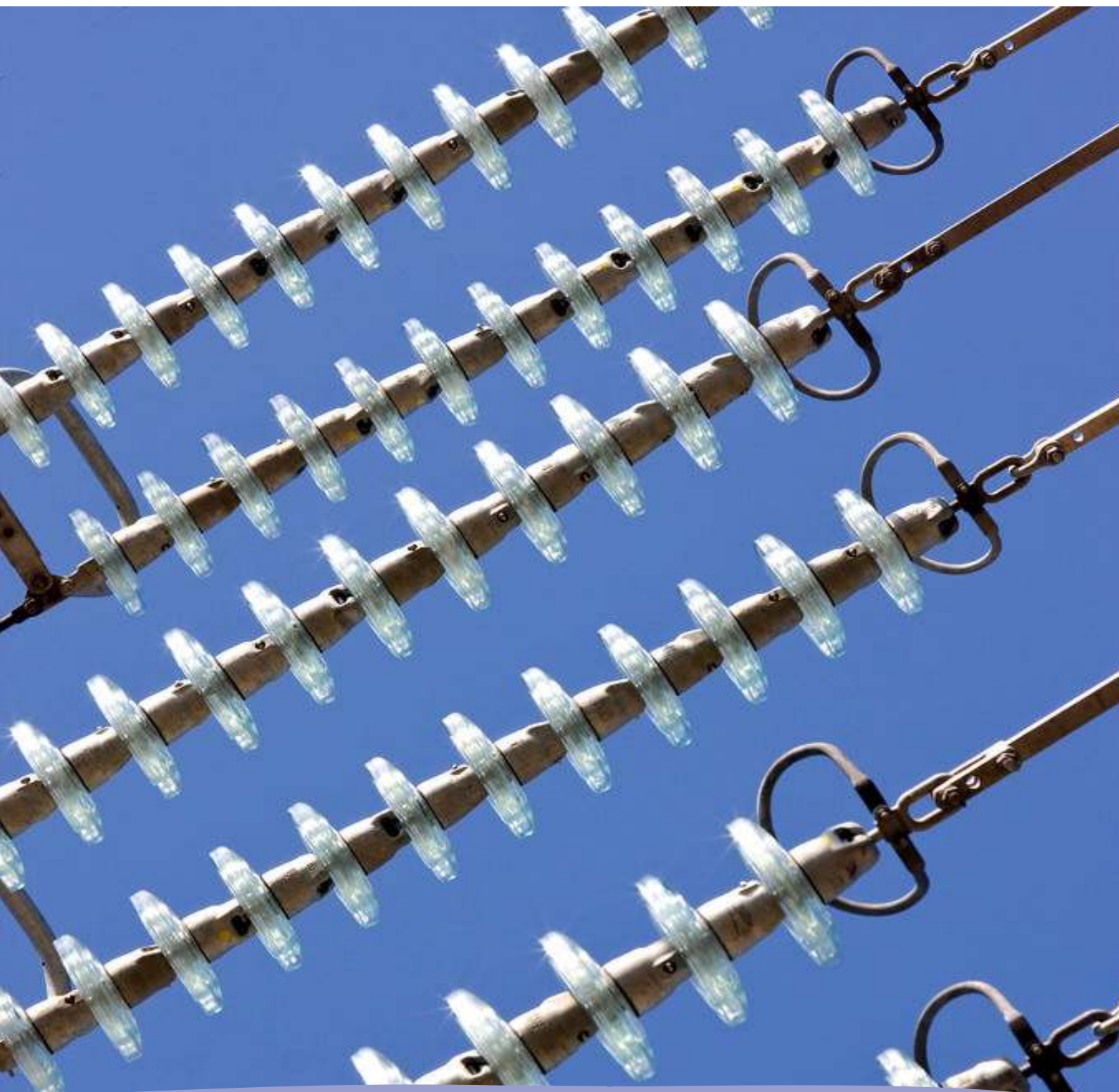


# Monthly statistics



## January 2013

Monthly provisional values as of 18 May 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	2444	3286	0	0	0	0	774	6504	628	604	6528	2,8
BA	0	756	715	0	0	0	0	0	1471	-360	0	1111	-4,3
BE <sup>2</sup>	2913	2901	163	632	311	33	288	0	6609 <sup>1</sup>	1584	156	8037	1,6
BG	1430	2083	387	180	141	39	0	0	4080	-572	130	3378	-4,9
CH	2421	197	3113	145	9	0	0	0	5876 <sup>1</sup>	497	101	6272	0,6
CY	0	332	0	21	21	0	0	0	353	0	0	353	-20,9
CZ	2833	4336	390	77	44	34	0	0	7636 <sup>1</sup>	-1412	107	6117	1,5
DE <sup>3</sup>	8922	33754	1856	8469	5030	347	2900	0	53001 <sup>1</sup>	-3689	701	48611	-1,8
DK	0	2353	2	1186	959	0	227	0	3541 <sup>1</sup>	-205	0	3336	2,2
EE	0	1068	2	98	52	0	46	0	1168	-308	0	860	4,9
ES	4588	9548	3333	7374	6357	557	460	29	24872	-364	698	23810	-1,9
FI	2055	2517	1334	1123	45	0	1078	75	7104 <sup>1</sup>	1584	0	8688	1,9
FR	42406	6480	6937	2079	1314	219	546	0	57902	-3547	599	53756	5,2
GB	6448	22227	665	2974	1606	0	0	0	32314	831	322	32823	3,3
GR	0	3361	663	467	347	103	18	0	4491 <sup>1</sup>	187	7	4671	-2,2
HR	0	426	814	33	33	0	0	0	1273	299	15	1557	-3,3
HU	1521	1689	0	0	0	0	0	0	3210	646	0	3856	7,4
IE	0	1708	145	457	447	0	0	14	2324 <sup>1</sup>	138	52	2410	1,1
IS	0	0	1099	434	0	0	0	0	1533	0	0	1533	2,9
IT	0	17288	3299	2970	1767	761	n.a.	0	23557	4119	145	27531	-1,2
LT	0	272	103	75	51	0	24	0	450 <sup>1</sup>	670	81	1039	7,6
LU	0	166	95	16	5	0	4	0	277	418	117	578	1,9
LV	0	336	302	41	10	0	11	0	679	94	0	773	6,8
ME <sup>4</sup>	0	126	326	0	0	0	n.a.	0	452	-44	0	408	n.a.
MK	0	546	55	0	0	0	0	0	601	242	0	843	-8,9
NI	0	537	1	128	122	0	1	0	666	182	0	848	1,8
NL	354	4940	0	1135	528	n.a.	n.a.	0	6429	1164	0	7593	-30,7
NO	0	311	14150	147	147	0	0	0	14608 <sup>1</sup>	-240	58	14310	6,3
PL <sup>5</sup>	0	12699	218	1162	498	0	664	0	14079 <sup>1</sup>	-536	67	13476	1,9
PT	0	1735	1518	1431	1184	20	227	0	4684 <sup>1</sup>	-45	163	4476	-3,5
RO	960	2604	978	467	448	2	17	0	5009	-10	5	4994	0,2
RS	0	3151	1011	0	0	0	0	0	4162	10	49	4123	-3,1
SE	6319	806	7263	1903	726	0	1177	0	16291 <sup>1</sup>	-1104	0	15187	4,2
SI	519	424	270	0	0	0	0	0	1213	-50	0	1163	2,1
SK	1340	635	427	60	0	11	0	118	2580 <sup>1</sup>	-46	47	2487	0,5
<b>ENTSO-E</b>	<b>85029</b>	<b>144756</b>	<b>54920</b>	<b>35284</b>	<b>22202</b>	<b>2126</b>	<b>7688</b>	<b>1010</b>	<b>320999<sup>1</sup></b>	<b>761</b>	<b>4224</b>	<b>317536</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.

