

Monthly report



September 2010

Monthly provisional values as of 01 February 2011

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 on page 2, 11 and 12 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	1673	3560	0	0	801	6034	-344	291	5399	3,6
BA	0	604	330	0	0	0	934	-21	0	913	7,9
BE ²	3748	2917	127	377	86	0	7169 ¹	-17	148	7004	2,0
BG	1029	1896	268	32	32	0	3225	-869	91	2265	-0,2
CH	1494	166	3216	104	2	0	4980 ¹	206	163	5023	3,7
CY	0	495	0	6	6	0	501	0	0	501	-1,5
CZ	1750	4109	256	96	30	0	6211 ¹	-1239	81	4891	5,2
DE	11392	23224	1911	6141	2884	0	42668 ¹	-653	720	41295	1,6
DK	0	1725	2	965	764	0	2692 ¹	70	0	2762	n.a.
EE	0	779	1	55	28	0	835	-264	0	571	n.a.
ES	5036	12311	1672	3295	2260	33	22347	-964	224	21159	-0,1
FI	1589	2105	932	709	23	58	5393 ¹	1007	0	6400	n.a.
FR	31657	2961	3598	956	561	0	39172	-3597	516	35059	1,5
GB	3944	19240	453	472	472	0	24109	330	598	23841	n.a.
GR	0	3306	263	182	149	0	3751 ¹	494	6	4239	1,1
HR	0	441	392	13	12	0	846	512	13	1345	0,5
HU	1380	1581	0	0	0	0	2961	483	0	3444	12,0
IE	0	1767	51	288	288	22	2128 ¹	-59	0	2069	n.a.
IS	0	1	1026	321	0	0	1348	0	0	1348	n.a.
IT	0	18845	3460	1197	613	0	23502	3452	222	26732	-1,6
LT	0	150	91	27	20	0	268 ¹	574	79	763	n.a.
LU	0	227	94	18	4	0	339	339	125	553	3,6
LV	0	148	172	10	5	0	330	221	0	551	n.a.
ME ³	0	1	14	0	0	0	15	-251	0	-236	n.a.
MK	0	300	98	0	0	0	398	168	0	566	6,8
NI	0	434	0	73	68	1	508	192	0	700	n.a.
NL	343	7560	0	629	317	0	8532	397	0	8929	1,4
NO	0	223	8540	51	51	0	8814 ¹	-139	74	8601	n.a.
PL ⁴	0	11105	307	227	203	0	11639 ¹	-181	56	11402	4,7
PT	0	2717	508	595	386	0	3820 ¹	529	50	4299	2,8
RO	934	2045	1536	0	n.a.	0	4515	-458	15	4042	4,0
RS	0	2250	779	0	0	0	3029	235	50	3214	3,6
SE	3357	350	4739	1058	328	0	9504 ¹	652	0	10156	n.a.
SI	474	382	398	0	0	0	1254	-273	0	981	4,8
SK	928	515	540	36	1	0	2019 ¹	90	47	2062	4,1
ENTSO-E	69055	128553	39334	17933	9593	915	255790¹	622	3569	252843	n.a.
UA_W	0	311	12	0	0	0	323	-6	0	317	14,4

¹ Including deliveries from industry

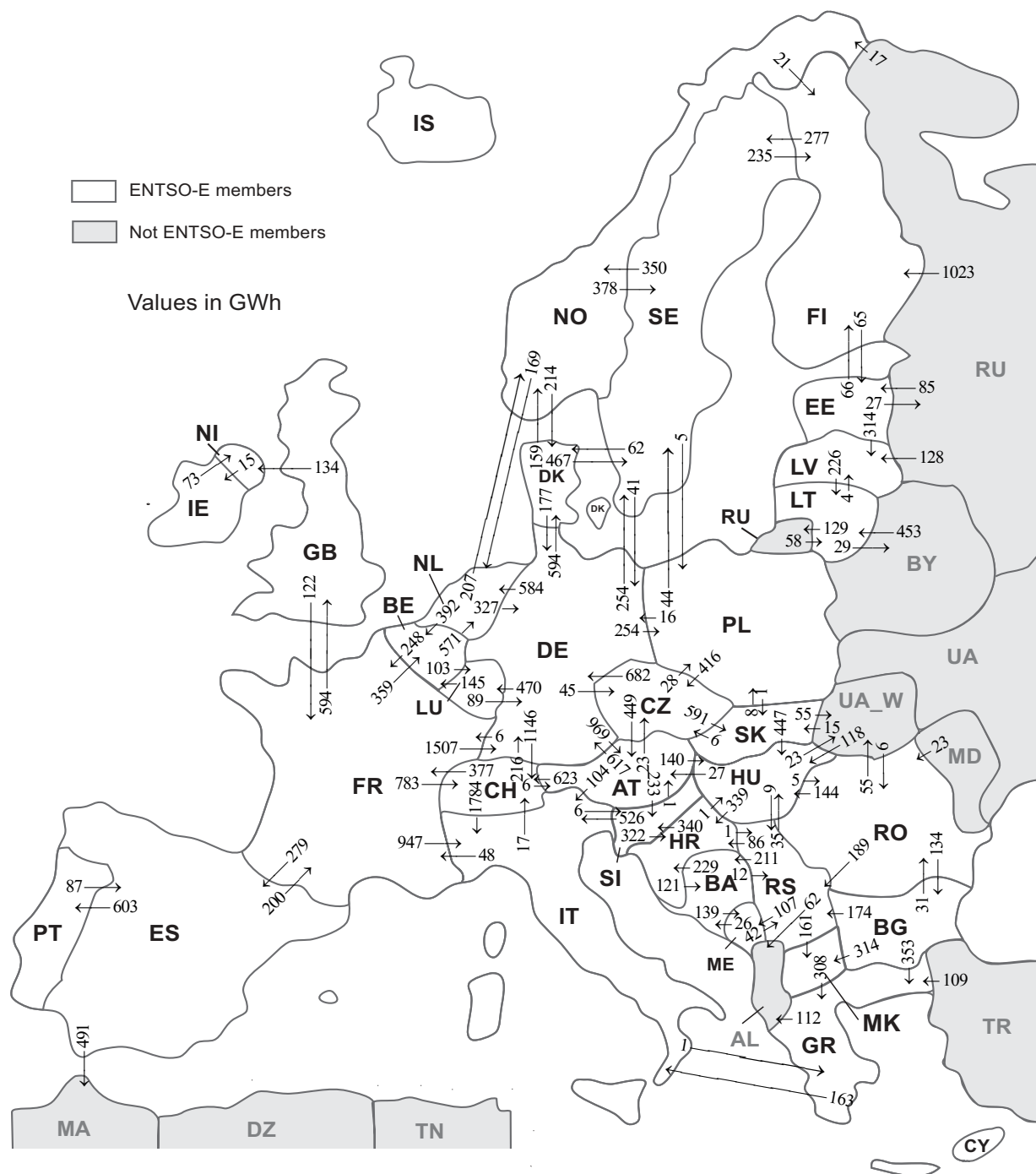
² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of September 2009

⁴ 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	100
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	95	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: **26770GWh**

Total physical energy flows: **29788GWh**

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 characteristics of the cross-frontier lines published in the Statistical Yearbook. These values may differ from the official statistics and the exchange balances on page 2.

