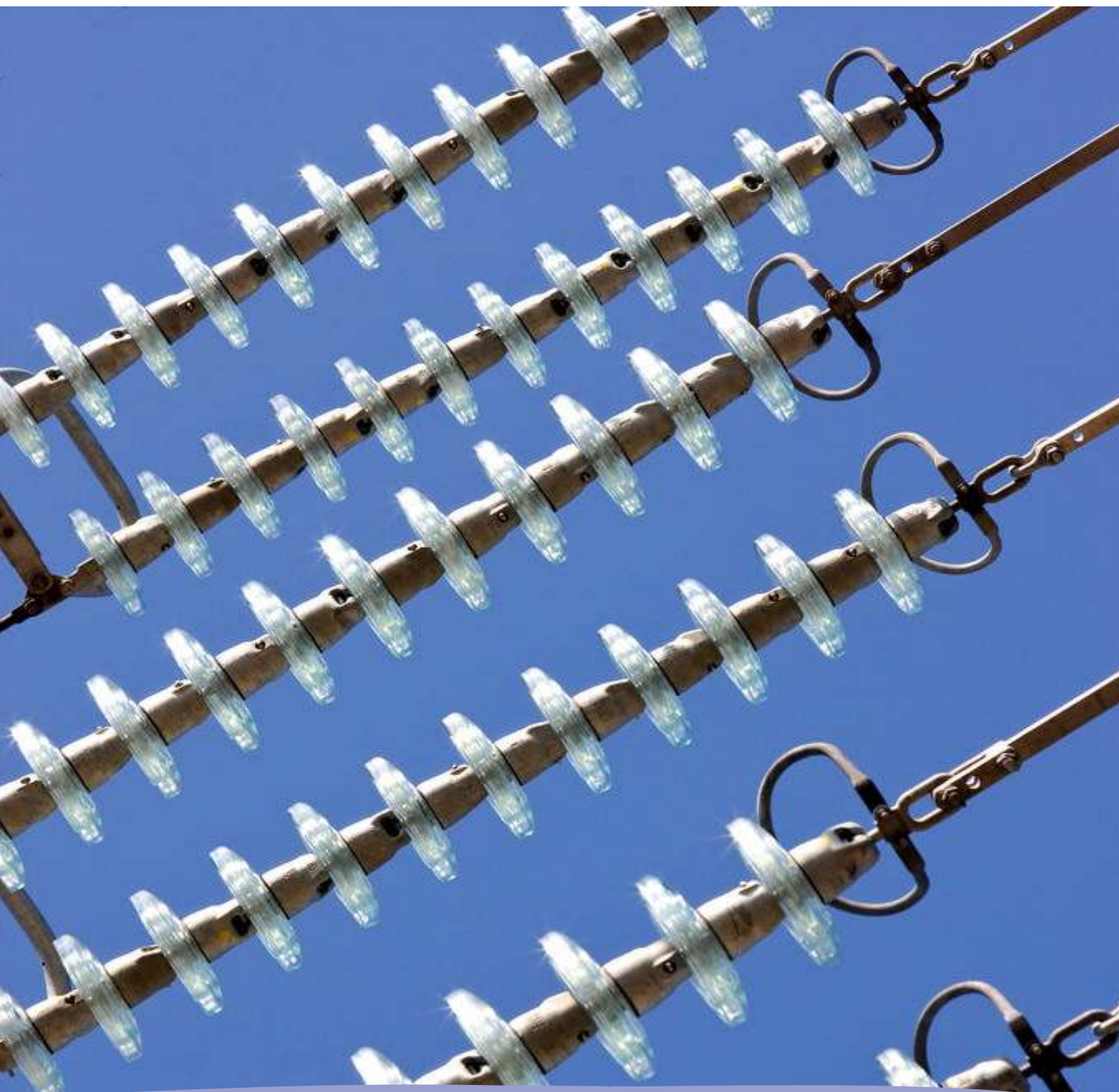


Monthly statistics



February 2013

Monthly provisional values as of 24 June 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	1937	3043	0	0	0	0	682	5662	644	325	5981	-5,9
BA	0	756	793	0	0	0	0	0	1549	-540	0	1009	-11,1
BE ²	2665	2865	134	653	287	83	283	0	6317 ¹	1018	118	7217	-9,3
BG	1285	1562	389	152	111	41	0	0	3388	-369	108	2911	-18,6
CH	2214	197	3003	145	9	0	0	0	5559 ¹	426	69	5916	-6,5
CY	0	275	0	21	21	0	0	0	296	0	0	296	-23,3
CZ	2343	3995	403	100	33	67	0	0	6841 ¹	-1223	98	5520	-10,6
DE ³	8132	33414	1846	6991	3233	650	2916	0	50383 ¹	-3447	511	46425	-7,2
DK ⁴	0	2303	2	1161	945	0	216	0	3466 ¹	-314	0	3152	n.a.
EE	0	991	2	67	26	0	41	0	1060	-328	0	732	-13,3
ES	4421	8073	3848	6591	5415	729	447	26	22959	-642	563	21754	-9,5
FI	1862	2323	1274	1020	46	0	974	79	6558 ¹	943	0	7501	-10,0
FR	36749	6552	6926	2193	1445	261	488	0	52420	-2229	469	49722	-8,8
GB	5218	20905	574	2357	1273	0	0	0	29054	279	319	29015	-5,3
GR	0	2706	0	407	275	115	16	0	3113 ¹	149	0	3262	-26,2
HR	0	393	754	46	46	0	0	0	1193	269	21	1441	-12,8
HU	1367	1456	0	0	0	0	0	0	2823	629	0	3452	-2,2
IE	0	1572	120	408	398	0	0	13	2113 ¹	117	46	2184	-1,8
IS	0	0	1013	388	0	0	0	0	1401	0	0	1401	-1,0
IT	0	15658	3005	2876	1372	1112	0	0	21539	4338	150	25727	-7,4
LT	0	223	77	60	39	0	21	0	360 ¹	572	50	882	-8,6
LU	0	162	87	17	6	1	4	0	266	361	106	521	-4,1
LV	0	299	190	37	6	0	11	0	526	124	0	650	-11,4
ME ⁵	0	126	231	0	0	0	0	0	357	5	0	362	n.a.
MK	0	496	84	0	0	0	0	0	580	139	0	719	-21,0
NI	0	490	1	99	94	0	1	0	590	165	0	755	-0,5
NL	323	7429	0	1046	439	n.a.	n.a.	0	8798	811	0	9609	-2,4
NO	0	191	12094	139	139	0	0	0	12424 ¹	121	53	12492	-1,4
PL ⁶	0	11594	248	837	338	0	449	0	12679 ¹	-695	40	11944	-9,4
PT	0	1521	1508	1264	1028	27	209	0	4293 ¹	-99	150	4044	-7,6
RO	878	2182	1006	454	423	4	27	0	4520	-70	4	4446	-10,8
RS	0	2835	1092	0	0	0	0	0	3927	-201	66	3660	-12,3
SE	5845	758	6459	1597	530	0	1067	0	14659 ¹	-1274	0	13385	-6,4
SI	408	390	241	0	0	0	0	0	1039	32	0	1071	-5,3
SK	1208	504	435	84	0	23	0	97	2328 ¹	-33	44	2251	-8,9
ENTSO-E	74918	137133	50882	31210	17977	3113	7170	897	295040¹	-322	3310	291409	n.a.

