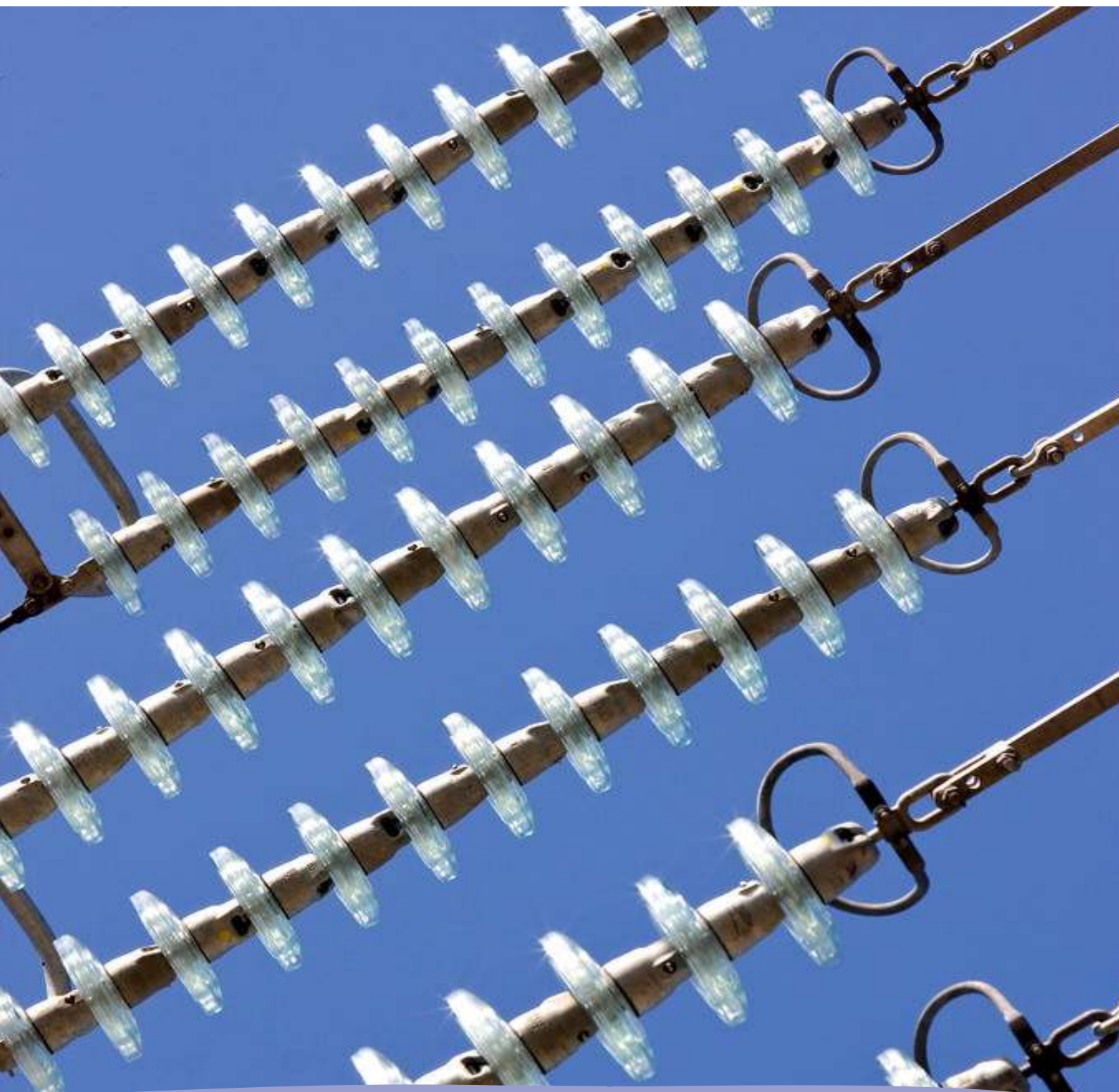


# Monthly statistics



## July 2013

Monthly provisional values as of 17 October 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	595	3908	341	n.a.	n.a.	n.a.	699	5543	246	275	5514	0,7
BA	0	821	344	0	0	0	0	0	1165	-198	0	967	-0,9
BE <sup>2</sup>	3984	1821	144	780	162	390	228	0	6729 <sup>1</sup>	22	169	6582	4,9
BG	1020	1309	394	254	90	161	n.a.	0	2977	-474	59	2443	-1,3
CH	1817	182	4422	133	9	0	0	0	6554 <sup>1</sup>	-1426	308	4820	1,0
CY	0	434	0	18	18	0	0	0	452	0	0	452	-16,3
CZ	2318	3239	262	348	23	326	109	0	6167 <sup>1</sup>	-1530	81	4556	-0,8
DE <sup>3</sup>	6164	23666	1673	6846	1661	4778	407	0	38349 <sup>1</sup>	-351	n.a.	37998	n.a.
DK	0	1058	1	709	542	0	167	0	1768 <sup>1</sup>	688	0	2456	3,3
EE	0	787	1	67	33	0	34	0	855	-301	0	554	4,3
ES	5138	11147	2873	5284	2953	1786	545	25	24467	-1060	257	23150	0,4
FI	1996	723	982	666	56	0	610	78	4445 <sup>1</sup>	1446	0	5891	0,7
FR	30693	1707	6412	2057	874	637	546	0	40869	-5546	546	34777	1,9
GB	5869	16097	374	1073	719	0	0	0	23413	1632	299	24746	-0,8
GR	0	3394	492	638	275	345	18	0	4524 <sup>1</sup>	298	0	4822	-14,1
HR	0	303	456	47	47	0	0	0	806	678	5	1479	-3,7
HU	1333	1161	0	0	0	0	0	0	2494	1083	0	3577	9,3
IE	0	1627	32	151	140	0	0	8	1818 <sup>1</sup>	254	50	2022	2,0
IS	0	0	1050	393	0	0	0	0	1443	0	0	1443	3,8
IT	0	16846	5605	4148	729	2957	0	0	26599	3480	142	29937	-3,3
LT	0	159	69	72	37	8	27	0	300 <sup>1</sup>	555	52	803	-2,8
LU	0	22	84	23	4	7	4	0	129	505	113	521	0,6
LV	0	162	124	50	7	0	18	0	336	208	0	544	-5,1
ME	0	139	97	0	0	0	0	0	236	-77	0	159	-53,9
MK	0	258	129	0	0	0	0	0	387	188	0	575	-9,9
NI	0	472	1	48	40	0	5	0	521	131	0	652	-0,3
NL	371	5379	0	801	194	n.a.	n.a.	0	6551	2422	0	8973	-2,0
NO <sup>4</sup>	0	190	10030	91	91	0	0	0	10311 <sup>1</sup>	-1816	583	7912	n.a.
PL <sup>5</sup>	0	10889	230	792	302	0	490	0	11911 <sup>1</sup>	-124	63	11724	3,5
PT	0	1879	661	736	479	48	208	0	3276 <sup>1</sup>	1092	104	4264	3,3
RO	913	1647	1432	346	260	62	24	0	4338	-138	14	4186	-8,4
RS	0	2751	811	0	0	0	0	0	3562	-656	87	2819	0,3
SE	5341	167	3592	1191	611	0	580	0	10291 <sup>1</sup>	-1552	0	8739	-2,9
SI	503	447	328	0	0	0	0	0	1278	-240	0	1038	-1,1
SK	1184	257	402	147	0	90	0	74	2064 <sup>1</sup>	46	31	2079	-0,6
<b>ENTSO-E</b>	<b>68644</b>	<b>111735</b>	<b>47415</b>	<b>28250</b>	<b>10356</b>	<b>11595</b>	<b>4020</b>	<b>884</b>	<b>256928<sup>1</sup></b>	<b>-515</b>	<b>3238</b>	<b>253174</b>	<b>n.a.</b>

