

Monthly report



February 2011

Monthly provisional values as of 01 July 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	Monthly imports and exports	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 production 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
- CET Central European Time

Countries	Net generation in GWh								Exchange balance in GWh	Pump in GWh	Consumption	
	Therm. nuclear	Fossil fuels	Hydro prod	Other renew.	of which wind	of which solar	Non identifiable	Total			monthly [GWh]	var. [%]
AT	0	2490	2341	0	0	0	546	5377	837	365	5849	1,7
BA	0	760	462	0	0	0	0	1222	-184	0	1038	6,2
BE ²	3327	2756	149	470	187	25	0	6702 ¹	744	147	7299	-2,7
BG	1303	2270	384	44	44	0	0	4001	-809	90	3102	1,8
CH	2177	186	2228	125	5	0	0	4716 ¹	1065	99	5682	-0,3
CY	0	397	0	10	10	0	0	407	0	0	407	3,6
CZ	2392	4223	275	125	30	95	0	7015 ¹	-1270	75	5670	0,0
DE	12104	32300	1626	7181	4605	761	0	53211 ¹	-3221	469	49521	2,0
DK	0	3024	2	744	517	0	0	3770 ¹	-880	0	2890	-7,1
EE	0	935	3	67	25	0	0	1005	-218	0	787	2,5
ES	4280	9912	3124	5135	4004	539	24	22475	-359	281	21835	-2,2
FI	1805	3620	899	1060	29	0	65	7449 ¹	944	0	8393	2,1
FR	38328	6537	4199	1357	884	44	0	50421	-3963	510	45948	-5,7
GB	5637	21157	664	1279	614	0	0	28737	26	326	28437	-6,7
GR	0	3289	342	240	195	13	0	3871 ¹	329	43	4157	1,2
HR	0	454	535	14	13	0	0	1003	490	11	1482	-3,6
HU	1376	1862	0	0	0	0	0	3238	335	0	3573	12,3
IE	0	1701	96	355	355	0	13	2165 ¹	49	0	2214	-5,2
IS	0	0	997	337	0	0	0	1334	0	0	1334	0,5
IT	0	18101	2724	1327	758	153	0	22152	4093	177	26068	-0,7
LT	0	306	104	56	43	0	0	466 ¹	509	67	908	4,4
LU	0	252	150	14	4	0	0	416	345	193	568	4,0
LV	0	431	229	12	6	0	0	672	-14	0	658	3,1
ME ³	0	89	304	0	0	0	0	393	-44	0	349	n.a.
MK	0	473	167	0	0	0	0	640	215	0	855	9,2
NI	0	501	1	85	80	0	1	588	186	0	774	-1,8
NL	329	8459	0	809	497	n.a.	0	9597	361	0	9958	1,8
NO	0	578	9831	106	106	0	0	10515 ¹	1893	53	12355	-5,4
PL ⁴	0	12250	252	241	216	0	0	12743 ¹	-421	57	12265	3,1
PT	0	2199	1447	998	809	15	0	4644 ¹	-156	28	4460	-2,2
RO	879	2613	1517	141	128	0	0	5150	-365	8	4777	6,8
RS	0	2865	959	0	0	0	0	3824	-199	30	3595	3,8
SE	5828	934	5460	1688	496	0	0	13910 ¹	84	0	13994	-1,5
SI	469	435	205	0	0	0	0	1109	-61	0	1048	6,1
SK	1210	670	400	42	0	2	86	2408 ¹	-20	48	2340	2,3
ENTSO-E	81444	149029	42076	24062	14660	1647	735	297346¹	321	3077	294590	4,8
UA_W	0	632	7	0	0	0	0	639	-194	0	445	12,4

