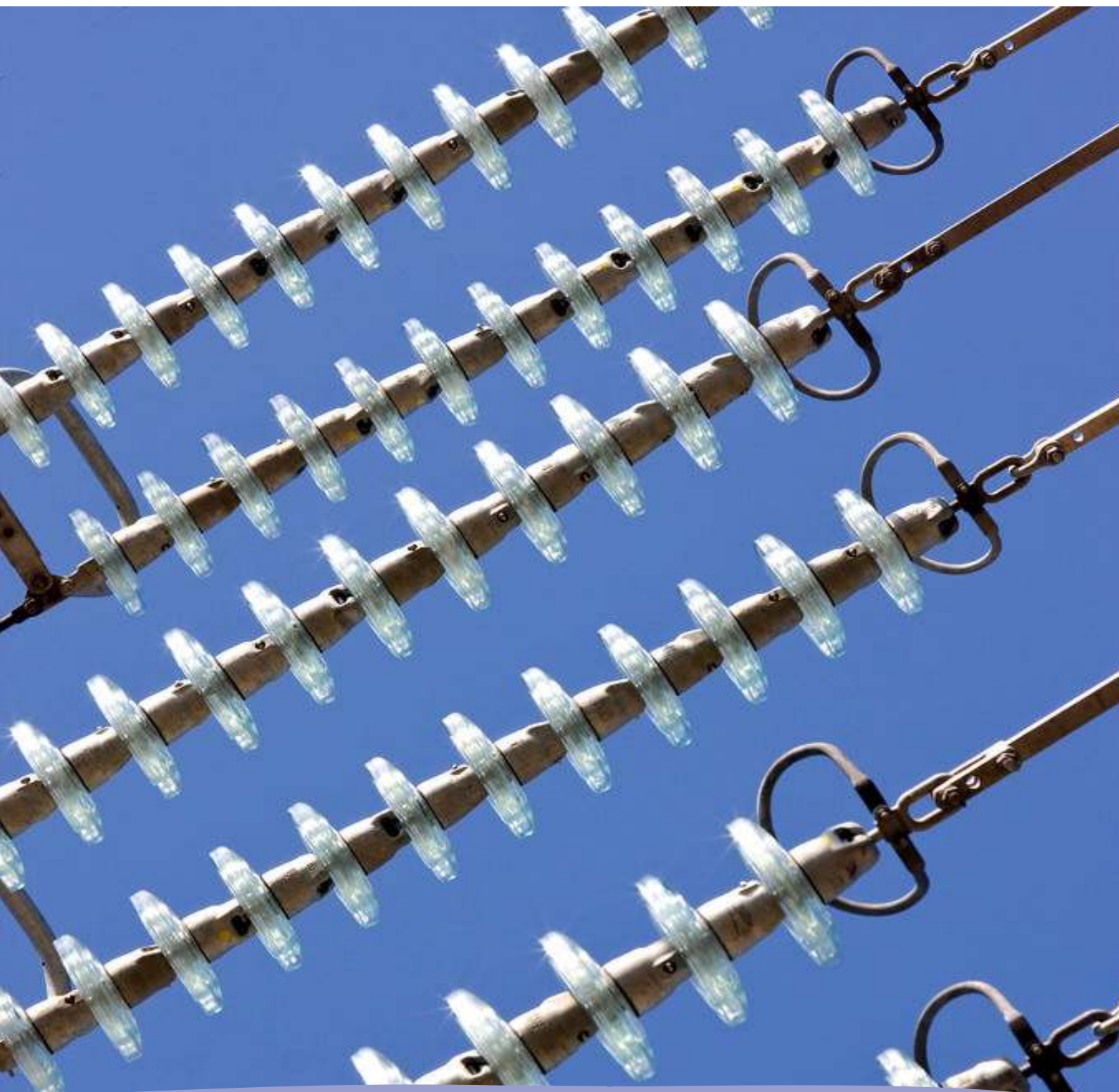


Monthly statistics



August 2013

Monthly provisional values as of 28 November 2013

European Network of
Transmission System Operators
for Electricity

entsoe

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General remarks and abbreviations used in the tables

- All values of generation and consumption on page 2, 11 and 12 are calculated to represent 100% of the national values.
- All data with the country code GB represents monthly statistical data as sum of England, Scotland and Wales.
- All data with the country code NI represents the monthly statistical data of the Northern Ireland.
- CET Central European Time