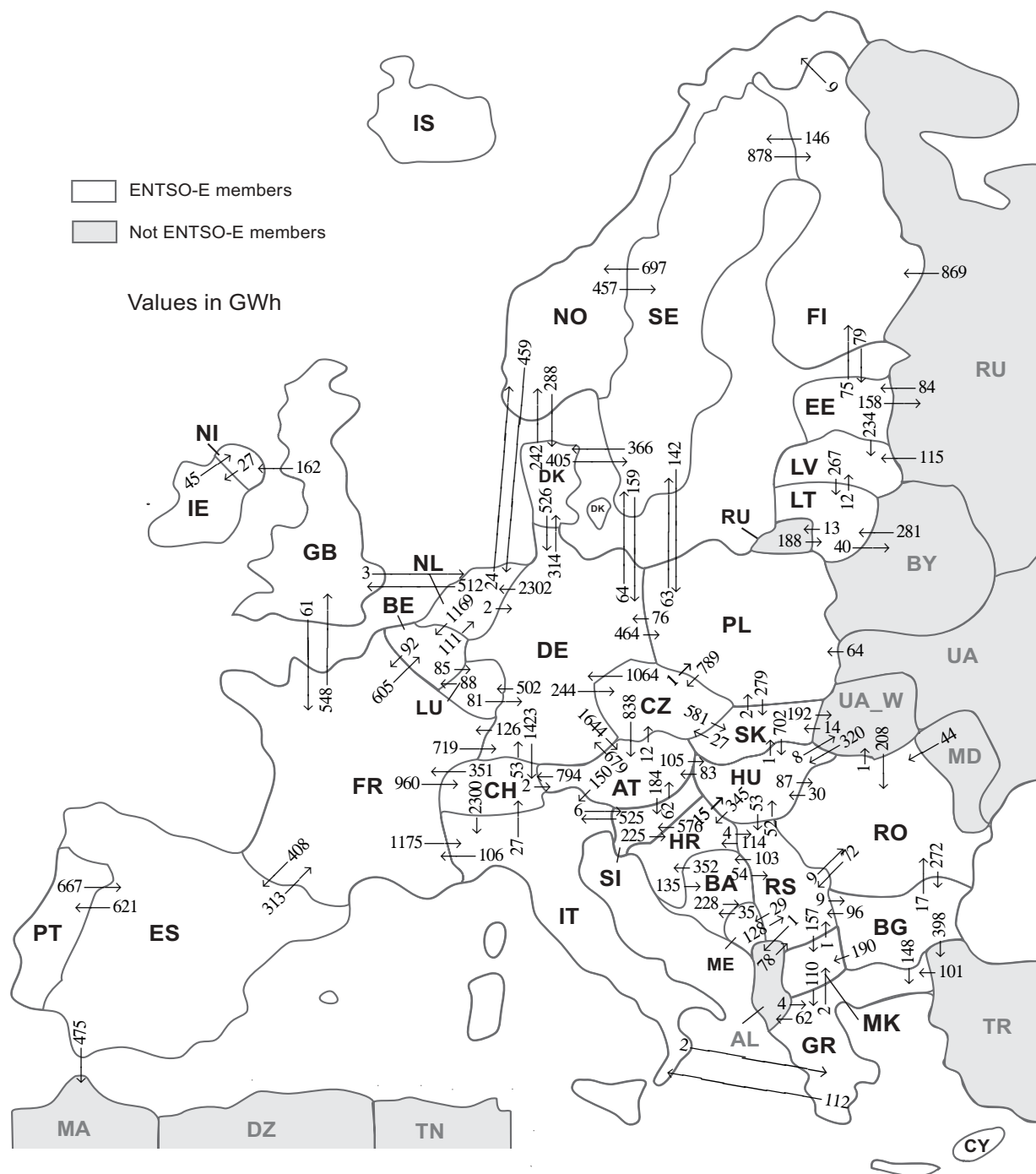
<sup>3</sup> The reported figures are best estimates based on actual inquiries, measurements and extrapolations.

