

Monthly report



August 2010

Monthly provisional values as of 21 January 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 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	1245	4094	0	0	783	6122	-495	384	5243	5,0
BA	0	555	292	0	0	0	847	97	0	944	7,4
BE ²	4233	2667	131	423	101	0	7454 ¹	-544	161	6749	3,1
BG	1399	1568	377	25	25	0	3369	-1042	88	2239	-5,5
CH	1246	186	3985	117	2	0	5534 ¹	-340	296	4898	3,2
CY	0	618	0	2	2	0	620	0	0	620	-1,5
CZ	1944	3278	344	106	26	0	5672 ¹	-908	67	4697	4,1
DE	11507	23037	2034	6027	2458	0	42605 ¹	958	740	42823	6,6
DK	0	1261	1	744	539	0	2006 ¹	677	0	2683	n.a.
EE	0	763	1	35	18	0	799	-272	0	527	n.a.
ES	5421	11296	2210	4137	2794	28	23092	-766	277	22049	1,1
FI	1661	1267	949	746	17	53	4676 ¹	1527	0	6203	n.a.
FR	32391	1619	4354	1147	676	0	39511	-5881	542	33088	0,5
GB	4230	17848	391	269	269	0	22738	1056	629	23165	n.a.
GR	0	4206	420	179	149	0	4805 ¹	643	1	5447	13,0
HR	0	441	378	11	9	0	830	631	9	1452	-1,4
HU	1467	1393	0	0	0	0	2860	553	0	3413	11,9
IE	0	1743	14	197	197	20	1974 ¹	38	0	2012	n.a.
IS	0	1	1011	339	0	0	1351	0	0	1351	n.a.
IT	0	17159	3923	1088	472	0	22170	2815	248	24737	-2,5
LT	0	189	58	24	12	0	271 ¹	544	39	776	n.a.
LU	0	216	81	20	5	0	317	258	111	464	5,0
LV	0	229	94	7	3	0	330	216	0	546	n.a.
ME ³	0	1	50	0	0	0	51	-254	0	-203	n.a.
MK	0	340	121	0	0	0	461	152	0	613	0,0
NI	0	448	0	61	56	1	510	184	0	694	n.a.
NL	350	6538	0	686	347	0	7574	1189	0	8763	0,4
NO	0	339	7373	56	56	0	7768 ¹	299	156	7911	n.a.
PL ⁴	0	10770	293	148	126	0	11211 ¹	68	69	11210	4,9
PT	0	2548	456	767	543	0	3771 ¹	628	53	4346	5,8
RO	944	1809	1945	0	n.a.	0	4698	-401	8	4289	8,1
RS	0	2211	776	0	0	0	2987	189	5	3171	-1,8
SE	4619	68	5272	812	227	0	10771 ¹	-1129	0	9642	n.a.
SI	507	339	323	0	0	0	1169	-208	0	961	6,9
SK	1161	364	590	38	0	0	2153 ¹	-102	43	2008	2,9
ENTSO-E	73080	118560	42341	18211	9129	885	253077¹	380	3926	249531	n.a.
UA_W	0	302	14	0	0	0	316	-6	0	310	21,1

¹ Including deliveries from industry

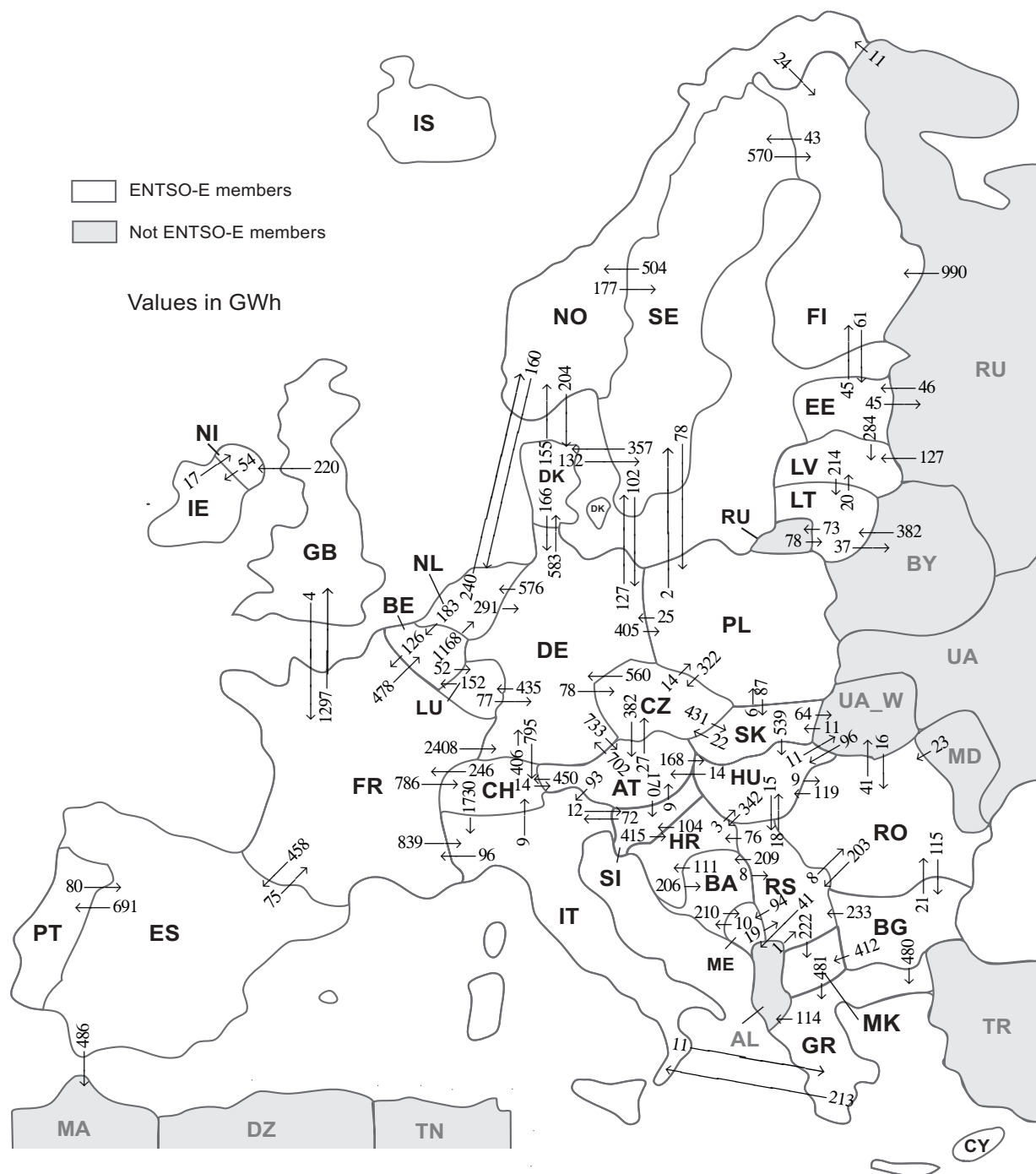
² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of August 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	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	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: **27698GWh**

Total physical energy flows: **30391GWh**

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 in chapter 1.