Countries	Net generation in GWh									Exchange balance in GWh	Pump in GWh	Consumption	
	Therm. nuclear	Fossil fuels	Hydro power	Other renew.	of which wind	of which solar	of which bio-mass	Non identifiable	Total			monthly [GWh]	var. [%]
AT	0	725	3070	334	n.a.	n.a.	n.a.	589	4718	1033	411	5340	-1,1
BA	0	887	288	0	0	0	0	0	1175	-197	0	978	-0,5
BE ²	3813	1768	114	722	159	325	238	0	6417 ¹	387	141	6663	0,2
BG	1280	1744	294	229	69	158	0	0	3547	-994	66	2487	4,0
CH	1710	170	4036	124	9	0	0	0	6040 ¹	-1012	272	4756	-1,5
CY	0	447	0	16	16	0	0	0	463	0	0	463	-8,3
CZ	2066	3521	213	308	23	284	140	0	6108 ¹	-1326	114	4668	-0,3
DE ³	7074	22062	1462	6625	2227	3970	428	0	37223	-1448	571	35204	-13,2
DK	0	961	1	798	666	0	132	0	1760 ¹	675	0	2435	-9,5
EE	0	892	1	72	26	0	46	0	965	-394	0	571	2,0
ES	5029	9877	2289	5627	3486	1638	503	19	22841	-518	232	22091	-3,7
FI	1823	1017	852	682	44	0	638	68	4442 ¹	1678	0	6120	-0,2
FR	29903	2119	4552	1898	732	622	544	0	38472	-6227	606	31639	-1,8
GB	6391	14455	422	1436	962	0	0	0	22704	1450	328	23826	-4,0
GR	0	3424	439	741	378	346	17	0	4604 ¹	142	0	4746	-3,8
HR	0	385	393	40	40	0	0	0	818	665	11	1472	-3,3
HU	1162	1115	0	0	0	0	0	0	2277	1135	0	3412	7,2
IE	0	1456	39	273	261	0	0	9	1777 ¹	268	45	2000	0,5
IS	0	0	1065	383	0	0	0	0	1448	0	0	1448	3,0
IT	0	14711	4496	4002	799	2783	0	0	23209	2412	150	25471	-5,7
LT	0	288	54	69	31	8	29	0	411 ¹	462	41	832	-1,5
LU	0	14	81	22	3	7	3	0	117	451	109	459	0,0
LV	0	205	80	44	6	0	14	0	329	227	0	556	-6,6
ME	0	140	79	0	0	0	0	0	219	0	0	219	-35,6
MK	0	254	153	0	0	0	0	0	407	207	0	614	-0,2
NI	0	510	1	89	82	0	5	0	600	70	0	670	-2,6
NL ⁴	350	5536	0	851	244	n.a.	n.a.	0	6737	2188	0	8925	-2,0
NO	0	291	9726	122	122	0	0	0	10139 ¹	-1793	100	8246	-1,0
PL ⁵	0	10821	169	876	359	0	517	0	11866 ¹	-201	59	11606	1,7
PT	0	1829	597	990	724	49	218	0	3416 ¹	658	134	3940	1,7
RO	940	2011	910	331	229	64	38	0	4192	-46	10	4136	-5,2
RS	0	2638	498	0	0	0	0	0	3136	-246	46	2844	2,7
SE	4331	125	4152	1029	537	0	492	0	9637 ¹	-135	0	9502	-1,6
SI	497	392	256	0	0	0	0	0	1145	-132	0	1013	-1,3
SK	1303	307	254	141	0	80	0	80	2085 ¹	48	39	2094	0,7
ENTSO-E	67672	107097	41036	28874	12234	10334	4002	765	245444¹	-513	3485	241446	-4,0

¹ Including deliveries from industry

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

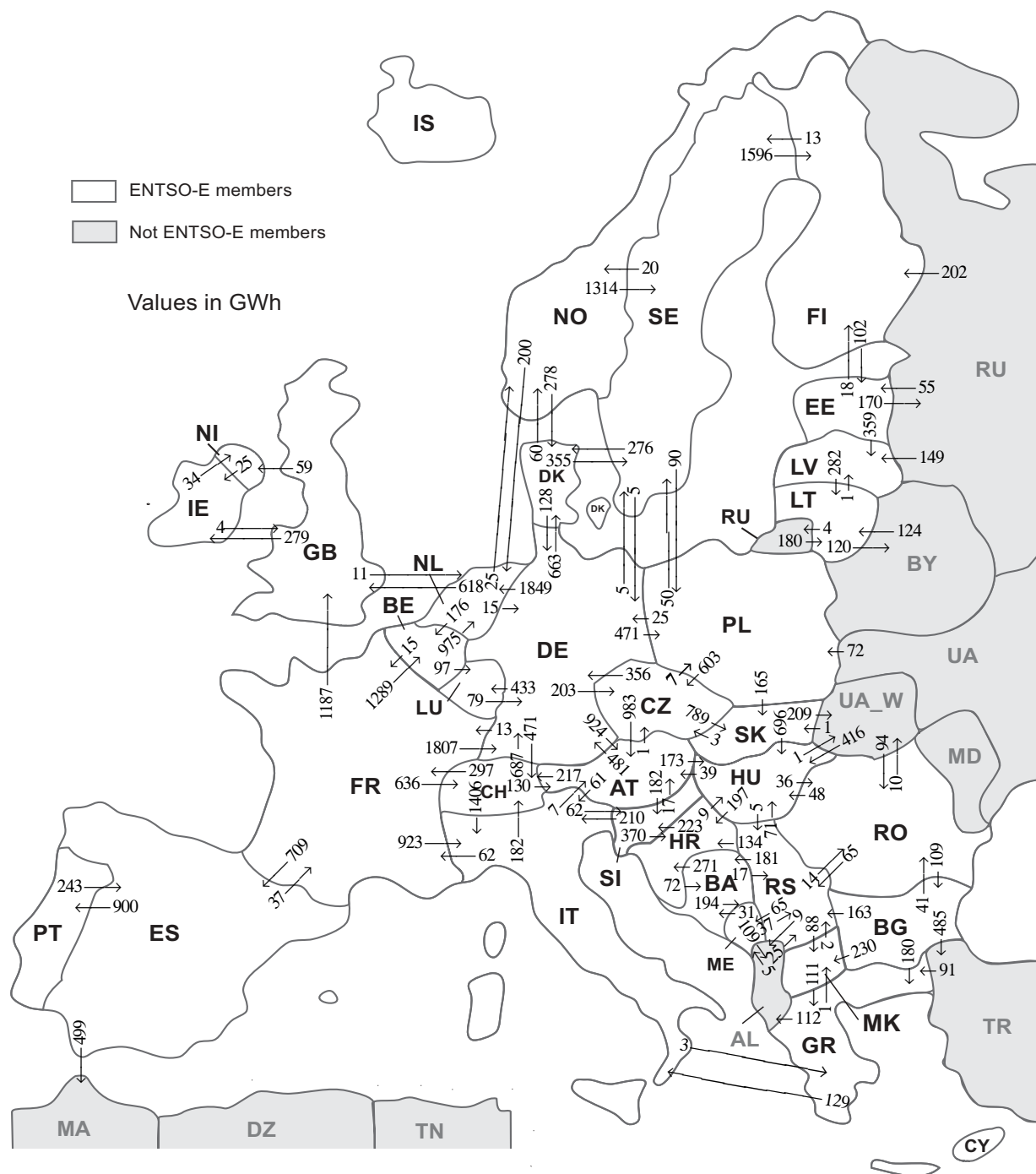
³ Wind and PV from TSO data, rest from official statistics.

