

# Monthly report



## May 2012

Monthly provisional values as of 01 October 2012

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 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	Non identifiable	Total			monthly [GWh]	var. [%]
AT	0	822	4150	0	0	0	924	5896	-19	471	5406	-0,3
BA	0	660	461	0	0	0	0	1121	-187	0	934	-0,5
BE <sup>2</sup>	3693	1981	119	607	157	202	0	6400 <sup>1</sup>	476	112	6764	-3,3
BG	765	1624	598	84	84	0	0	3071	-737	53	2281	-5,3
CH	2291	201	3771	125	6	0	0	6388 <sup>1</sup>	-1245	227	4916	-3,3
CY	0	328	0	15	15	0	0	343	0	0	343	-9,3
CZ	2138	3727	273	328	31	299	0	6466 <sup>1</sup>	-1505	82	4879	-1,3
DE <sup>3</sup>	6743	27190	2144	6233	1000	3113	0	42310 <sup>1</sup>	-2	663	41645	-2,8
DK	0	1005	1	903	735	0	0	1909 <sup>1</sup>	744	0	2653	-2,7
EE	0	649	4	134	26	0	0	787	-194	0	593	0,9
ES	4488	10104	2720	5466	3781	1321	27	22805	-940	360	21505	5,2
FI	1351	994	1705	804	45	0	64	4918 <sup>1</sup>	1388	0	6306	-3,6
FR	29079	1889	7570	1729	971	321	0	40267	-4474	646	35147	0,4
GB	5911	18249	430	1493	806	0	0	26083	884	304	26663	4,5
GR	0	3063	421	306	210	80	0	3790 <sup>1</sup>	41	9	3822	-3,8
HR	0	197	368	31	22	0	0	596	718	16	1298	-2,9
HU	1198	1343	0	0	0	0	0	2541	808	0	3349	3,0
IE	0	1748	33	258	258	0	20	2059 <sup>1</sup>	49	17	2091	-0,2
IS	0	0	1016	395	0	0	0	1411	0	0	1411	-18,7
IT	0	14465	4859	3565	1059	2063	0	22889	3289	230	25948	-4,1
LT	0	87	87	41	30	0	0	215 <sup>1</sup>	614	59	770	-5,6
LU	0	229	104	13	5	4	0	346	305	134	517	-9,5
LV	0	58	546	29	8	0	0	633	-53	0	580	8,0
ME <sup>4</sup>	0	46	62	0	0	0	0	108	190	0	298	n.a.
MK	0	343	94	0	0	0	0	437	195	0	632	-2,9
NI	499	433	1	65	60	0	0	998	-216	0	782	9,8
NL	132	4854	0	1310	310	n.a.	0	6296	2500	0	8796	-1,1
NO	0	250	10808	102	102	0	0	11160 <sup>1</sup>	-1779	135	9246	6,5
PL <sup>5</sup>	0	10329	227	887	304	0	0	11443 <sup>1</sup>	-21	38	11384	-1,6
PT	0	1565	721	1023	778	31	0	3309 <sup>1</sup>	747	88	3968	-3,1
RO	535	1865	1735	182	180	0	0	4317	42	36	4323	-0,7
RS	0	1995	1128	0	0	0	0	3123	192	116	3199	-6,8
SE	4393	228	6668	1306	527	0	0	12595 <sup>1</sup>	-2085	0	10510	0,3
SI	42	322	347	0	0	0	0	711	307	0	1018	-3,8
SK	1142	438	407	125	0	68	74	2186 <sup>1</sup>	-62	27	2097	-1,0
<b>ENTSO-E</b>	<b>64400</b>	<b>113281</b>	<b>53578</b>	<b>27559</b>	<b>11510</b>	<b>7502</b>	<b>1109</b>	<b>259927 <sup>1</sup></b>	<b>-30</b>	<b>3823</b>	<b>256074</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.