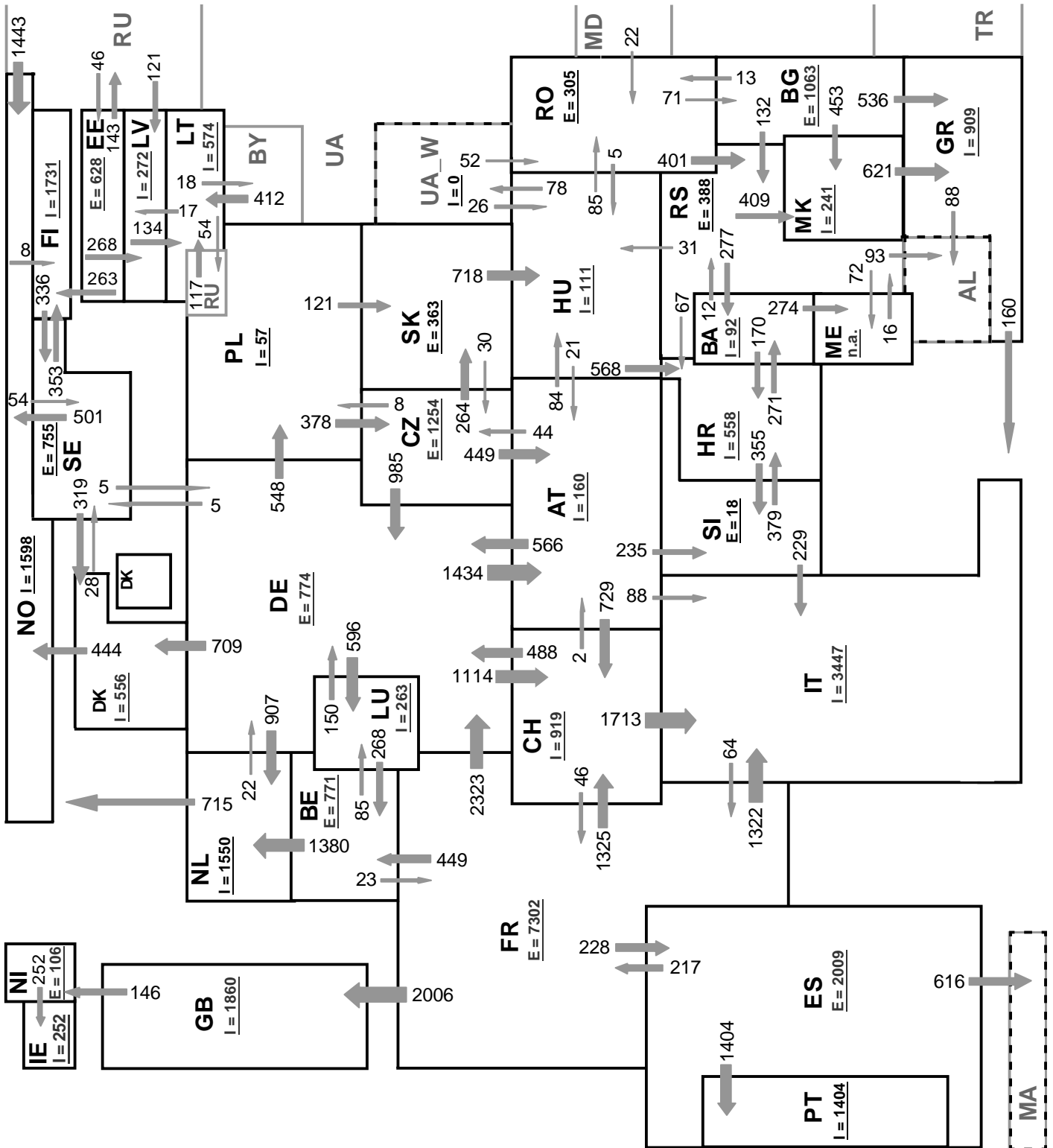
Overview of the monthly imports and exports in GWh

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 ¹				
AT	-	-	-	-	450	27	702	-	-	-	-	-	-	-	-	168	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	-	-		
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	-	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BE	-	-	-	-	-	-	-	-	-	-	-	126	-	-	-	-	-	-	-	52	-	-	-	1168	-	-	-	-	-	-	-	-	-	-	-	-	-		
BG	-	-	-	-	-	-	-	-	-	-	-	-	480	-	-	-	-	-	-	-	-	412	-	-	-	-	-	-	21	233	-	-	-	-	-	-	0		
CH	14	-	-	-	-	-	-	-	-	-	-	246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
CZ	382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	431	-			
DE	733	-	-	-	795	78	-	583	-	-	-	0	-	-	-	-	-	-	-	435	-	-	-	576	-	405	-	-	-	-	-	127	-	-	-	-			
DK	-	-	-	-	-	-	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
EE	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45		
ES	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	691	-	-	-	-	-	-	-	-	486		
FI	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	43	-	-	-	-	0		
FR	-	-	478	-	786	-	2408	-	-	458	-	-	1297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
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HR	-	206	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	114	
HU	14	-	-	-	-	-	-	-	-	-	-	-	-	-	342	-	-	-	-	-	-	-	-	-	-	-	-	9	15	-	-	-	-	0	11	-	-		
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IT	2	-	-	-	9	-	-	-	-	-	-	96	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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LU	-	-	152	-	-	-	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	
LV	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
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MK	-	-	-	0	-	-	-	-	-	-	-	-	481	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	183	-	-	-	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	-	204	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
PL	-	-	-	-	322	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
PT	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	115	-	-	-	-	-	-	-	-	-	-	-	-	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
RS	-	209	-	0	-	-	-	-	-	-	-	-	-	76	18	-	-	-	-	-	-	94	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	
SE	-	-	-	-	-	102	357	-	-	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SI	6	-	-	-	-	-	-	-	-	-	-	-	-	-	415	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	539	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	64	-
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-
Other III ¹	-	-	-	0	-	-	-	-	46	0	990	-	-	0	-	-	-	-	460	-	127	n.a.	-	-	-	11	0	-	23	1	-	-	-	-	-	-	-	-	

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	1151	1610	IT	2947	130
BA	425	329	LT	674	130
BE	813	1346	LU	487	229
BG	115	1146	LV	431	214
CH	2040	2396	ME	n.a.	n.a.
CZ	449	1387	MK	634	481
DE	4737	3732	NI	237	54
DK	1144	453	NL	1904	714
EE	107	374	NO	910	565
ES	538	1252	PL	503	436
FI	1629	104	PT	691	80
FR	547	6266	RO	77	478
GB	1297	224	RS	479	668
GR	972	327	SE	481	1611
HR	944	313	SI	286	493
HU	943	391	SK	529	631
IE	54	17	UA_W	116	123