⁴ Nuclear production is estimated.

⁵ Operational data. Other renewable includes energy from biomass co-firing in conventional thermal units.

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 power	Other renewable except hydro	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	99	99	100	99
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	100	100	100	100	100
FI	100	100	100	100	100	100
FR	100	100	100	100	100	100
GB	100	96	87	67	17	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	100	100	100	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	100	100	100	100	100
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



Sum of physical energy flows between ENTSO-E countries: **31260GWh¹**

Total physical energy flows: **34402GWh¹**

¹ Sum of physical energy flows without exchanges between NO-RU.

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.

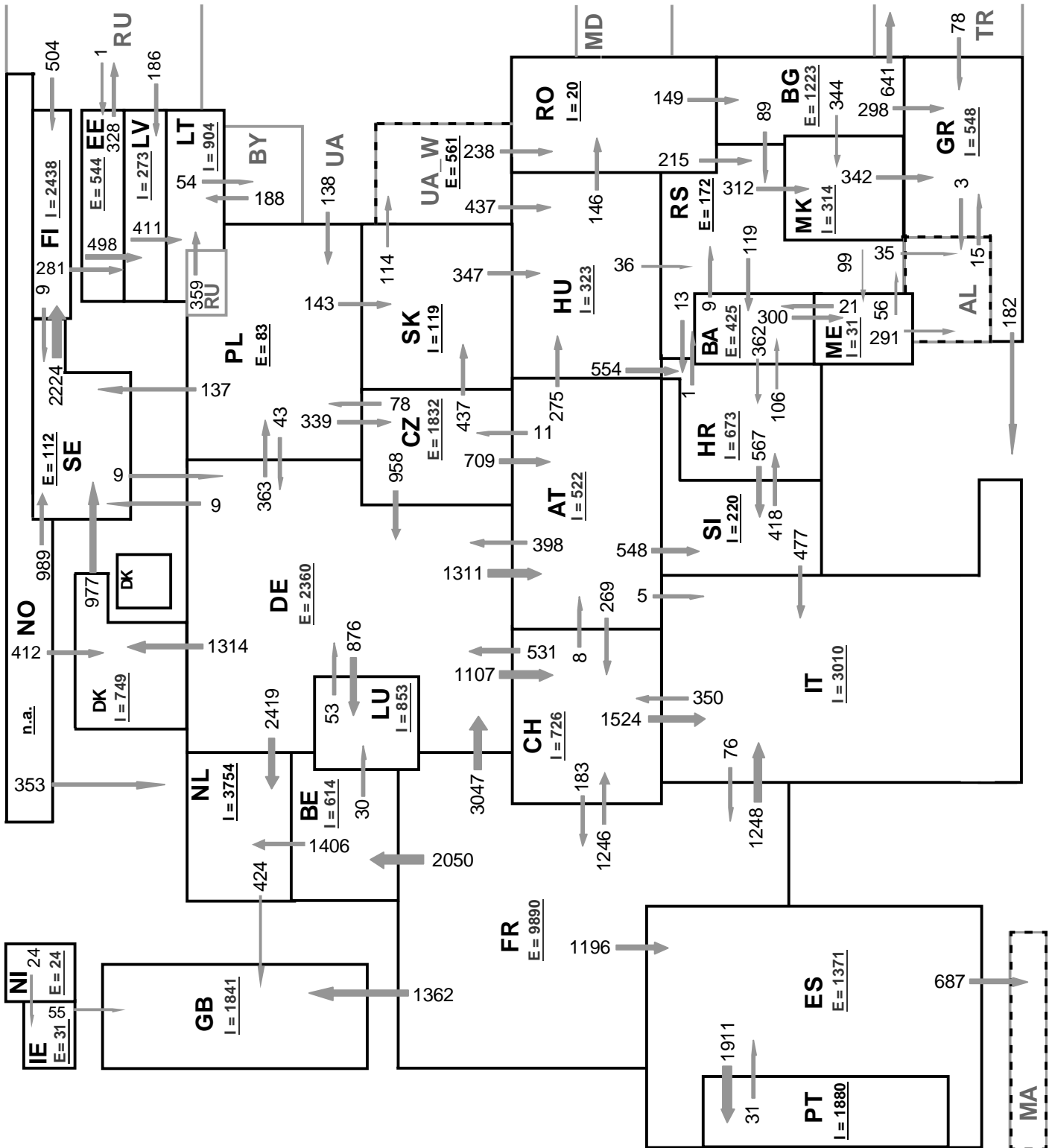
Outside flows countries	Inside flows of the countries																											Other III ¹								
	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME	MK	NI	NL	NO	PL		PT	RO	RS	SE	SI	SK		
AT	-	-	-	-	217	1	481	-	-	-	-	-	-	-	-	173	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	182	-		
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	271	-	-	-	-	-	-	194	-	-	-	-	-	-	-	17	-	-	-	-		
BE	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	97	-	-	-	-	-	975	-	-	-	-	-	-	-	-	-		
BG	-	-	-	-	-	-	-	-	-	-	-	-	180	-	-	-	-	-	-	-	-	230	-	-	-	-	-	-	41	163	-	-	-	-	485	
CH	130	-	-	-	-	-	687	-	-	-	-	297	-	-	-	-	-	1406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
CZ	983	-	-	-	-	-	356	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	789	-	
DE	924	-	-	-	471	203	-	663	-	-	-	13	-	-	-	-	-	-	433	-	-	-	-	-	-	1849	471	-	-	-	-	5	-	-	-	
DK	-	-	-	-	-	-	128	-	-	-	-	-	-	-	-	-	-	-	-	433	-	-	-	-	-	60	-	-	-	-	-	355	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	359	-	-	-	-	-	-	-	-	-	-	-	-	-	170	
ES	-	-	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900	-	-	-	-	-	-	-	499	
FI	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	13	-	-	0	
FR	-	-	1289	-	636	-	1807	-	-	709	-	-	1187	-	-	-	-	923	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	279	-	-	-	-	-	-	59	11	-	-	-	-	-	-	-	-	-	-
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	112
HR	-	72	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	223	-	-	-	
HU	39	-	-	-	-	-	-	-	-	-	-	-	-	-	197	-	-	-	-	-	-	-	-	-	-	-	-	-	36	5	-	-	-	0	1	
IE	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-
IT	7	-	-	-	182	-	-	-	-	-	-	62	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124
LU	-	-	0	-	-	-	79	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
LV	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
ME	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	-	-	109
MK	-	-	-	0	-	-	-	-	-	-	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
NL	-	-	-	-	-	-	-	-	-	-	-	0	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	176	-	-	-	15	-	-	-	-	-	618	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	278	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	1314	-	n.a.
PL	-	-	-	-	603	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	165	0
PT	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	109	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
RS	-	181	-	0	-	-	-	-	-	-	-	-	-	134	71	-	-	-	-	-	-	65	88	-	-	-	-	-	14	-	-	-	-	-	9	
SE	-	-	-	-	-	5	276	-	-	1596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	90	-	-	-	-	-	-	-	-	-
SI	17	-	-	-	-	-	-	-	-	-	-	-	-	370	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	3	-	-	-	-	-	-	-	-	-	696	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	209
Other III ¹	-	-	-	0	-	-	-	-	55	0	202	-	-	91	-	416	-	-	304	-	149	5	-	-	-	n.a.	72	-	94	25	-	-	-	-	1	-

