

Monthly report



July 2011

Monthly provisional values as of 22 November 2011

European Network of
Transmission System Operators
for Electricity

entsoe

Table of contents		Page
1	Electricity supply situation of the countries	2
2	Electricity supply representativity of the countries	3
3	Physical energy flows	4
4	Overview of the detailed physical energy flows	5
5	Load flows (night)	6
6	Load flows (day)	7
7	Unavailability of international tie lines (major events)	8
8	Network reliability (major events)	10
9	Highest and lowest load on the 3 rd Wednesday	11
10	Load diagrams on the 3 rd Wednesday	12
11	Water reservoirs Nordic	13

General remarks and abbreviations used in the tables

- All values of geeration and consumption on page 2, 11 and 12 are calculated to represent 100% of the national values.
- UA_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with ENTSO-E area
- 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	1213	3395	0	0	0	854	5462	410	476	5396	0,1
BA	0	850	239	0	0	0	0	1089	-122	0	967	4,1
BE ²	3772	2472	112	582	141	155	0	6938 ¹	-240	146	6552	-2,2
BG	1418	2045	316	31	31	0	0	3810	-1226	97	2487	17,7
CH	2057	185	3663	125	5	0	0	6030 ¹	-857	376	4797	-2,5
CY	0	485	0	7	7	0	0	492	0	0	492	-10,4
CZ	1736	3478	202	265	37	229	0	5681 ¹	-1039	85	4557	-0,2
DE	7501	27619	1931	5866	3578	1241	0	42917 ¹	833	638	43112	-2,5
DK	0	975	1	728	560	0	0	1704 ¹	823	0	2527	-1,8
EE	0	793	1	43	13	0	0	837	-316	0	521	1,0
ES	4830	11641	1739	5014	3195	1192	25	23249	-486	228	22535	-6,5
FI	1982	631	933	700	20	0	49	4295 ¹	1607	0	5902	-0,7
FR	33487	1669	4195	1495	804	207	0	40846	-6133	566	34147	-5,3
GB	5299	17562	476	717	0	0	0	24054	879	295	24638	-1,4
GR	0	4338	439	213	154	37	0	4990 ¹	478	6	5462	2,2
HR	0	465	280	11	10	0	0	756	749	23	1482	-3,7
HU	1105	1500	0	0	0	0	0	2605	943	0	3548	8,1
IE	0	1711	13	182	182	0	15	1921 ¹	63	0	1984	-2,8
IS	0	1	1001	372	0	0	0	1374	0	0	1374	2,7
IT	0	19257	4811	2512	697	1370	0	26580	3947	280	30247	-3,9
LT	0	182	65	31	18	0	0	278 ¹	586	52	812	2,9
LU	0	202	49	20	4	2	0	271	360	0	631	11,9
LV	0	170	74	12	3	0	0	256	271	0	527	-3,1
ME ³	0	126	88	0	0	0	0	214	122	0	336	n.a.
MK	0	269	153	0	0	0	0	422	229	0	651	8,1
NI	0	519	0	45	40	0	1	565	92	0	657	-1,1
NL	353	6565	0	696	384	n.a.	0	7614	1446	0	9060	0,0
NO	0	265	10156	50	50	0	0	10471 ¹	-2278	393	7800	3,5
PL ⁵	0	11090	277	200	173	0	0	11567 ¹	-140	59	11368	0,0
PT	0	2274	433	1142	886	30	0	3849 ¹	437	65	4221	-5,3
RO	944	2109	1246	76	61	0	0	4375	-11	21	4343	2,8
RS	0	2369	722	0	0	0	0	3091	230	56	3265	1,0
SE	5061	119	4077	876	288	0	0	10133 ¹	-1113	0	9020	-0,5
SI	503	305	306	0	0	0	0	1114	-78	0	1036	0,0
SK	1073	402	489	81	0	39	67	2112 ¹	-26	40	2046	-0,7
ENTSO-E	71121	125856	41882	22092	11341	4502	1011	261962 ¹	440	3902	258500	n.a.
UA_W	0	614	19	0	0	0	0	633	-286	0	347	19,7