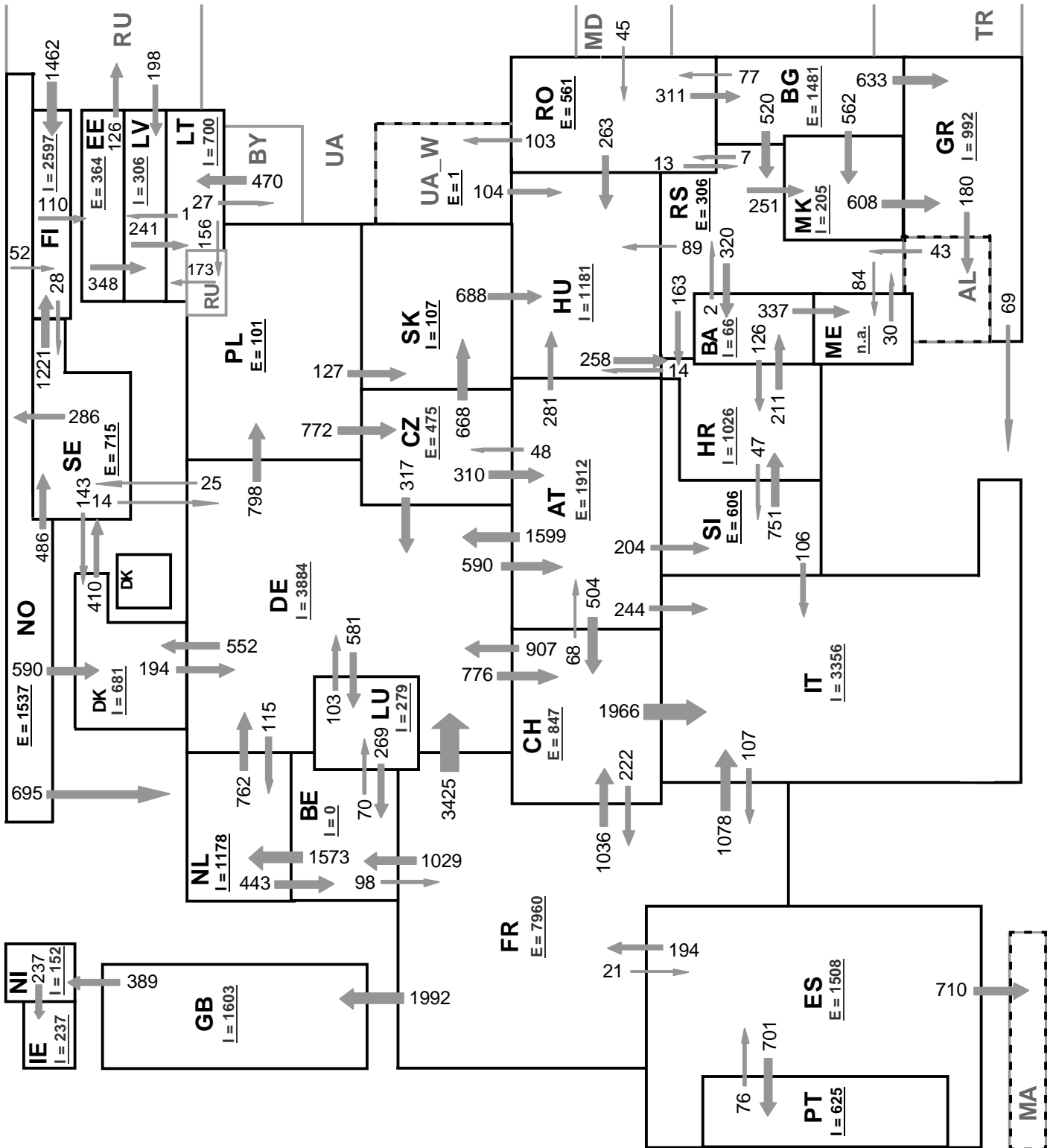
Sum of load flows in MW

ENTSO-E = 32998 MW

Total = 36327 MW

Synchronous operation with ENTSO-E region

I = Import balance
E = Export balance



Sum of load flows in MW

ENTSO-E = 36288 MW

Total = 40433 MW

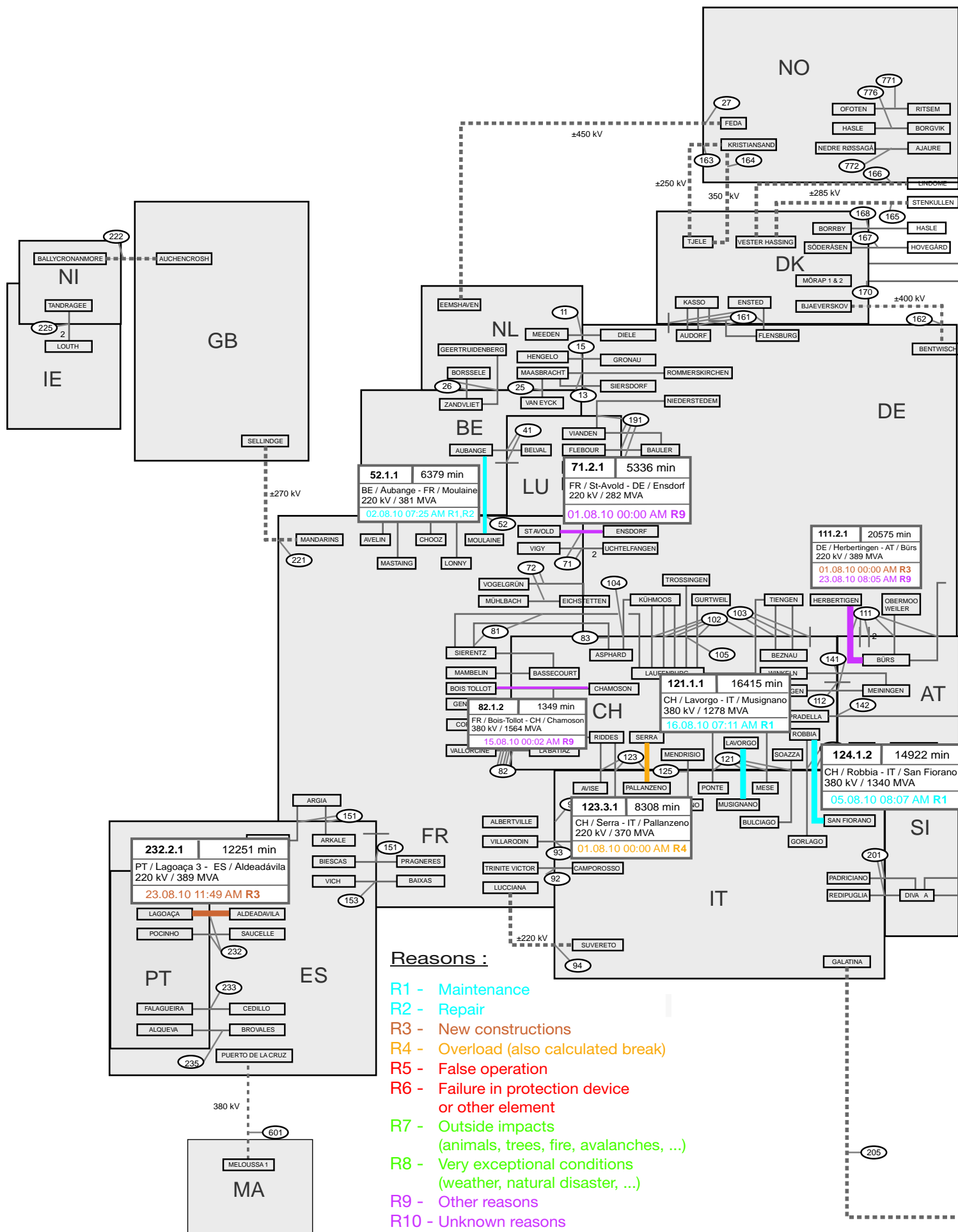
Synchronous operation with ENTSO-E region