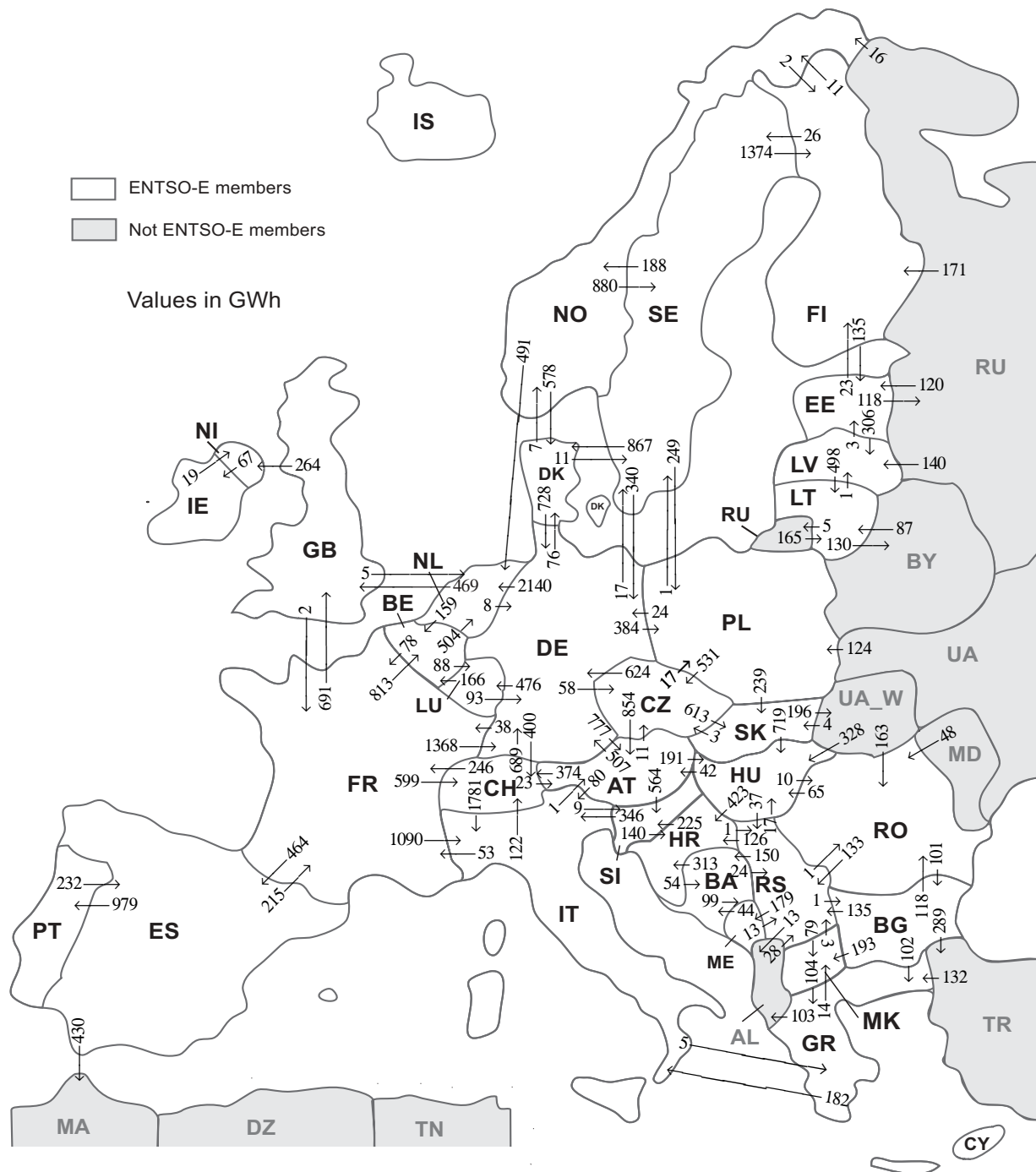
<sup>3</sup> The reported figures are best estimates based on actual inquiries, measurements and extrapolations.

<sup>4</sup> National monthly values as of May 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	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	100	96	89	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: **31212 GWh<sup>1</sup>**

Total physical energy flows: **34022 GWh<sup>1</sup>**

<sup>1</sup> Sum of physical energy flows without exchanges between ME-AL.

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	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	-	-	-	-	374	11	507	-	-	-	-	-	-	-	191	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	564	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	313	-	-	-	-	-	-	99	-	-	-	-	-	-	-	-	24	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	88	-	-	-	-	504	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-	193	-	-	-	-	-	118	135	-	-	-	289	
CH	23	-	-	-	-	689	-	-	-	-	246	-	-	-	-	-	1781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	854	-	-	-	-	624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	613	-	
DE	777	-	-	-	400	58	76	-	-	-	38	-	-	-	-	-	-	-	476	-	-	-	-	2140	384	-	-	-	17	-	-	-		
DK	-	-	-	-	-	728	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	11	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	306	-	-	-	-	-	-	-	-	-	-	-	118	
ES	-	-	-	-	-	-	-	-	-	-	215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	979	-	-	-	-	-	430	
FI	-	-	-	-	-	-	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	26	-	-	0	
FR	-	813	-	599	-	1368	-	464	-	-	691	-	-	-	-	1090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	264	5	-	-	-	-	-	-	-	-	
GR	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	103	
HR	-	54	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	1	-	225	-	-	-	
HU	42	-	-	-	-	-	-	-	-	-	-	-	423	-	-	-	-	-	-	-	-	-	-	-	-	-	10	37	-	-	0	0	-	
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	
IT	1	-	-	122	-	-	-	-	-	-	53	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	
LU	-	166	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LV	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	498	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
ME	-	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.	
MK	-	-	0	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	
NL	-	-	-	-	-	-	-	-	-	-	0	-	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NL	-	159	-	-	-	8	-	-	-	-	469	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	578	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	491	-	-	-	-	-	880	-	-	0	
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PT	-	-	-	-	-	-	-	-	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	101	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
RS	-	150	-	1	-	-	-	-	-	-	-	-	126	17	-	-	-	-	-	-	179	79	-	-	-	-	-	1	-	-	-	13		
SE	-	-	-	-	-	340	867	-	-	1374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	249	-	-	-	-	-	-	-	
SI	0	-	-	-	-	-	-	-	-	-	-	140	-	-	-	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	3	-	-	-	-	-	-	-	-	-	719	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	196	
Other III <sup>1</sup>	-	-	-	0	-	-	-	120	0	171	-	-	132	-	328	-	-	252	-	140	n.a.	-	-	-	16	124	-	211	28	-	-	4	-	