¹ Including deliveries from industry

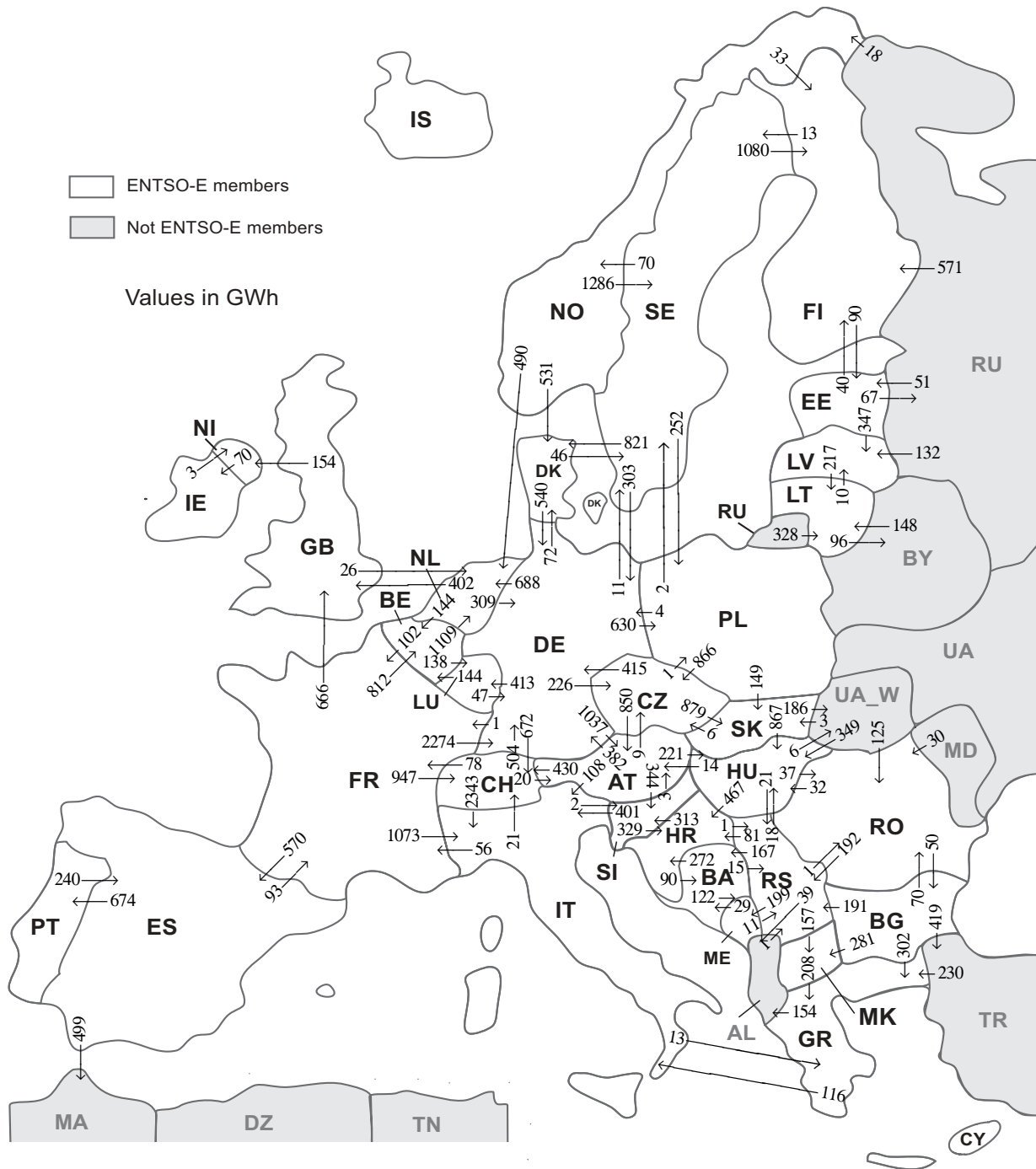
² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of July 2010

⁴ Operational data

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 prod	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	97	100	95	100	98
FI	100	100	100	100	100	100
FR	100	100	100	100	100	100
GB	100	97	89	48	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
UA_W	100	100	100	100	100	100



Sum of physical energy flows between ENTSO-E countries: **32676 GWh**

Total physical energy flows: **36128 GWh**

Not ENTSO-E members:

Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia, Ukraine and Ukraine West

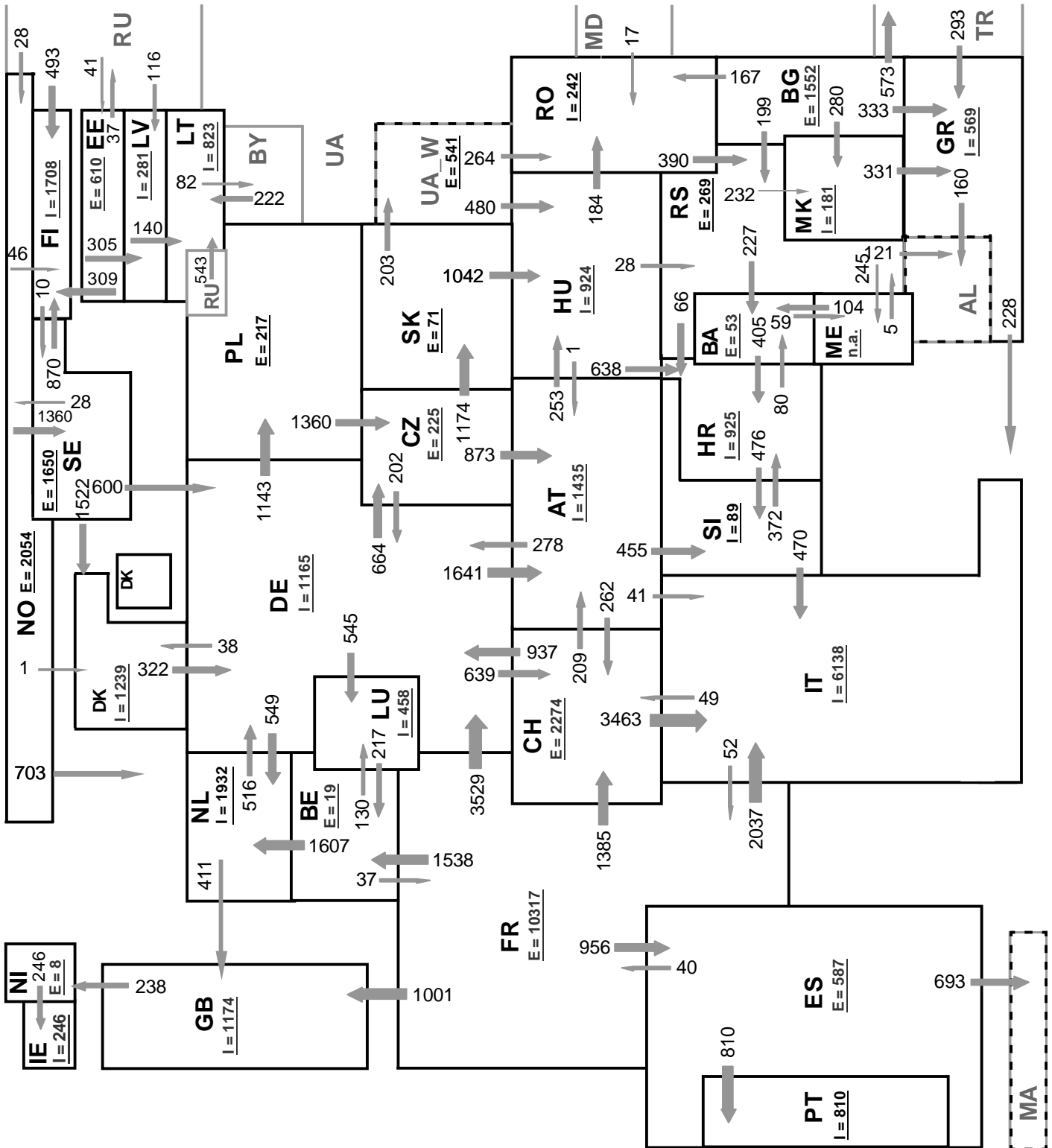
These physical energy flows were measured on the cross-frontier transmission lines (≤ 110 kV) listed in table characteristics of the cross-frontier lines published in the Statistical Yearbook. These values may differ from the official statistics and the exchange balances on page 2.

