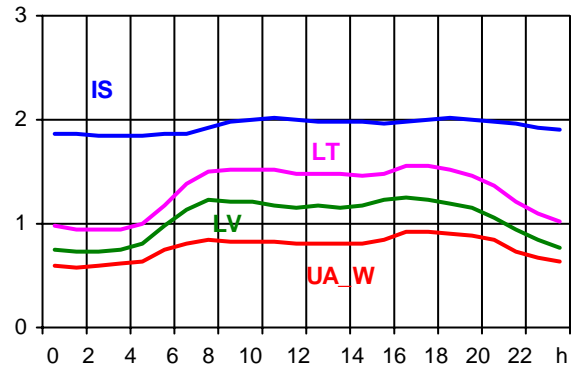
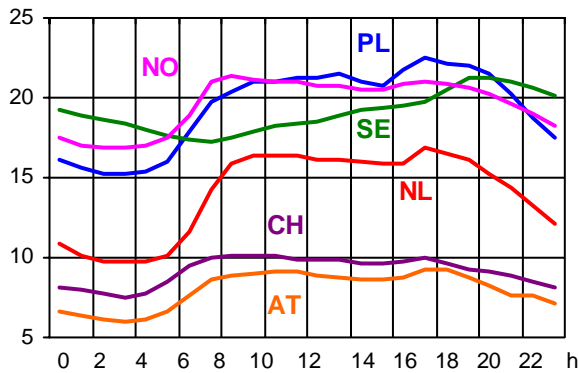
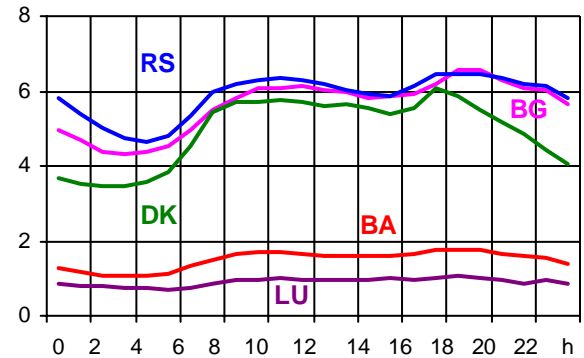
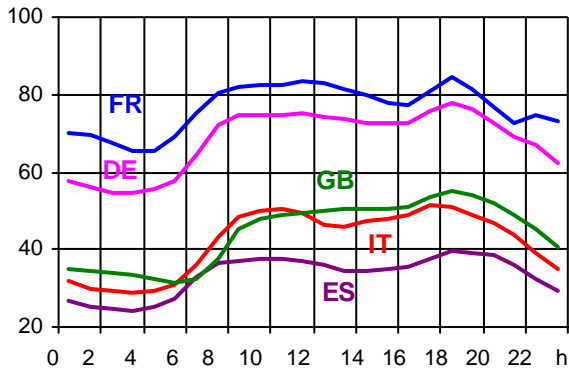
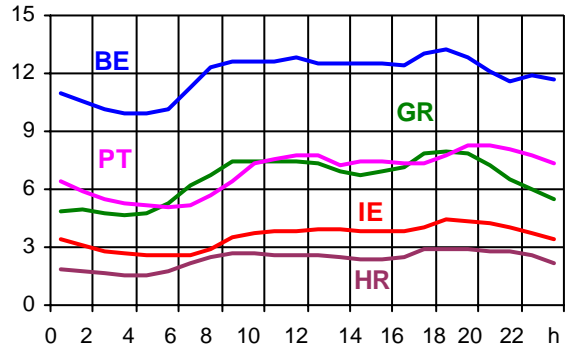
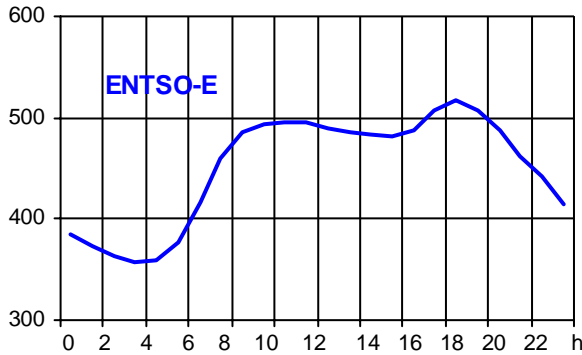
<sup>5</sup> Load values as of 21 January 2009