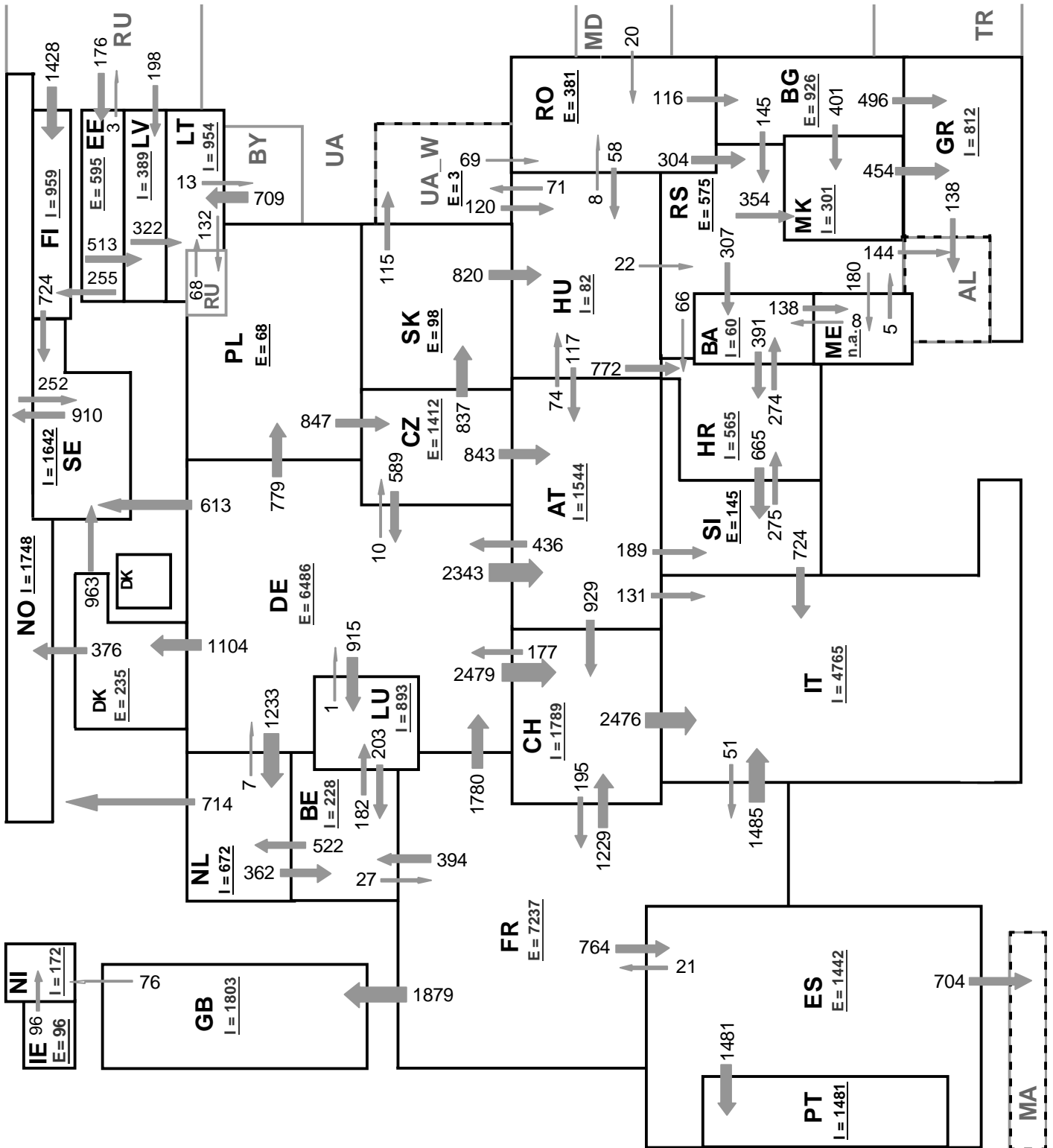
Overview of the monthly imports and exports in GWh

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 ¹				
AT	-	-	-	-	623	23	617	-	-	-	-	-	-	-	-	140	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	233	-	-			
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	-	-	-	-	-	-	139	-	-	-	-	-	-	-	-	-	12	-	-	-				
BE	-	-	-	-	-	-	-	-	-	-	-	248	-	-	-	-	-	-	-	103	-	-	-	571	-	-	-	-	-	-	-	-	-	-	-				
BG	-	-	-	-	-	-	-	-	-	-	-	-	-	353	-	-	-	-	-	-	-	314	-	-	-	-	-	-	31	174	-	-	-	-	-				
CH	6	-	-	-	-	-	-	-	-	-	-	377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CZ	449	-	-	-	-	-	682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	591	-	-			
DE	969	-	-	-	1146	45	-	594	-	-	-	6	-	-	-	-	-	-	-	470	-	-	-	-	584	-	254	-	-	-	-	254	-	-	-				
DK	-	-	-	-	-	-	177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	159	-	-	-	-	-	467	-	-	-				
EE	-	-	-	-	-	-	-	-	-	-	66	-	-	-	-	-	-	-	-	-	314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27			
ES	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	603	-	-	-	-	-	-	-	-	491			
FI	-	-	-	-	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	277	-	-	-	-	0			
FR	-	-	359	-	783	-	1507	-	-	279	-	-	594	-	-	-	-	-	-	947	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
GB	-	-	-	-	-	-	-	-	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	134	-	-	-	-	-	-	-	-	-	-	-	-	-		
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	112		
HR	-	121	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	340	-	-		
HU	27	-	-	-	-	-	-	-	-	-	-	-	-	-	339	-	-	-	-	-	-	-	-	-	-	-	-	5	9	-	-	-	0	23	-	-			
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	-	-	-	-	-	-	-	-	-	-	-	-	-		
IT	0	-	-	-	17	-	-	-	-	-	-	48	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-			
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158		
LU	-	-	145	-	-	-	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LV	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
ME	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.		
MK	-	-	-	0	-	-	-	-	-	-	-	-	-	308	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NL	-	-	392	-	-	-	327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207	-	-	-	-	-	-	-	-	-	-	-	
NO	-	-	-	-	-	-	-	214	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	-	-	-	-	-	-	-	-	-	378	-	0	
PL	-	-	-	-	416	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	1	-	0	
PT	-	-	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RO	-	-	-	134	-	-	-	-	-	-	-	-	-	-	-	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	0
RS	-	211	-	0	-	-	-	-	-	-	-	-	-	86	35	-	-	-	-	-	-	107	161	-	-	-	-	-	0	-	-	-	-	-	-	-	-	62	
SE	-	-	-	-	-	-	41	62	-	-	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	5	-	-	-	-	-	-	-	-	-	-	
SI	1	-	-	-	-	-	-	-	-	-	-	-	-	-	322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	447	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	55	-	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-		
Other III ¹	-	-	-	0	-	-	-	-	85	0	1023	-	-	109	-	-	-	-	511	-	128	n.a.	-	-	-	17	0	-	23	0	-	-	-	-	-	-	-		

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		import	export
AT	1452	1740	IT	3524	72
BA	358	380	LT	737	162
BE	896	922	LU	573	234
BG	134	872	LV	446	226
CH	2569	2383	ME	n.a.	n.a.
CZ	490	1750	MK	475	308
DE	3672	4322	NI	207	15
DK	870	803	NL	1324	926
EE	150	407	NO	733	782
ES	366	1294	PL	295	477
FI	1345	342	PT	603	87
FR	1001	4469	RO	65	522
GB	594	256	RS	427	662
GR	771	275	SE	1420	693
HR	976	463	SI	579	849
HU	885	403	SK	607	516
IE	15	73	UA_W	133	139