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

Sum of the monthly energy flows inside and outside of each country in GWh

	flows inside	flows outside
AT	2100	1115
BA	284	482
BE	1465	1087
BG	109	1099
CH	1506	2520
CZ	810	2135
DE	3583	5032
DK	1217	543
EE	157	547
ES	952	1436
FI	1816	115
FR	424	6551
GB	1809	349
GR	385	242
HR	972	304
HU	1413	278
IE	304	38

	flows inside	flows outside
IT	2729	316
LT	586	125
LU	530	79
LV	509	282
ME	264	177
MK	319	113
NI	93	25
NL	3035	834
NO	n.a.	n.a.
PL	640	843
PT	900	243
RO	185	232
RS	314	562
SE	1737	1987
SI	467	597
SK	955	908
ENTSO-E	n.a.	n.a.

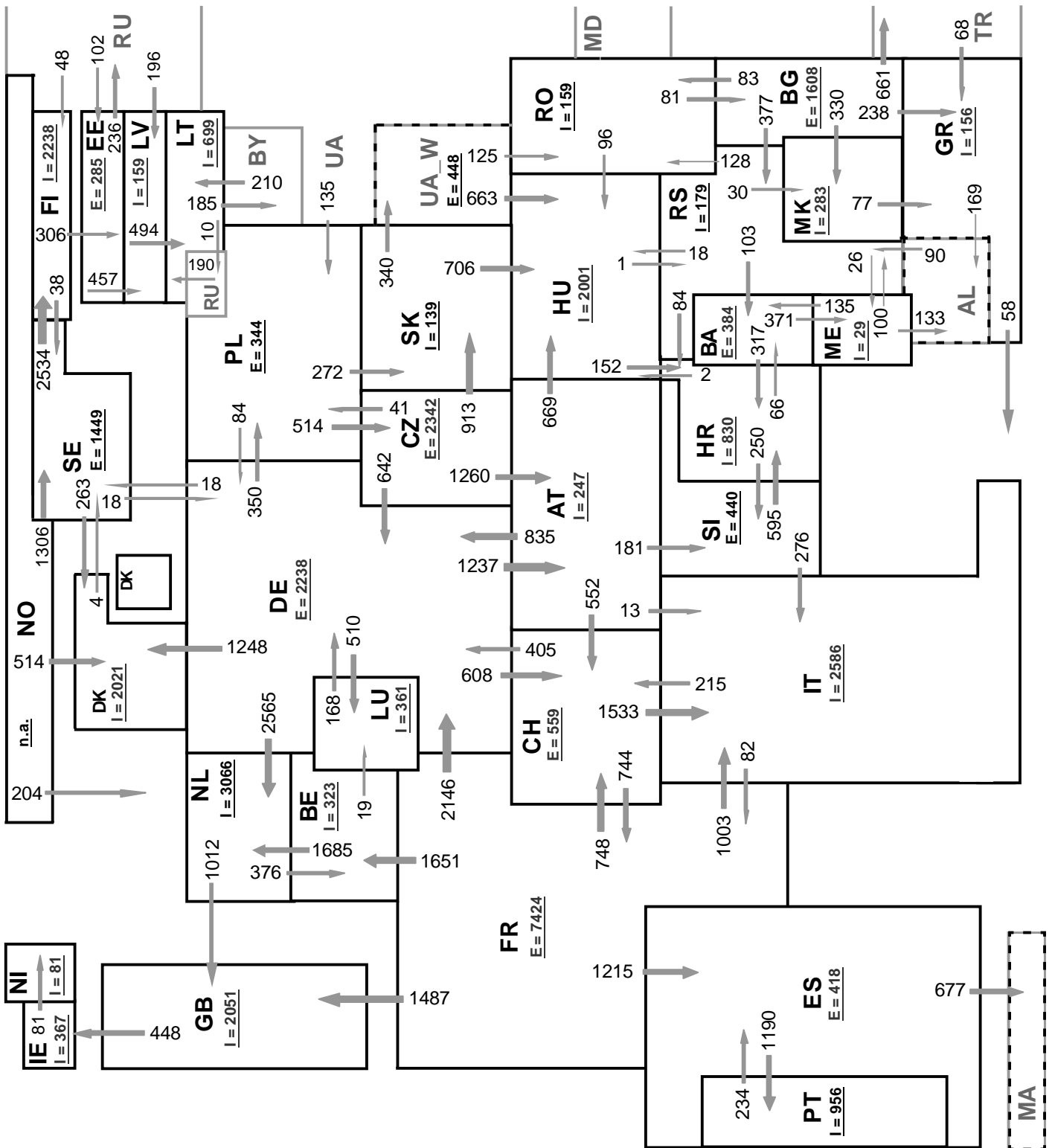


Sum of load flows in MW ENTSO-E = 40229 MW
 (Calculated sum without data between NO - RU)