<sup>6</sup> Severe Cold weather spell resulted in higher than expected load and peak demand

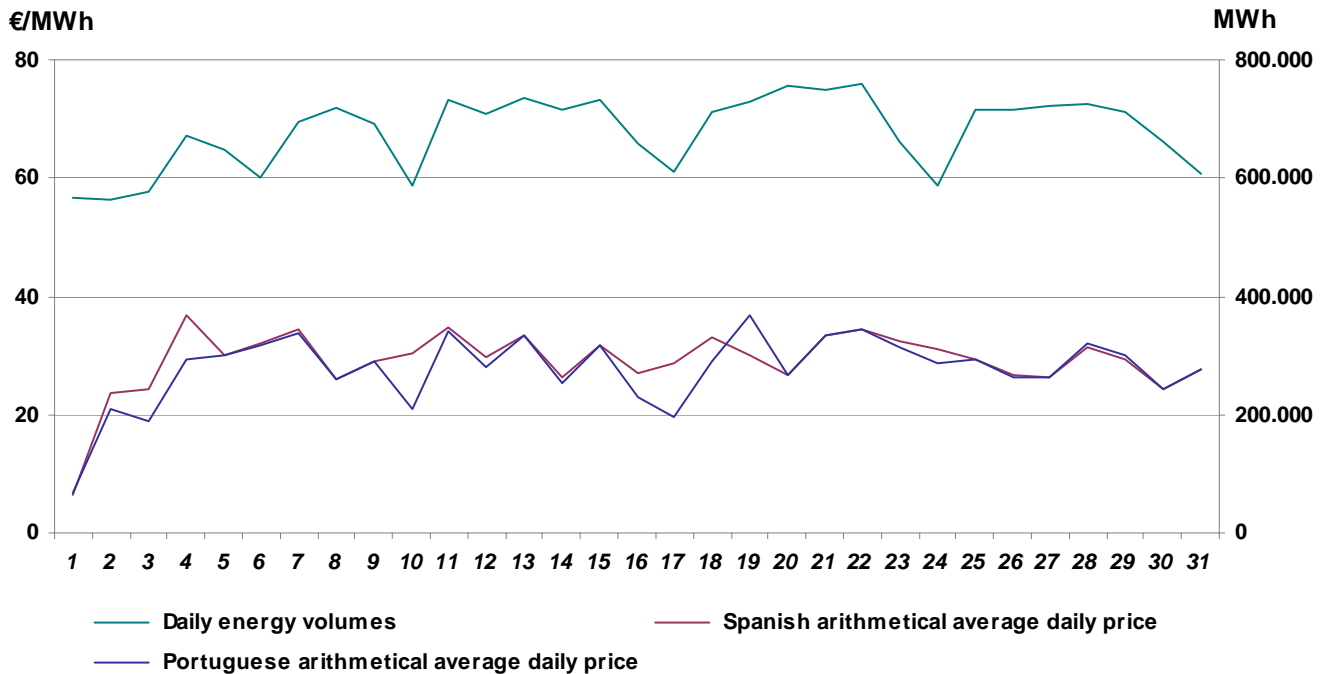
<sup>7</sup> Operational data

Consumption hourly load curves on 20.01.2010 CET