Sum of load flows in MW

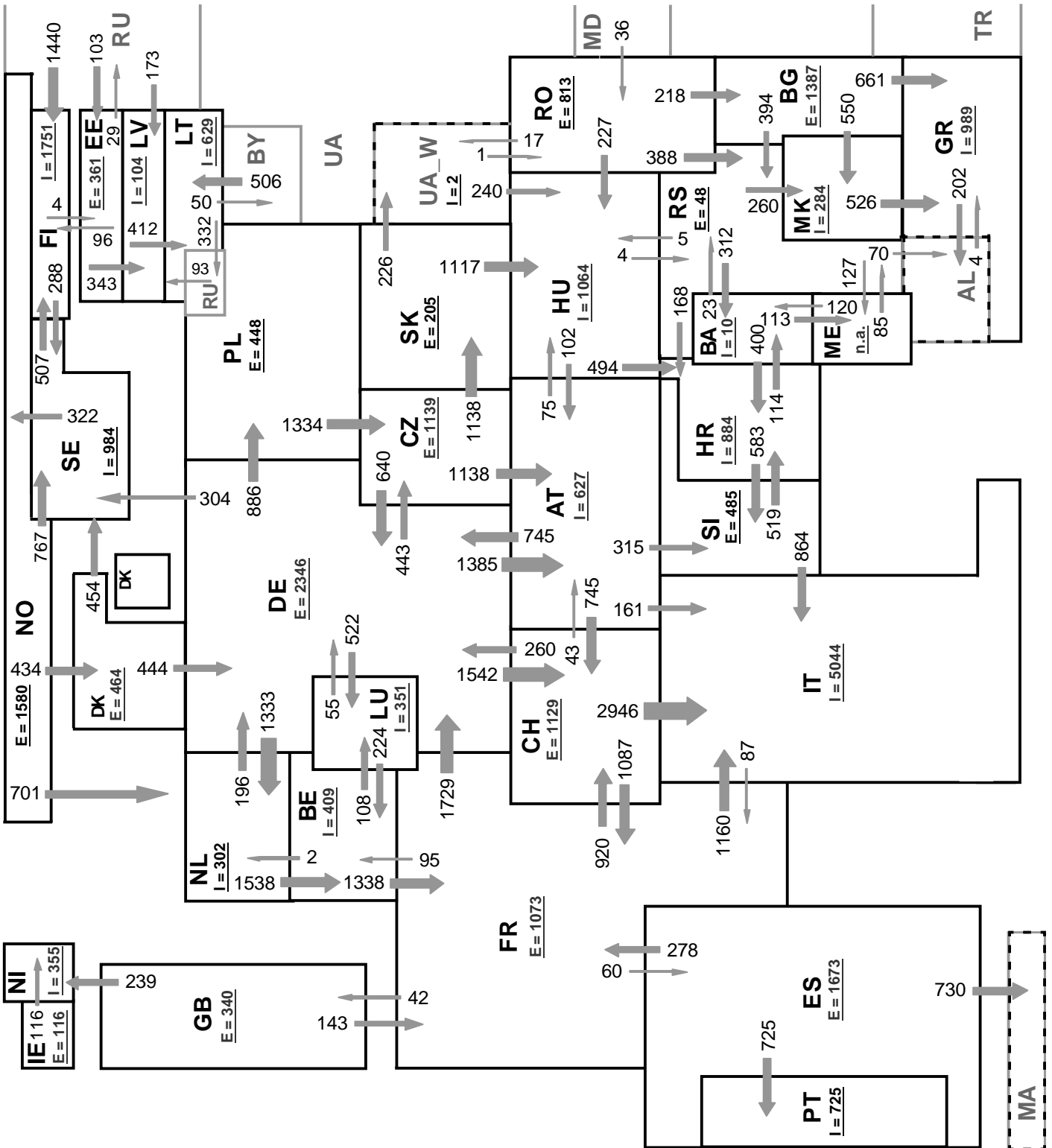
ENTSO-E = 39888 MW

Total = 43996 MW

Synchronous operation with ENTSO-E region

I = Import balance
E = Export balance

6



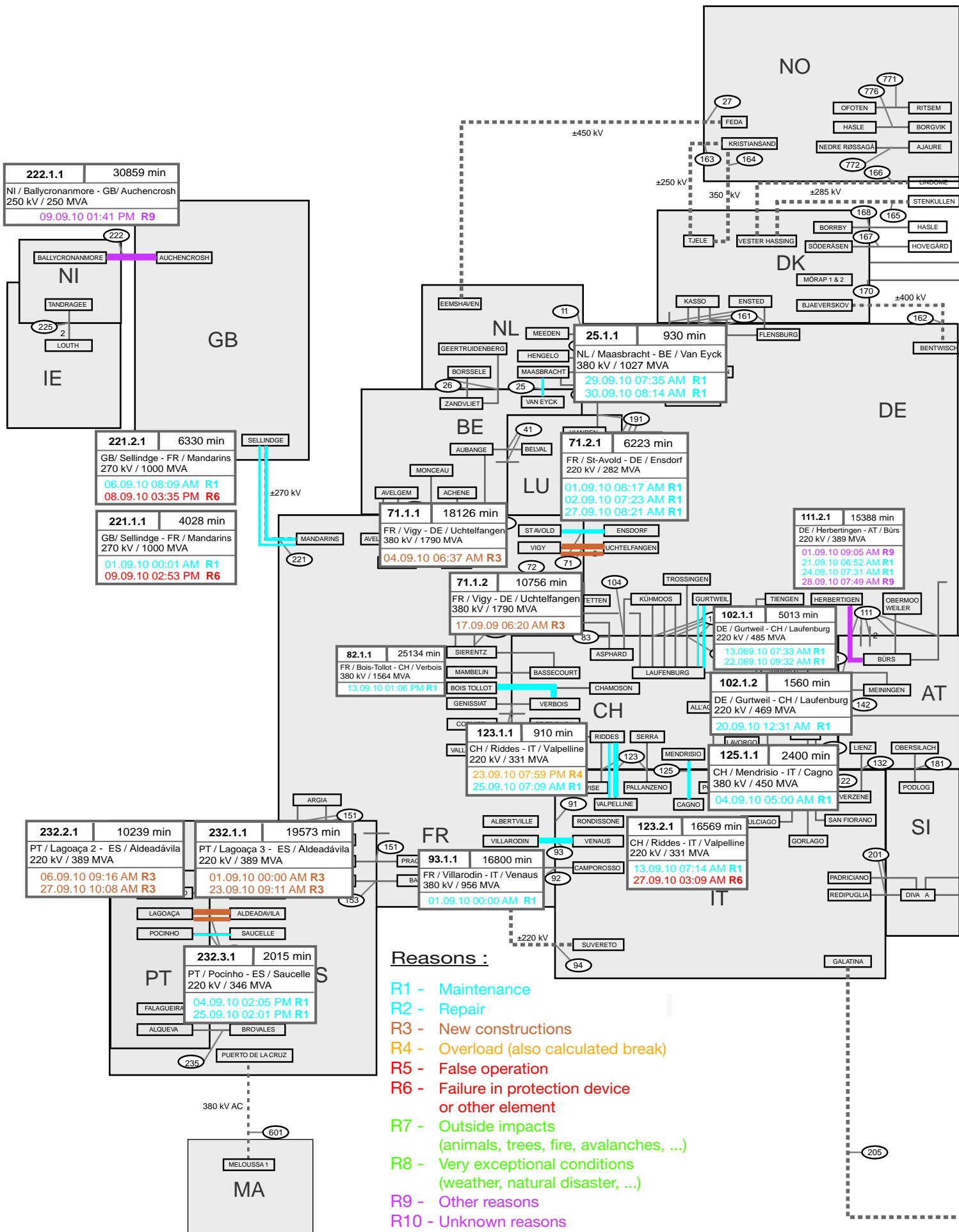
Sum of load flows in MW

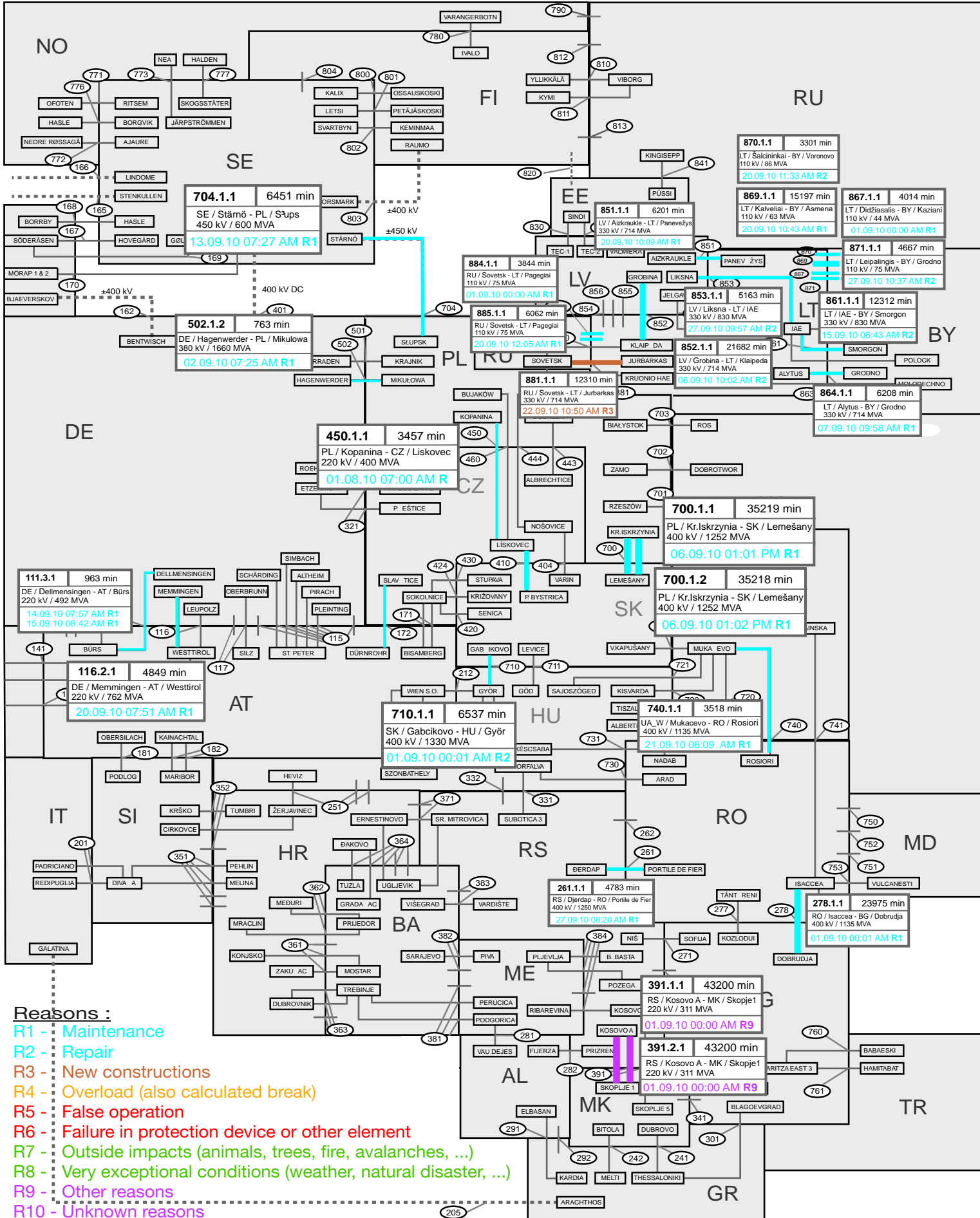
ENTSO-E = 38900 MW

Total = 43495 MW

Synchronous operation with ENTSO-E region

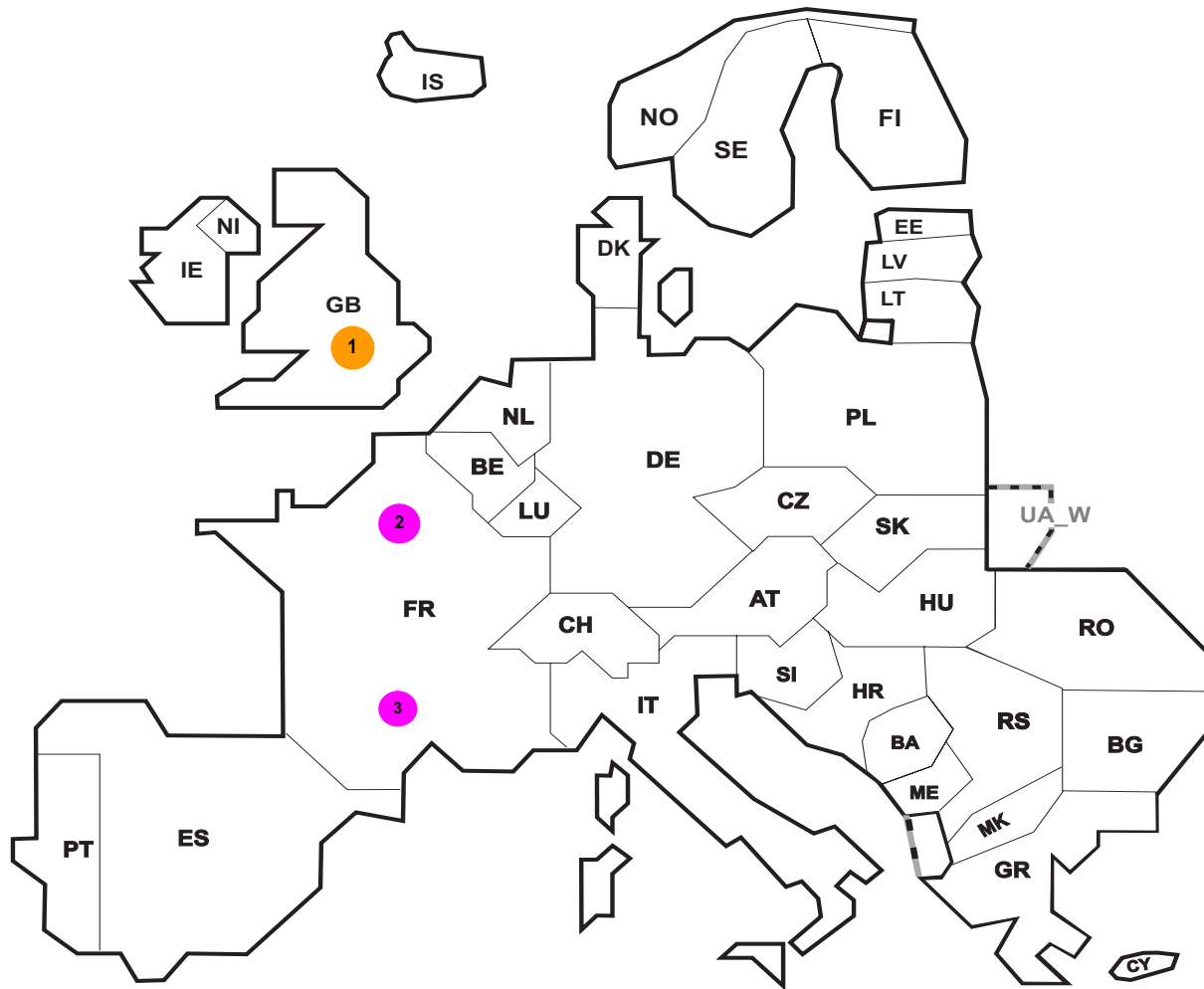
I = Import balance
E = Export balance





Reasons :

- R1 - Maintenance
- R2 - Repair
- R3 - New constructions
- 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



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	GB	Elstree	R4	16	0	23	n.a.
2	FR	Buttes Chaumont	R9	18	56	19	0,019
3	FR	Ardoise	R9	13	134	6	0,014

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 15.09.2010 CET of each country