¹ Including deliveries from industry

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

³ The reported figures are best estimates based on actual inquiries, measurements and extrapolations.

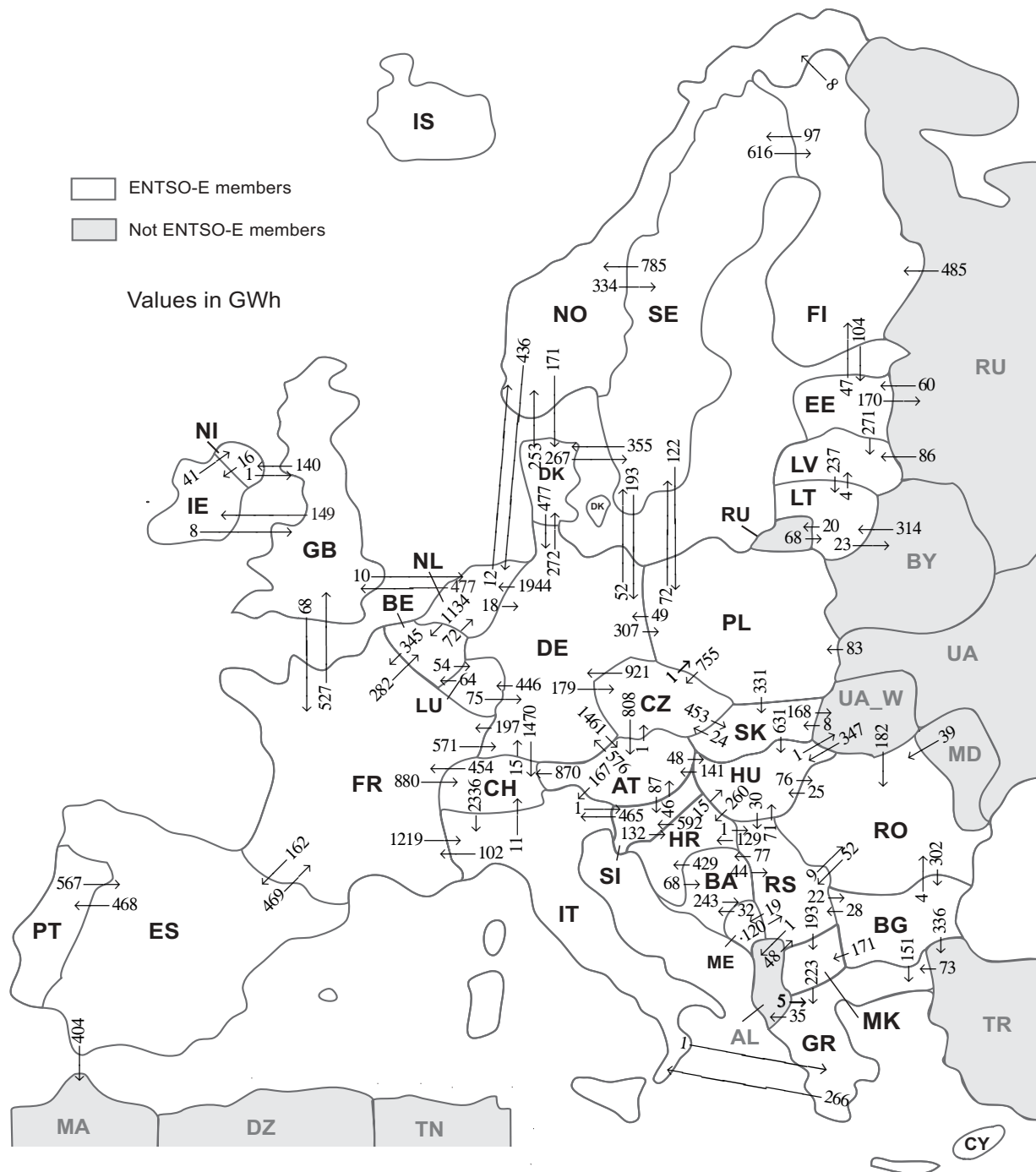
⁴ National monthly values as of February 2012

⁵ National monthly values as of February 2011

⁶ 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	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	100	100	100	100	100
FI	100	100	100	100	100	100
FR	100	100	100	100	100	100
GB	89	100	100	54	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	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: **32084 GWh¹**

Total physical energy flows: **35040 GWh¹**

¹ Sum of physical energy flows without exchanges between ME-AL and 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.