Total = 44526 MW

Synchronous operation with ENTSO-E region

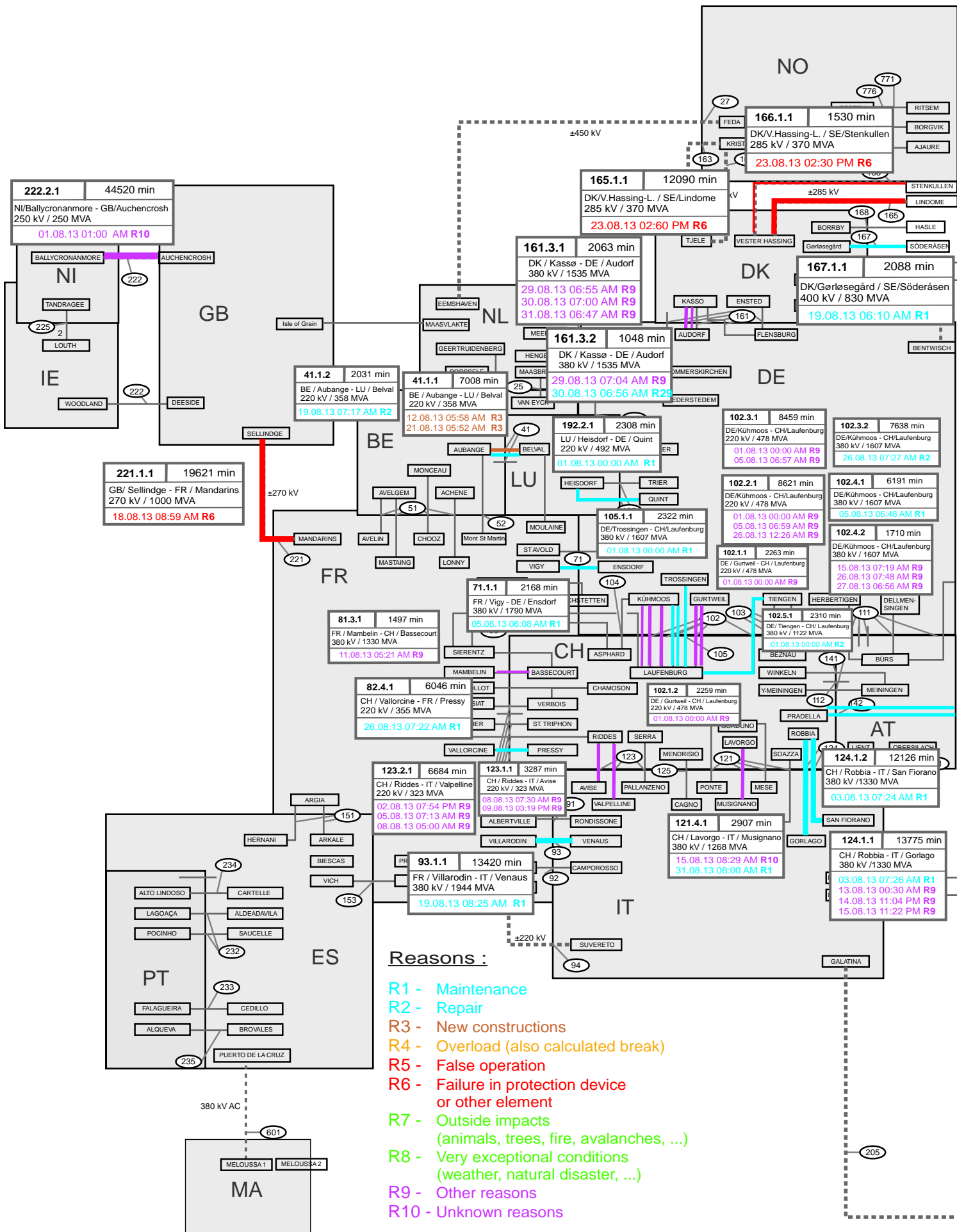
I = Import balance
 E = Export balance

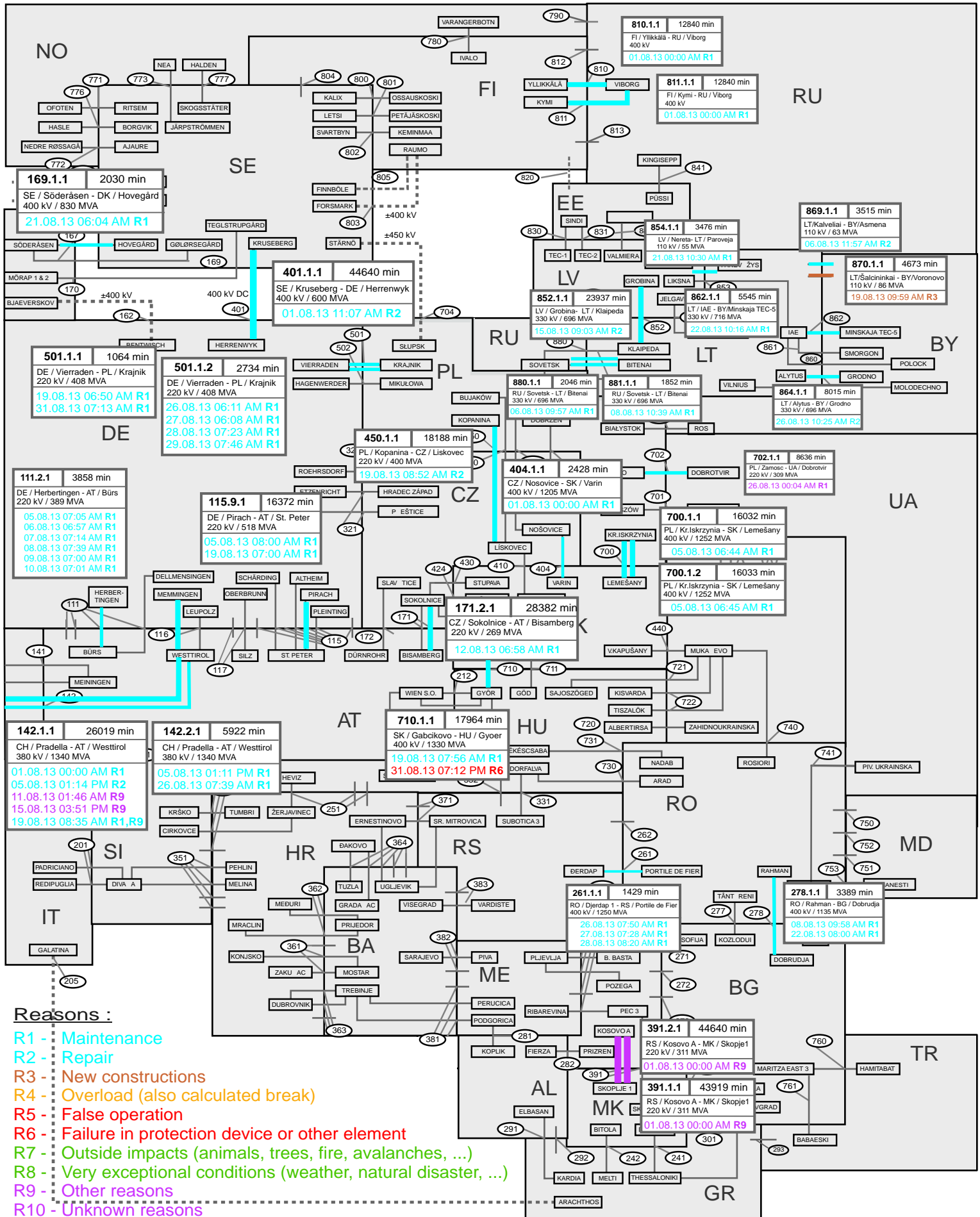