	Highest		Lowest		Load representativity %
	load MW	variation % ¹	load MW	variation % ¹	
AT	8046	0,7	4823	4,8	100
BA	1661	5,1	962	3,4	100
BE ²	11667	-2,6	8034	2,4	100
BG	4591	0,8	2952	0,4	100
CH	8749	-0,6	5335	2,2	100
CY ³	850	n.a.	479	n.a.	100
CZ	7888	3,2	5697	3,7	100
DE	75696	7,2	52258	15,5	91
DK	4855	n.a.	2793	n.a.	100
EE	974	n.a.	604	n.a.	100
ES	37361	8,3	24023	4,5	100
FI	9890	n.a.	7364	n.a.	100
FR	57015	-2,2	40291	2,3	100
GB	40022	n.a.	21927	n.a.	100
GR	7019	-1,3	4356	3,6	100
HR	2397	0,4	1421	7,4	100
HU	5156	-8,1	3438	-8,5	100
IE	3519	n.a.	1894	n.a.	100
IS	1960	n.a.	1818	n.a.	100
IT	45549	-1,5	29513	4,5	100
LT	1309	n.a.	754	n.a.	100
LU	950	2,0	652	-0,5	100
LV	932	n.a.	491	n.a.	100
ME ⁴	439	n.a.	273	n.a.	100
MK	994	4,7	537	-8,2	100
NI	1256	n.a.	623	n.a.	100