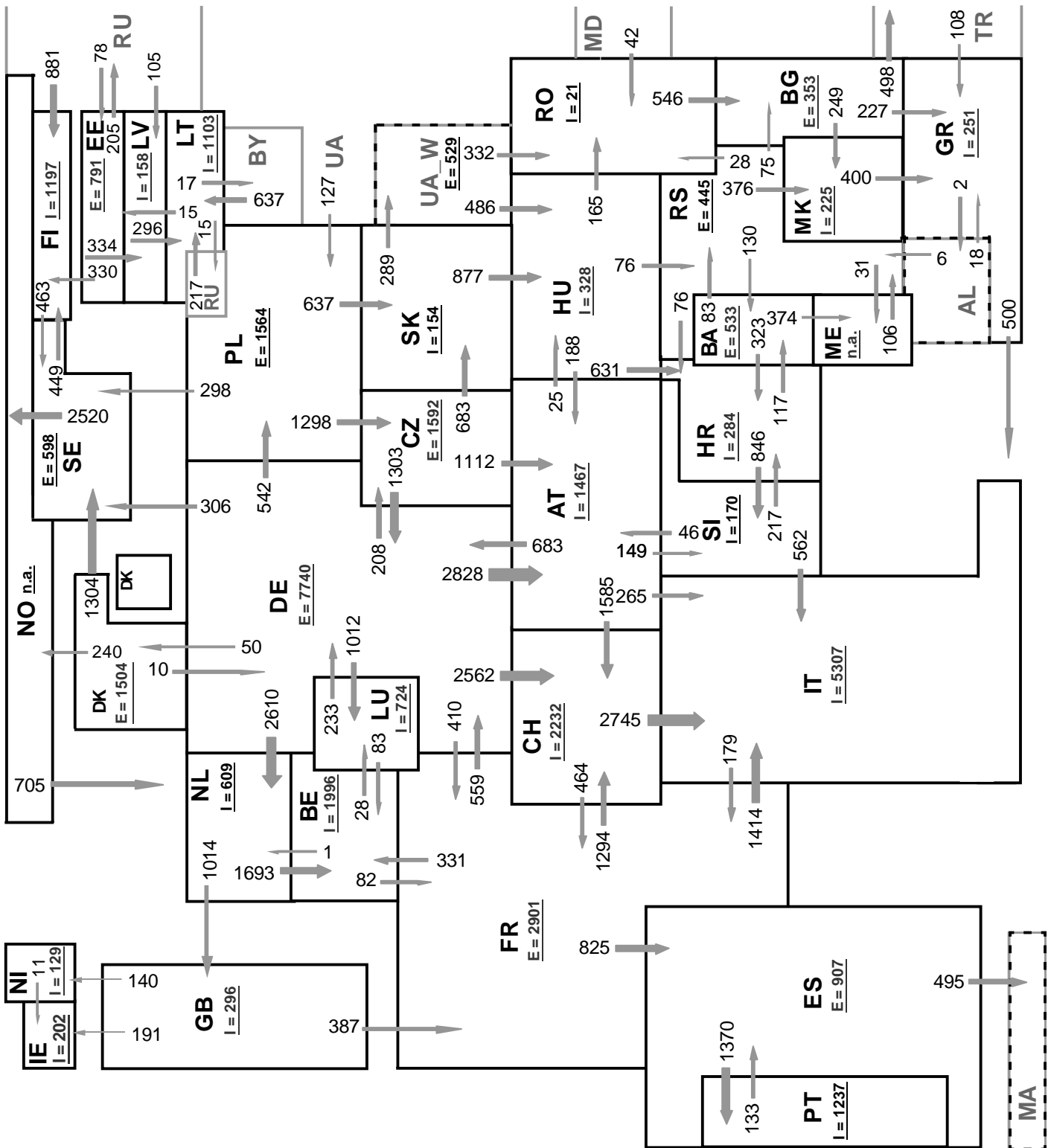
Outside flows countries	Inside flows of the countries																																		
	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME	MK	NI	NL	NO	PL	PT	RO	RS	SE	SI	SK	Other III ¹	
AT	-	-	-	-	870	1	576	-	-	-	-	-	-	-	48	-	167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	-	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	429	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	44	-	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	345	-	-	-	-	-	-	54	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-	-	-	-	-	-	-	171	-	-	-	-	-	4	28	-	-	-	-	336	
CH	0	-	-	-	-	15	-	-	-	-	454	-	-	-	-	-	2336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	808	-	-	-	-	921	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	453	-	
DE	1461	-	-	-	1470	179	-	272	-	-	197	-	-	-	-	-	-	-	446	-	-	-	-	-	1944	-	307	-	-	-	52	-	-	-	
DK	-	-	-	-	-	477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	253	-	-	-	-	267	-	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-	-	-	-	-	271	-	-	-	-	-	-	-	-	-	-	-	-	170	
ES	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468	-	-	-	-	-	-	404	
FI	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	97	-	-	-	-	0	
FR	-	-	282	-	880	-	571	-	162	-	-	527	-	-	-	-	1219	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	-	68	-	-	-	-	149	-	-	-	-	-	-	-	140	10	-	-	-	-	-	-	-	-	-	
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	266	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	35	
HR	-	68	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	592	-	-	-	
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IE	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	
IT	0	-	-	-	11	-	-	-	-	-	102	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	
LU	-	-	64	-	-	75	-	-	0	-	0	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
LV	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
ME	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.	
MK	-	-	-	0	-	-	-	-	-	-	-	-	223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
N	-	-	-	-	-	-	-	-	-	-	-	1	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	1134	-	-	18	-	-	-	-	-	477	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	171	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436	-	-	-	-	-	-	334	-	-	n.a.
PL	-	-	-	-	755	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	331	0	-
PT	-	-	-	-	-	-	-	-	567	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	302	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
RS	-	77	-	22	-	-	-	-	-	-	-	-	-	129	71	-	-	-	-	-	-	19	193	-	-	-	-	9	-	-	-	-	-	1	
SE	-	-	-	-	-	193	355	-	-	616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	785	122	-	-	-	-	-	-	-	-	-
SI	46	-	-	-	-	-	-	-	-	-	-	-	132	-	-	-	465	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	24	-	-	-	-	-	-	-	-	-	631	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	168
Other III ¹	-	-	-	0	-	-	-	-	60	0	485	-	-	78	-	347	-	-	382	-	86	n.a.	-	-	-	n.a.	83	-	221	48	-	-	8	-	-