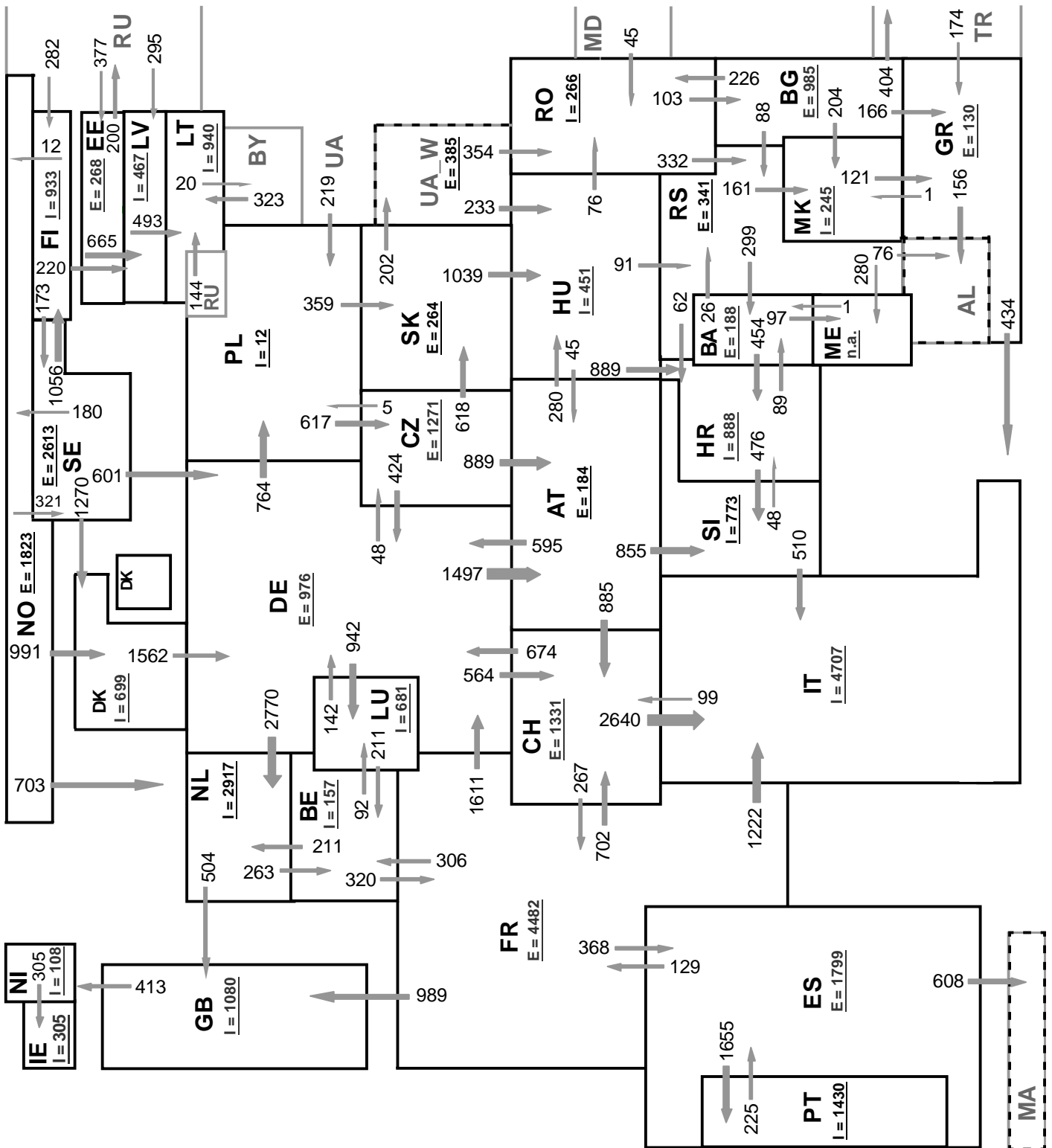
Other III<sup>1</sup>: Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia, Ukraine and Ukraine-West

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

	flows inside	flows outside
AT	1697	1727
BA	248	436
BE	1138	670
BG	102	837
CH	1495	2739
CZ	603	2108
DE	4381	4366
DK	1521	746
EE	258	447
ES	696	1624
FI	1570	172
FR	632	5025
GB	1160	271
GR	343	299
HR	1002	280
HU	1320	512
IE	67	19

	flows inside	flows outside
IT	3479	190
LT	750	136
LU	564	259
LV	447	501
ME	n.a.	n.a.
MK	286	107
NI	283	67
NL	3140	636
NO	222	1951
PL	774	795
PT	979	232
RO	340	299
RS	374	566
SE	935	3018
SI	798	486
SK	856	918
ENTSO-E	32738	32496