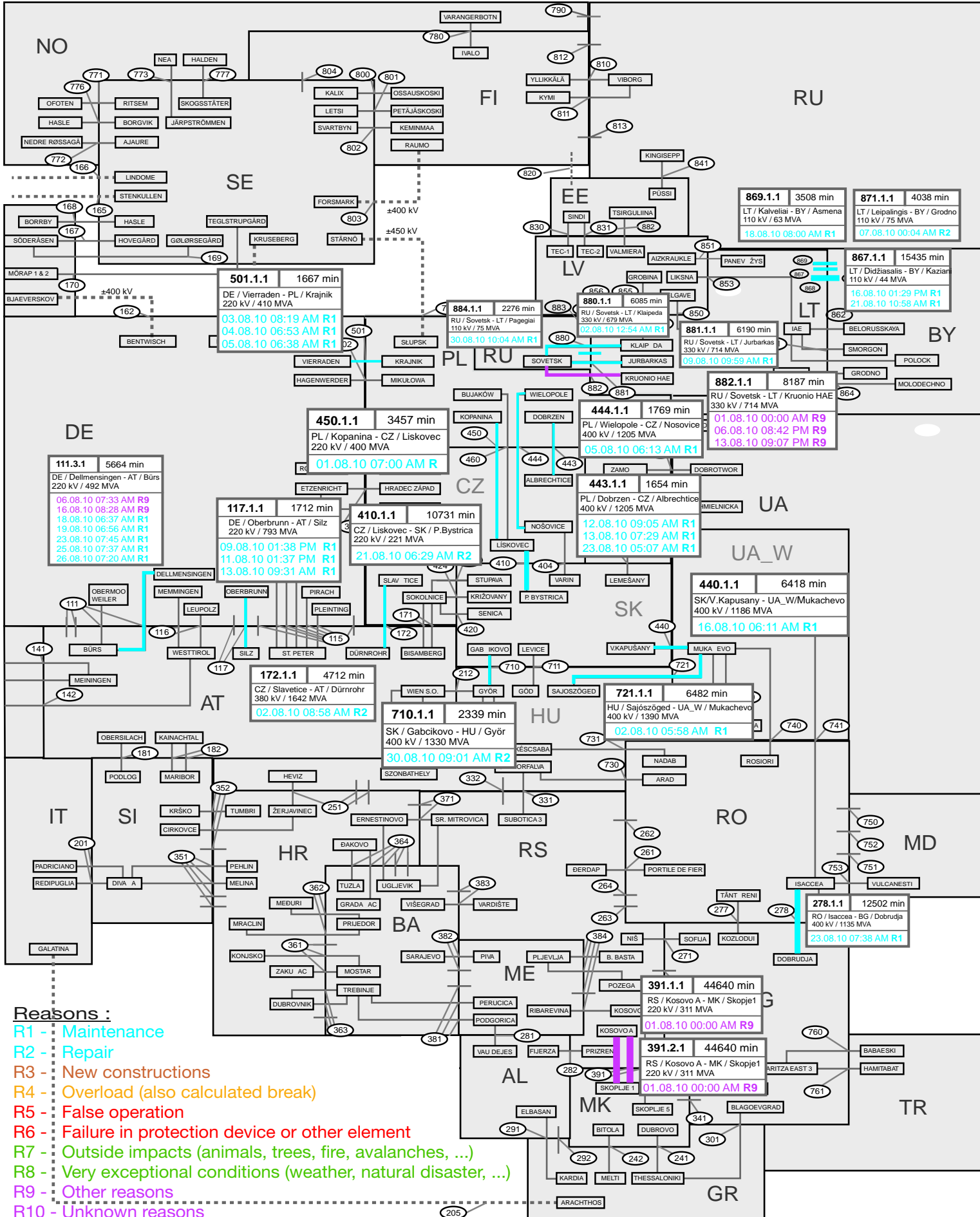
I = Import balance
E = Export balance

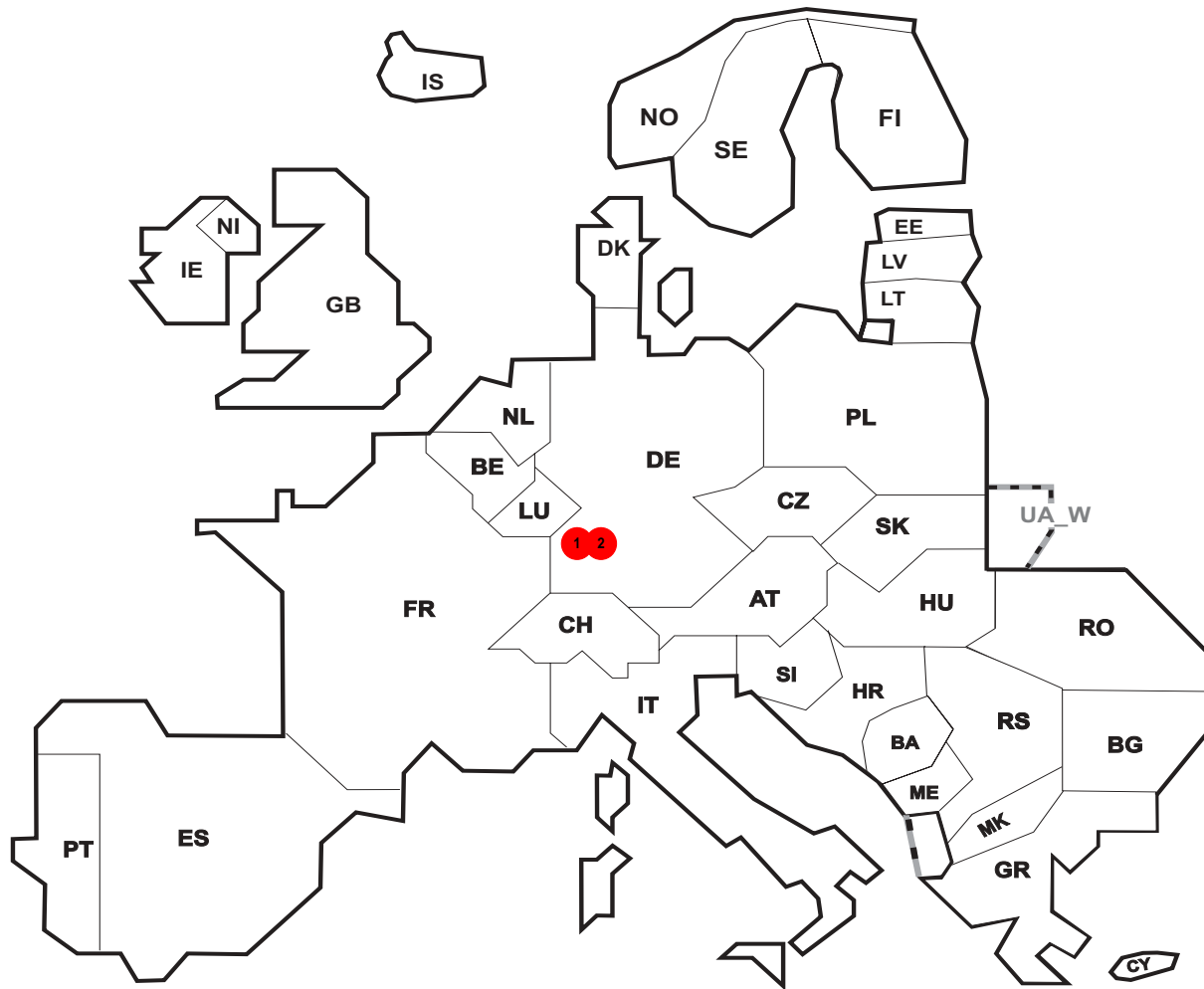
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Unavailability of international tie lines (major events with sum over 1300 minutes)