¹ Including deliveries from industry

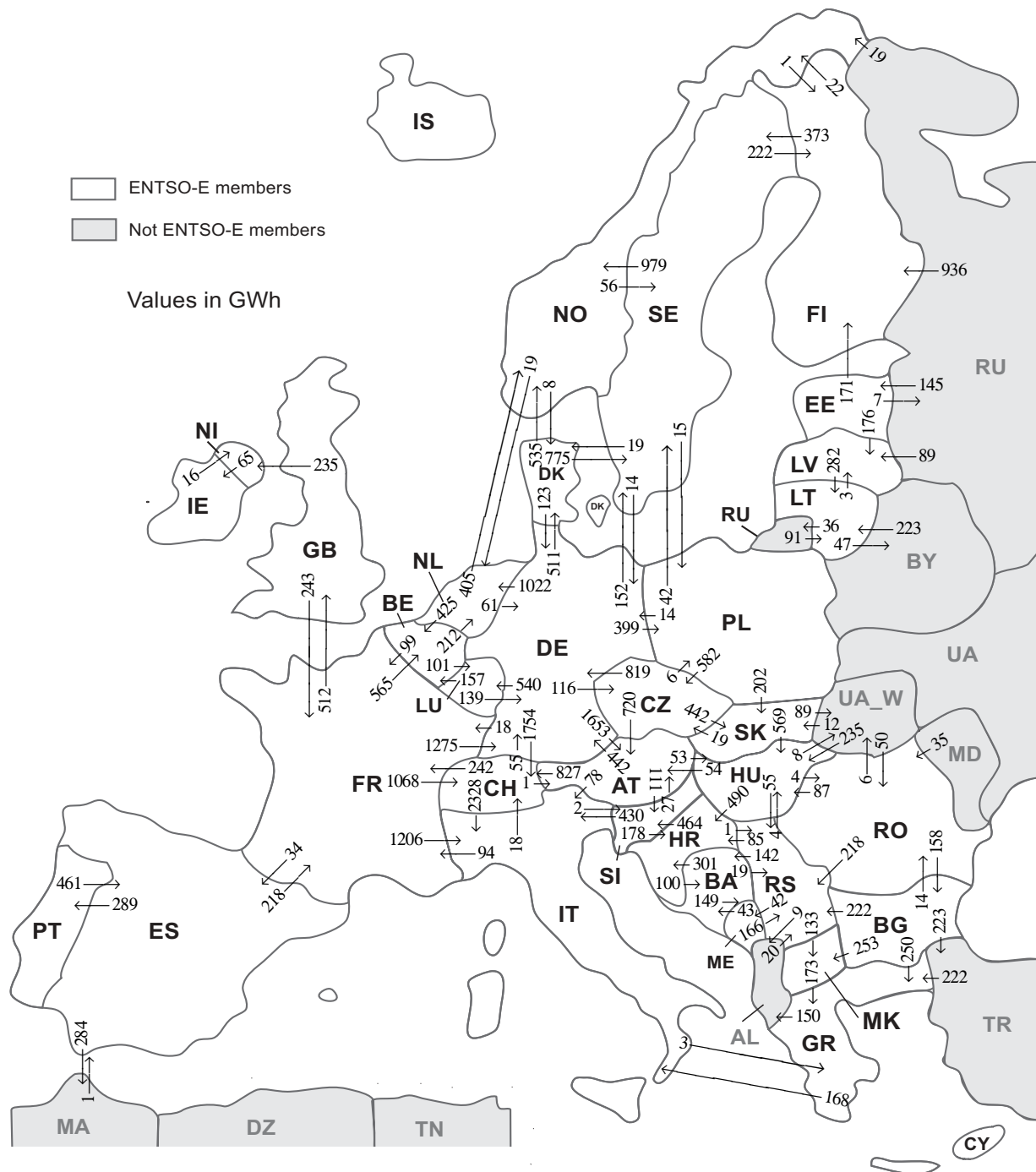
² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of February 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	94	100	100	100	97
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: **29843GWh**

Total physical energy flows: **32780GWh**

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.

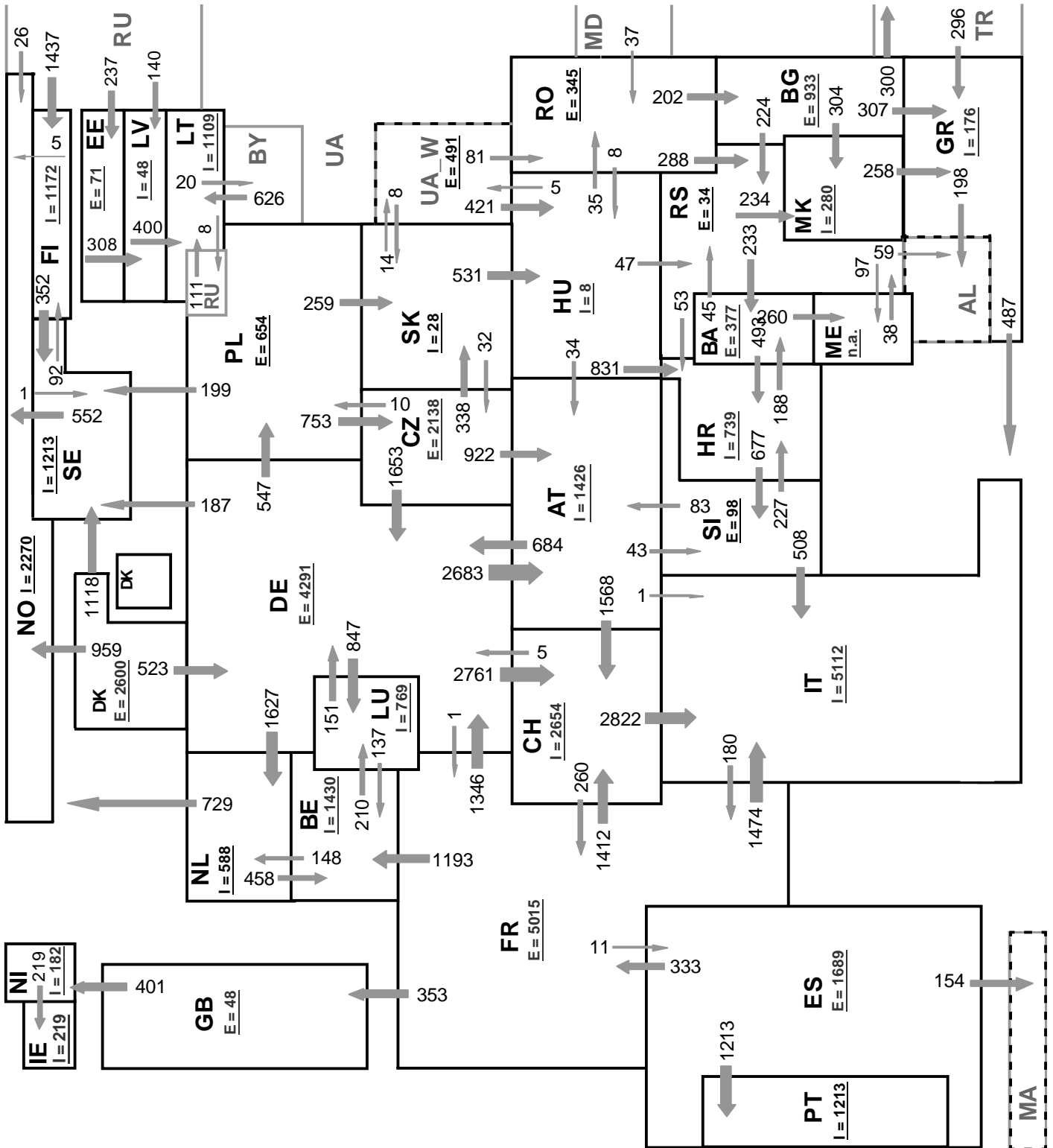
Overview of the monthly imports and exports in GWh