<sup>4</sup> National monthly values as of January 2011

<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	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: **34625GWh<sup>1</sup>**

Total physical energy flows: **38344GWh<sup>1</sup>**

<sup>1</sup> Sum of physical energy flows without exchanges between GB-IE, 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 ( $\leq 110$  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.

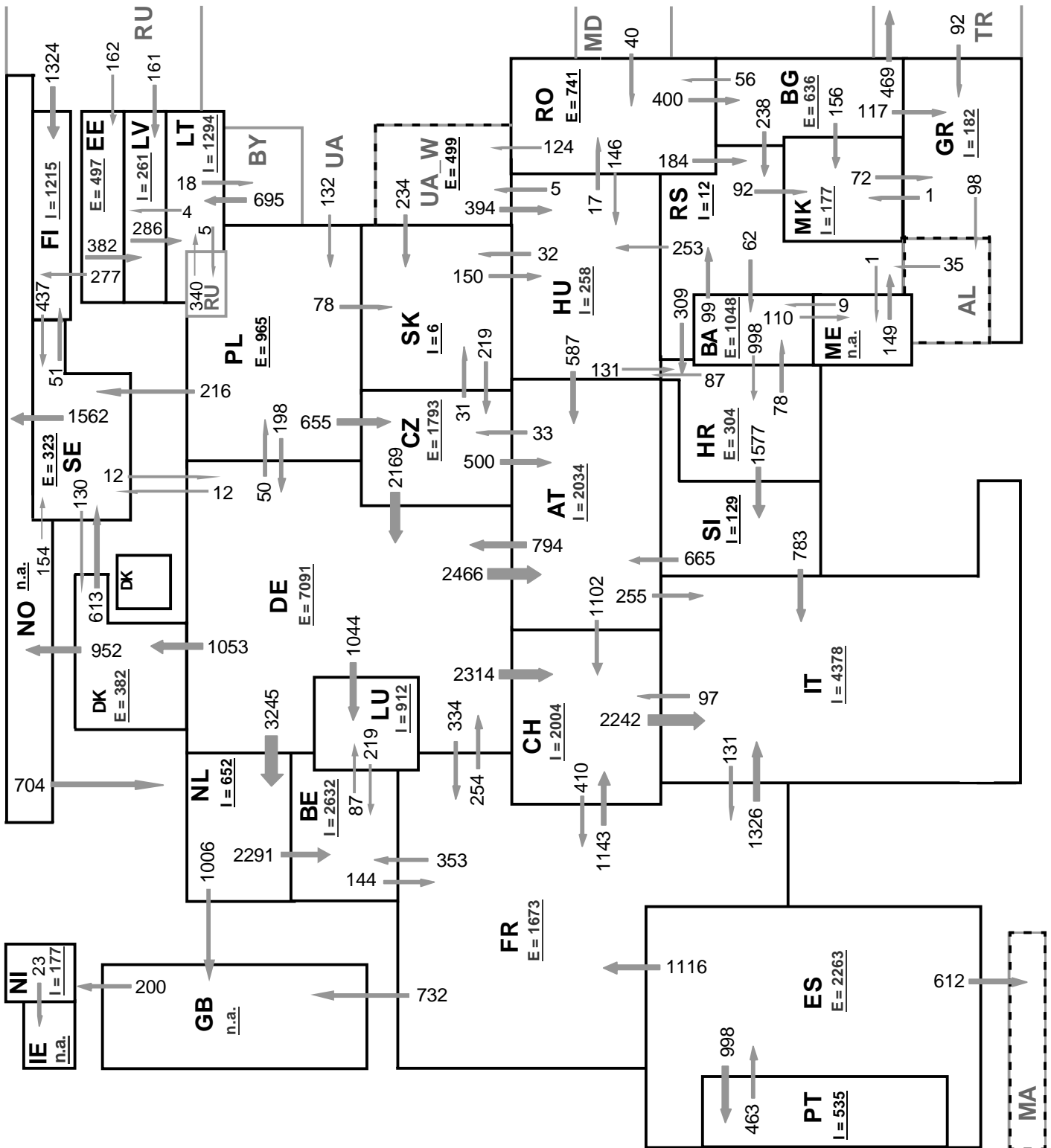
Outside flows countries	Inside flows of the countries																											Other III <sup>1</sup>						
	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME	MK	NI	NL	NO	PL		PT	RO	RS	SE	SI	SK
AT	-	-	-	-	794	12	679	-	-	-	-	-	-	-	105	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	352	-	-	-	-	-	-	228	-	-	-	-	-	-	-	-	54	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	85	-	-	-	-	-	111	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	148	-	-	-	-	-	-	-	-	190	-	-	-	-	-	17	96	-	-	-	-	398
CH	2	-	-	-	-	53	-	-	-	-	351	-	-	-	-	-	2300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	838	-	-	-	-	-	1064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	581	-	
DE	1644	-	-	-	1423	244	-	314	-	-	126	-	-	-	-	-	-	-	502	-	-	-	-	-	2302	-	464	-	-	64	-	-	-	
DK	-	-	-	-	-	526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	242	-	-	-	405	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	234	-	-	-	-	-	-	-	-	-	-	-	158	
ES	-	-	-	-	-	-	-	-	-	-	313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	621	-	-	-	-	-	475	
FI	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	146	-	-	-	0	
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GB	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	n.a.	-	-	-	-	-	-	-	162	3	-	-	-	-	-	-	-	-	
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	62	
HR	-	135	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	4	-	576	-	-	-	
HU	83	-	-	-	-	-	-	-	-	-	-	-	-	345	-	-	-	-	-	-	-	-	-	-	-	-	-	87	53	-	1	8	-	
IE	-	-	-	-	-	-	-	-	-	-	n.a.	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-
IT	0	-	-	-	27	-	-	-	-	-	106	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
LU	-	-	88	-	-	81	-	-	-	0	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-
LV	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
ME	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.	
MK	-	-	-	0	-	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	-	-	-	-	-	-	-	-	0	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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PL	-	-	-	-	789	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	279	0
PT	-	-	-	-	-	-	-	667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	272	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
RS	-	103	-	9	-	-	-	-	-	-	-	-	114	52	-	-	-	-	-	-	29	157	-	-	-	-	-	9	-	-	-	-	-	1
SE	-	-	-	-	-	159	366	-	-	878	-	-	-	-	-	-	-	-	-	-	-	-	-	-	697	142	-	-	-	-	-	-	-	-
SI	62	-	-	-	-	-	-	-	-	-	-	-	225	-	-	-	525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	27	-	-	-	-	-	-	-	-	702	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	192
Other III <sup>1</sup>	-	-	-	0	-	-	-	84	0	869	-	-	105	320	-	-	-	469	-	115	n.a.	-	-	-	n.a.	64	-	252	78	-	-	-	14	-