<sup>1</sup> Including deliveries from industry

<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.

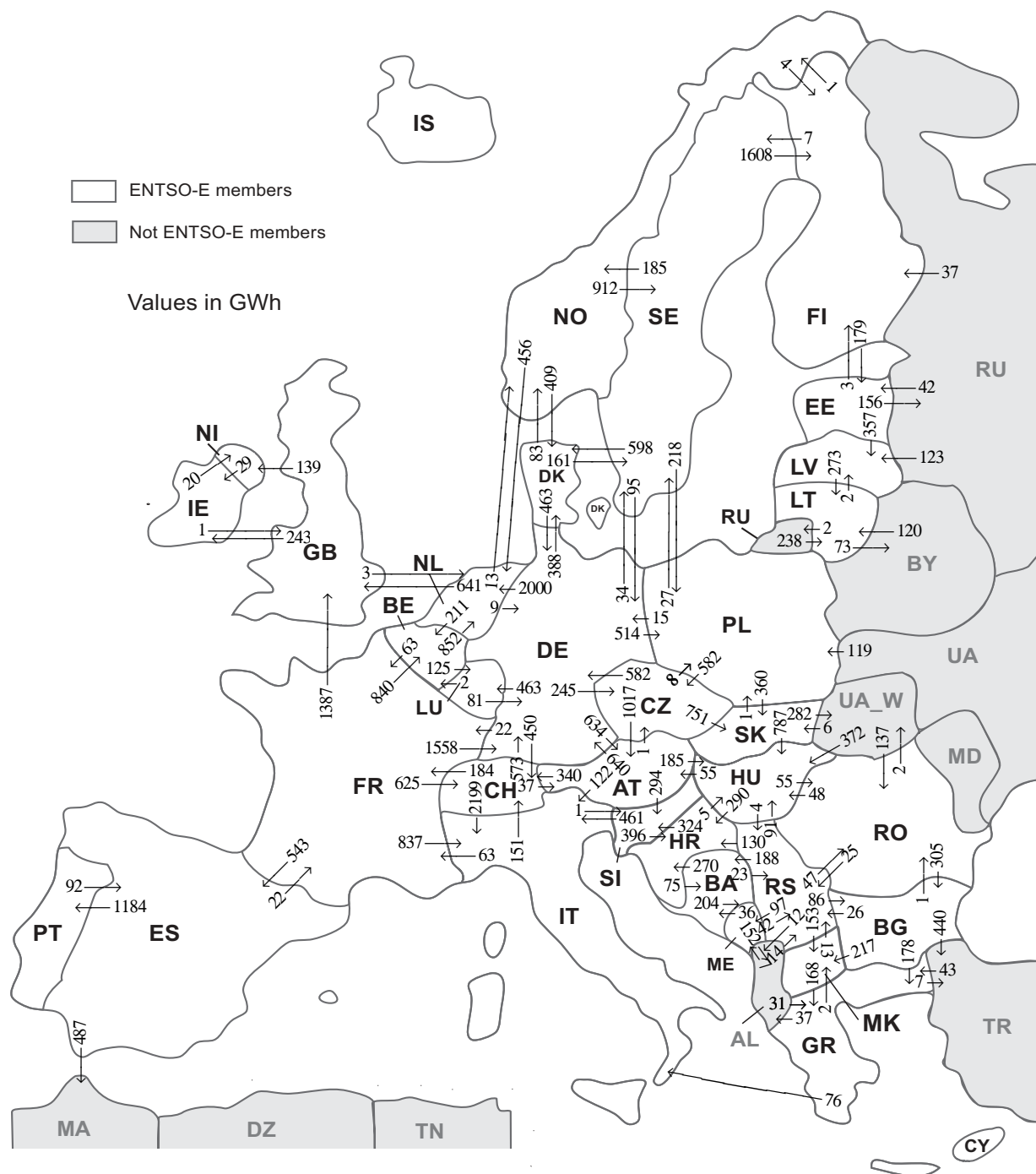
<sup>3</sup> Wind and PV from TSO data, rest from official statistics.