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	2456	1749
BA	177	716
BE	1480	471
BG	324	690
CH	3231	2805
CZ	959	2183
DE	2895	6328
DK	798	997
EE	164	488
ES	729	1341
FI	1148	209
FR	1635	3641
GB	1013	367
GR	453	301
HR	950	676
HU	1137	508
IE	165	49

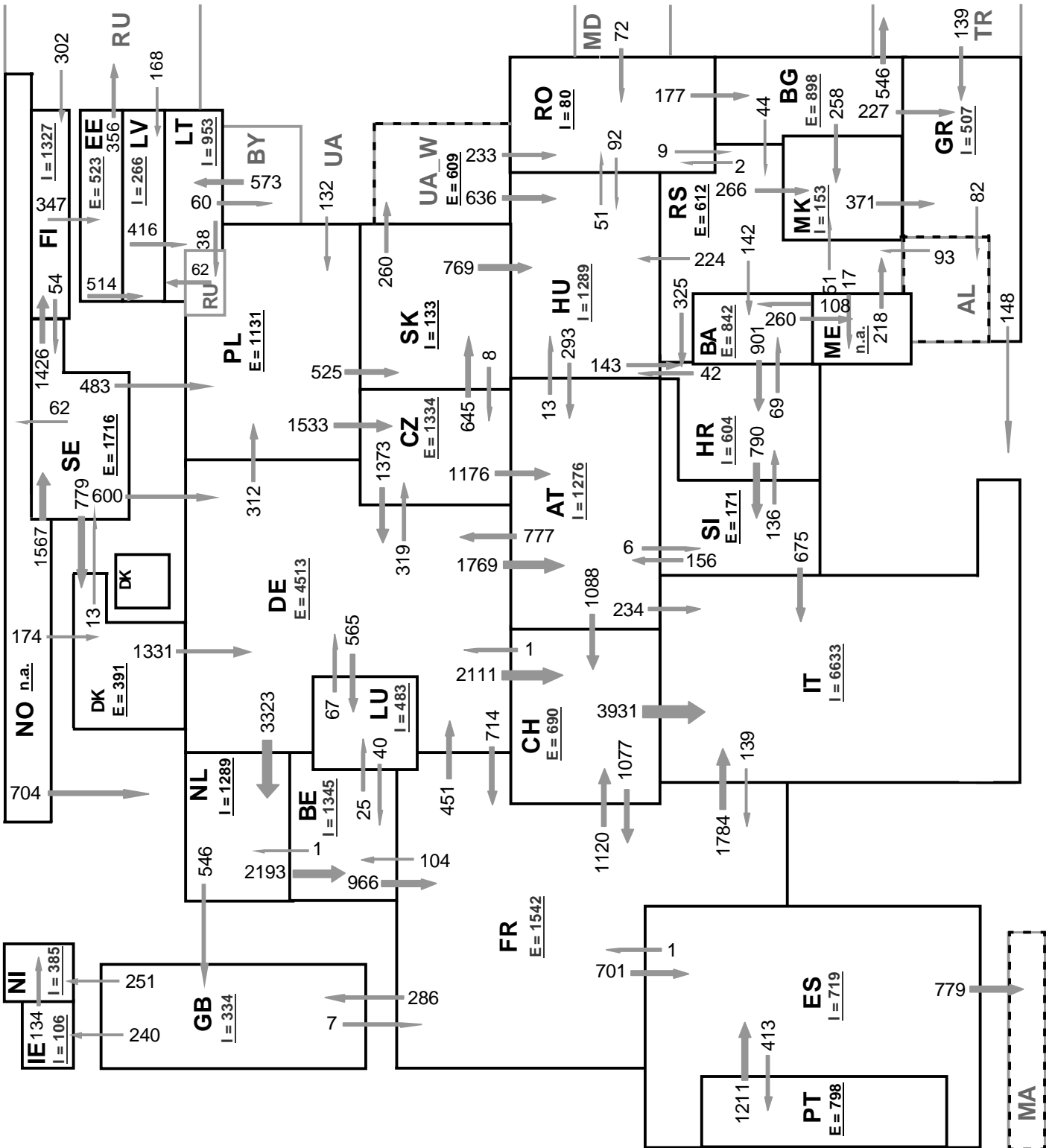
	flows inside	flows outside
IT	4453	115
LT	619	47
LU	500	139
LV	361	237
ME	n.a.	n.a.
MK	364	223
NI	181	17
NL	2462	1641
NO	n.a.	n.a.
PL	513	1207
PT	468	567
RO	310	379
RS	323	521
SE	822	2071
SI	680	643
SK	792	823
ENTSO-E	n.a.	n.a.