Outside flows	Inside flows of the countries																											UA_	Other							
	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	W	III ¹	
AT	-	-	-	-	430	9	382	-	-	-	-	-	-	-	-	221	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	344	-	-	
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	272	-	-	-	-	-	-	122	-	-	-	-	-	-	-	15	-	-	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	138	-	-	-	-	-	1109	-	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	-	302	-	-	-	-	-	-	-	-	281	-	-	-	-	-	70	191	-	-	-	-	-	-	419
CH	20	-	-	-	-	-	504	-	-	-	-	78	-	-	-	-	-	2343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	850	-	-	-	-	-	415	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	879	-	-
DE	1037	-	-	-	672	226	-	72	-	-	-	1	-	-	-	-	-	-	413	-	-	-	-	-	688	630	-	-	-	-	11	-	-	-	-	
DK	-	-	-	-	-	-	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	46	-	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	347	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67	
ES	-	-	-	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	674	-	-	-	-	-	-	-	499	
FI	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	13	-	-	-	-	0	
FR	-	-	812	-	947	-	2274	-	570	-	-	666	-	-	-	-	1073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	154	26	-	-	-	-	-	-	-	-	-	-	-	-
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	116	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	154	
HR	-	90	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	313	-	-	-	-	
HU	14	-	-	-	-	-	-	-	-	-	-	-	-	-	467	-	-	-	-	-	-	-	-	-	-	-	37	21	-	-	0	6	-	-		
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	
IT	0	-	-	-	21	-	-	-	-	-	-	56	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	96	
LU	-	144	-	-	-	-	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LV	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
ME	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.	
MK	-	-	-	0	-	-	-	-	-	-	-	-	208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NL	-	144	-	-	-	-	309	-	-	-	-	402	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	
NO	-	-	-	-	-	-	-	531	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	490	-	-	-	-	-	-	-	-	-	0	
PL	-	-	-	-	866	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
PT	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RO	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
RS	-	167	-	0	-	-	-	-	-	-	-	-	81	18	-	-	-	-	-	199	157	-	-	-	-	-	1	-	-	-	-	-	-	-	39	
SE	-	-	-	-	-	-	303	821	-	1080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	252	-	-	-	-	-	-	-	-	
SI	3	-	-	-	-	-	-	-	-	-	-	-	329	-	-	-	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SK	-	-	-	-	6	-	-	-	-	-	-	-	-	-	867	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	186	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	
Other III ¹	-	-	-	0	-	-	-	-	51	0	571	-	-	230	-	-	-	-	476	-	132	n.a.	-	-	-	18	0	-	30	1	-	-	-	-	-	

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

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

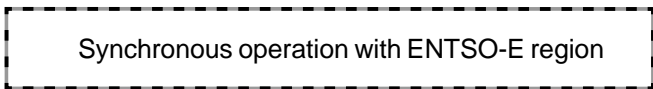
	flows inside	flows outside		flows inside	flows outside
AT	1924	1494	IT	4041	92
BA	286	409	LT	693	106
BE	1100	1349	LU	551	191
BG	50	1263	LV	489	217
CH	2070	2945	ME	n.a.	n.a.
CZ	1107	2145	MK	438	208
DE	4778	3750	NI	157	70
DK	1424	586	NL	2313	855
EE	141	454	NO	88	2340
ES	810	1266	PL	883	1021
FI	1724	103	PT	674	240
FR	330	6342	RO	263	274
GB	1068	180	RS	432	662
GR	753	270	SE	1358	2526
HR	1149	404	SI	659	733
HU	1487	545	SK	1031	1059
IE	70	3	UA_W	192	477