<sup>4</sup> National monthly values as of July 2012

<sup>5</sup> 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: **33295GWh<sup>1</sup>**

Total physical energy flows: **36234GWh<sup>1</sup>**

<sup>1</sup> 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 ( $\leq 110$  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.

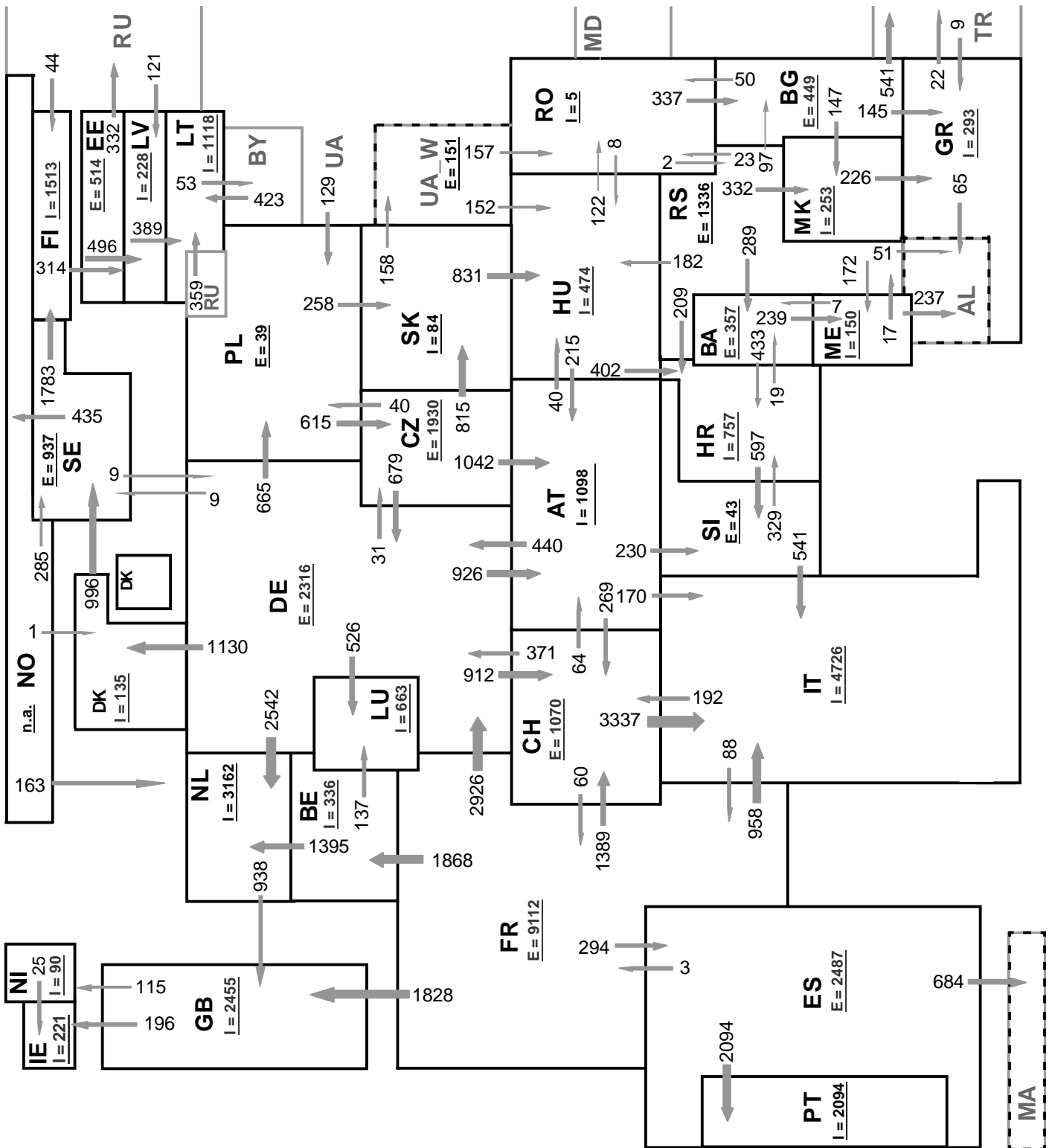
Outside flows countries	Inside flows of the countries																																		
	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME	MK	NI	NL	NO	PL	PT	RO	RS	SE	SI	SK	Other III <sup>1</sup>	
AT	-	-	-	-	340	1	640	-	-	-	-	-	-	-	-	185	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	294	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	270	-	-	-	-	-	-	-	204	-	-	-	-	-	-	-	-	23	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	125	-	-	-	-	852	-	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	178	-	-	-	-	-	-	-	-	217	-	-	-	-	-	-	1	26	-	-	-	440	
CH	37	-	-	-	-	-	573	-	-	-	-	184	-	-	-	-	-	2199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	1017	-	-	-	-	-	582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	751	-	
DE	634	-	-	-	450	245	-	388	-	-	-	22	-	-	-	-	-	-	463	-	-	-	-	-	2000	-	514	-	-	-	34	-	-	-	
DK	-	-	-	-	-	-	463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-	-	161	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	357	-	-	-	-	-	-	-	-	-	-	-	-	156	
ES	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1184	-	-	-	-	-	487	
FI	-	-	-	-	-	-	-	179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	7	-	-	-	0	
FR	-	-	840	-	625	-	1558	-	543	-	-	1387	-	-	-	-	-	837	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	76	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	44	
HR	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	0	-	324	-	-	-	
HU	55	-	-	-	-	-	-	-	-	-	-	-	-	290	-	-	-	-	-	-	-	-	-	-	-	-	-	55	4	-	-	0	0	-	
IE	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
IT	0	-	-	-	151	-	-	-	-	-	63	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75
LU	-	-	2	-	-	-	81	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
LV	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
ME	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	152	
MK	-	-	-	0	-	-	-	-	-	-	-	-	168	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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PL	-	-	-	-	582	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	360	0	
PT	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	305	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	2
RS	-	188	-	86	-	-	-	-	-	-	-	-	130	91	-	-	-	-	-	-	-	97	153	-	-	-	-	-	-	-	47	-	-	12	
SE	-	-	-	-	-	-	95	598	-	1608	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	218	-	-	-	-	-	-	-	-	-
SI	0	-	-	-	-	-	-	-	-	-	-	-	396	-	-	-	461	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	0	-	-	-	-	-	-	-	-	-	787	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	282
Other III <sup>1</sup>	-	-	-	0	-	-	-	-	42	0	37	-	74	-	372	-	-	358	-	123	7	-	-	-	n.a.	119	-	137	14	-	-	-	6	-	