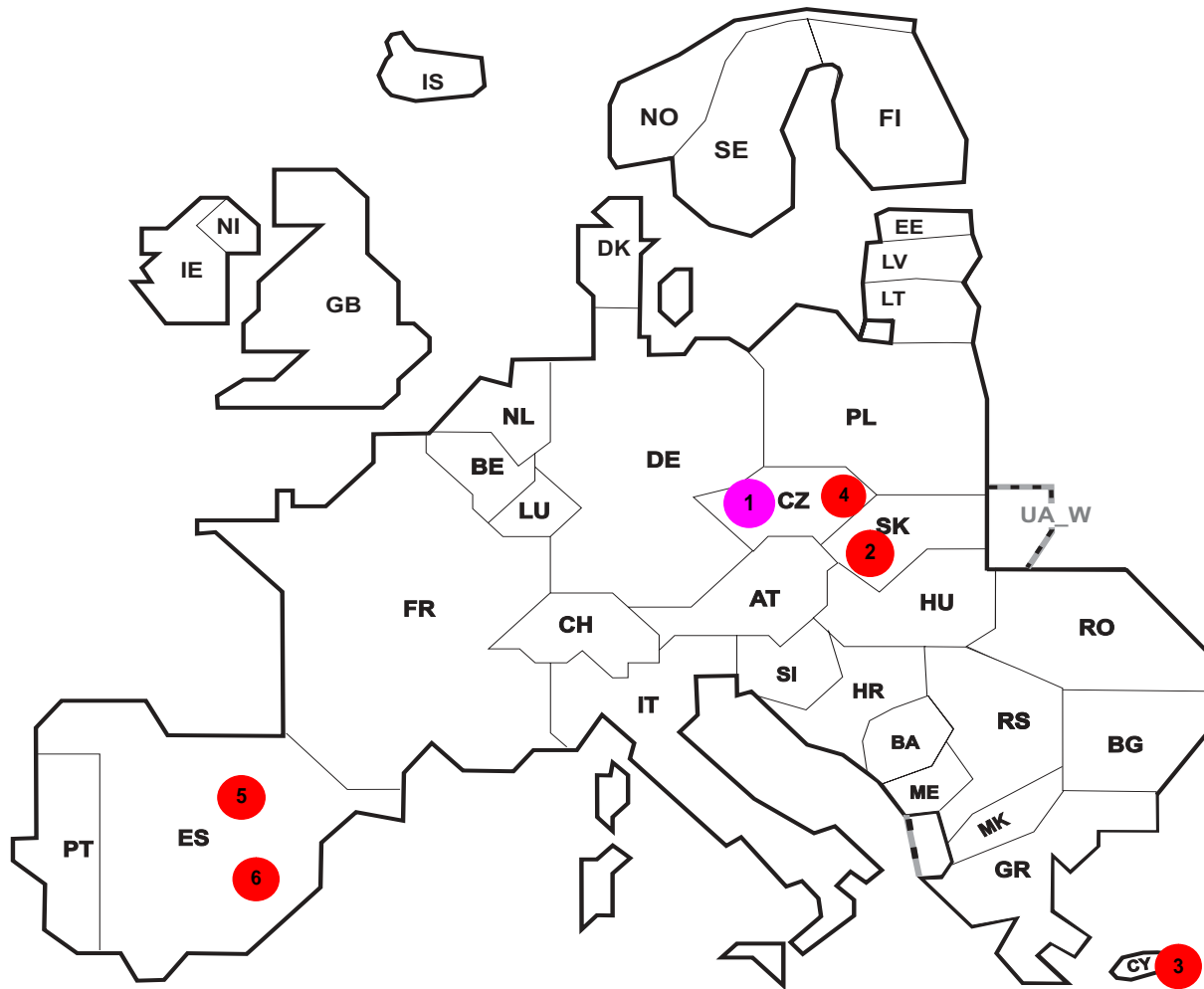
Sum of load flows in MW ENTSO-E = 39792 MW Total = 44030 MW
 (Calculated sum without data between NO - RU)