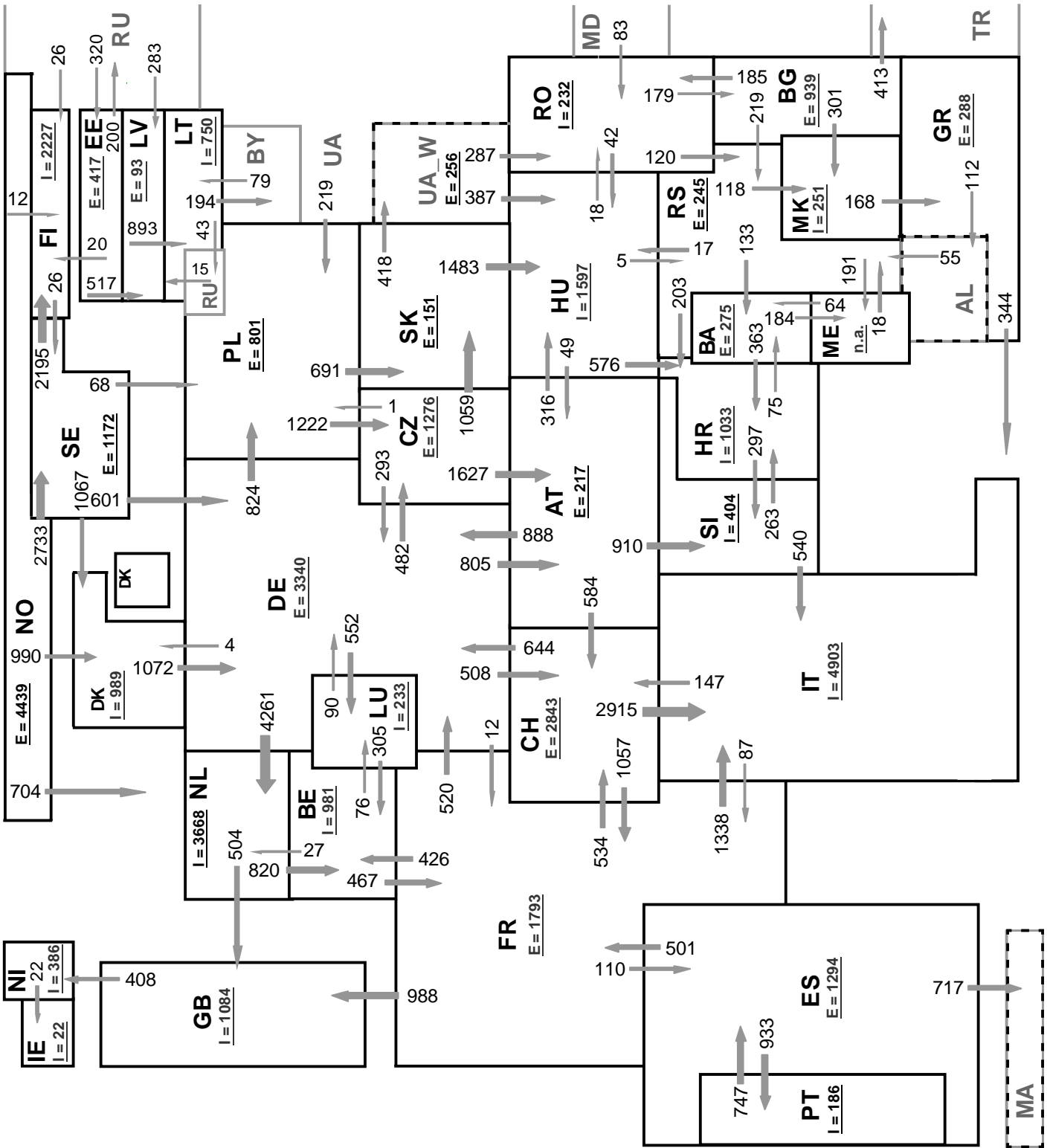


Sum of load flows in MW      ENTSO-E = 40025 MW  
 ( Calculated sum without data between ME - AL )

Total = 44137 MW

Synchronous operation with ENTSO-E region

I = Import balance  
 E = Export balance



Sum of load flows in MW  
( Calculated sum without data between ME - AL )