Other III<sup>1</sup>: 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	1743	1582
BA	299	497
BE	1053	1040
BG	391	862
CH	1566	2993
CZ	828	2358
DE	4016	4750
DK	1395	707
EE	221	516
ES	635	1693
FI	1652	187
FR	354	5790
GB	2029	385
GR	420	122
HR	1086	404
HU	1488	404
IE	272	21

	flows inside	flows outside
IT	3695	215
LT	631	77
LU	588	83
LV	482	273
ME	308	230
MK	372	181
NI	159	29
NL	3311	874
NO	n.a.	n.a.
PL	860	984
PT	1184	92
RO	240	380
RS	147	804
SE	1141	2704
SI	619	857
SK	1117	1070
ENTSO-E	n.a.	n.a.

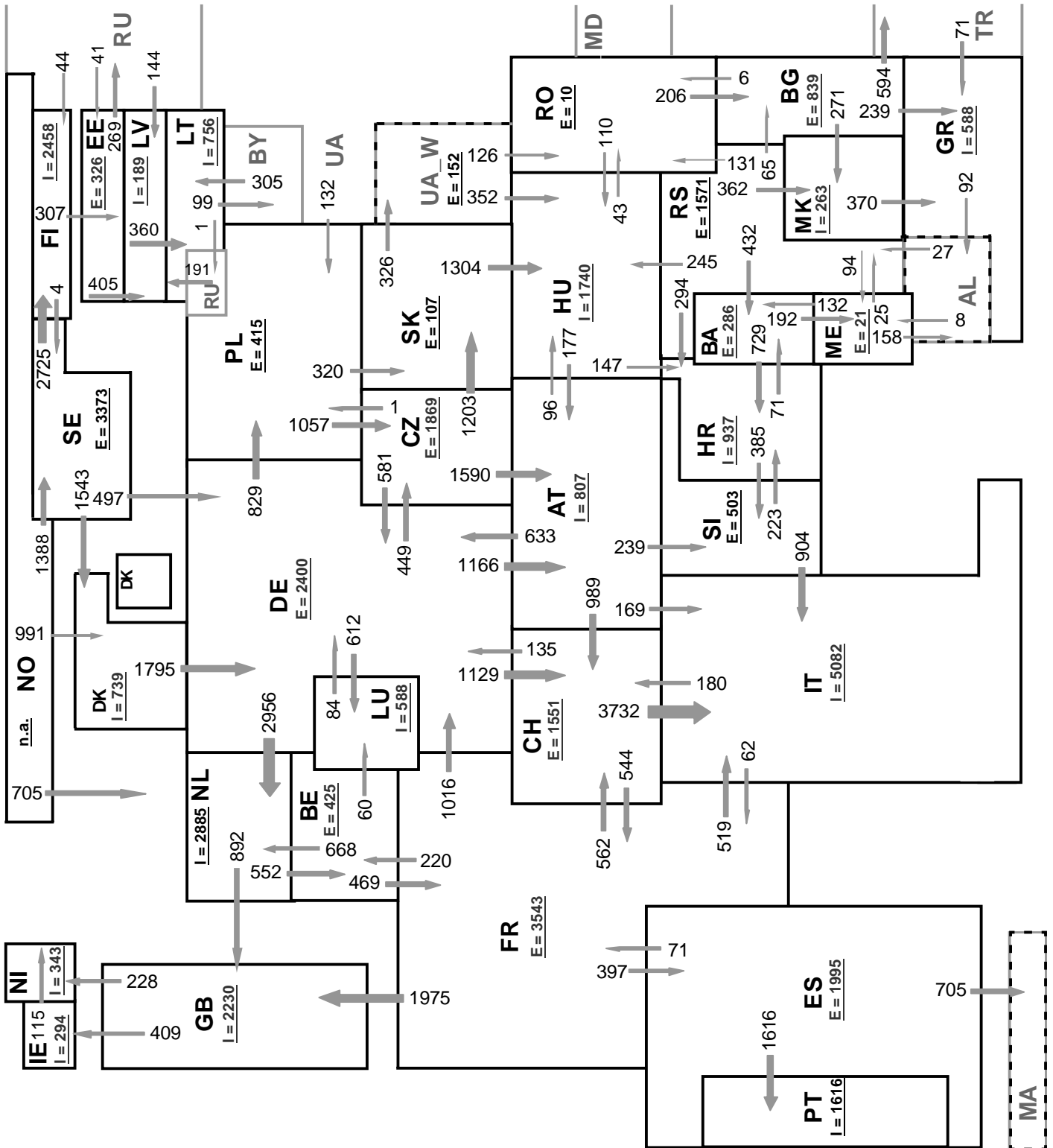


Sum of load flows in MW      **ENTSO-E = 40459 MW**  
 ( Calculated sum without data between NO - RU )