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	CZ	Chodov	R9	35	190	16	0,293
2	SK	Medzibrod	R6	11	91	7	0,208
3	CY	VPS GAST41 & STG40	R5	2	105	10	0,185
4	CZ	Tabor	R6	1	66	2	0,008
5	ES	Velle	R5	3	0	5	0,007
6	ES	Olmedilla	R6	2	0	7	0,004

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 21.08.2013 CET of each country

	Highest		Low est		Load representativity %
	load MW	variation % ¹	load MW	variation % ¹	
AT	8993	30,9	5815	9,2	100
BA	1625	3,2	1013	0,4	100
BE ²	11370	31,7	7390	5,9	100
BG	4582	9,7	3066	9,8	99
CH	7743	0,0	4850	0,0	100
CY	763	18,8	499	7,5	100
CZ	7553	1,7	5339	2,0	100
DE	69125	0,7	42840	1,5	91
DK	4472	-2,1	2658	-3,1	100
EE	941	-4,0	552	-5,2	100
ES	35286	22,4	23221	7,0	100
FI	9180	-1,8	7153	-0,2	100
FR	50734	14,1	34782	5,1	100
GB	39982	-2,3	23705	-1,1	100
GR	7082	9,0	5032	9,3	100
HR	2460	14,1	1517	8,4	100
HU	4796	-0,2	2828	-11,2	100
IE	3390	-3,7	1920	3,2	100
IS	2051	4,3	1876	3,7	100
IT	38048	13,7	24793	3,2	100
LT	1411	17,4	853	3,8	100
LU	641	7,7	439	-8,7	100
LV	935	-0,5	541	6,1	100
ME	501	-7,9	290	-11,6	100
MK	963	3,9	648	5,0	100
NI	1199	-3,3	644	1,7	100
NL	13694	-9,2	8800	-6,4	100
NO	12501	2,3	9884	2,7	100
PL ³	18775	28,3	13113	19,1	100
PT	6367	17,6	4365	16,2	100
RO	6475	11,5	4558	3,3	100
RS	4658	7,0	2882	8,0	100
SE	16001	5,1	11284	4,9	100
SI	1667	25,5	1239	15,4	100
SK	3459	2,4	2607	1,9	100
ENTSO-E	264355	1,9	394009	9,9	

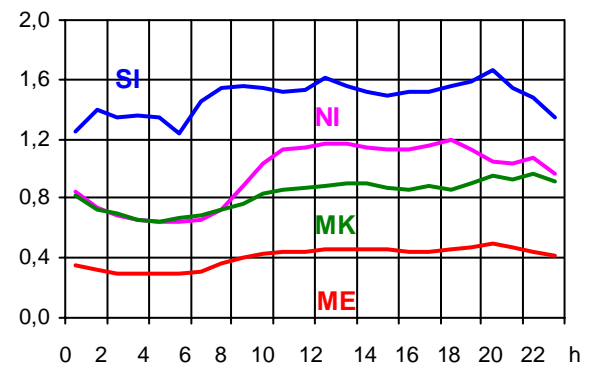
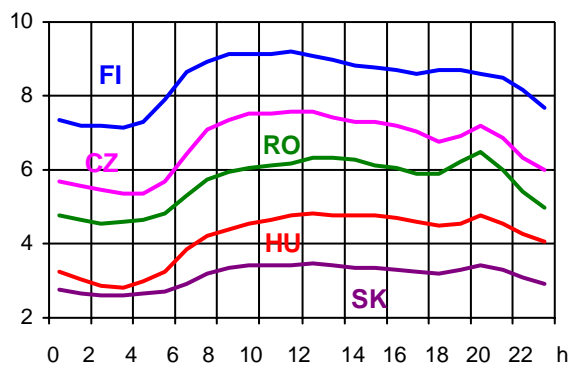
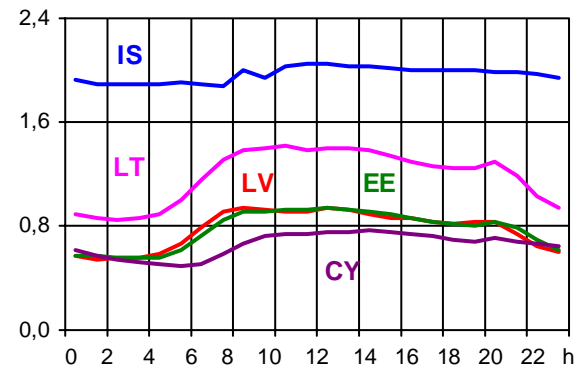
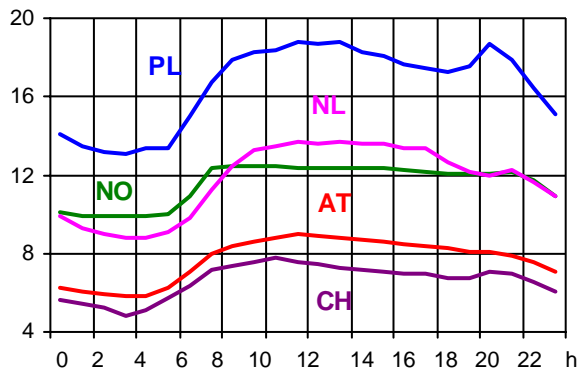
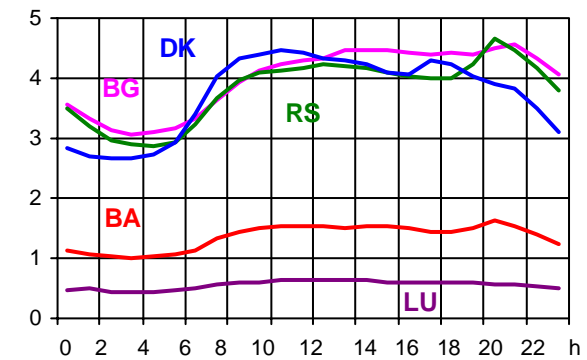
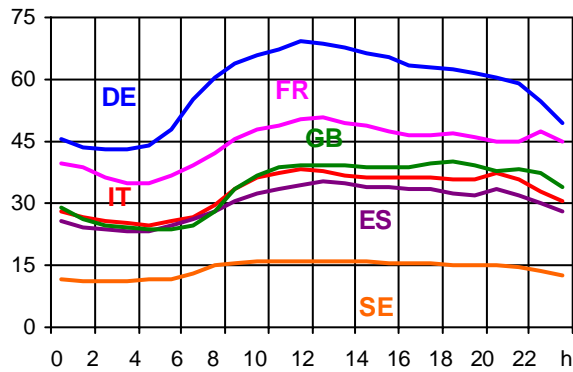
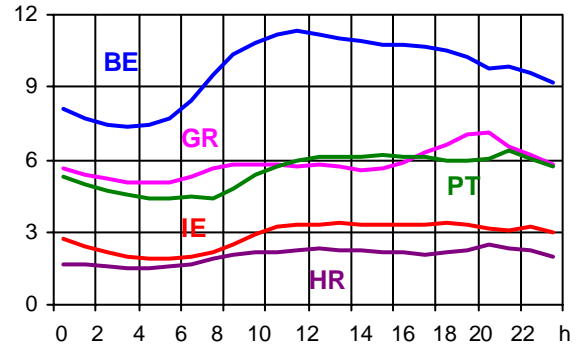
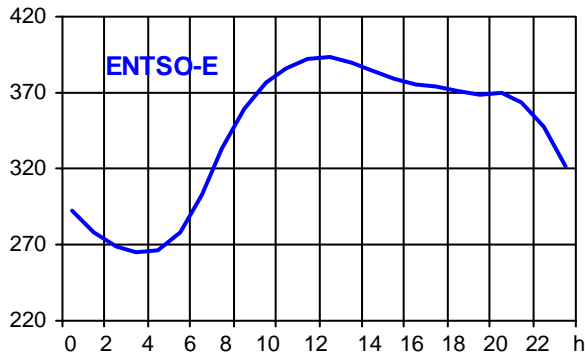
¹ Variation as compared to corresponding month of the previous year