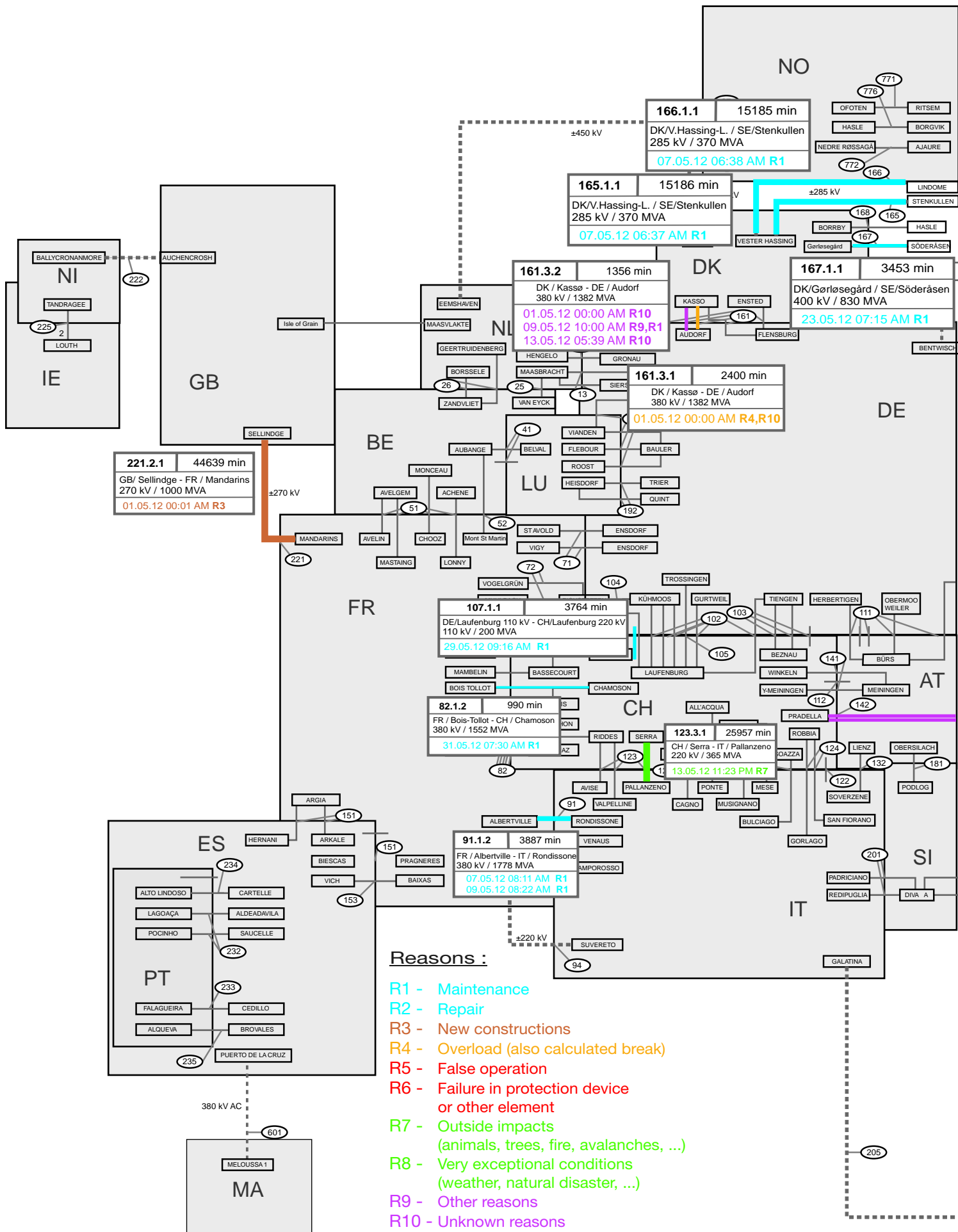
ENTSO-E = 45241 MW

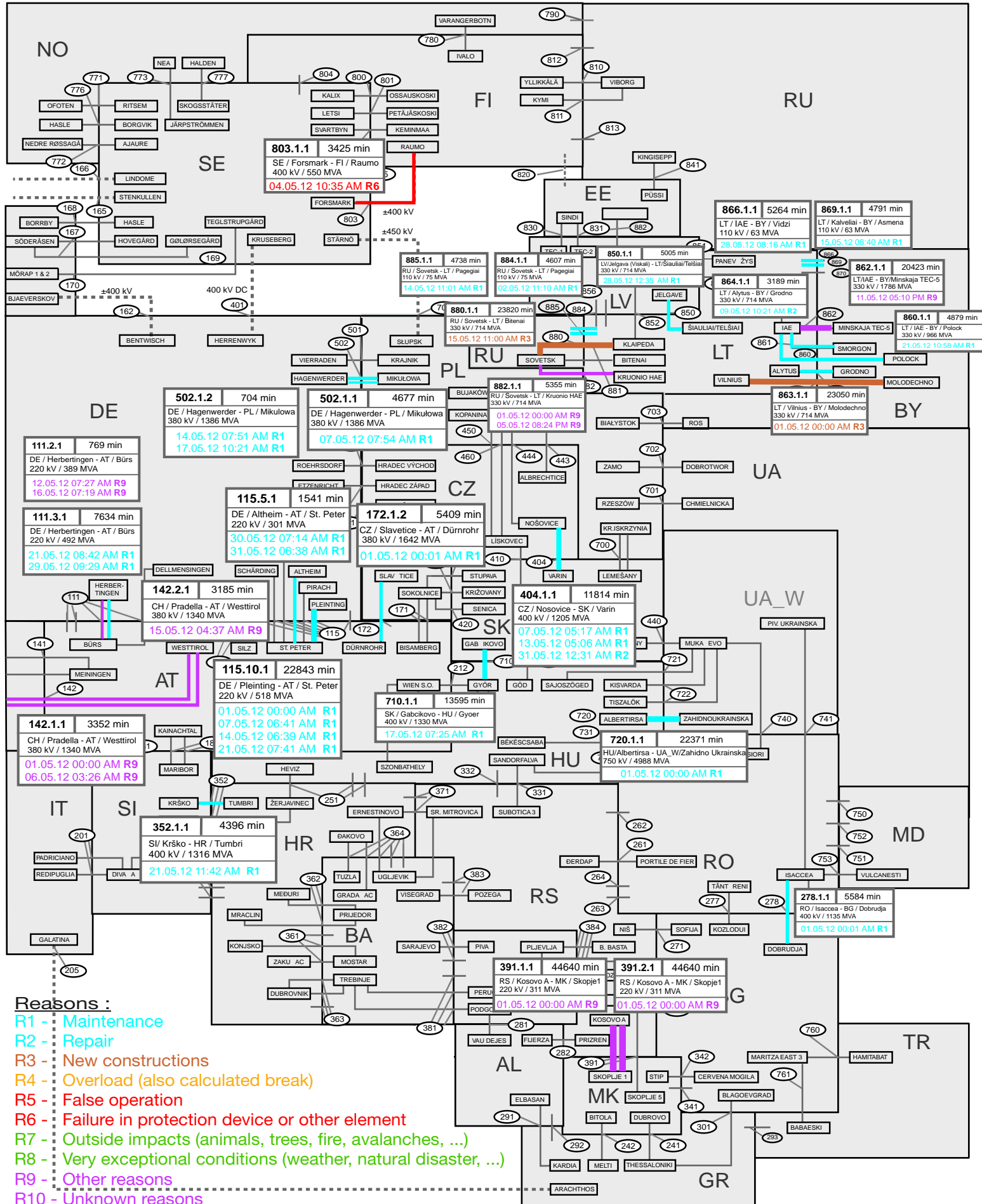
Total = 49609 MW

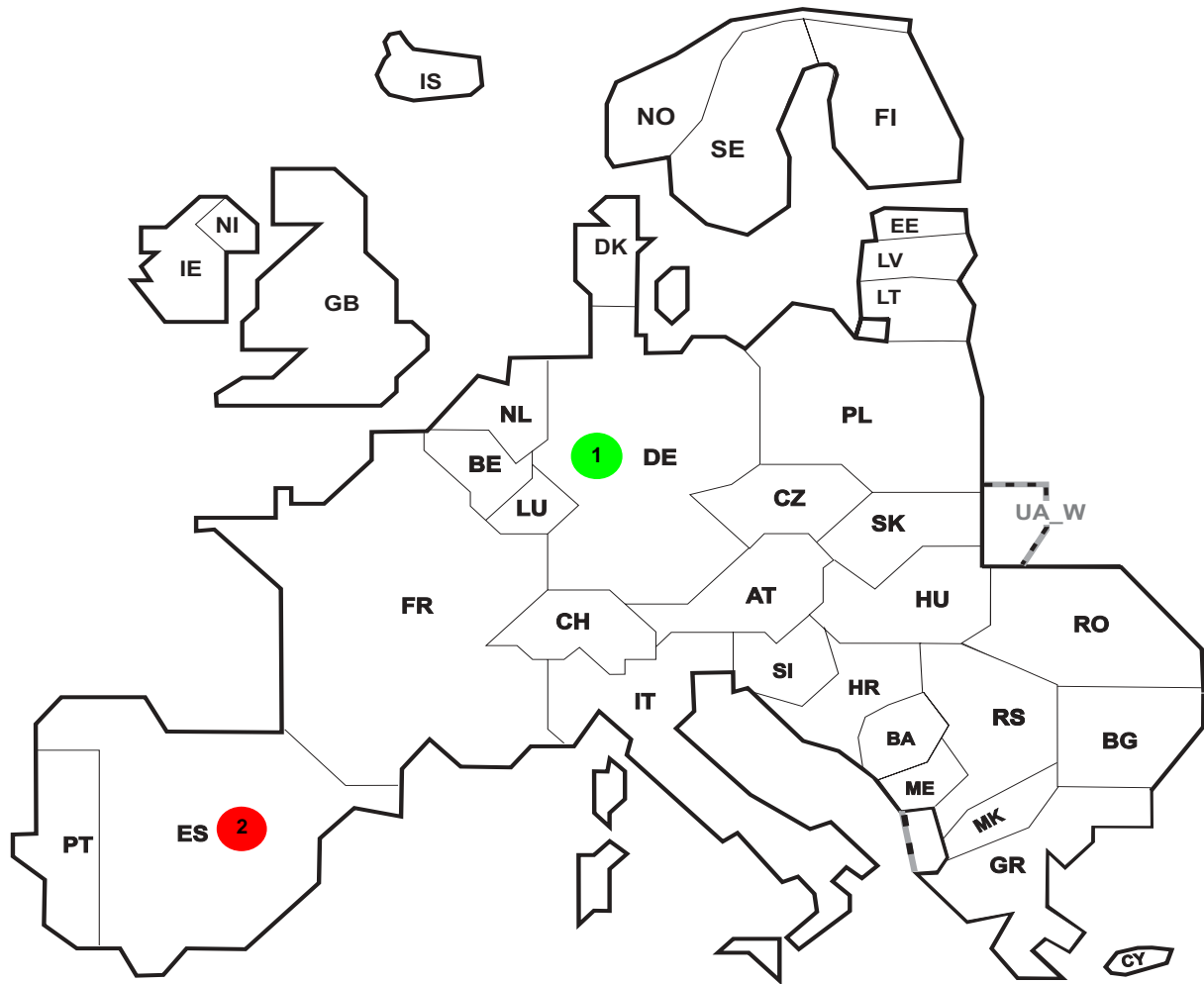
Synchronous operation with ENTSO-E region

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	DE	Edelstahl	R8	6	6	55	0,005
2	ES	Majadahonda	R5	1	30	2	0,001

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 16.05.2012 CET of each country

	Highest		Low est		Load representativity %
	load MW	variation % <sup>1</sup>	load MW	variation % <sup>1</sup>	
AT	8399	7,7	5021	6,9	100
BA	1670	4,2	987	0,4	100
BE <sup>2</sup>	10708	-7,6	7981	2,5	100
BG	4265	-2,1	2868	-4,8	99
CH	8939	3,2	5731	4,8	100
CY <sup>3</sup>	576	-12,2	328	-6,8	100
CZ	8096	3,1	5785	-2,3	100
DE <sup>4</sup>	73138	-3,6	46948	-1,9	91
DK	4831	0,5	2832	1,9	100
EE	984	-1,6	609	-4,7	100