**Total = 43996 MW**

Synchronous operation with ENTSO-E region

**I** = Import balance  
**E** = Export balance



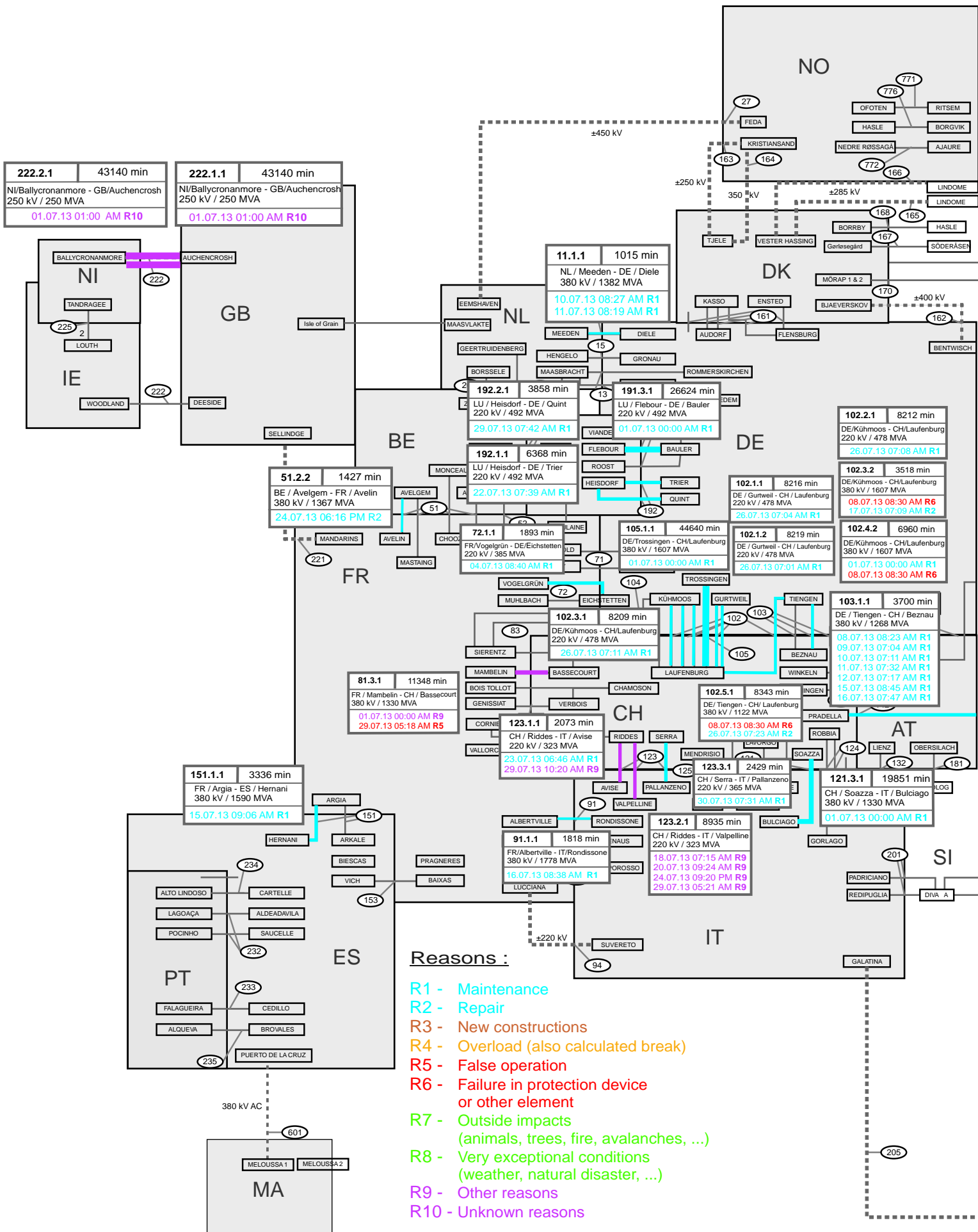
Sum of load flows in MW      ENTSO-E = 46402 MW  
 ( Calculated sum without data between NO - RU )