Sum of load flows in MW ENTSO-E = 45658 MW Total = 50219 MW
 (Calculated sum without data between ME-AL and NO- RU)

Synchronous operation with ENTSO-E region

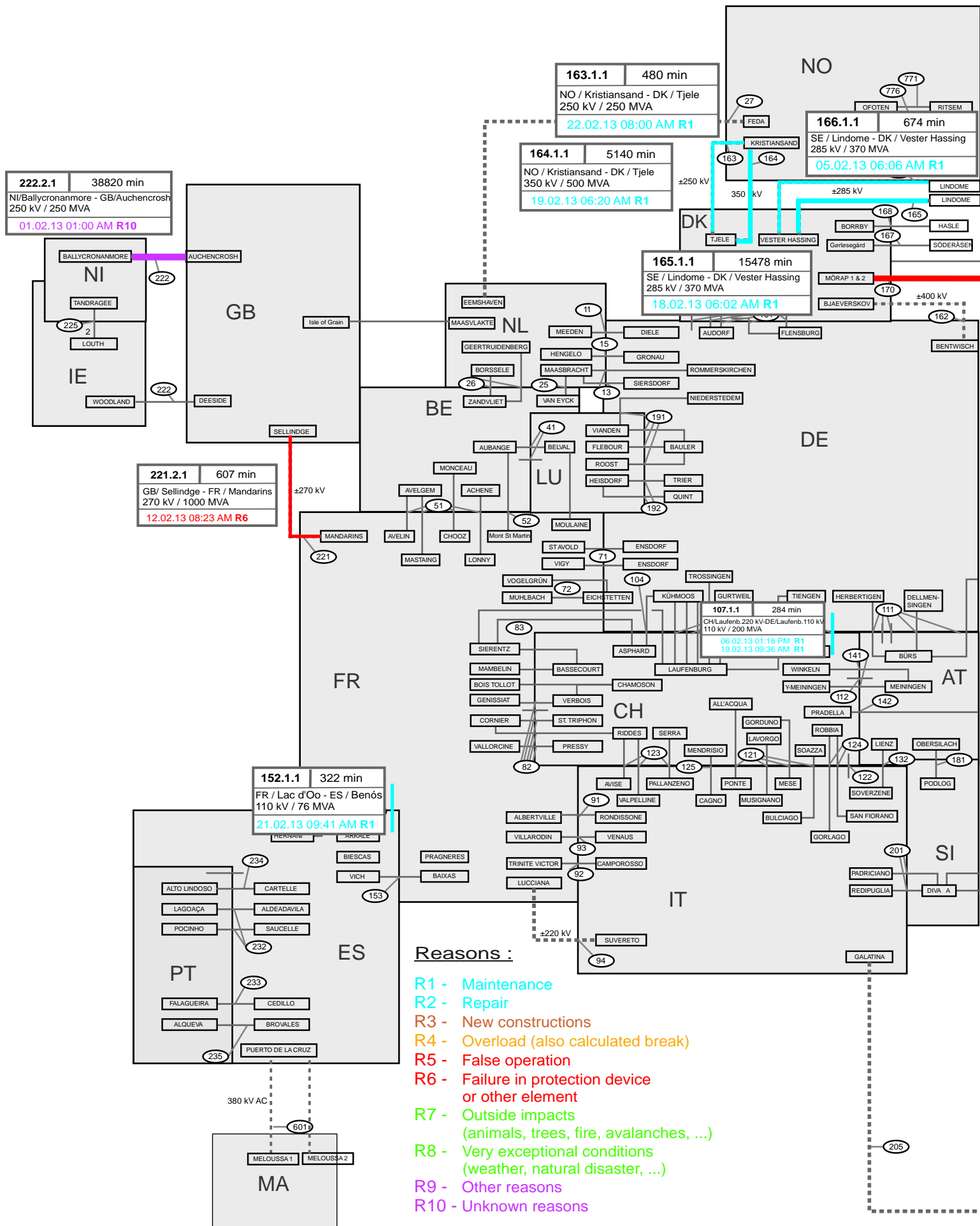
I = Import balance
 E = Export balance

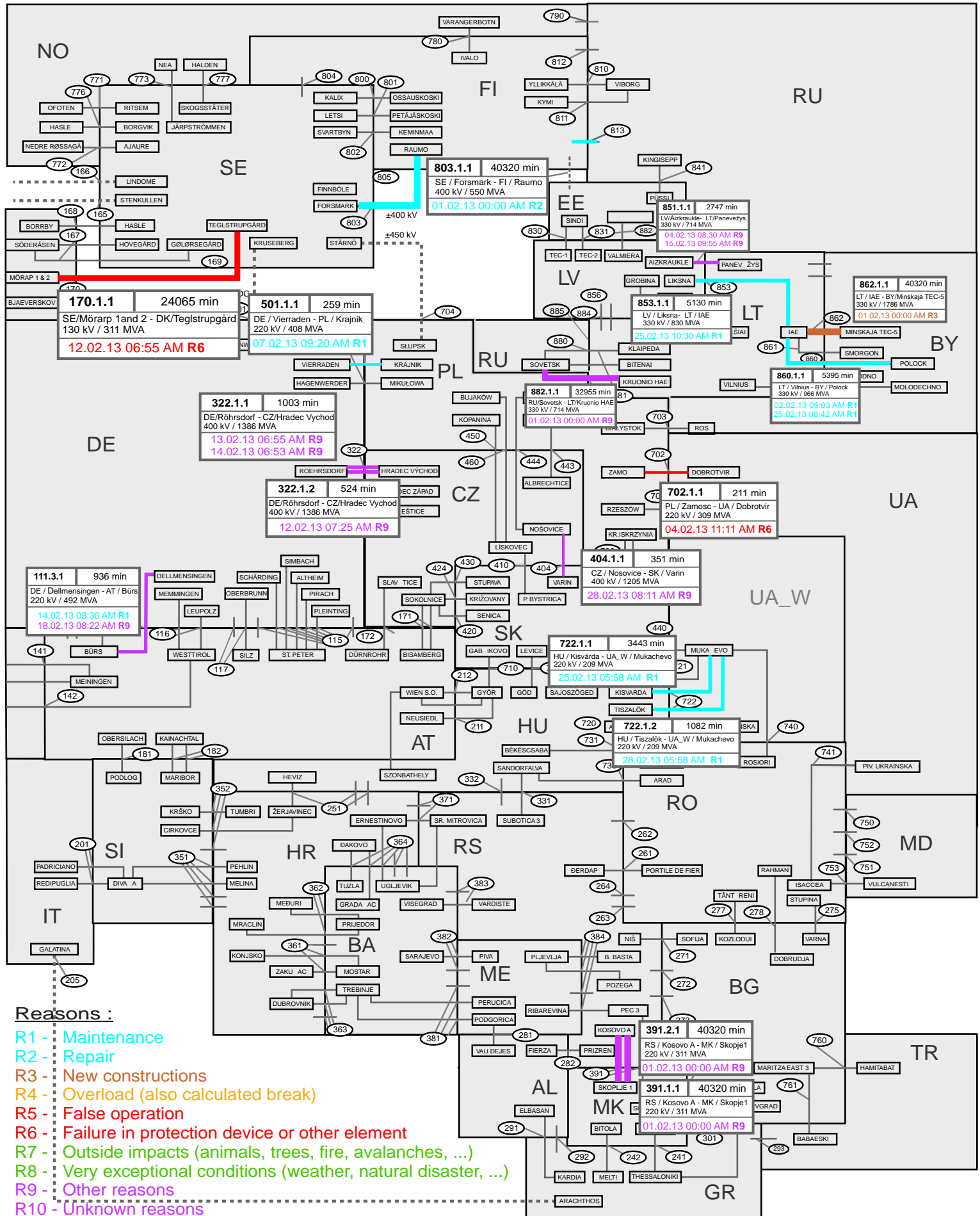


Sum of load flows in MW **ENTSO-E = 47563 MW** **Total = 52094 MW**
 (Calculated sum without data between ME-AL and NO- RU)

Synchronous operation with ENTSO-E region

I = Import balance
 E = Export balance





Highest and lowest load on the 20.02.2013 CET of each country

	Highest		Low est		Load representativity %
	load MW	variation % ¹	load MW	variation % ¹	
AT	9517	-3,1	6099	-8,0	100
BA	1877	-6,6	1097	-16,7	100
BE ²	12150	-8,8	9259	-7,8	100
BG	5960	-13,4	4006	-18,8	99
CH	10180	-5,7	7404	-8,0	100
CY	629	-13,1	310	-17,3	100
CZ	9382	-7,2	7111	-12,3	100
DE ³	73553	-3,6	49840	-7,6	91
DK	5236	-5,1	3060	-12,2	100