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	2629	1924
BA	273	634
BE	1862	288
BG	281	849
CH	3204	2706
CZ	1072	2484
DE	3359	7083
DK	968	1173
EE	163	467
ES	1075	1409
FI	1822	234
FR	1049	4415
GB	n.a.	n.a.
GR	365	176
HR	1036	730
HU	1224	577
IE	n.a.	n.a.

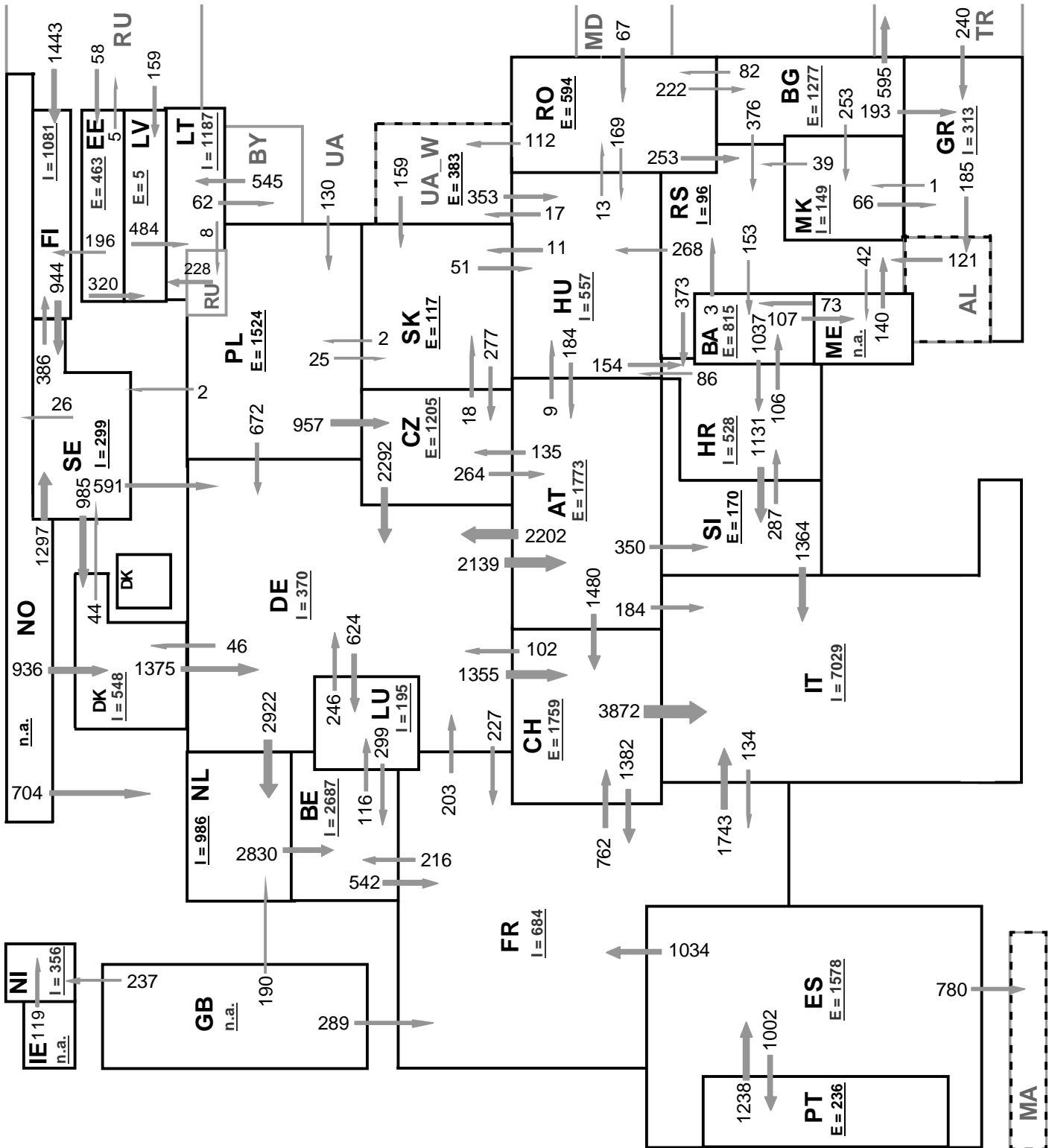
	flows inside	flows outside
IT	4262	141
LT	736	65
LU	587	169
LV	361	267
ME	n.a.	n.a.
MK	349	111
NI	207	27
NL	2875	1707
NO	n.a.	n.a.
PL	672	1207
PT	621	667
RO	365	376
RS	486	474
SE	1135	2242
SI	766	812
SK	875	922
ENTSO-E	n.a.	n.a.