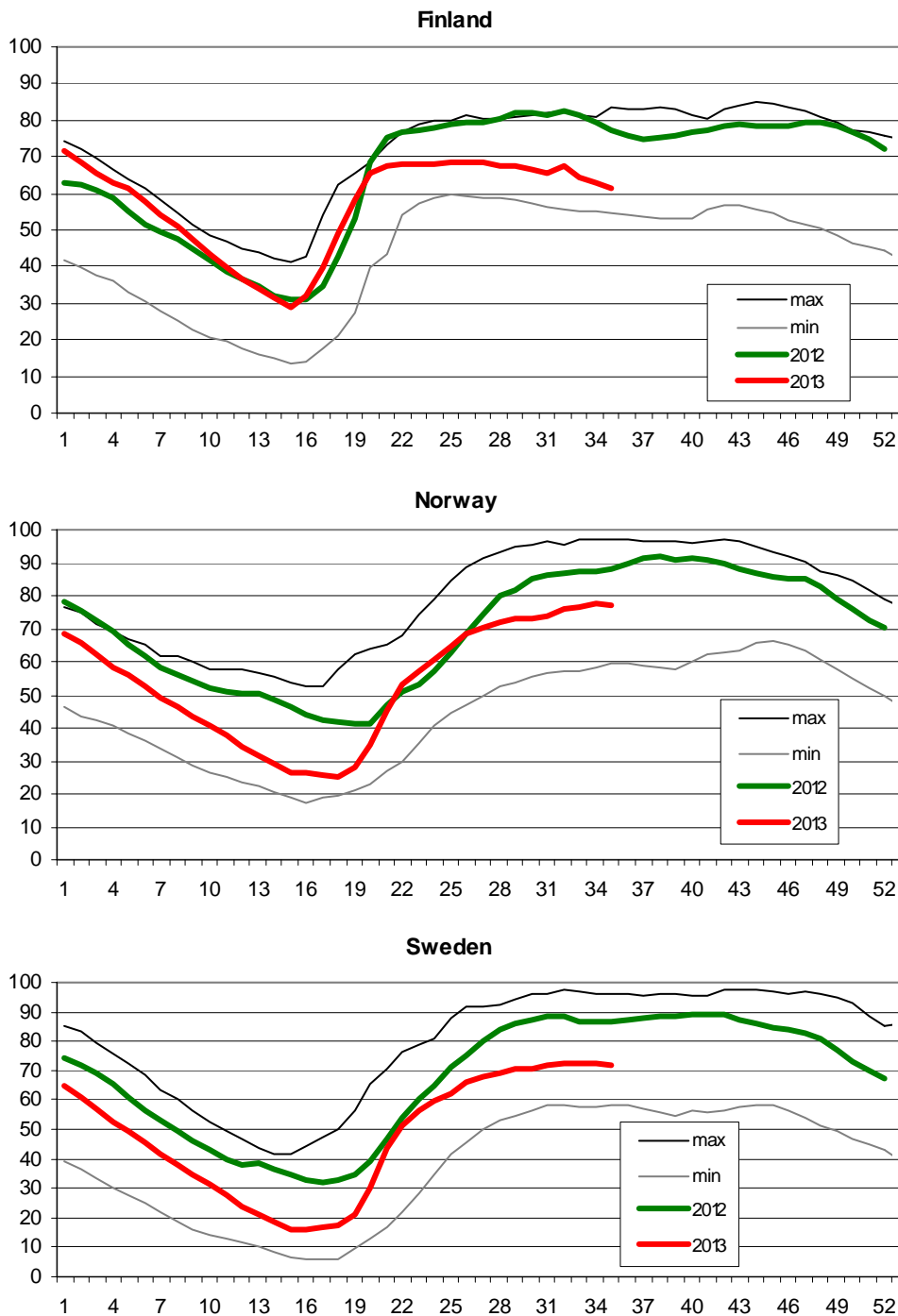
² The reported figures are best estimates based on actual measurements and extrapolations.

³ Operational data

Consumption hourly load curves on 21.08.2013 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

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