NL	15112	6,0	9443	8,3	100
NO	13512	n.a.	10144	n.a.	100
PL ⁵	19529	4,4	12969	4,2	100
PT	7552	7,7	5028	8,3	97
RO	6961	3,4	4768	2,3	100
RS	4852	-1,5	2691	-1,8	100
SE	15908	n.a.	11411	n.a.	100
SI	1675	6,1	1014	7,3	100
SK	3210	-3,5	2529	7,7	100
ENTSO-E	420718	n.a.	284440	n.a.	
UA_W	693	3,4	387	6,0	100

¹ Variation as compared to corresponding month of the previous year

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

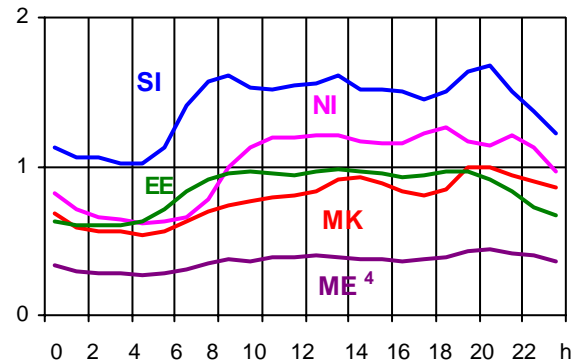
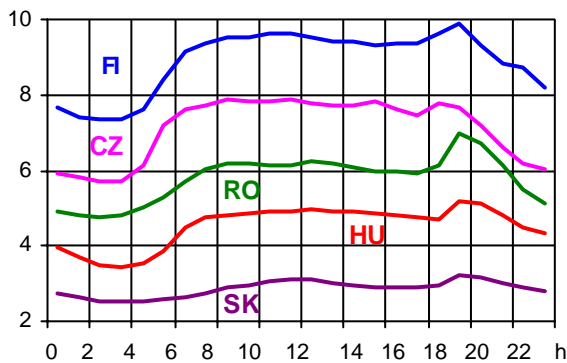
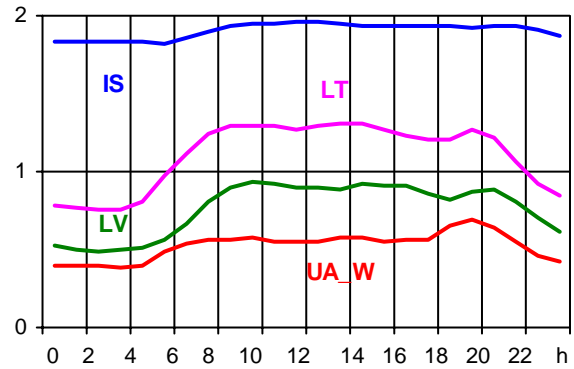
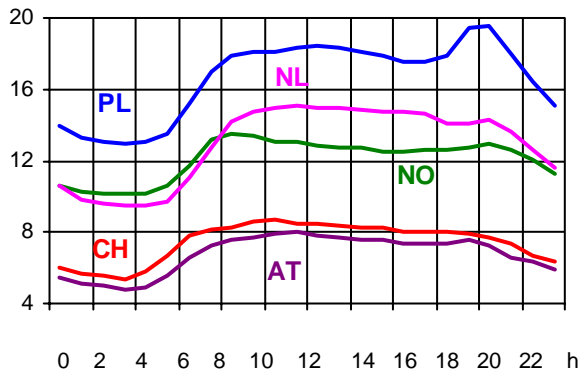
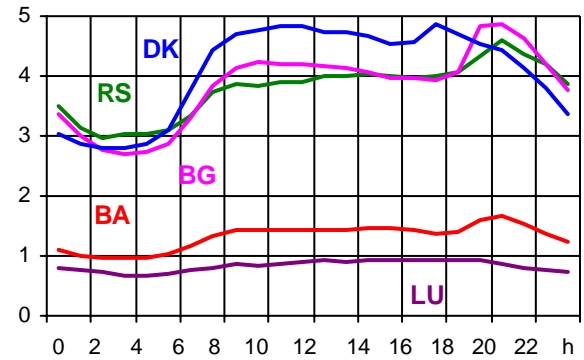
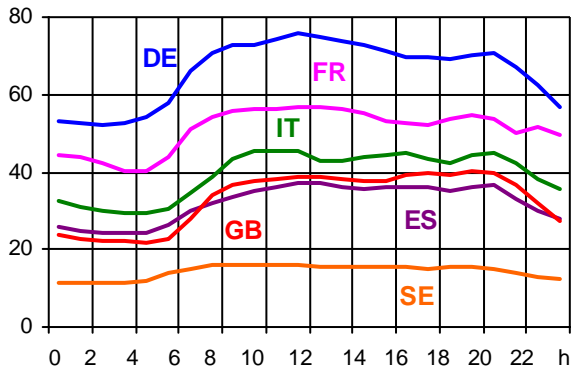
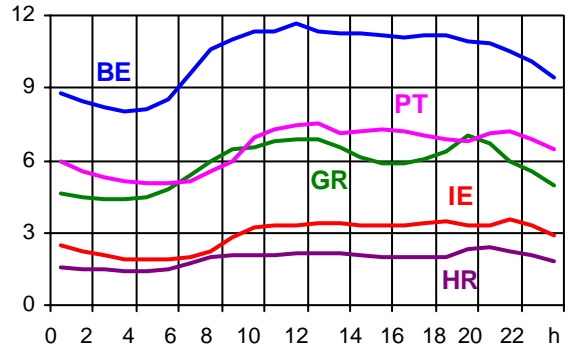
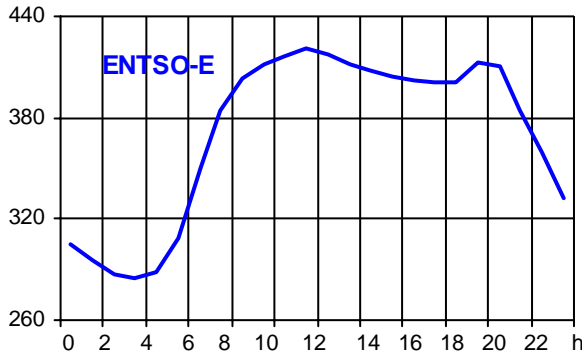
³ Only highest and lowest load value available