Sum of load flows in MW      ENTSO-E = 43136 MW      Total = 48076 MW  
 ( Calculated sum without data between GB-IE, ME-AL and NO- RU )

Synchronous operation with ENTSO-E region

I = Import balance  
 E = Export balance

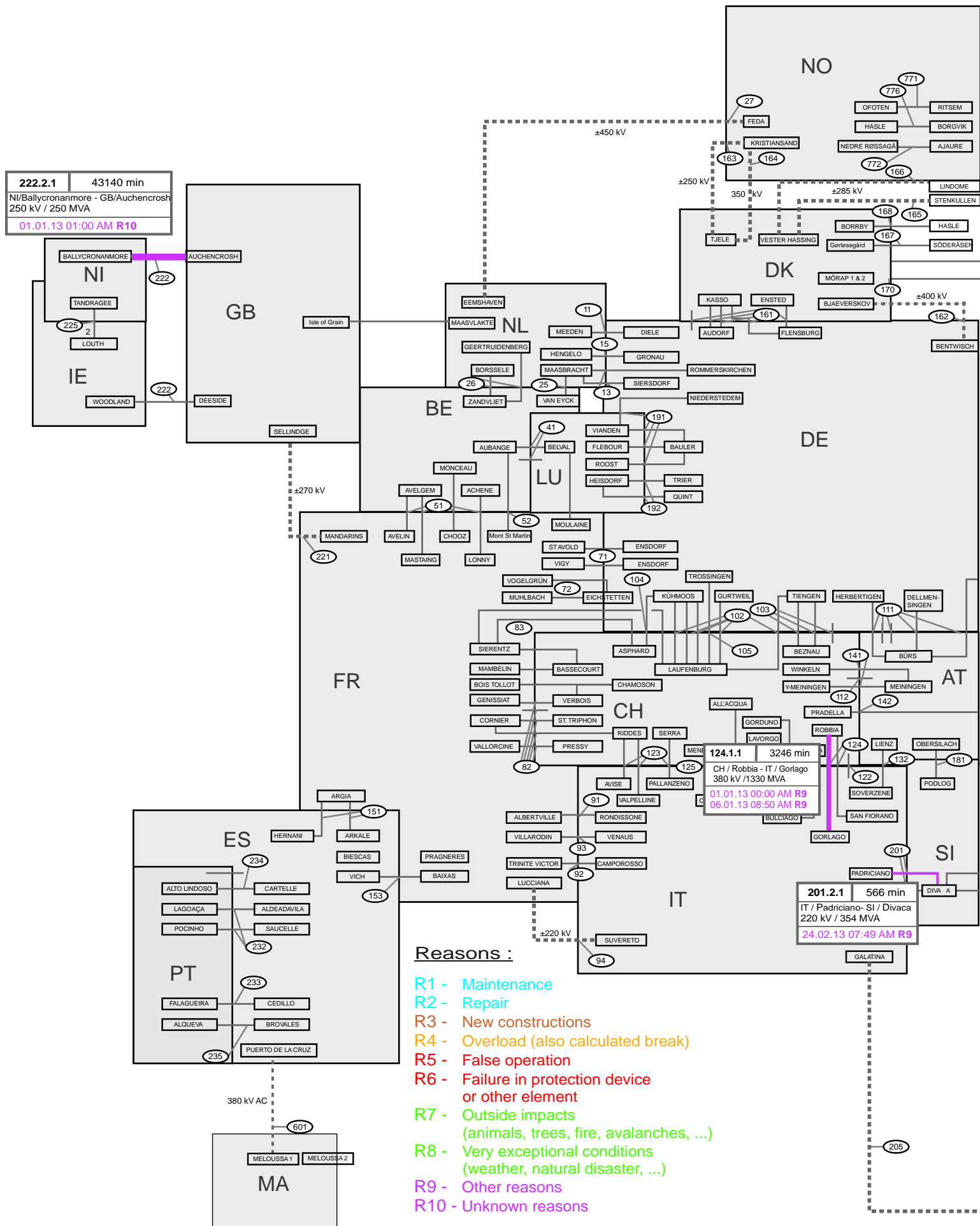


Sum of load flows in MW      ENTSO-E = 48263 MW      Total = 53530 MW  
 ( Calculated sum without data between GB-IE, ME-AL and NO- RU )

Synchronous operation with ENTSO-E region

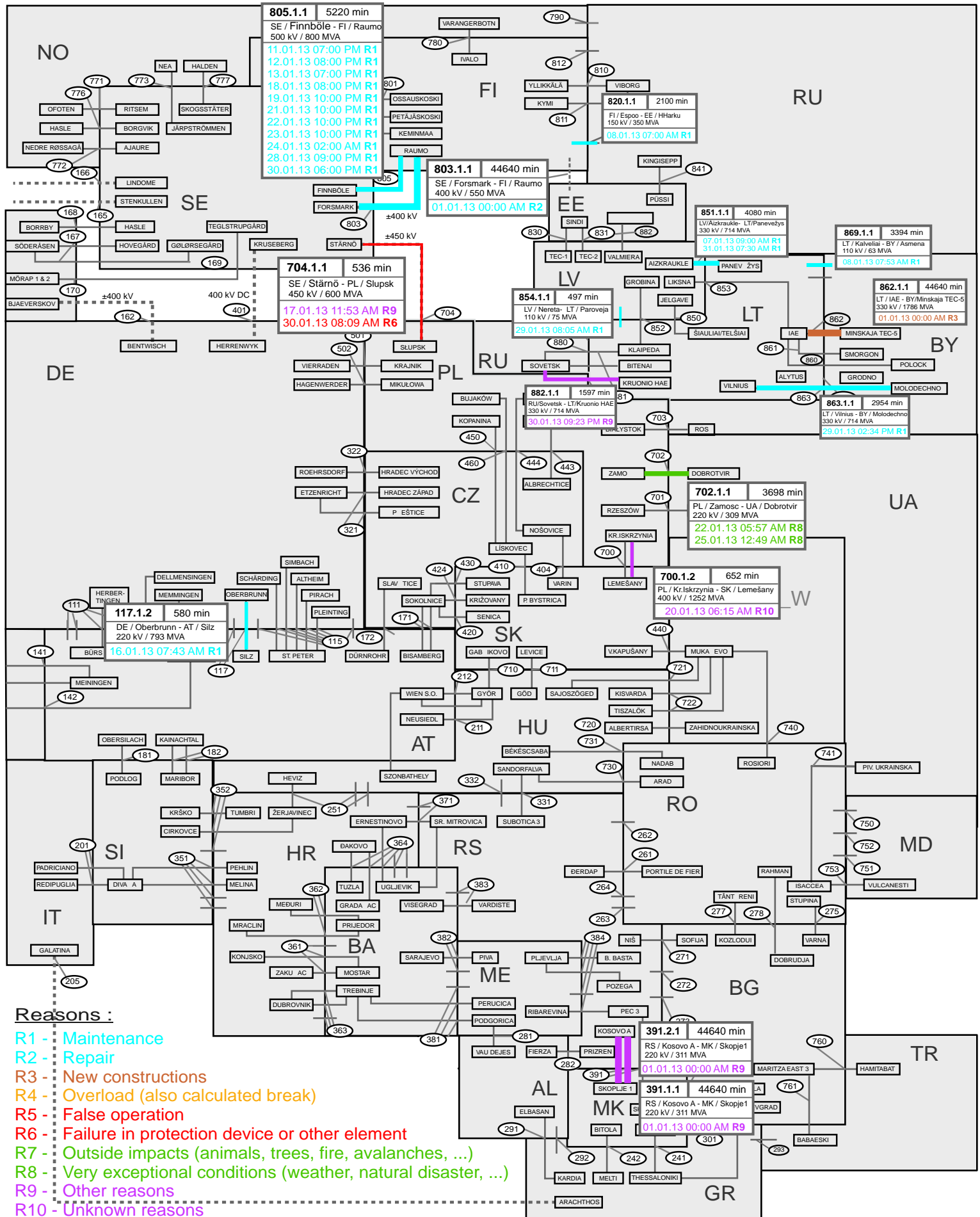
I = Import balance  
 E = Export balance