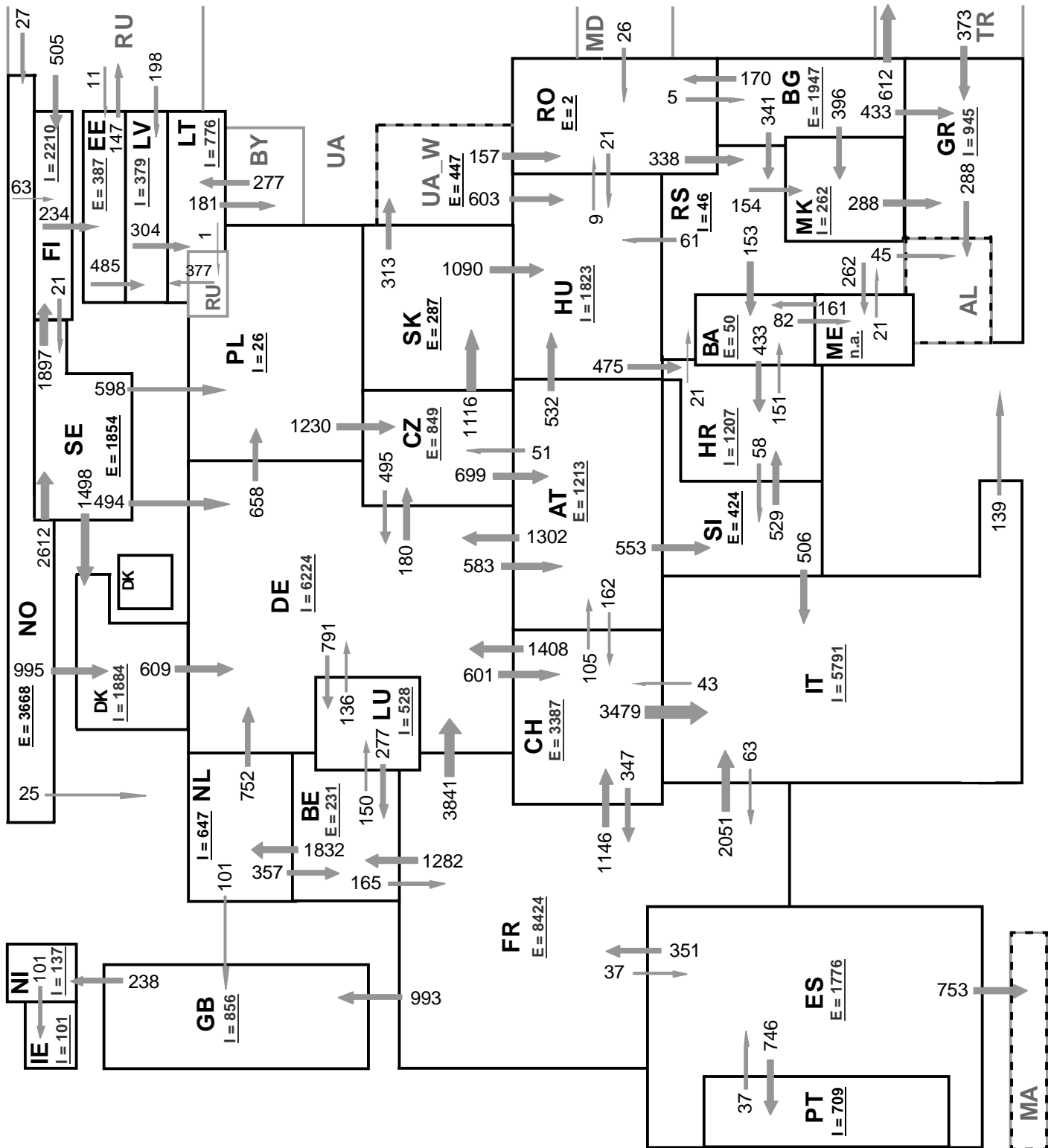
Sum of load flows in MW

ENTSO-E = 42303 MW

Total = 46669 MW



I = Import balance
E = Export balance



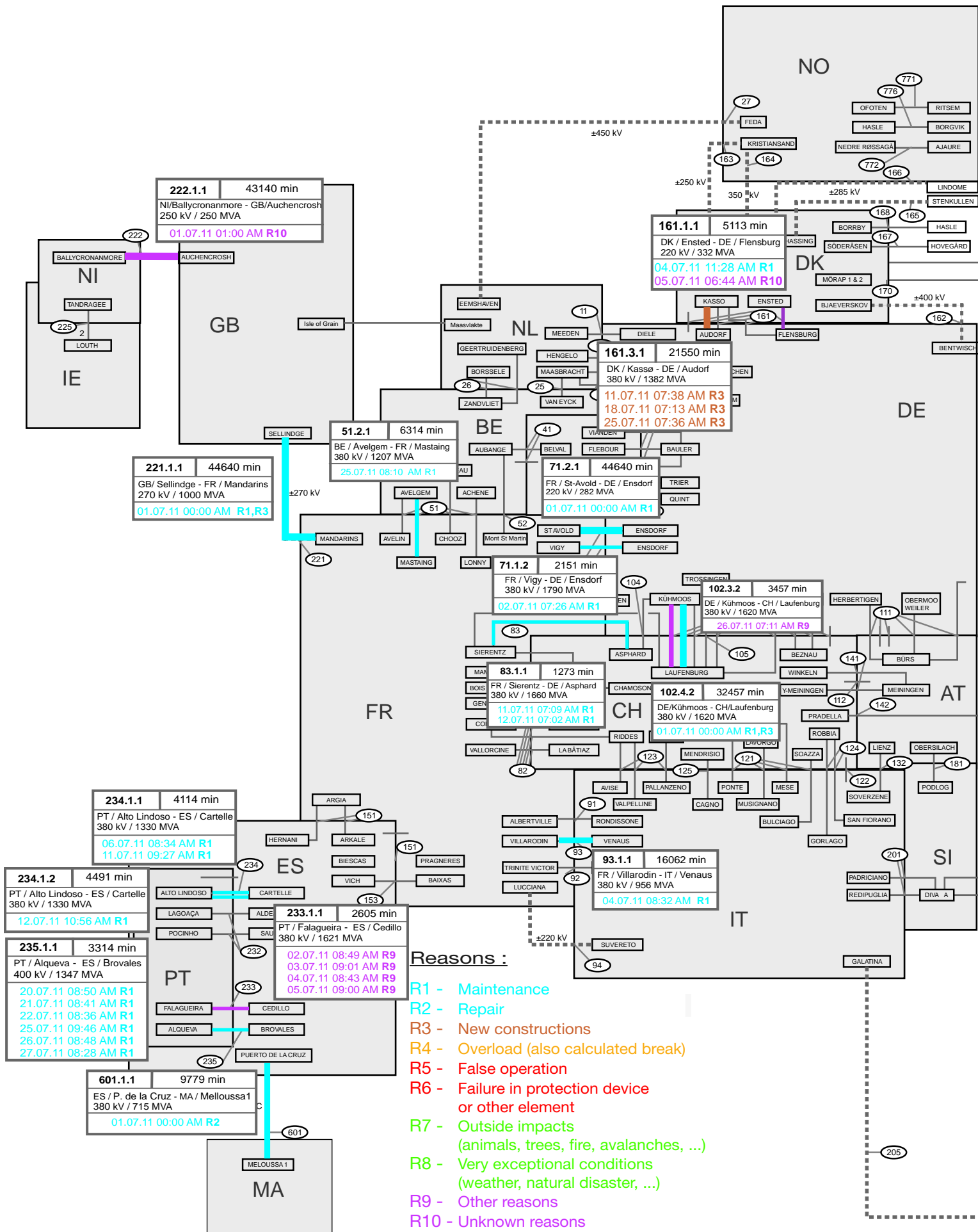
Sum of load flows in MW

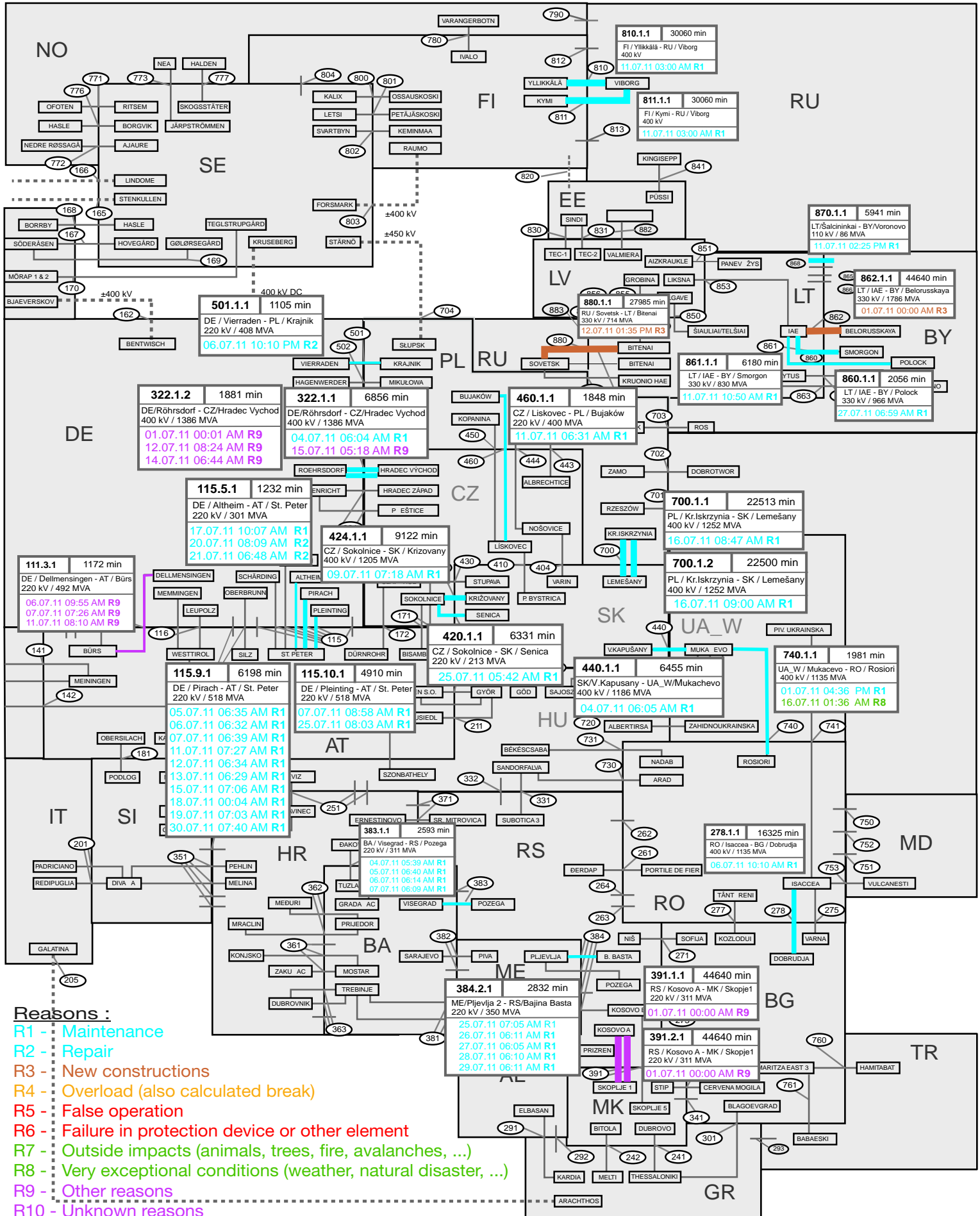
ENTSO-E = 44638 MW