ES	32929	-3,8	22502	0,2	98
FI	9533	-0,6	7409	-1,4	100
FR	57742	2,7	43250	8,1	100
GB	40560	-5,2	26608	5,2	92
GR	6109	-5,4	3855	-3,1	100
HR	2260	2,3	1413	-2,1	100
HU	4847	-0,2	3381	1,0	100
IE	3525	1,8	1892	-6,0	100
IS	2002	1,9	1869	2,7	100
IT	45075	5,5	28221	-1,5	100
LT	1324	-2,6	744	-11,2	100
LU	790	-18,5	592	-15,1	100
LV	883	21,8	466	5,0	100
ME <sup>5</sup>	477	n.a.	323	n.a.	100
MK	1021	-2,5	662	-0,6	100
NI	1292	2,9	701	4,5	100
NL	14826	-3,0	9026	-5,5	100
NO	14723	7,6	11475	9,8	100
PL <sup>6</sup>	18845	2,5	12994	0,4	100
PT	6707	-2,5	4443	-0,9	100
RO	6860	3,7	5027	-0,2	100
RS	5034	3,9	2948	1,6	100
SE	16232	2,9	12004	2,3	100
SI	1761	5,8	1177	-6,8	100
SK	3486	3,7	2622	-0,2	100
<b>ENTSO-E</b>	<b>287109</b>	<b>n.a.</b>	<b>416231</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> Only highest and lowest load value available.