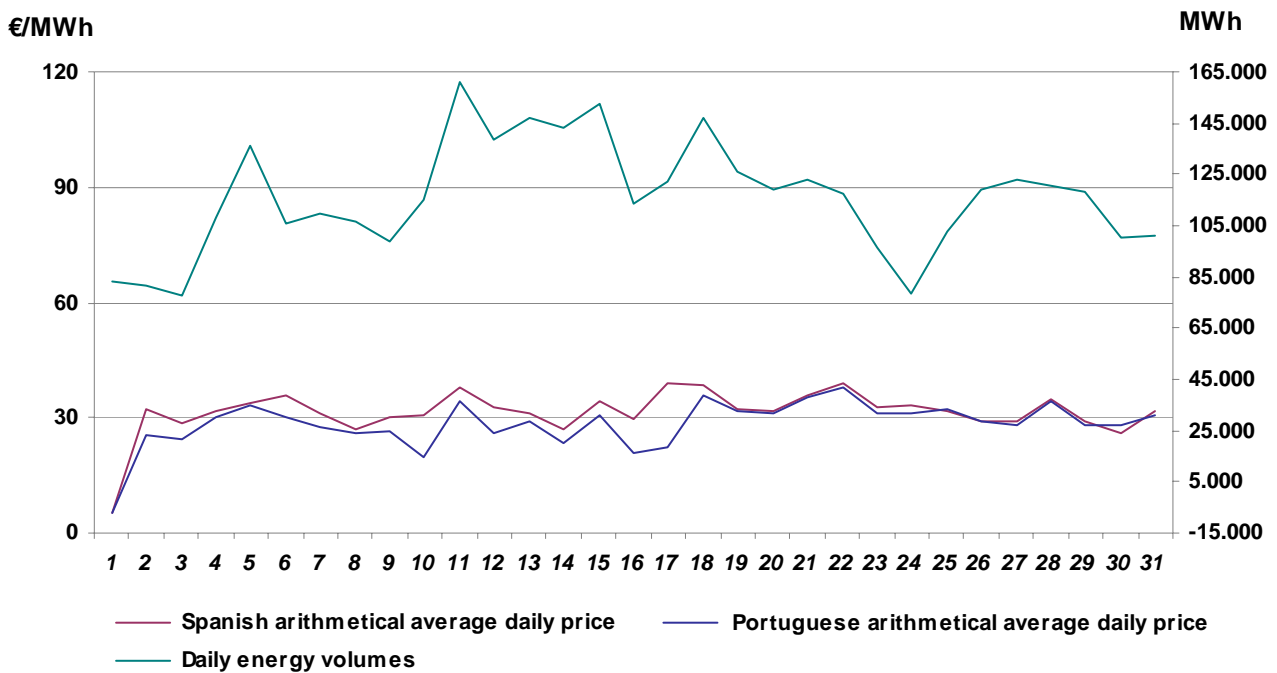
Values in GW



**Iberian Daily Market: prices and energy**  
January 2010

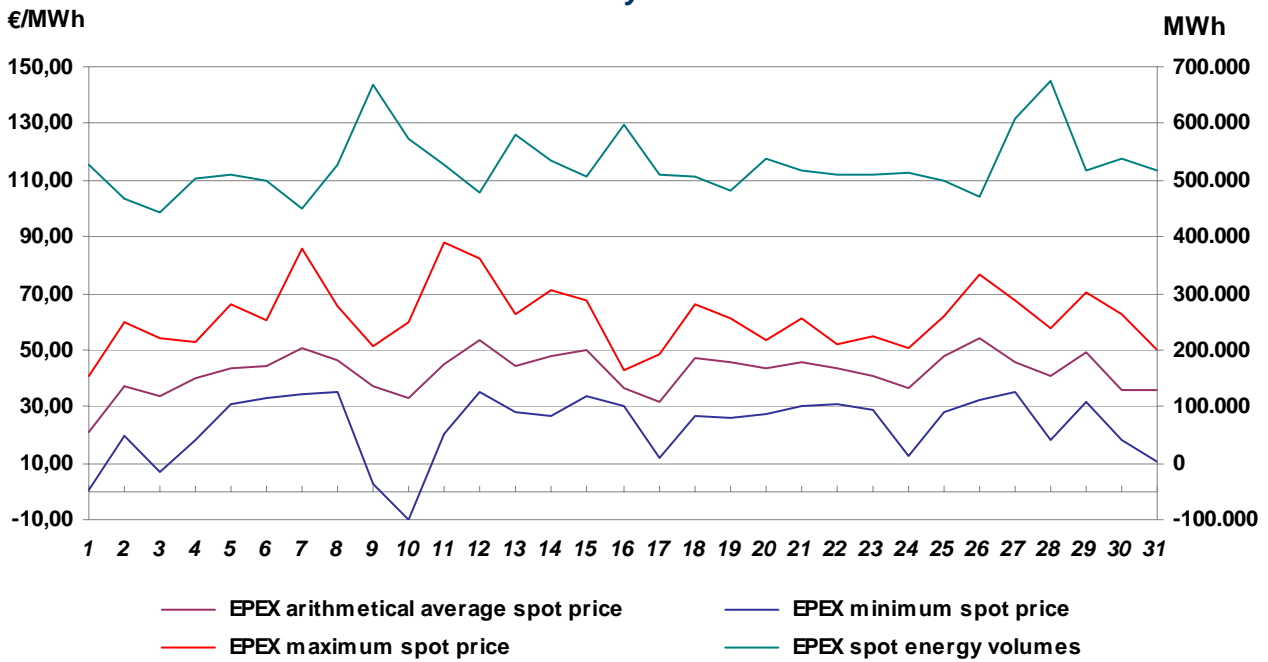


**Iberian Intraday Market: prices and energy**  
January 2010

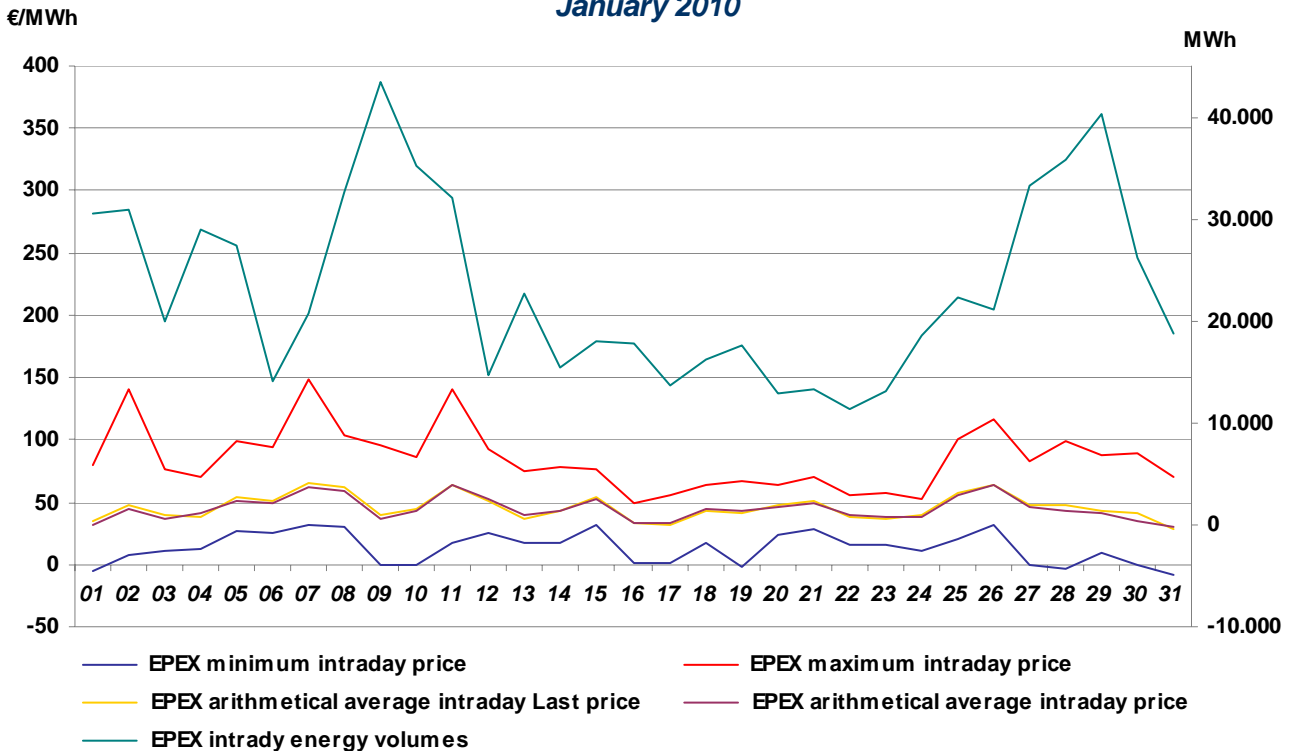