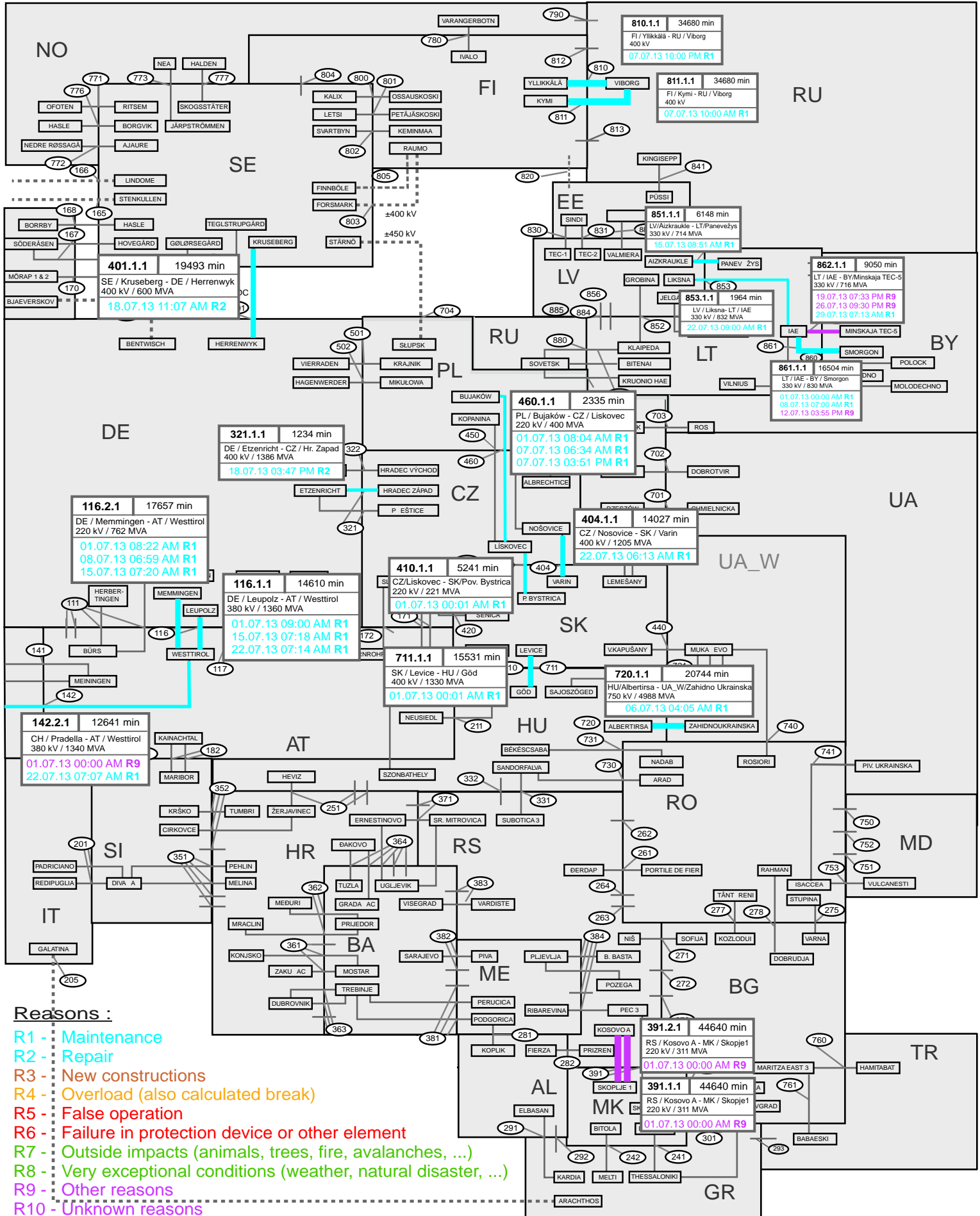
Total = 50087 MW

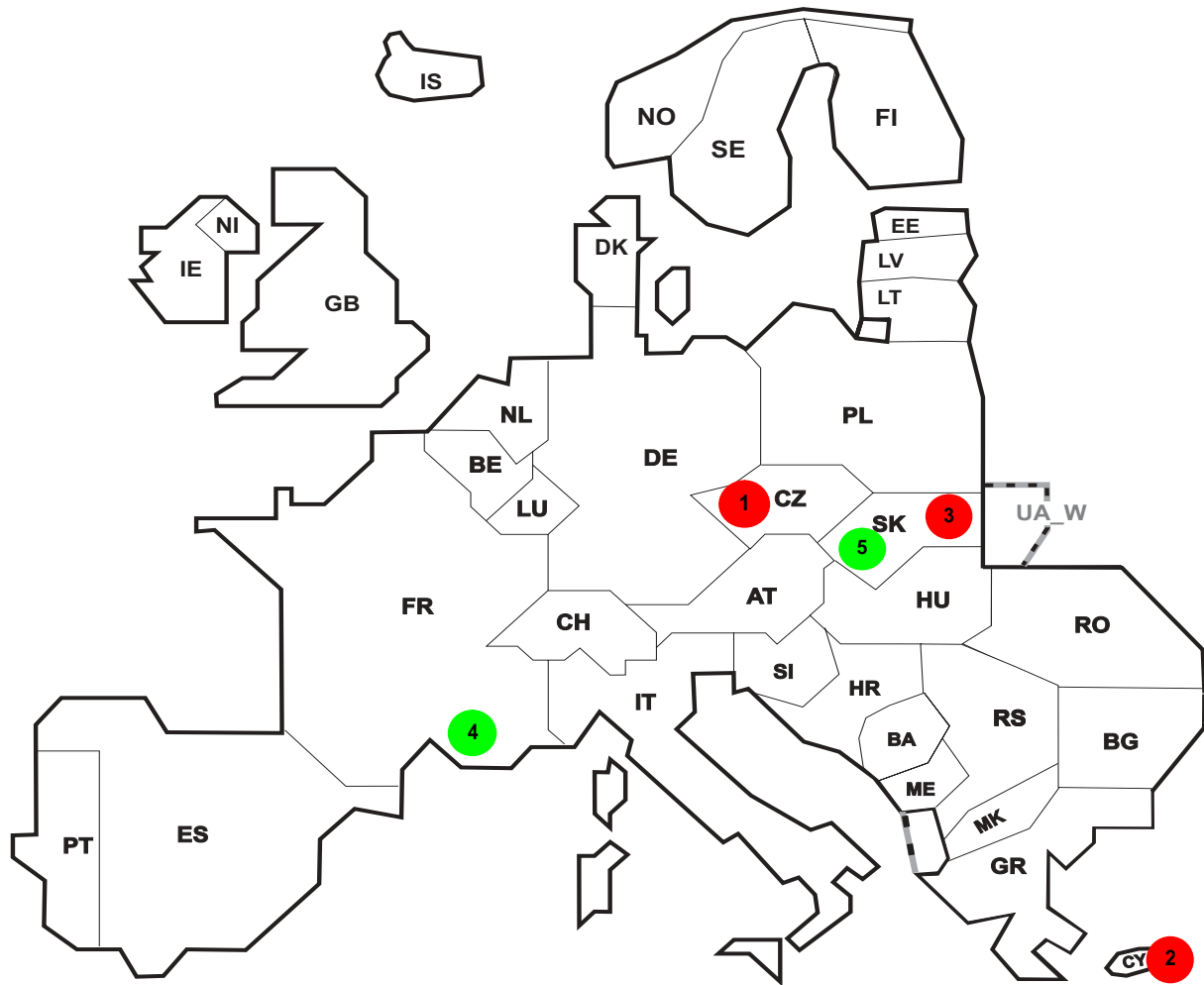
Synchronous operation with ENTSO-E region

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	CZ	Bezdecin	R6	20	150	8	0,168
2	CY	VPS TG3	R5	1	96	5	0,122
3	SK	Spišská Nová Ves	R5	5	73	4	0,098
4	FR	Rognac	R8	39	27	87	0,041
5	SK	Horná Ždaňa	R7	2	29	4	0,039

Information about incidents in other countries are not shown with energy not supply equal zero or unavailable in the database.