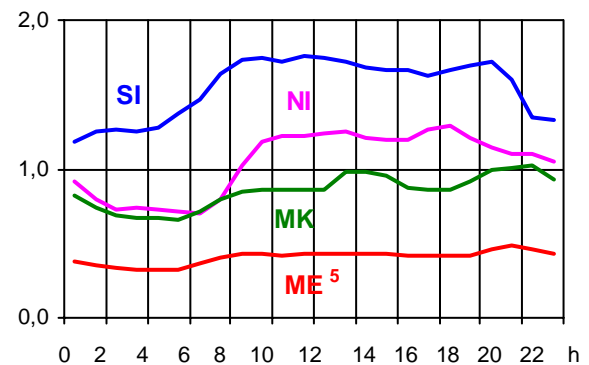
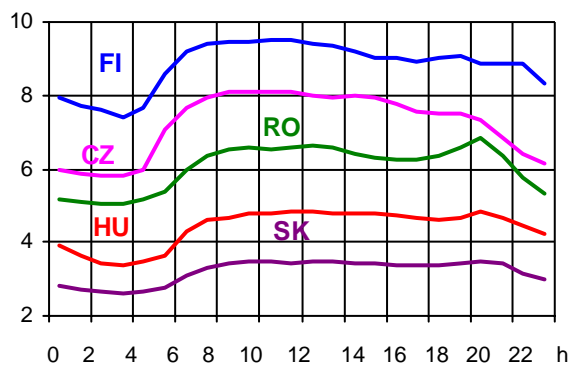
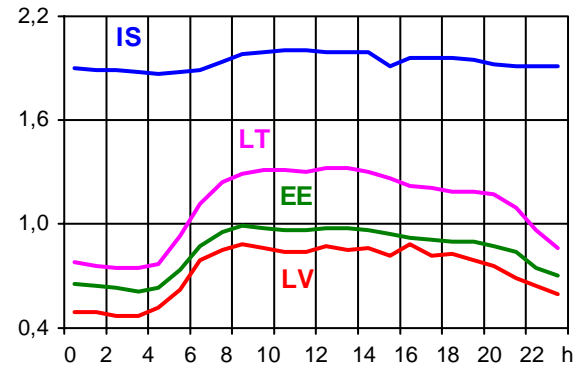
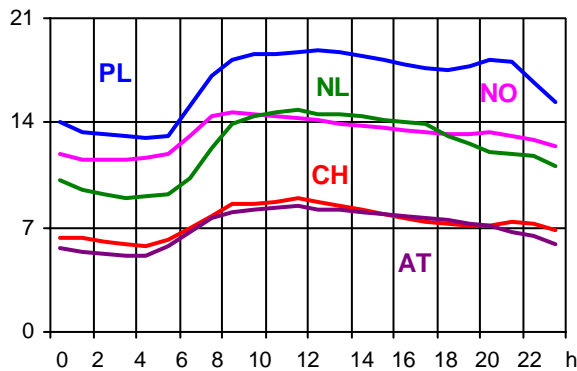
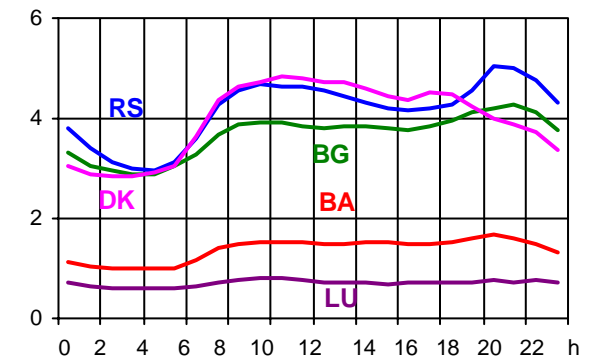
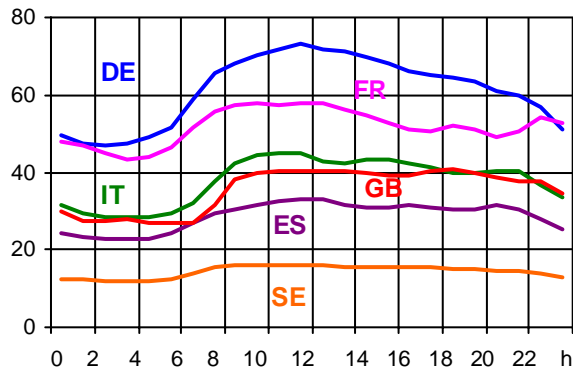
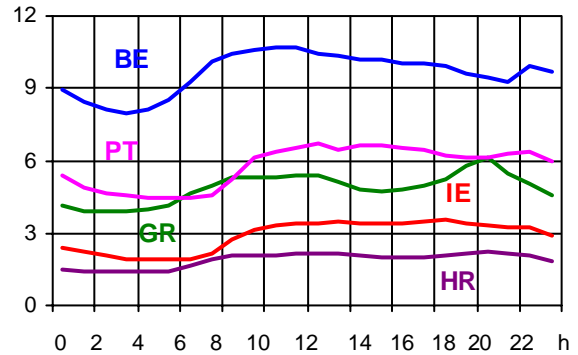
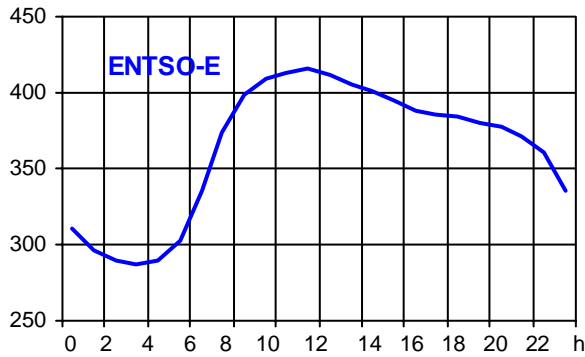
<sup>4</sup> A comparison with previous figures may be limited for statistical reasons related to renewable energies feed-in like direct marketing.