August 2010







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	DE	Diefflen	R5	4	38	6	0,004
2	DE	Diefflen	R5	3	40	5	0,003

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 18.08.2010 CET of each country

	Highest		Lowest		Load representativity %
	load MW	variation % ¹	load MW	variation % ¹	
AT	7913	-0,9	4541	1,3	100
BA	1579	6,8	967	9,4	100
BE ²	11479	0,6	7727	-0,1	100
BG	4576	6,0	3053	9,8	100
CH	8453	0,2	5016	0,9	100
CY ³	983	n.a.	627	n.a.	100
CZ	7453	-1,1	5310	0,1	100
DE	73976	10,8	49291	14,8	91
DK	4888	n.a.	2760	n.a.	100
EE	960	n.a.	583	n.a.	100
ES	34599	-6,9	22333	-6,0	98
FI	9525	n.a.	7229	n.a.	100
FR	51550	-5,7	36206	-3,4	100
GB	39071	n.a.	22892	n.a.	100
GR	8849	11,8	5866	17,8	100
HR	2496	-5,6	1437	-4,2	100
HU	4817	-7,6	3284	-9,6	100
IE	3392	n.a.	1850	n.a.	100
IS	1891	n.a.	1753	n.a.	100
IT	34913	-11,5	23288	-10,0	100
LT	1299	n.a.	793	n.a.	100
LU	775	-5,9	545	3,6	100
LV	919	n.a.	511	n.a.	100
ME ⁴	493	n.a.	296	n.a.	100
MK	1083	20,1	645	21,9	100
NI	1257	n.a.	645	n.a.	100
NL	14910	0,3	9332	2,1	100
NO	12464	n.a.	9447	n.a.	100
PL ⁵	17817	1,9	12546	3,7	100
PT	6568	-0,5	4474	4,3	97
RO	6845	5,8	4987	7,7	100
RS	4763	5,5	2802	2,8	100
SE	28502	n.a.	11062	n.a.	100
SI	1570	-4,5	1157	11,8	100
SK	3279	-0,1	2491	2,4	100
ENTSO-E	404274	n.a.	268373	n.a.	
UA_W	640	18,7	366	19,6	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

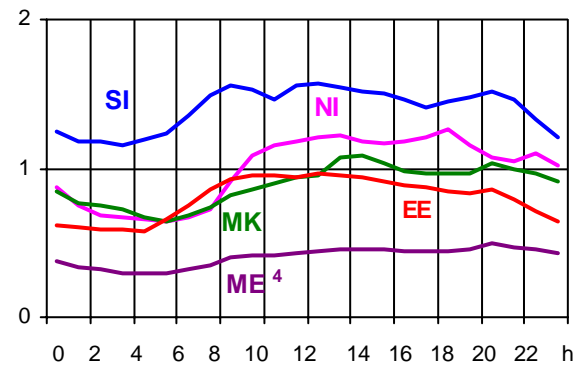
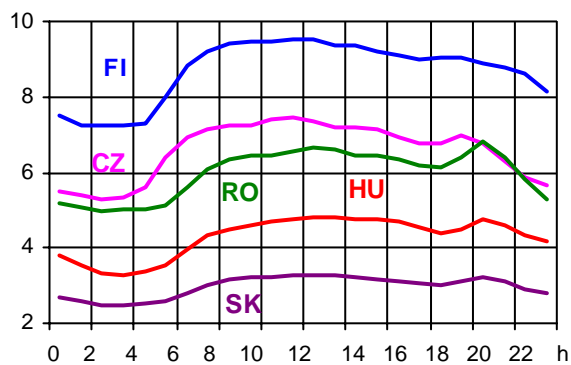
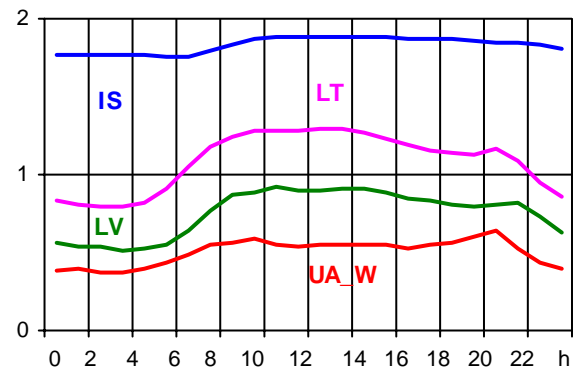
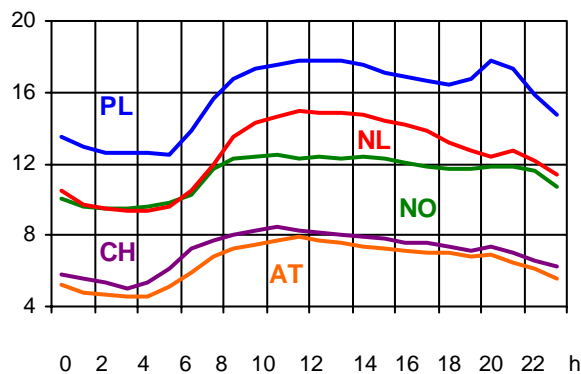
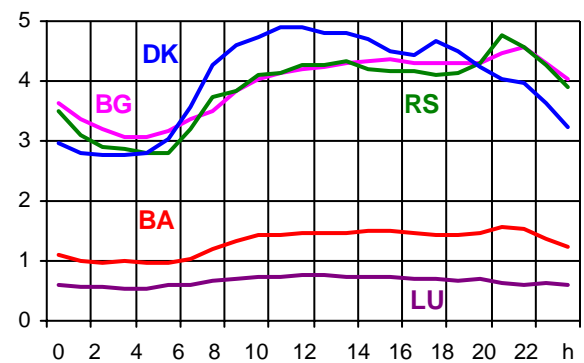
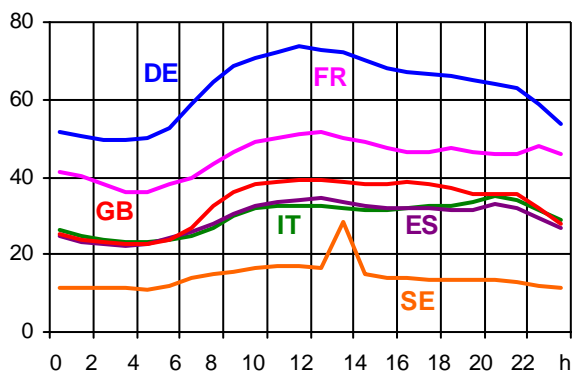
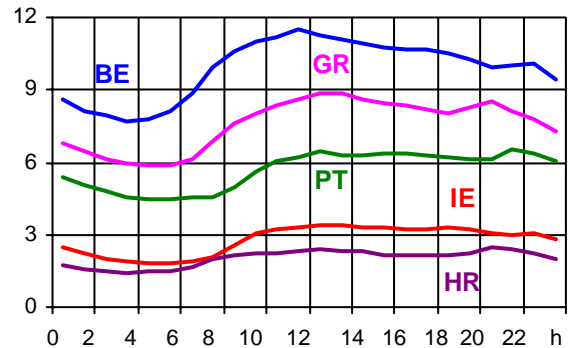
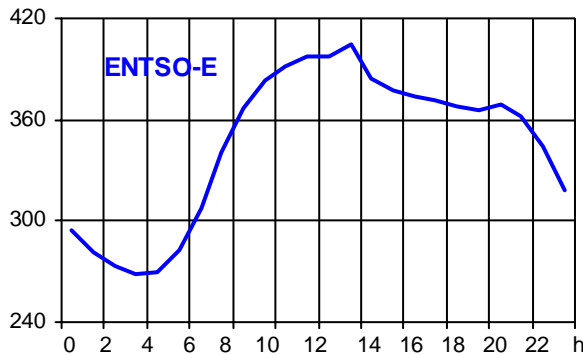
³ Only highest and lowest load value available