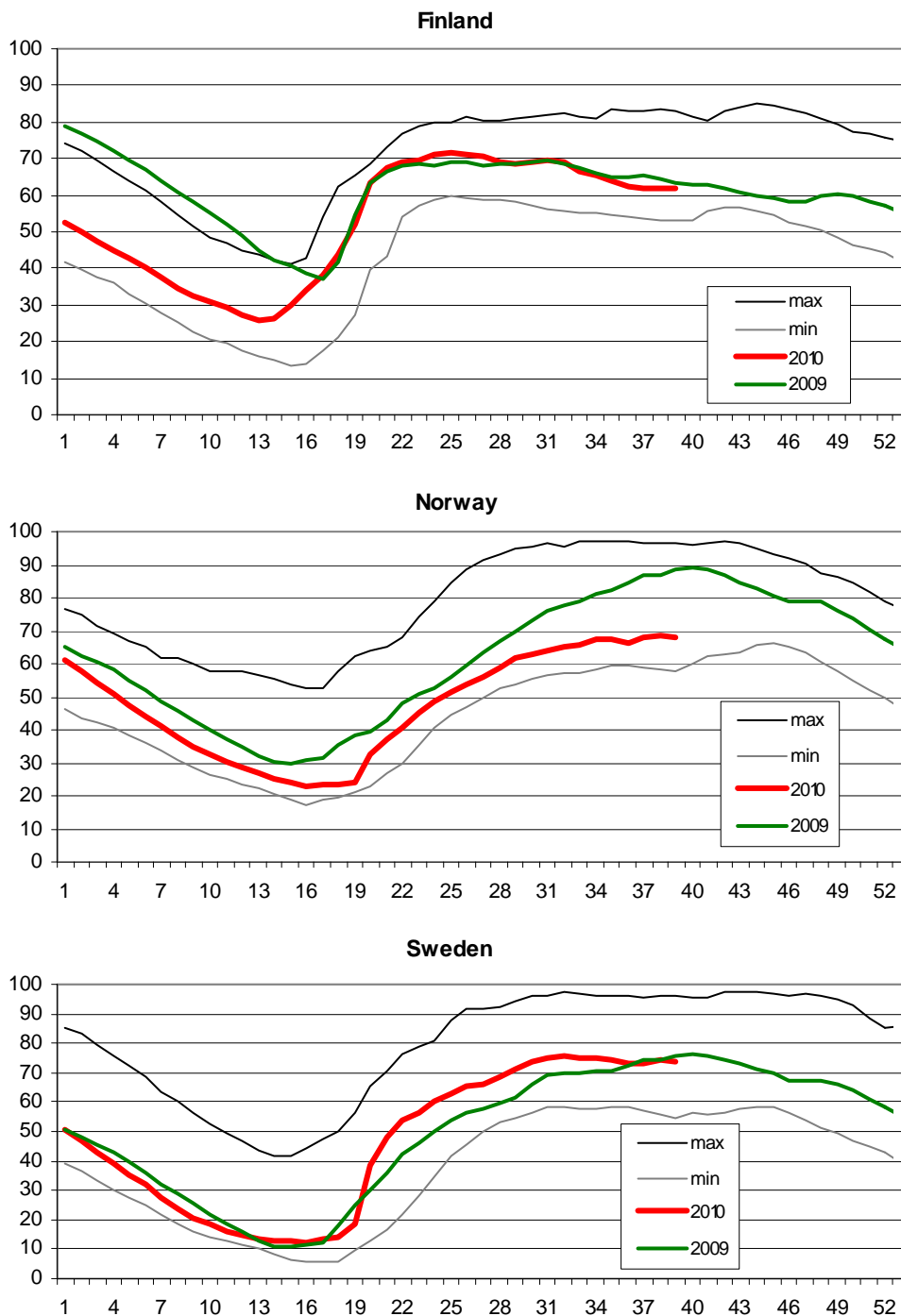
⁴ Highest and lowest load values as of September 2009