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

## Highest and lowest load on the 17.07.2013 CET of each country

	Highest		Lowest		Load representativity %
	load MW	variation % <sup>1</sup>	load MW	variation % <sup>1</sup>	
AT	9165	1,3	5887	0,9	100
BA	1595	2,3	979	-0,9	100
BE <sup>2</sup>	10572	7,4	7513	3,5	100
BG	4132	-9,3	2907	-11,3	99
CH	8093	0,0	5116	0,0	100
CY	744	-24,3	464	-23,1	100
CZ	7243	-2,8	4943	-7,4	100
DE	71003	-3,2	43943	2,9	91
DK	3926	0,7	2539	5,3	100
EE	898	1,0	549	2,0	100
ES	36370	-2,6	23707	-2,9	100
FI	8827	2,2	6846	2,0	100
FR	57146	1,5	38884	0,3	100
GB	41288	1,0	25017	6,2	100
GR	6878	-15,3	4990	-19,3	100
HR	2328	-1,8	1533	-8,0	100
HU	5234	5,5	3465	3,7	100
IE	3447	1,8	1965	10,7	100
IS	2052	4,6	1896	4,8	100
IT	51468	0,7	30988	-4,6	100
LT	1331	-2,5	822	-1,6	100
LU	762	-16,4	485	-20,5	100
LV	909	1,0	505	9,8	100
ME	470	-11,3	272	-19,3	100
MK	945	-6,7	621	-1,0	100
NI	1110	-5,4	604	-2,7	100
NL	13634	-5,2	8821	-2,4	100
NO <sup>3</sup>	11837	n.a.	9545	n.a.	100
PL <sup>4</sup>	18889	4,3	12961	5,3	100
PT	6928	-6,1	4547	-5,4	100
RO	6130	-10,8	4613	-9,7	100
RS	4638	5,9	2709	2,8	100
SE	13220	-1,8	9595	-2,3	100
SI	1627	1,7	1293	1,7	100
SK	3374	2,0	2527	-0,3	100
<b>ENTSO-E</b>	<b>413145</b>	<b>n.a.</b>	<b>276178</b>	<b>n.a.</b>	

<sup>1</sup> Variation as compared to corresponding month of the previous year

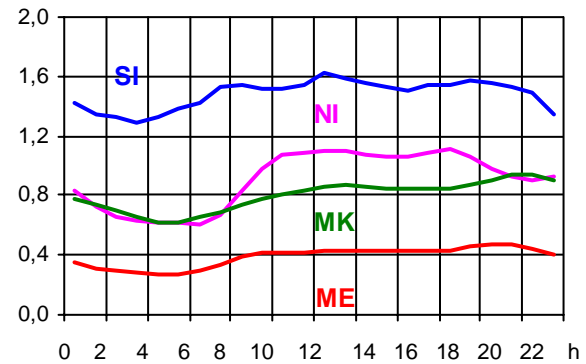
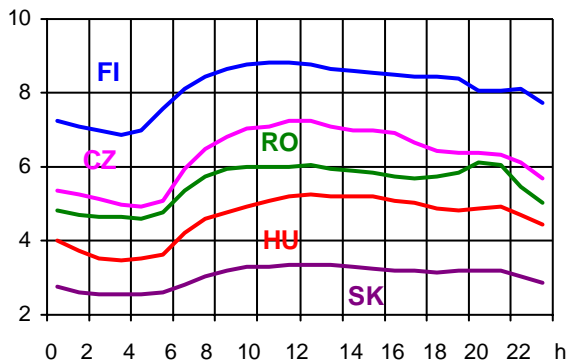
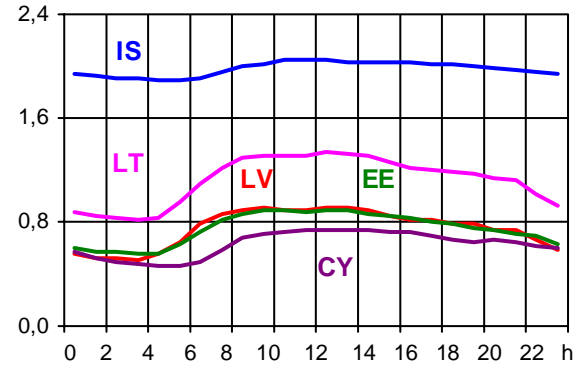
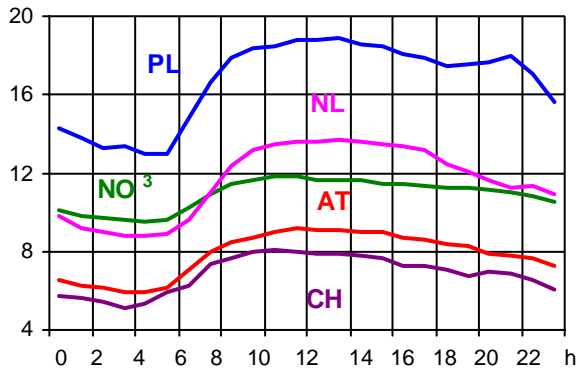
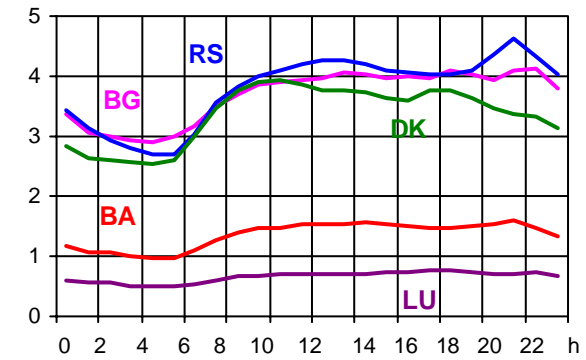
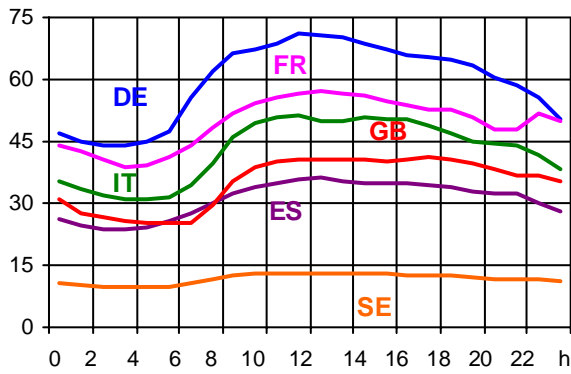
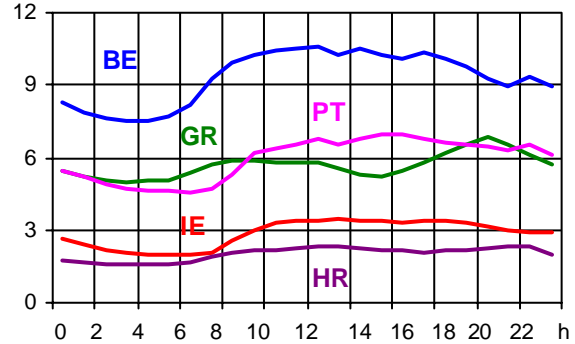
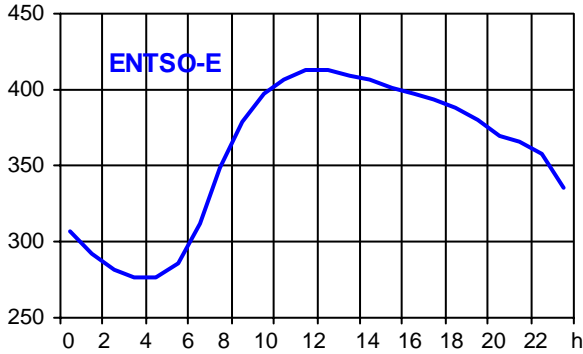
<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.