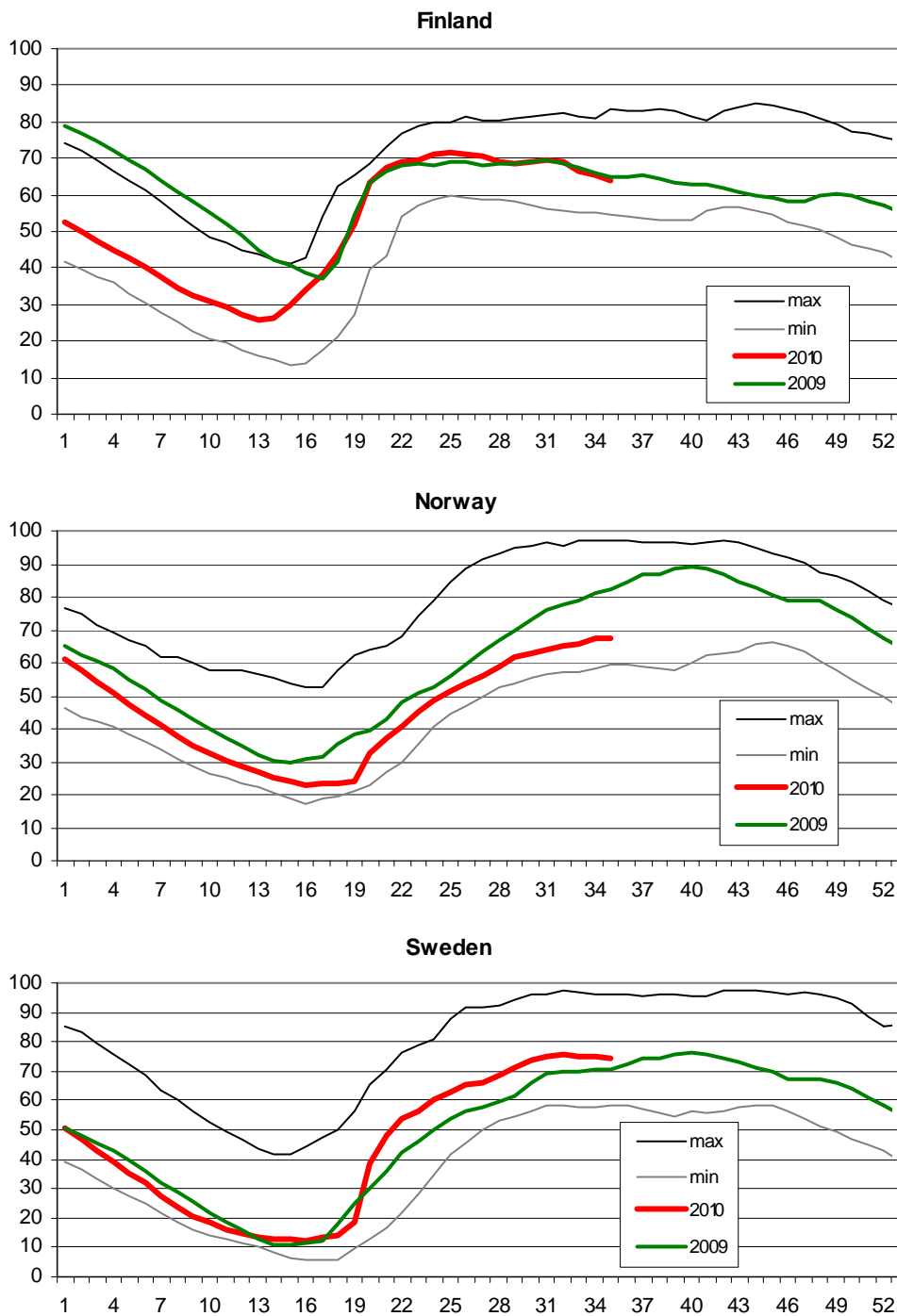
⁴ Highest and lowest load values as of August 2009