⁵ Operational data

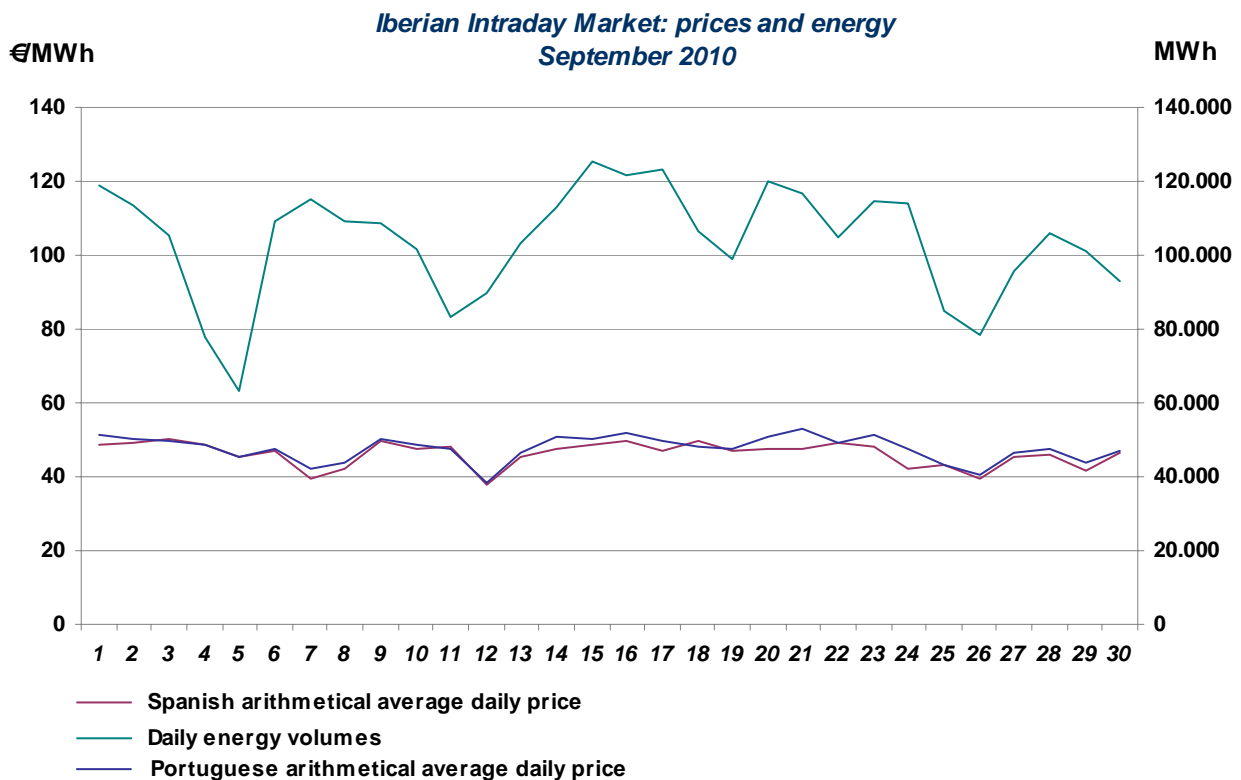
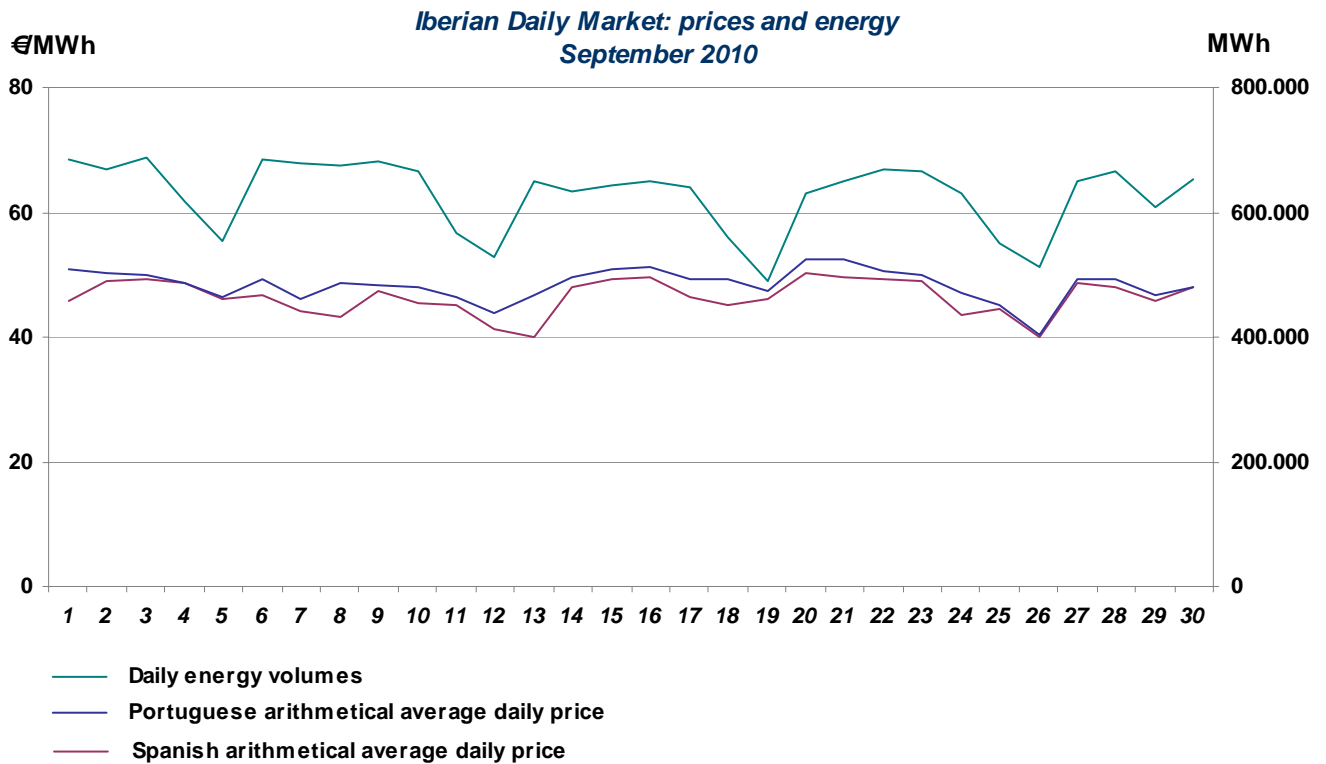
Consumption hourly load curves on 15.09.2010 CET