EE	1321	-3,6	923	-4,1	100
ES	36518	-12,4	16806	-34,7	98
FI	12297	-2,4	10091	-2,5	100
FR	81284	-5,8	64308	-10,1	100
GB	55270	3,3	32440	-0,3	92
GR	7539	-4,1	4455	-6,1	100
HR	2717	-11,1	1614	-10,9	100
HU	5508	-5,1	3724	-8,6	100
IE	4167	3,3	2351	3,7	100
IS	2185	3,4	2009	3,9	100
IT	49059	-7,5	28158	-8,3	100
LT	1631	-1,0	997	-2,6	100
LU	928	4,2	666	14,0	100
LV	1228	4,3	713	6,5	100
ME ³	640	n.a.	423	n.a.	100
MK	1290	4,3	862	6,5	100
NI	1516	2,0	765	-3,2	100
NL	15093	-8,7	9345	-5,8	100
NO	21159	4,3	16665	5,7	100
PL ⁵	21793	-4,0	14962	-7,3	100
PT	7603	-8,0	4702	-7,2	100
RO	7723	-8,0	5433	-13,1	100
RS	6390	0,9	4429	-12,1	100
SE	23385	0,8	17453	1,5	100
SI	1909	-6,4	1393	2,1	100
SK	3938	-8,1	3023	-9,8	100
ENTSO-E	496497	n.a.	346324	n.a.	

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 A comparison with previous figures may be limited for statistical reasons related to renewable energies feed-in like direct marketing.