⁵ Operational data

Consumption hourly load curves on 18.08.2010 CET

Values in GW

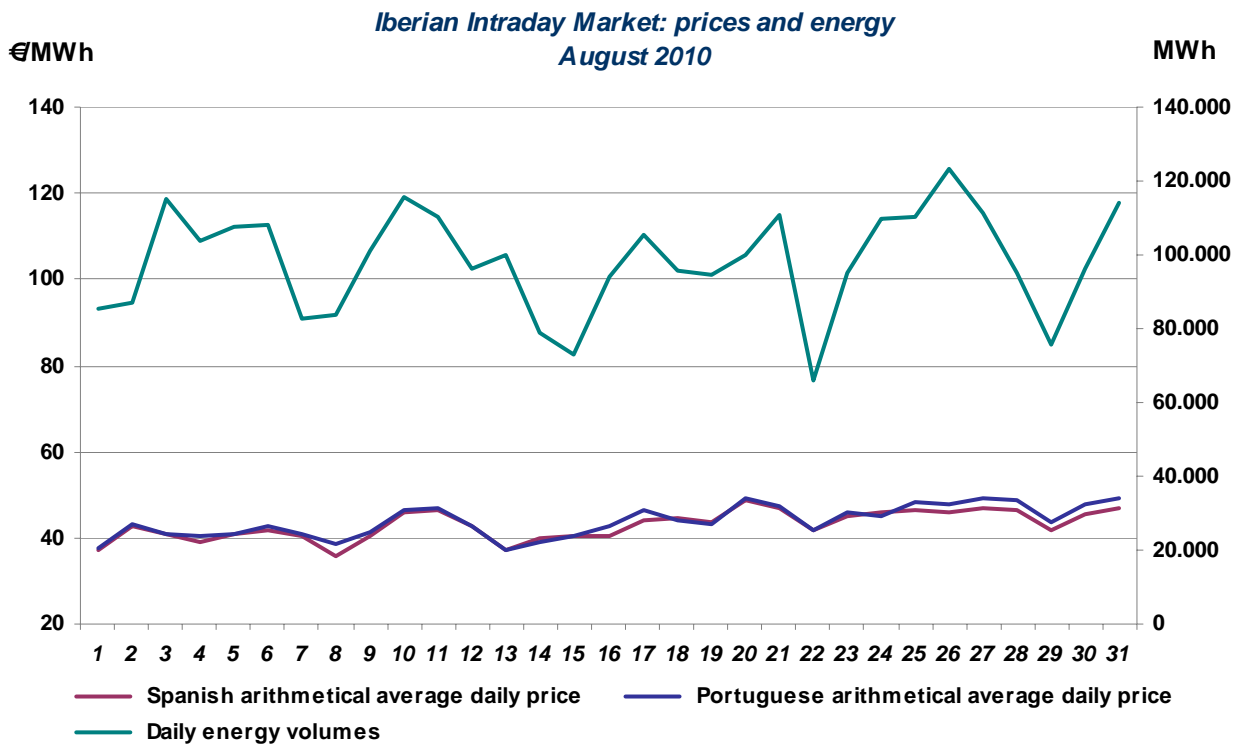
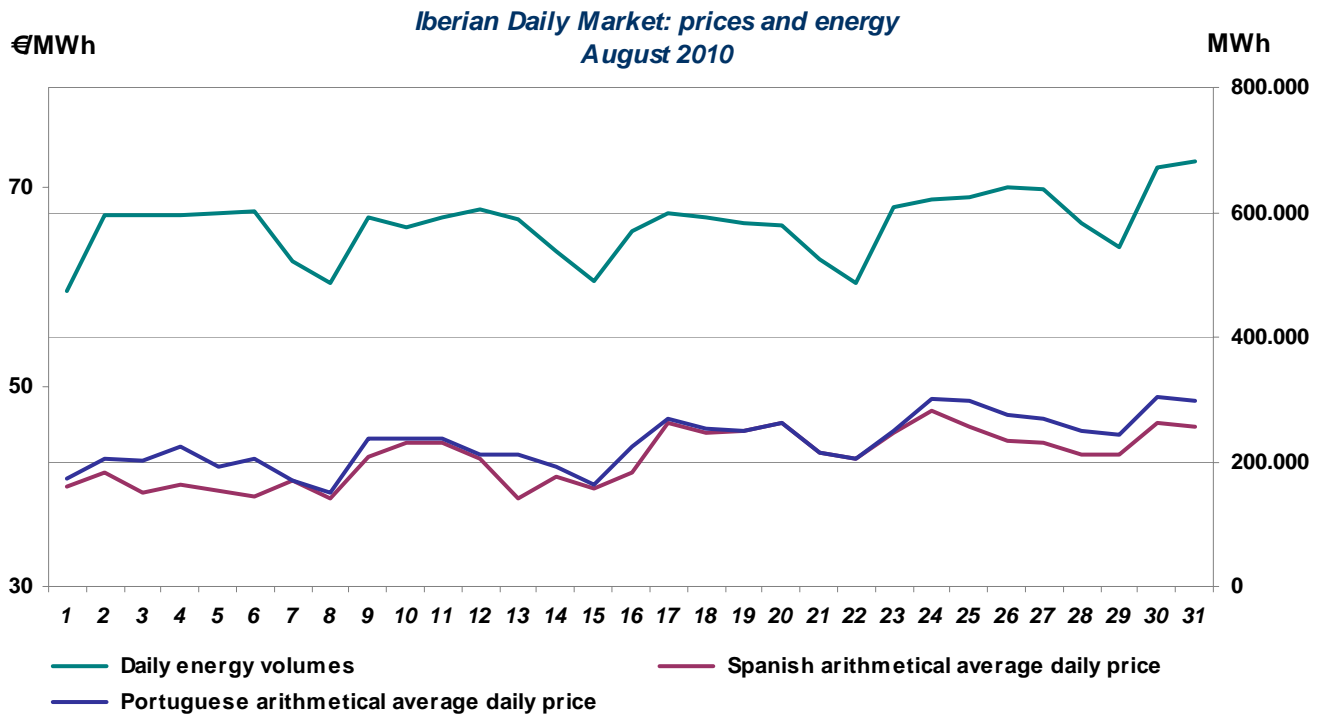