Values in GW

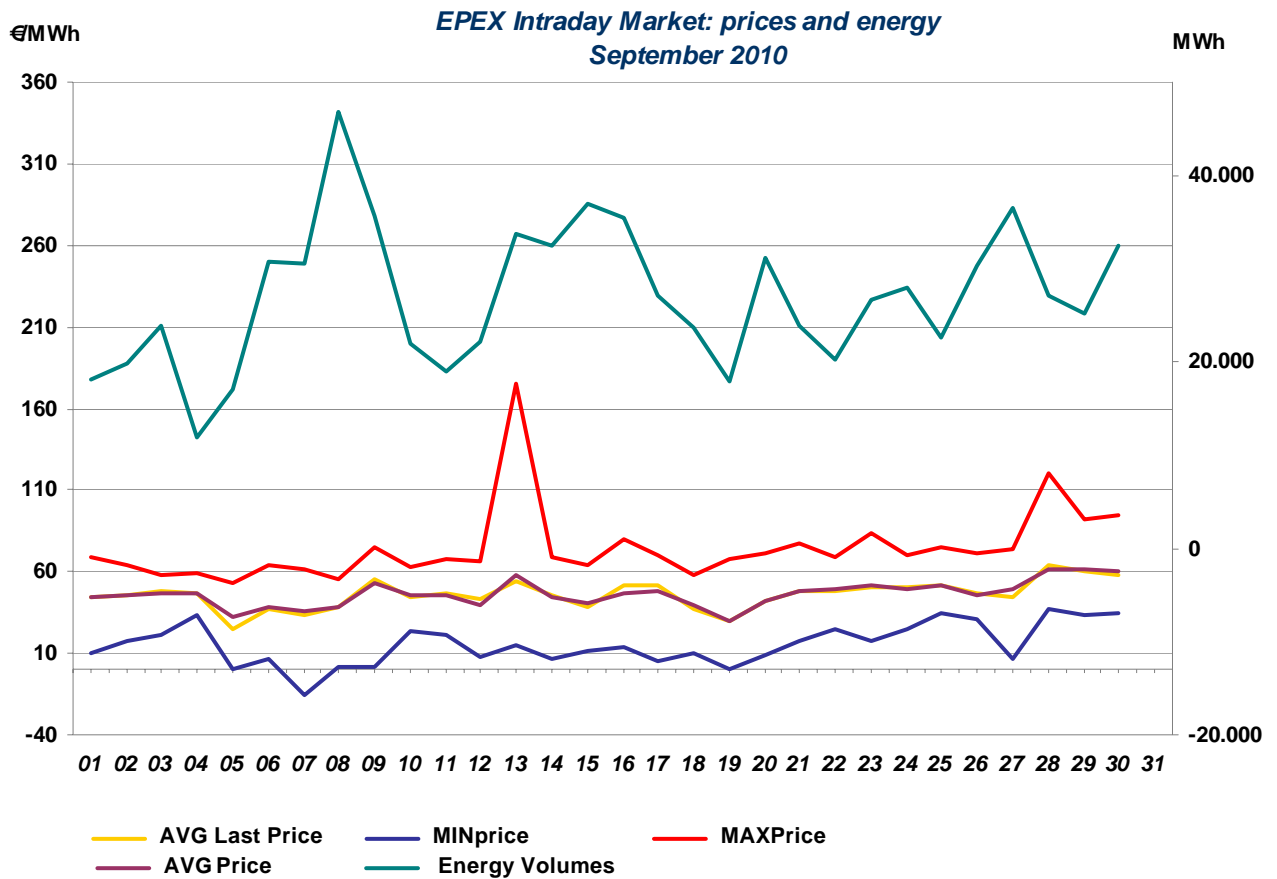
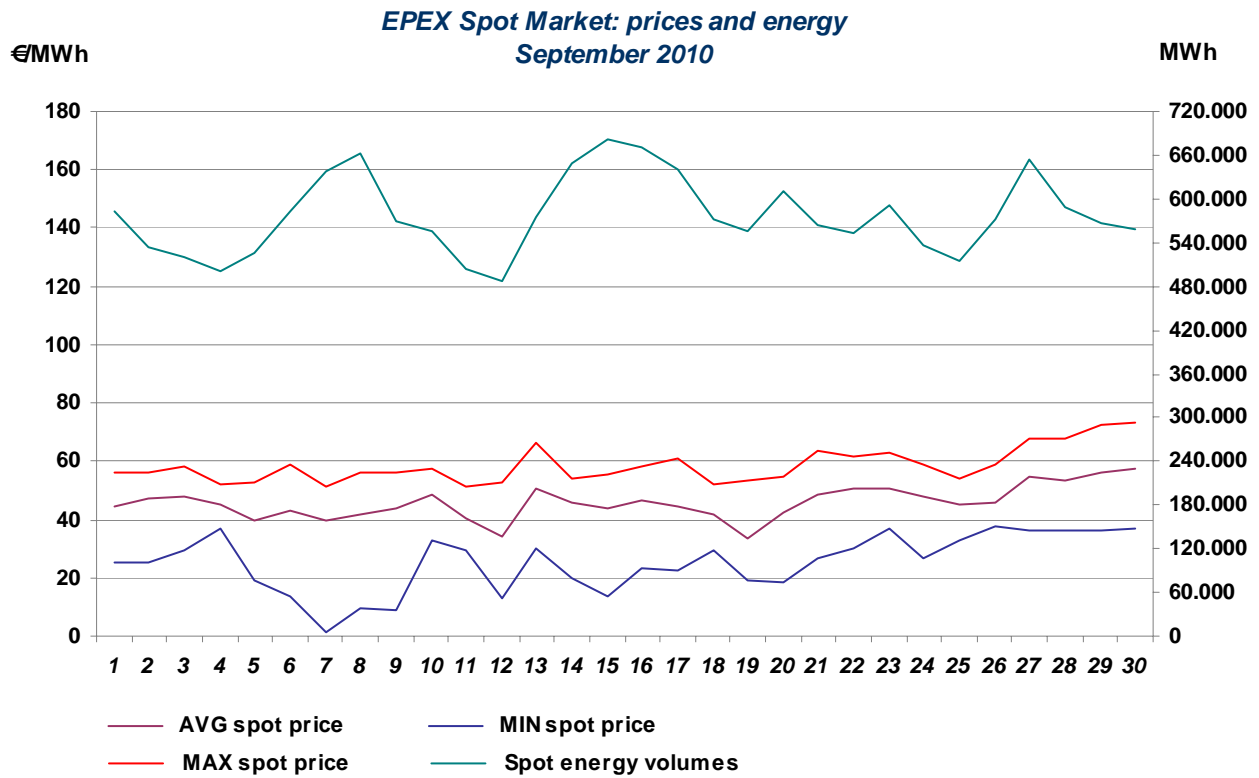




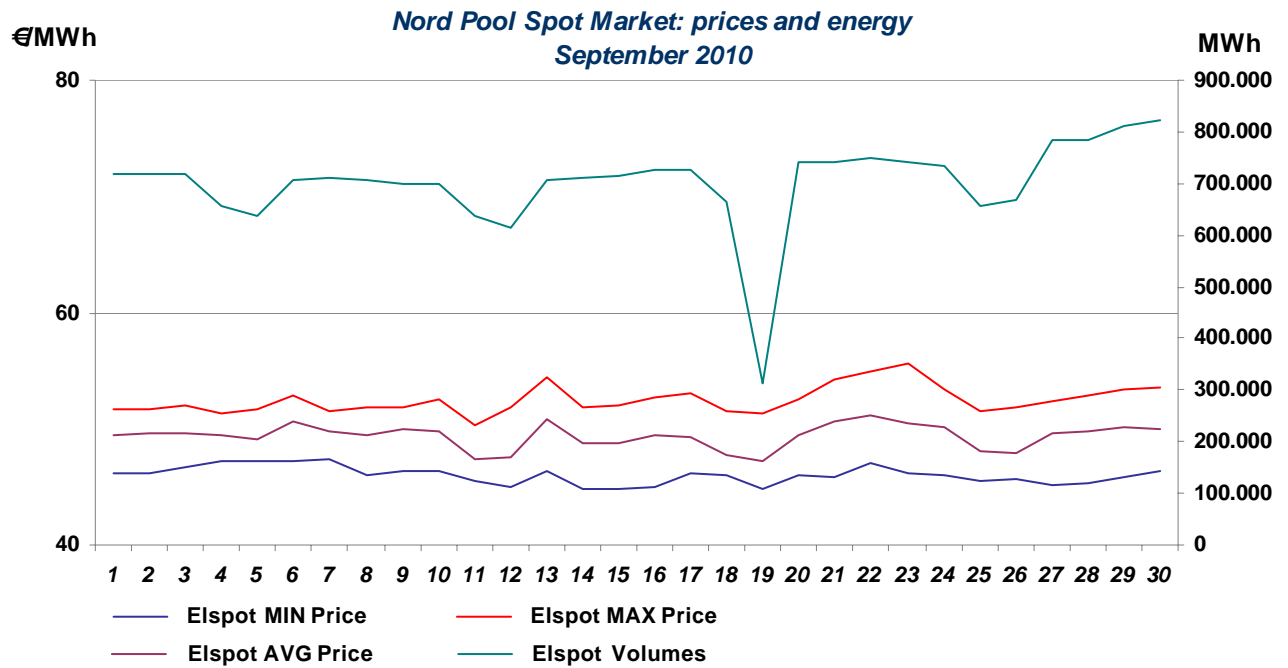
- Finland:** Reservoir capacity: 5.530 GWh
Minimum and maximum limits are based on values for the years 1990-2002
- Norway:** Reservoir capacity: 81.729 GWh
The statistics are supposed to cover 97.1 percent of the total reservoir capacity.
The total reservoir capacity is 84 147 GWh
Minimum and maximum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



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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