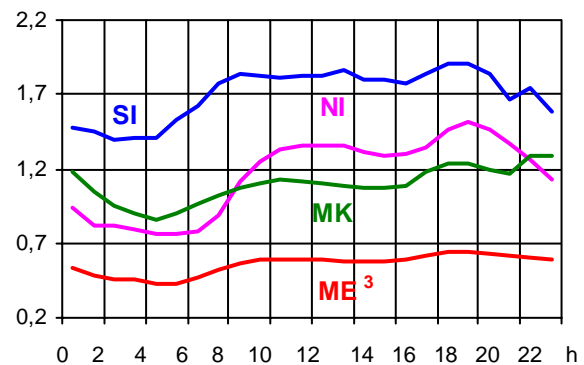
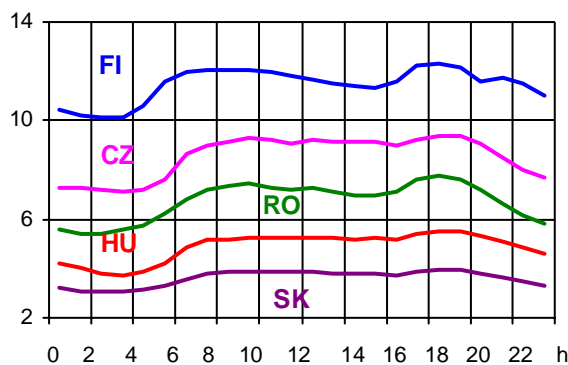
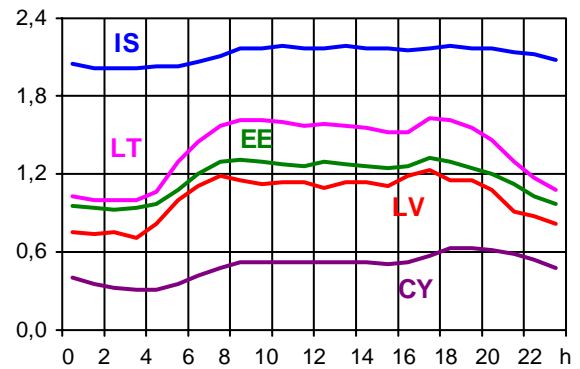
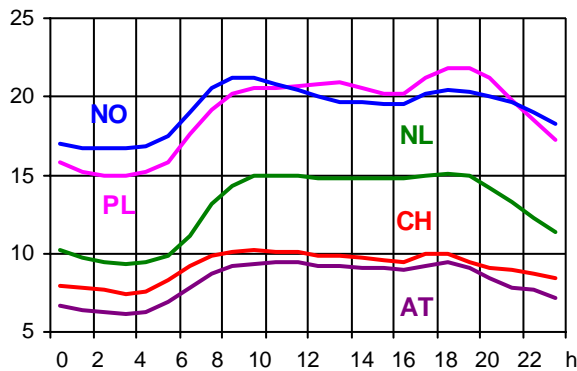
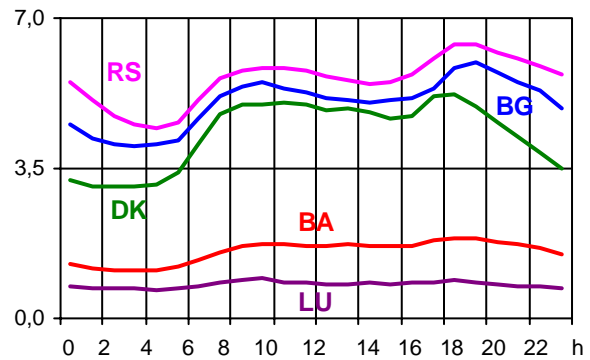
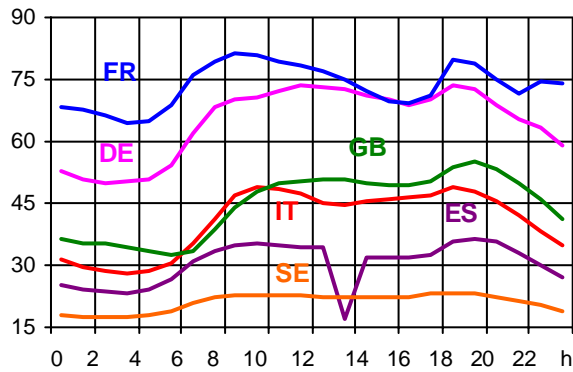
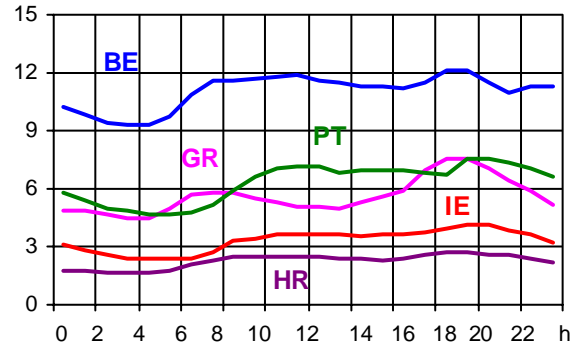
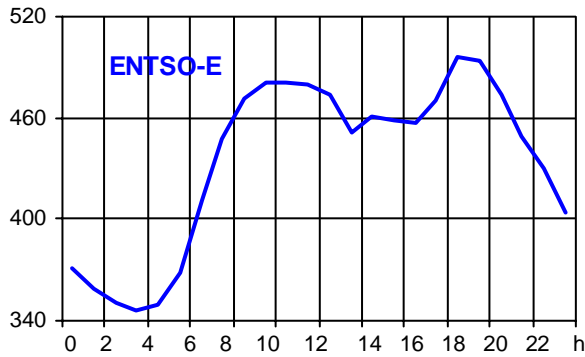
German TSOs are working on a modified system concerning gathering of data of voltage levels downstream the transmission grid. There may be remarkable deviations in future and current data might no longer be directly comparable with historical data. Also already available data for past periods may be changed retroactively and significantly in future.

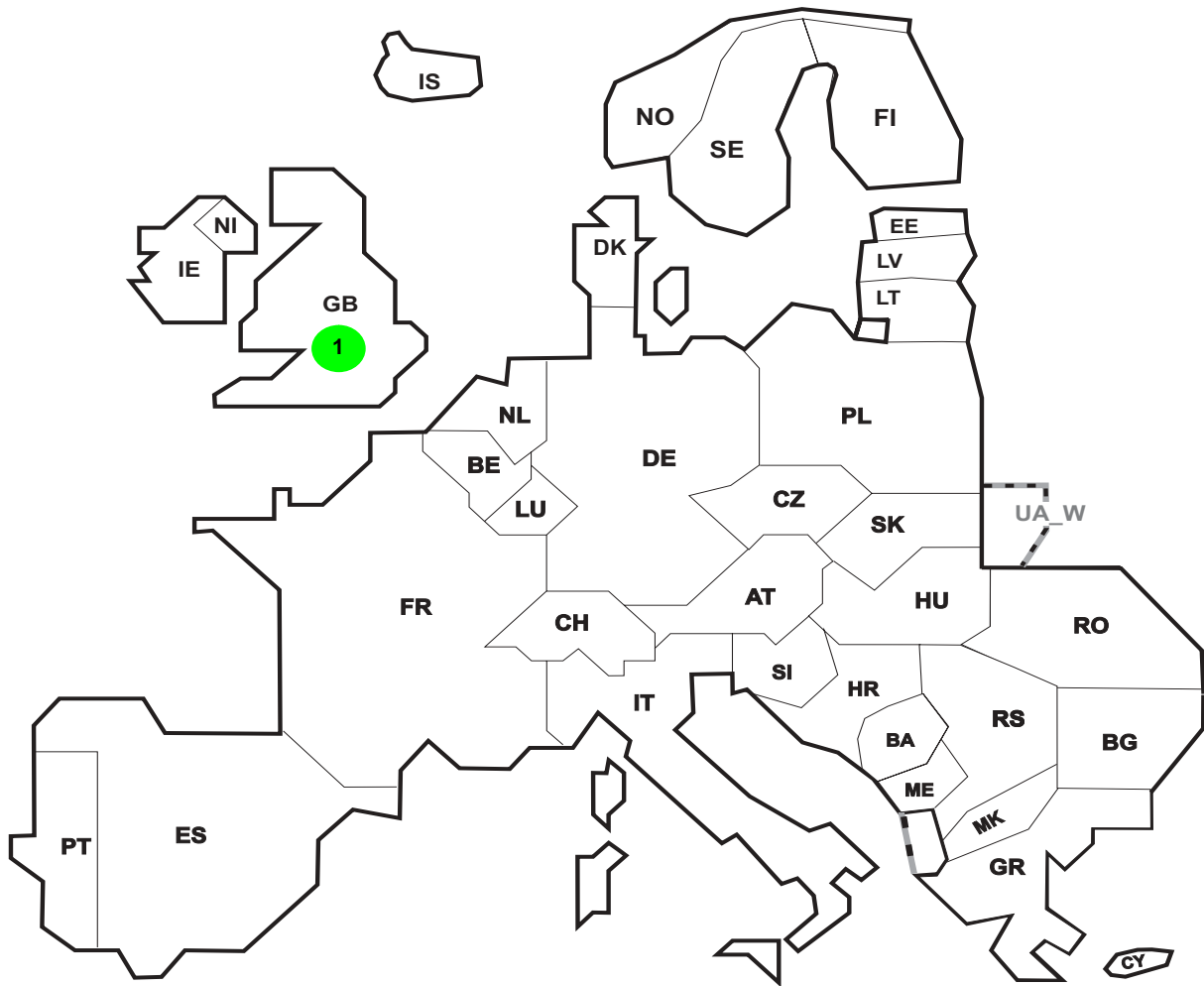
⁴ Monthly load values as of 15 February 2012