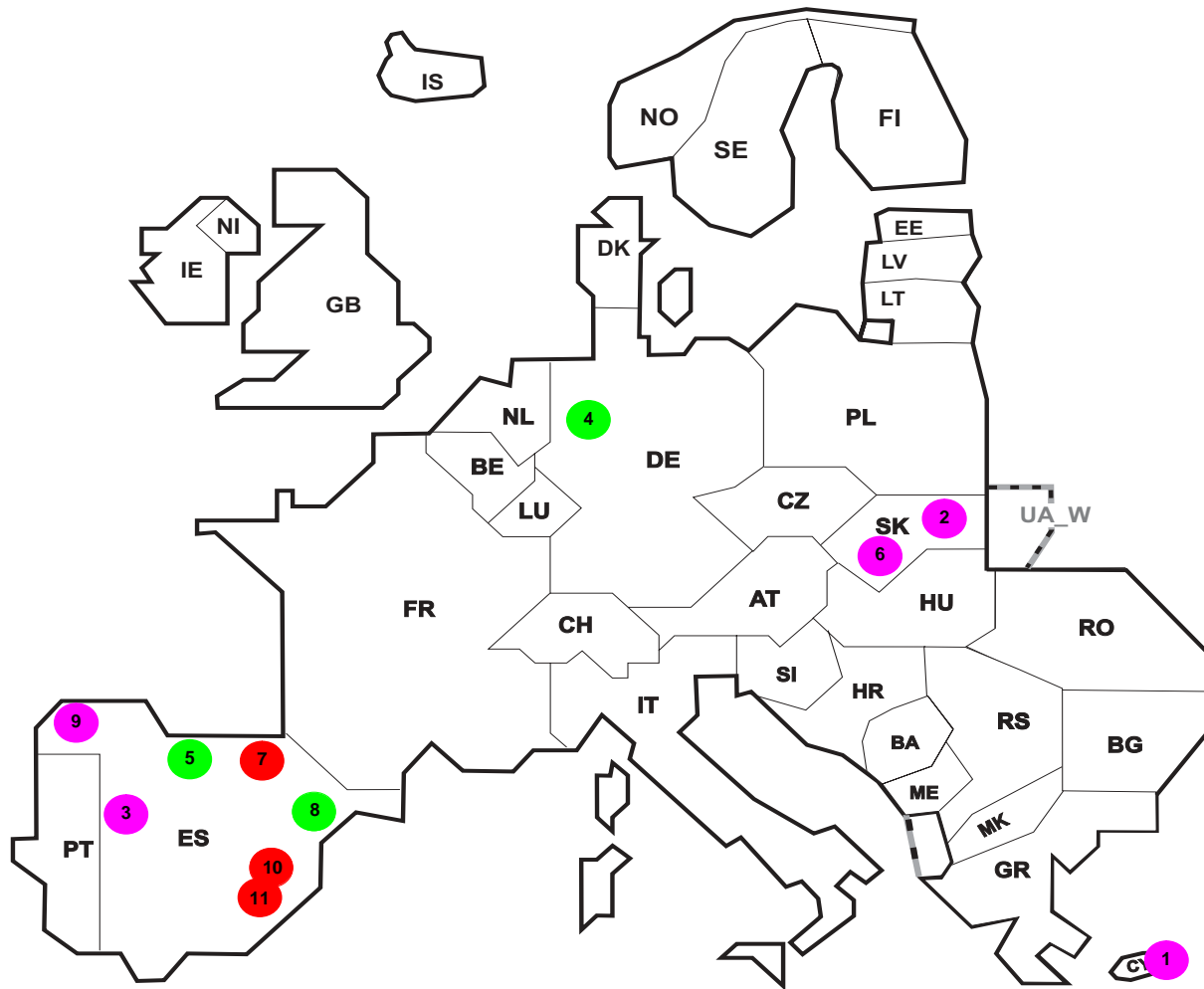
Total = 50017 MW

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 ¹
1	CY	"Vasilikos" Power Station	R9	21575	868	0	2170,716
2	SK	Sučany	R10	23	50	28	0,453
3	ES	Caceres	R10	50	21	238	0,098
4	DE	Osterath	R8	88	586	9	0,084
5	ES	Cacicedo	R8	27	80	20	0,053
6	SK	R. Sobota	R10	2	72	2	0,047
7	ES	Cordovilla	R6	6	93	6	0,011
8	ES	Bechi	R8	6	25	1342	0,011
9	ES	Balboa	R9	4	62	0	0,008
10	ES	Petrel	R6	3	106	187	0,007
11	ES	Fortuna	R5	1	28	313	0,003

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 20.07.2011 CET of each country