Source of the Iberian Market data: [www.omel.es](http://www.omel.es)

**EPEX Spot Market: prices and energy**  
January 2010



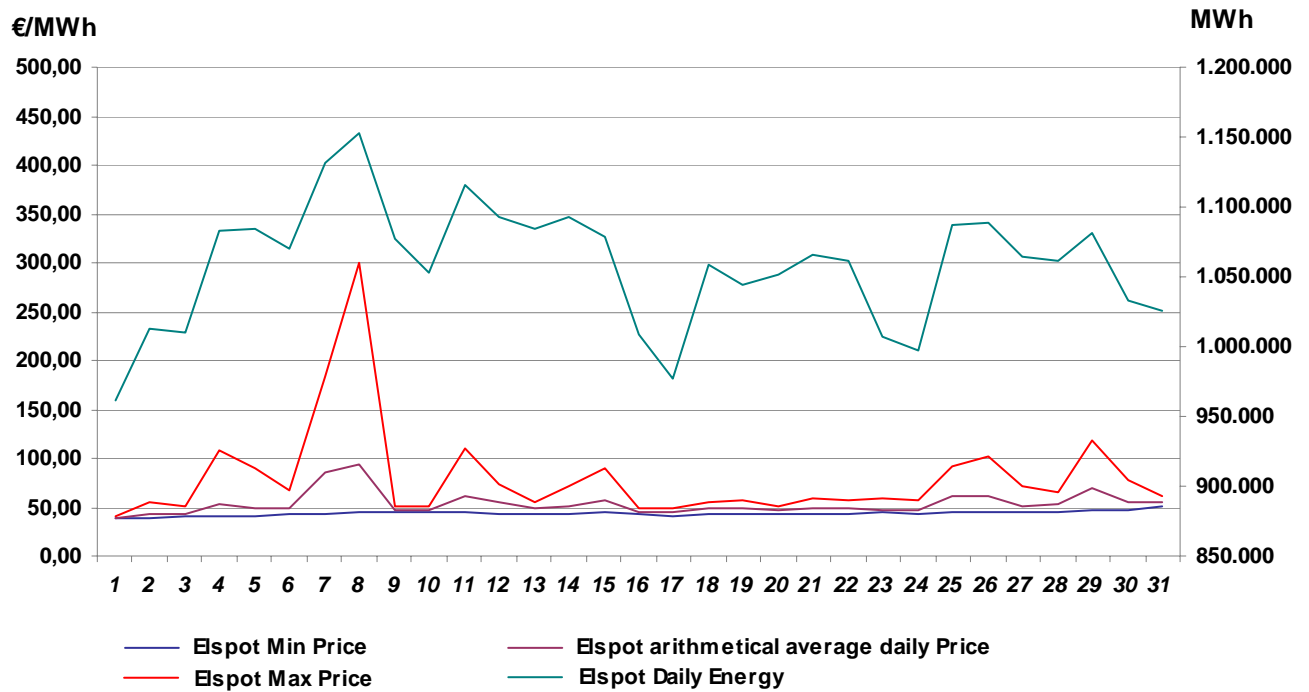
**EPEX Intraday Market: prices and energy**  
January 2010



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



*Nord Pool Spot Market: prices and energy  
January 2010*



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

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