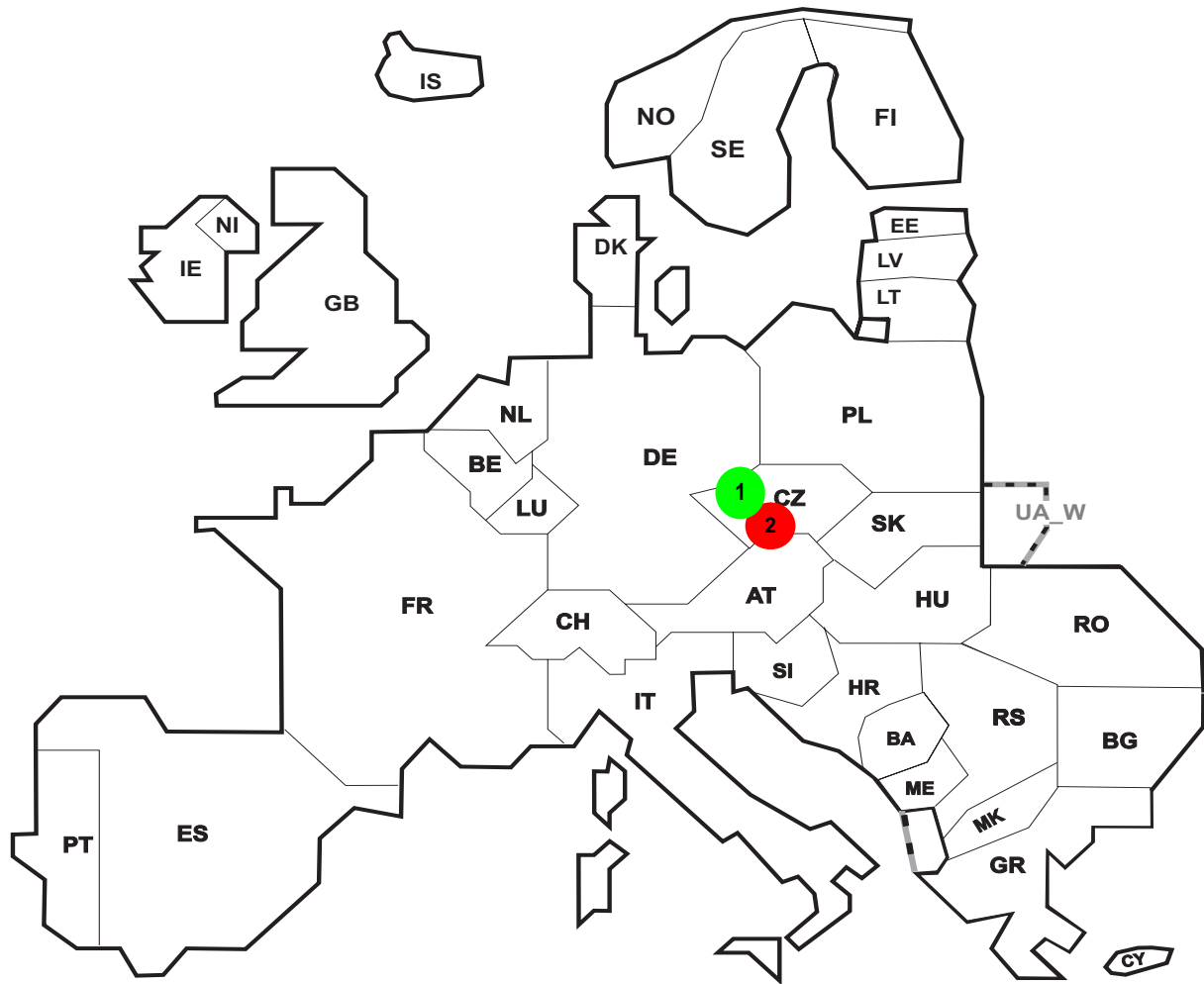




**Reasons :**

- 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 <sup>1</sup>
1	CZ	Kletne	R7	54	88	37	0,450
2	CZ	Kletne	R6	5	100	3	0,042

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 16.01.2013 CET of each country