	Highest load MW	variation % ¹	Lowest load MW	variation % ¹	Load representativity %
AT	8180	1,1	4787	1,5	100
BA	1546	-0,3	1045	8,7	100
BE ²	10271	19,1	7198	4,0	100
BG	4710	5,2	3260	7,0	100
CH	8291	-0,9	4991	-0,9	100
CY ³	767	-18,1	576	10,3	100
CZ	7481	-2,2	5586	4,2	100
DE	74535	5,2	47902	-3,4	91
DK	4060	-4,4	2423	-5,2	100
EE	887	0,8	520	6,1	100
ES	36601	-8,6	24465	-4,5	98
FI	8838	-1,1	6757	-3,1	100
FR	55956	-4,7	38950	-6,1	100
GB	39752	-6,2	23387	-6,9	100
GR	9868	1,8	6446	6,4	100
HR	2423	-9,6	1683	7,5	100
HU	5101	-7,7	3686	1,4	100
IE	3356	-1,2	1880	1,6	100
IS	1933	3,9	1730	-0,7	100
IT	46750	-14,4	32191	-7,6	100
LT	1405	5,9	843	6,0	100
LU	864	-4,5	610	2,5	100
LV	880	-3,3	457	-8,0	100
ME ⁴	559	n.a.	357	n.a.	100
MK	1058	3,8	640	5,4	100
NI	1181	-1,6	556	-7,8	100
NL	14816	-4,4	9448	-3,9	100
NO	11407	-1,7	8942	1,4	100
PL ⁵	18721	1,5	12696	2,6	100
PT	6866	-5,0	4450	-7,4	100
RO	7171	4,7	5223	9,4	100
RS	4514	-5,3	2932	4,3	100
SE	13816	5,0	10018	9,2	100
SI	1634	-1,7	1269	2,2	100
SK	3371	-2,1	2503	-0,2	100
ENTSO-E	417065	n.a.	282772	n.a.	
UA_W	757	28,3	493	41,7	100

¹ Variation as compared to corresponding month of the previous year

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

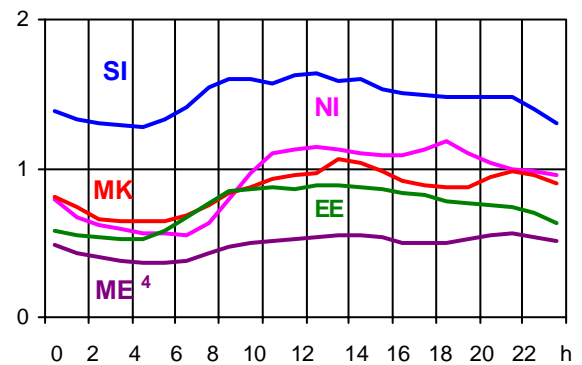
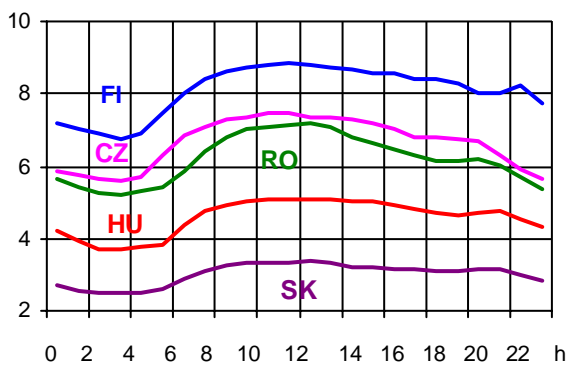
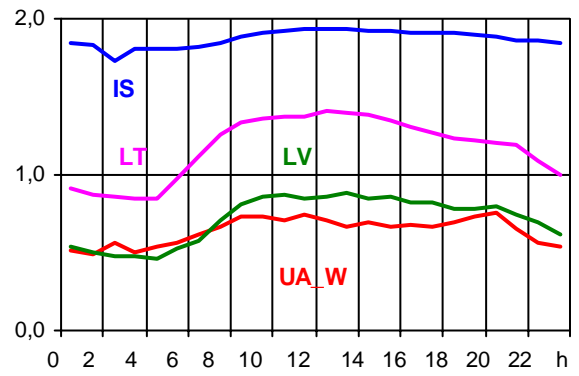
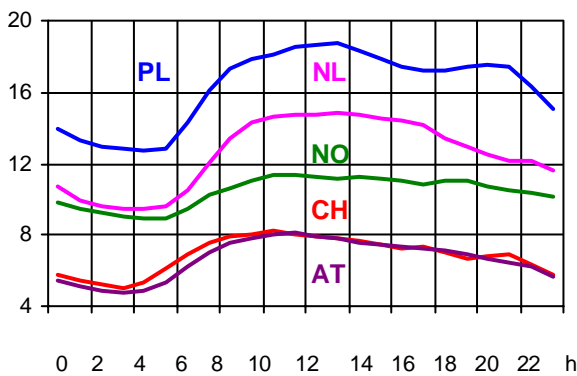
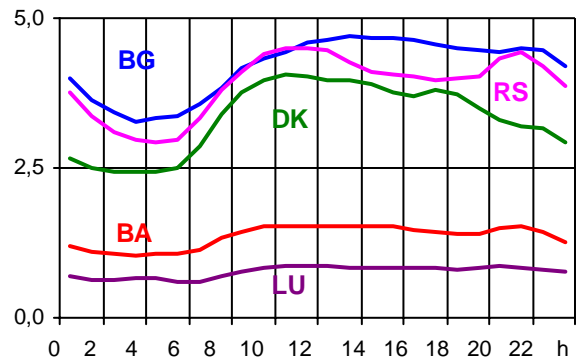
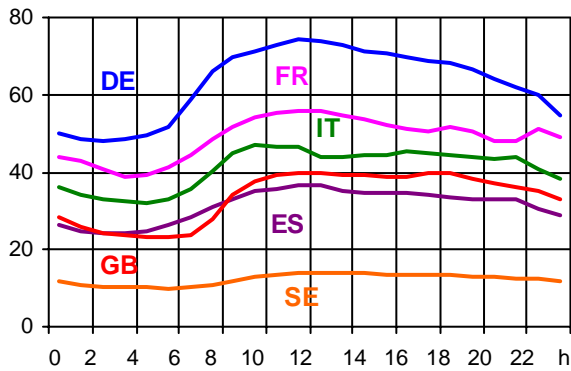
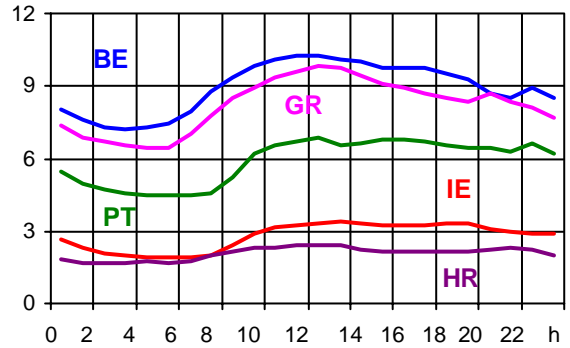
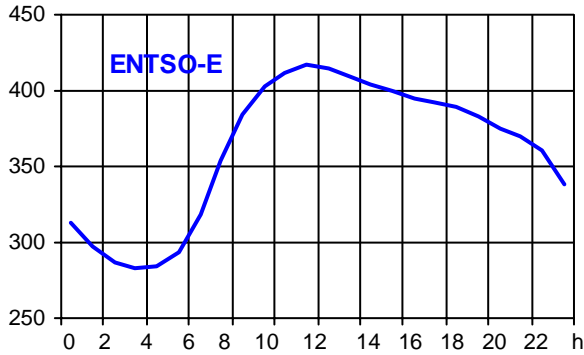
³ Only highest and lowest load value available