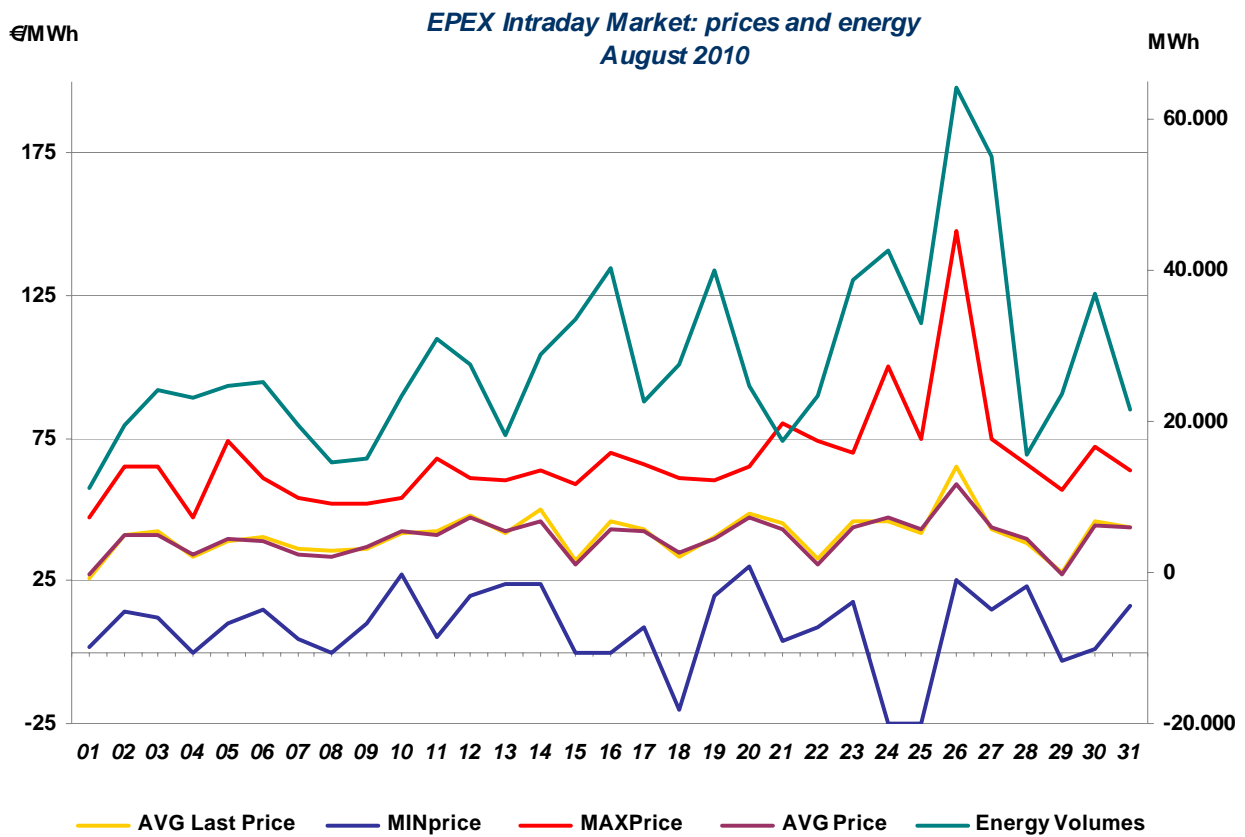
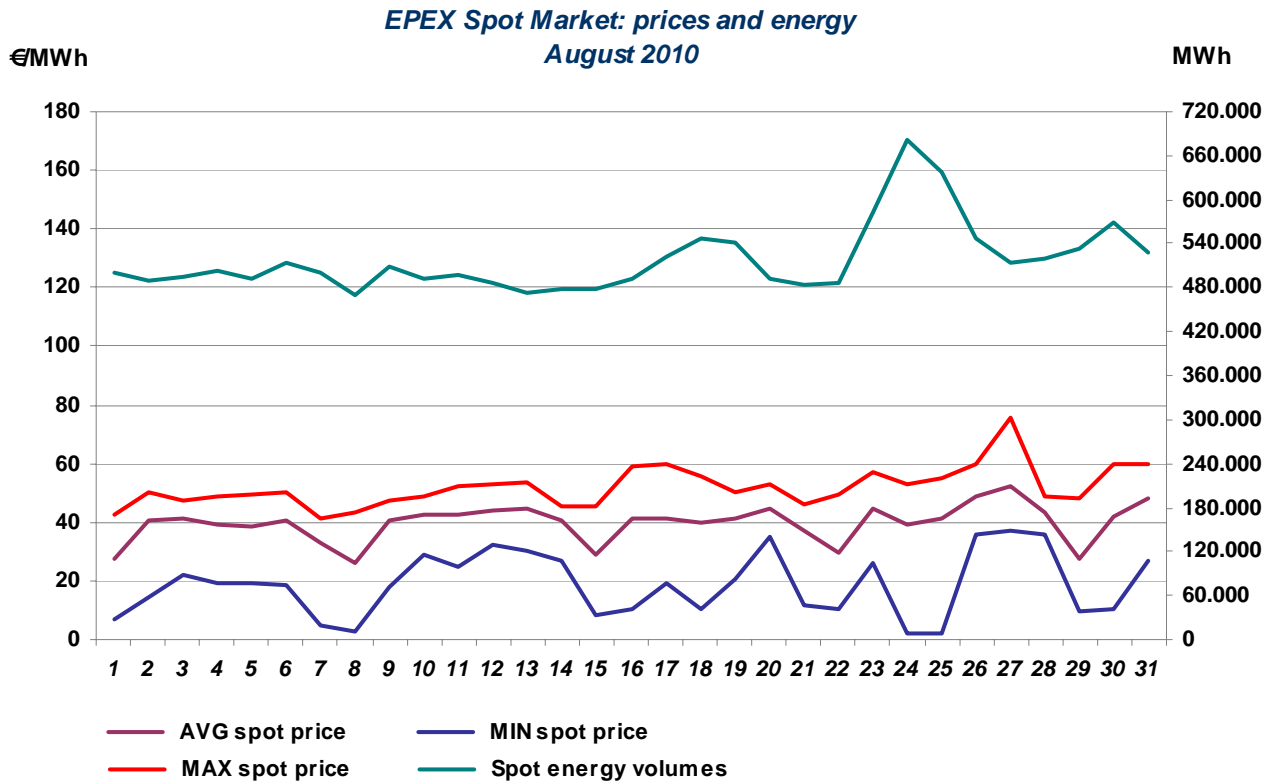
Finland: Reservoir capacity: 5.530 GWh
Minimum and maximum limits are based on values for the years 1990-2002

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

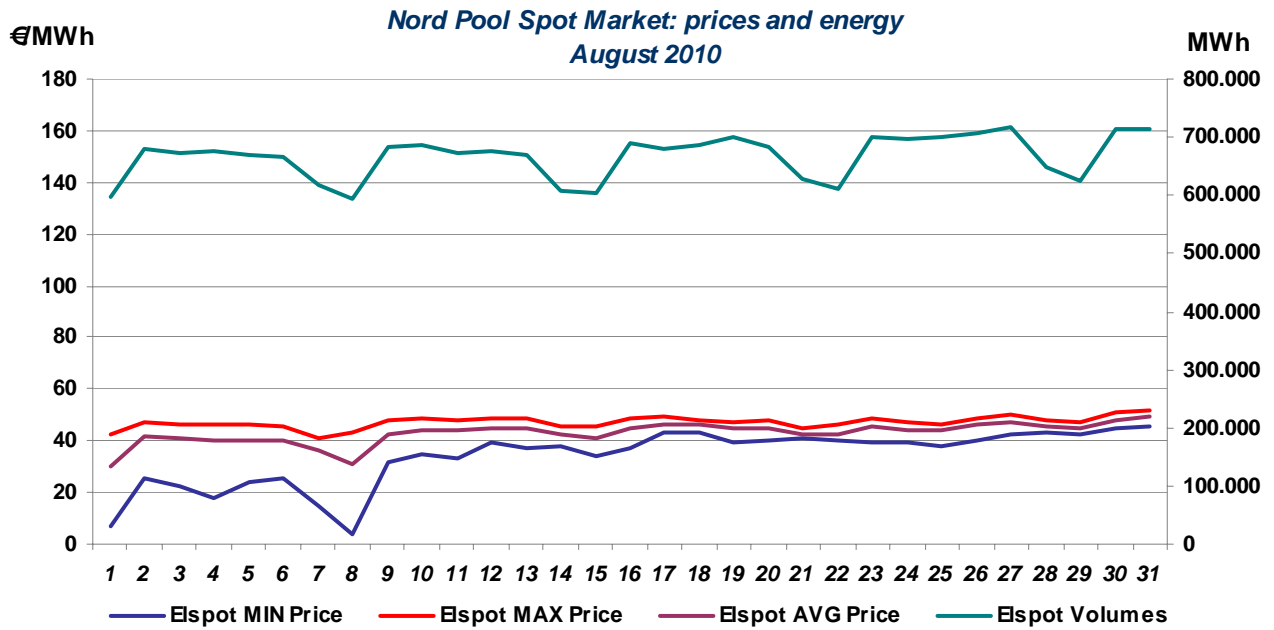
Sweden: Reservoir capacity: 33.758 GWh
Minimum and maximum limits are based on values for the years 1950-2006



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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