	Highest		Low est		Load representativity %
	load MW	variation % <sup>1</sup>	load MW	variation % <sup>1</sup>	
AT	9631	2,1	6158	-0,5	100
BA	1898	-3,5	1118	-8,2	100
BE <sup>2</sup>	13217	0,0	9764	0,3	100
BG	6096	-8,4	4214	-6,9	99
CH	10391	33,7	7633	20,6	100
CY	629	-24,3	322	-27,3	100
CZ	9728	1,6	7249	0,7	100
DE <sup>3</sup>	76488	-2,5	53045	-4,2	91
DK	5980	2,6	3772	21,5	100
EE	1404	6,6	953	7,9	100
ES	38739	-3,5	24185	-3,0	98
FI	13130	6,5	10574	6,2	100
FR	89865	3,8	67979	-1,2	100
GB	59440	6,4	35720	11,0	92
GR	7580	-8,0	4447	-13,7	100
HR	2628	-7,5	1466	-19,0	100
HU	5684	-0,4	3792	0,0	100
IE	4404	4,7	2398	3,2	100
IS	2165	2,6	1975	2,4	100
IT	50453	-2,8	28555	-3,6	100
LT	1731	4,3	1027	7,9	100
LU	914	-7,6	639	-3,5	100
LV	1367	4,3	747	6,5	100
ME <sup>4</sup>	677	n.a.	455	n.a.	100
MK	1238	4,3	826	6,5	100
NI	1669	4,4	771	-3,0	100
NL	16384	-5,3	9652	-1,4	100
NO	23372	15,7	18754	19,5	100
PL <sup>5</sup>	22567	2,0	15183	0,8	100
PT	7799	-4,3	4743	-3,7	100
RO	8070	-2,4	5630	-1,6	100
RS	6318	-6,6	4345	-10,2	100
SE	22234	-0,1	16274	0,6	100
SI	1981	1,9	1374	10,0	100
SK	4111	-0,3	3064	-1,0	100
<b>ENTSO-E</b>	<b>525314</b>	<b>n.a.</b>	<b>361007</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.

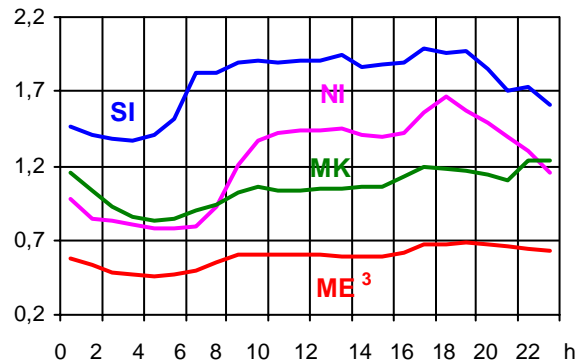
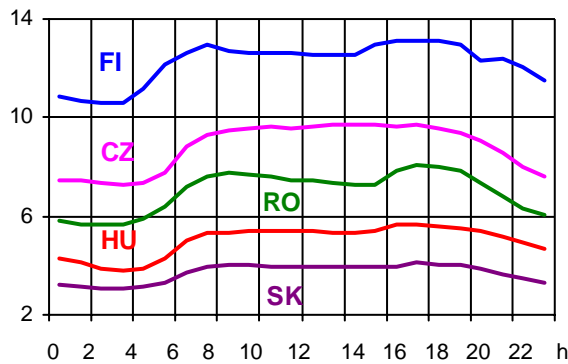
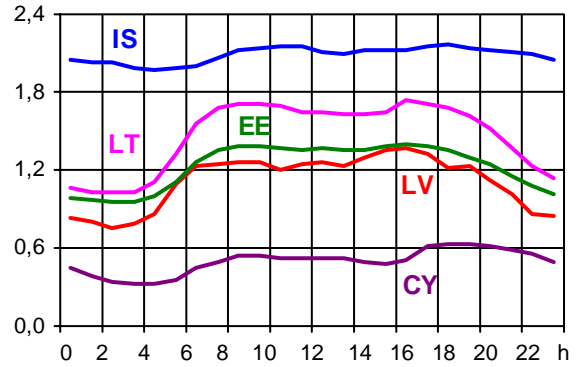
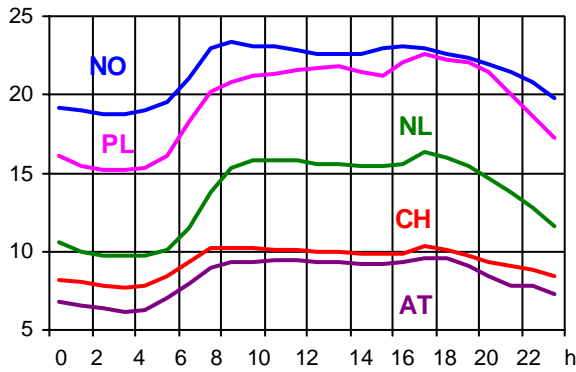
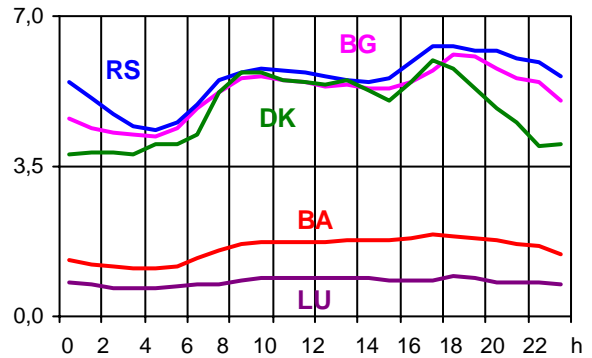
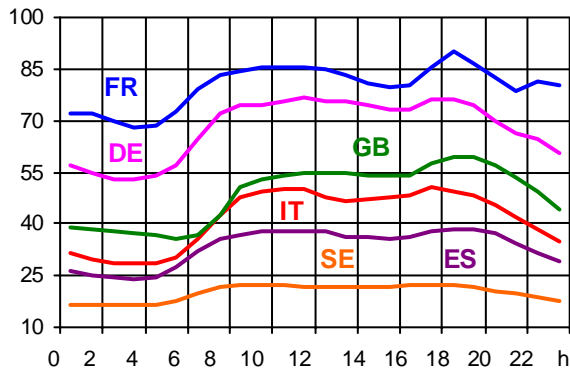
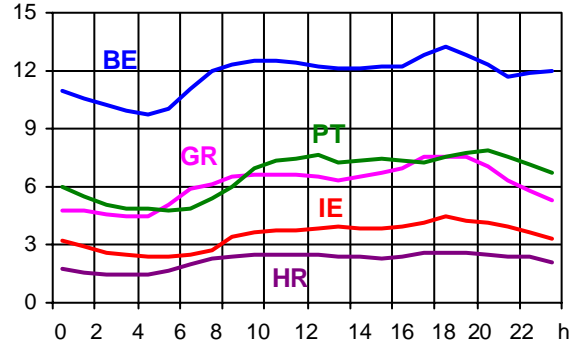
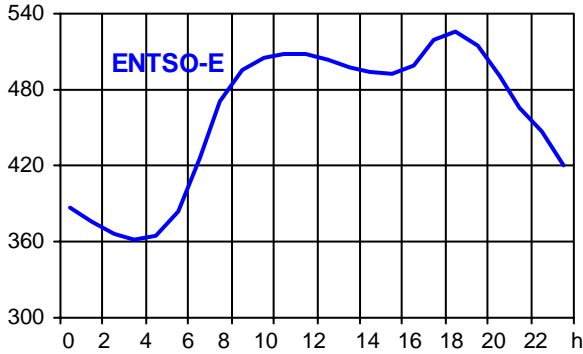
<sup>3</sup> A comparison with previous figures may be limited for statistical reasons related to renewable energies feed-in like direct marketing.