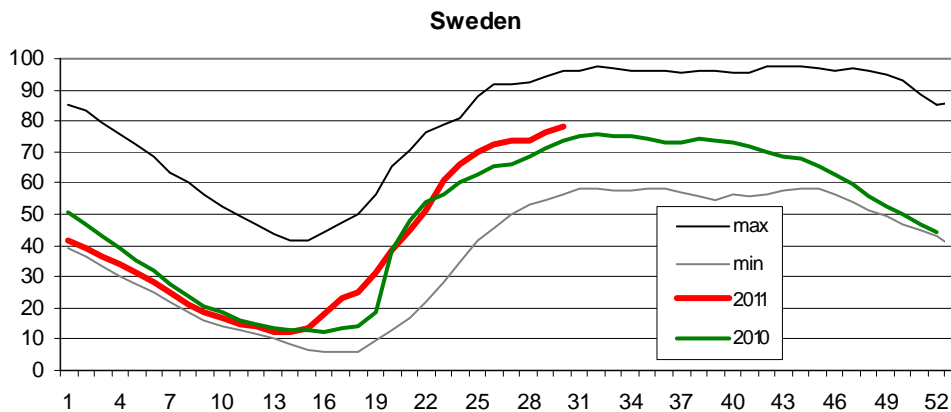
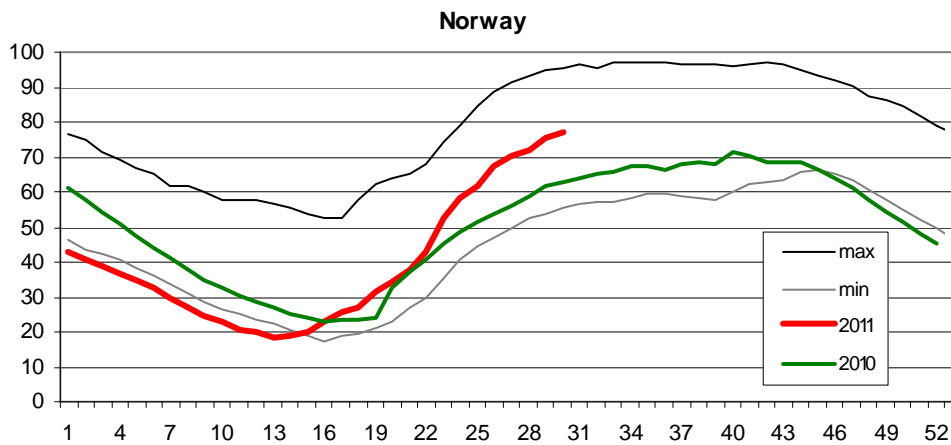
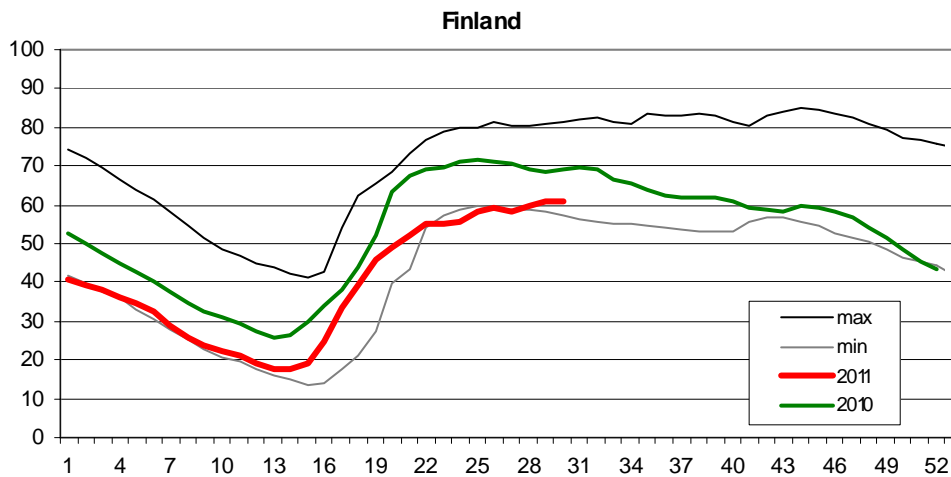
⁴ Monthly load values as of 21 July 2010

⁵ Operational data

Consumption hourly load curves on 20.07.2011 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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