⁵ Operational data

Consumption hourly load curves on 20.02.2013 CET

Values in GW





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, ...)

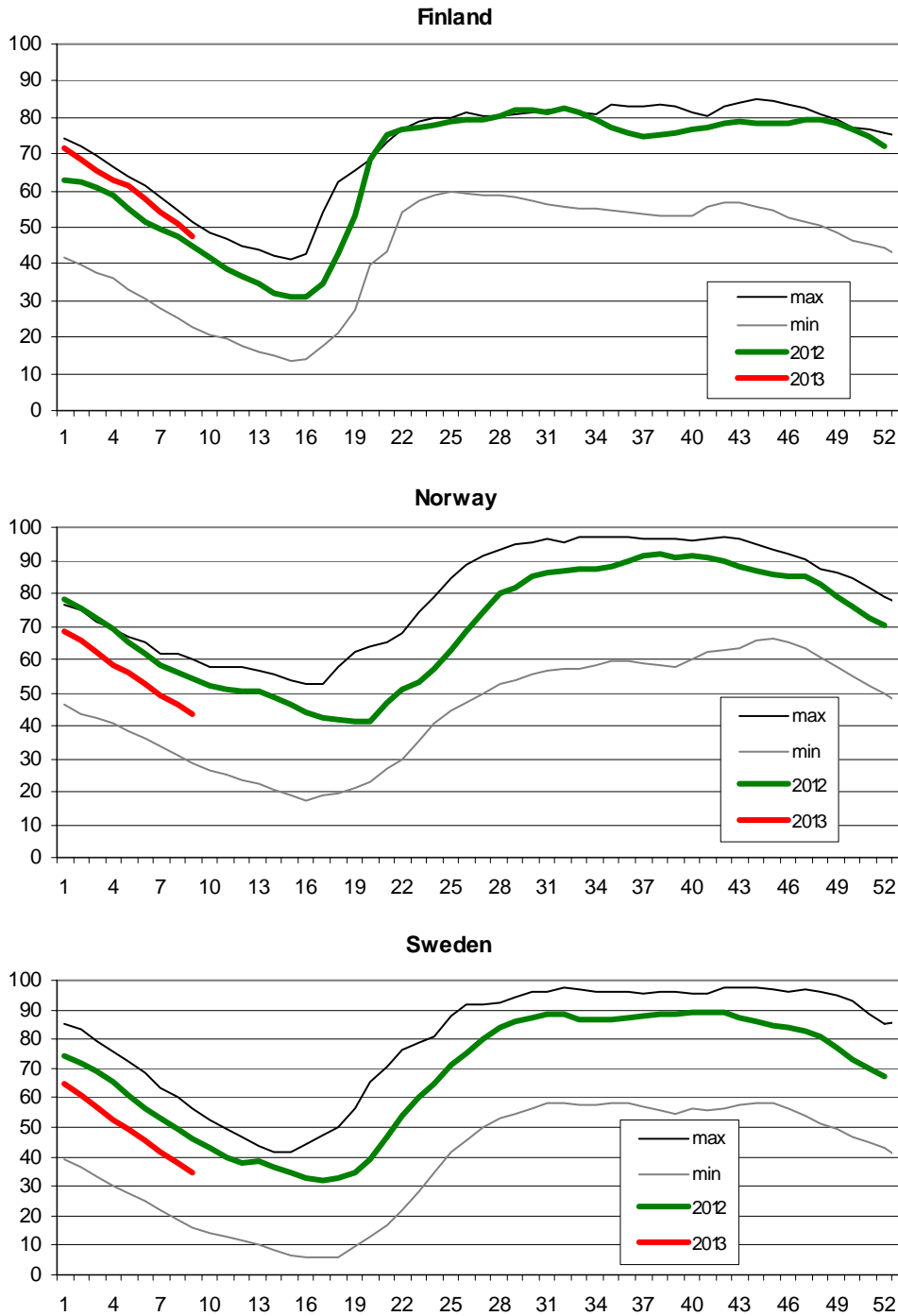
R9 Other reasons

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	Monk Fryston	R8	9	45	12	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



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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