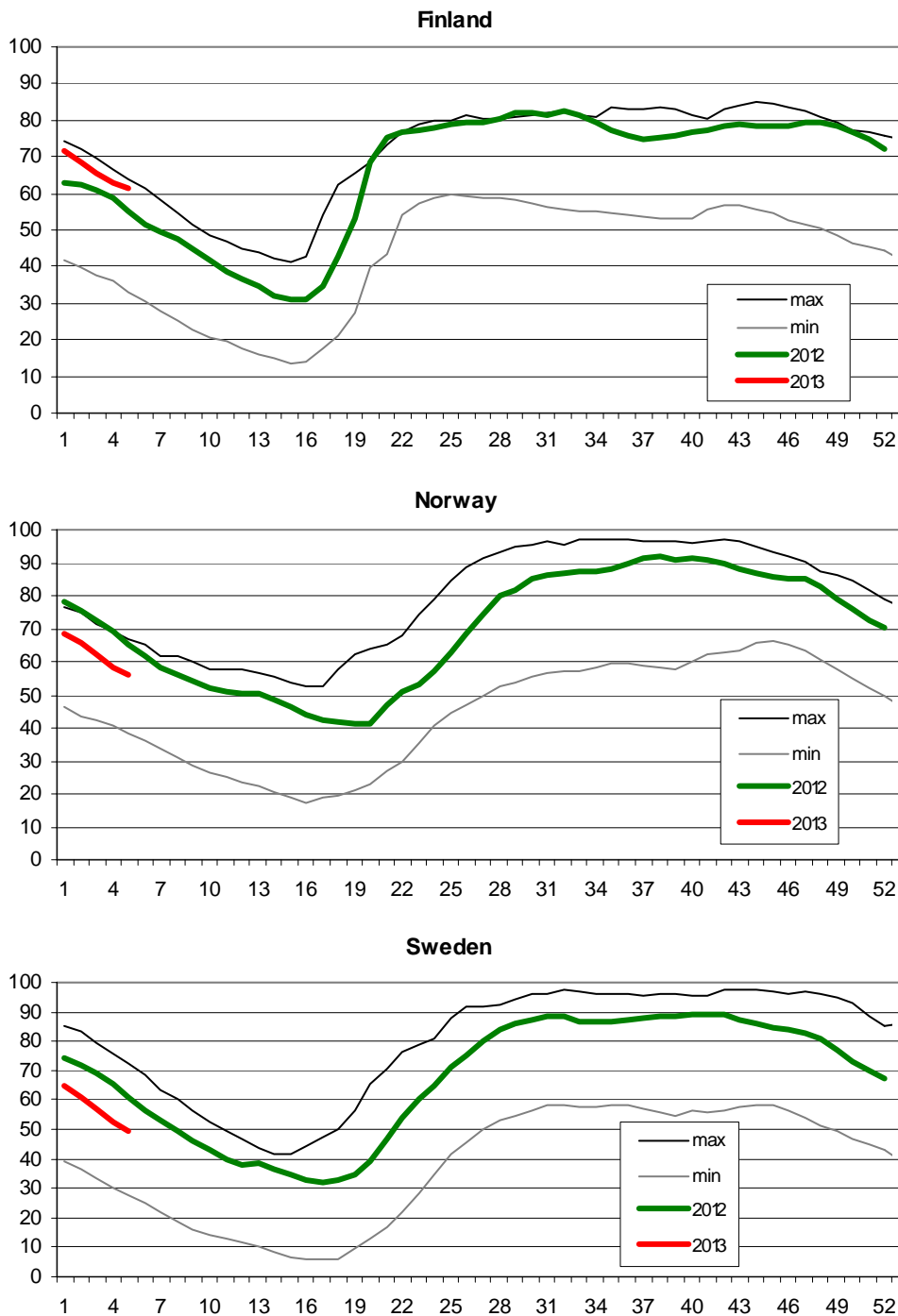
<sup>4</sup> Monthly load values as of 18 January 2012

<sup>5</sup> Operational data

Consumption hourly load curves on 16.01.2013 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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