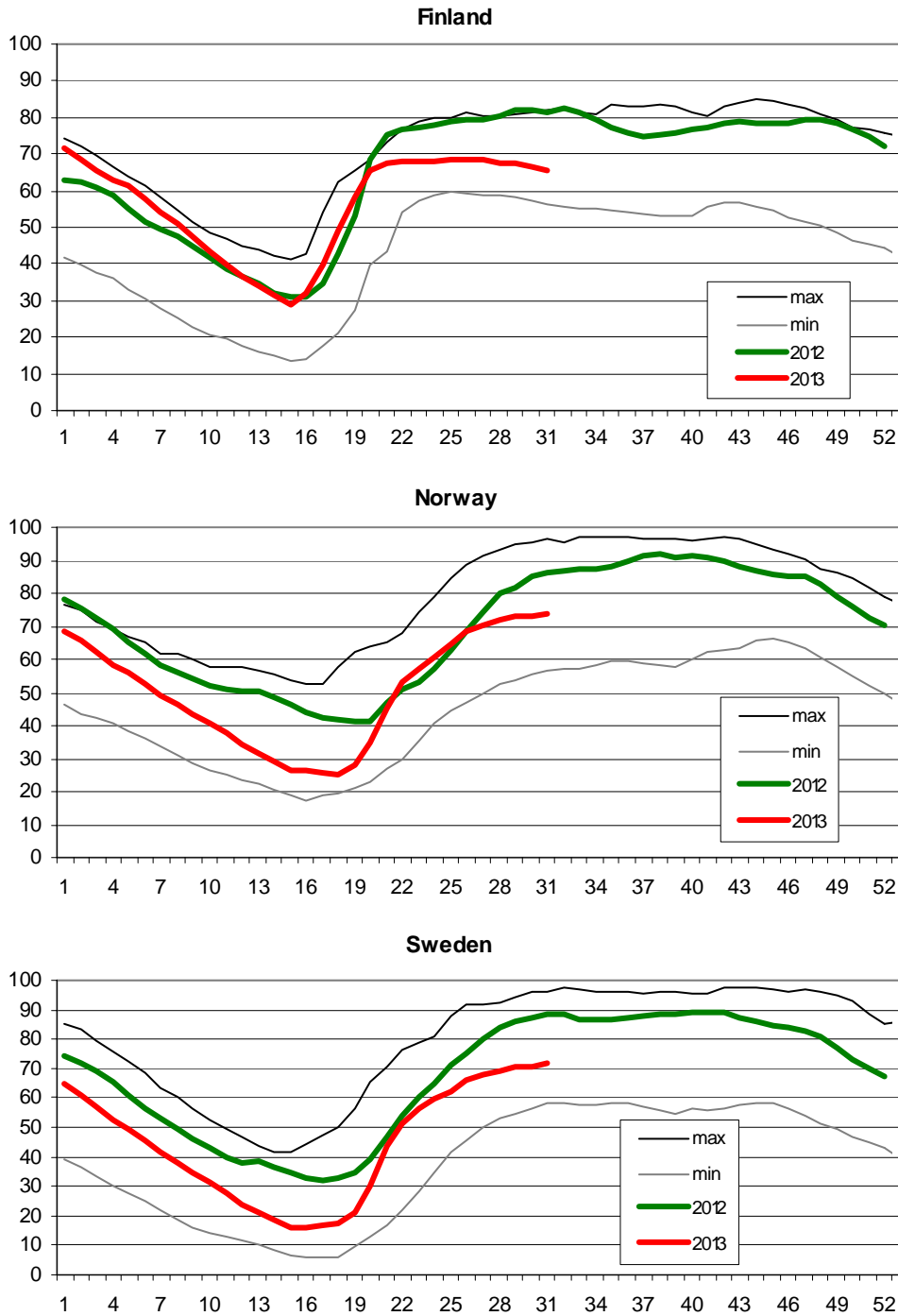
<sup>3</sup> Highest and lowest load values as of 18 July 2012

<sup>4</sup> Operational data

Consumption hourly load curves on 17.07.2013 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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