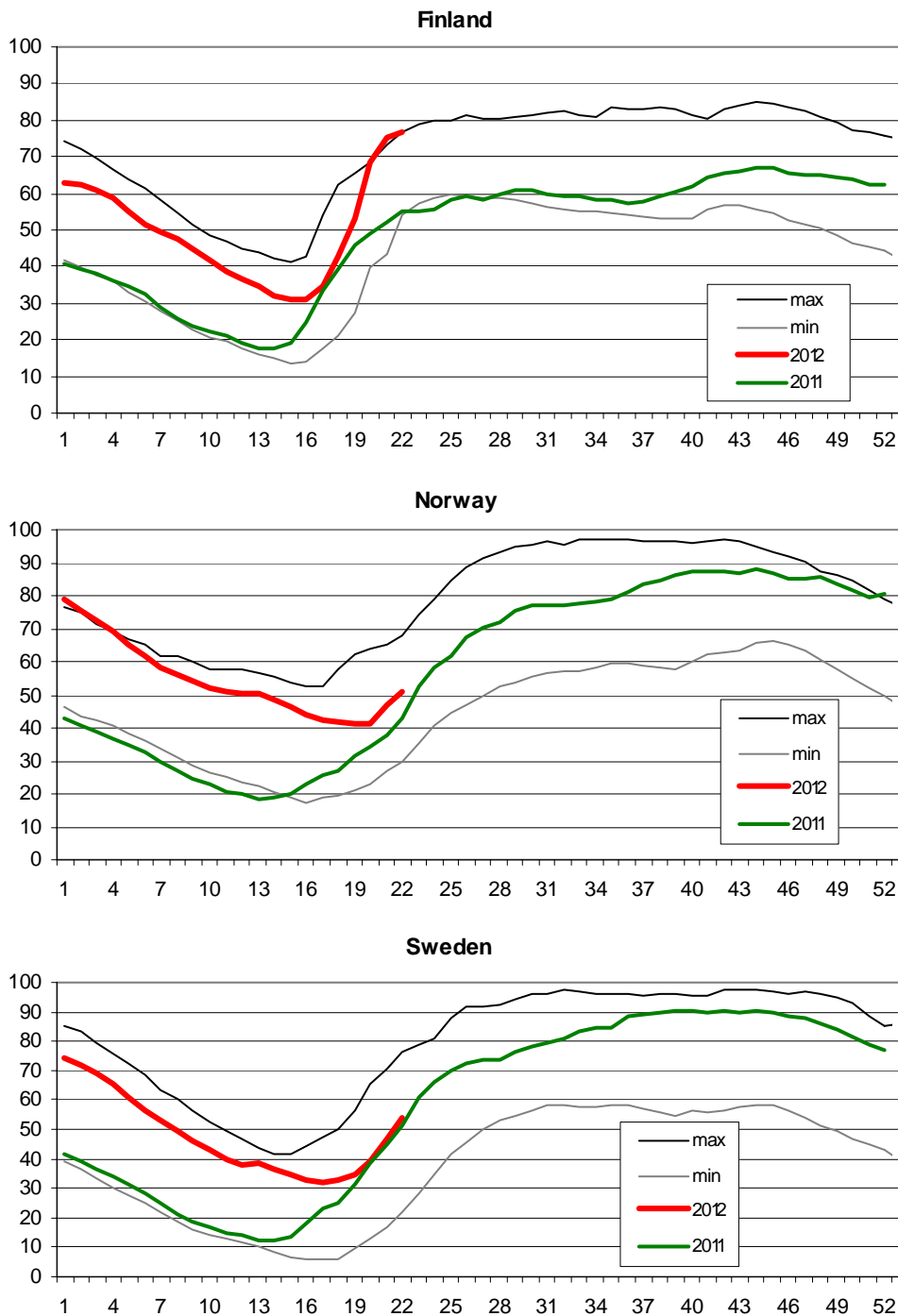
<sup>5</sup> Monthly load values as of 18 May 2011

<sup>6</sup> Operational data

Consumption hourly load curves on 16.05.2012 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

## Contact

Avenue de Cortenbergh, 100  
B-1000 Brussels – Belgium  
Tel + 32 2 741 0950  
Fax + 32 2 741 0951

[info@entsoe.eu](mailto:info@entsoe.eu)  
[www.entsoe.eu](http://www.entsoe.eu)