Exporting countries	Importing 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	UA_W	Other III ¹	
AT	-	-	-	-	827	0	442	-	-	-	-	-	-	-	-	53	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	-	-	
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	301	-	-	-	-	-	-	-	149	-	-	-	-	-	-	-	-	19	-	-	-	-	
BE	-	-	-	-	-	-	-	-	-	-	99	-	-	-	-	-	-	-	-	101	-	-	-	212	-	-	-	-	-	-	-	-	-	-	-	
BG	-	-	-	-	-	-	-	-	-	-	-	99	-	-	-	-	-	-	-	-	-	253	-	-	-	-	14	222	-	-	-	-	-	-	-	223
CH	1	-	-	-	-	-	-	-	-	-	-	242	-	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CZ	720	-	-	-	-	-	819	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442	-	
DE	1653	-	-	-	1754	116	-	511	-	-	-	18	-	-	-	-	-	-	-	540	-	-	-	-	1022	399	-	-	-	-	152	-	-	-	-	
DK	-	-	-	-	-	-	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	535	-	-	-	-	775	-	-	-	-	
EE	-	-	-	-	-	-	-	-	-	-	171	-	-	-	-	-	-	-	-	-	176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
ES	-	-	-	-	-	-	-	-	-	-	-	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	289	-	-	-	-	-	-	-	284	
FI	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	373	-	-	-	-	0	
FR	-	-	565	-	1068	-	1275	-	-	34	-	-	512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GB	-	-	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	150
HR	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	464	-	-	
HU	54	-	-	-	-	-	-	-	-	-	-	-	-	490	-	-	-	-	-	-	-	-	-	-	-	-	-	4	55	-	-	0	8	-	-	
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IT	0	-	-	-	18	-	-	-	-	-	-	94	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83
LU	-	-	157	-	-	-	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LV	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
ME	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n.a.
MK	-	-	-	0	-	-	-	-	-	-	-	-	173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166	-	-
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	425	-	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	-	8	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	56	-	0
PL	-	-	-	-	582	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	202	0
PT	-	-	-	-	-	-	-	-	-	461	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	158	-	-	-	-	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0
RS	-	142	-	0	-	-	-	-	-	-	-	-	-	85	4	-	-	-	-	-	-	42	133	-	-	-	-	-	0	-	-	-	-	-	9	
SE	-	-	-	-	-	-	14	19	-	-	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SI	27	-	-	-	-	-	-	-	-	-	-	-	-	178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	-	19	-	-	-	-	-	-	-	-	569	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	-
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
Other III ¹	-	-	-	0	-	-	-	-	145	1	936	-	-	222	-	-	-	-	314	-	89	n.a.	-	-	-	19	0	-	35	20	-	-	-	-	-	

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

Sum of the monthly imports and exports in GWh

	import	export		import	export
AT	2455	1511	IT	4210	117
BA	285	469	LT	596	86
BE	1147	412	LU	641	296
BG	158	962	LV	268	282
CH	3667	2626	ME	191	209
CZ	717	1987	MK	386	173
DE	2942	6165	NI	251	65
DK	538	1433	NL	1253	891
EE	145	354	NO	1960	84
ES	496	791	PL	420	840
FI	1330	395	PT	289	461
FR	914	4660	RO	103	469
GB	512	478	RS	701	415
GR	648	318	SE	1398	1249
HR	1054	565	SI	577	635
HU	948	611	SK	656	677
IE	65	16	UA_W	103	297



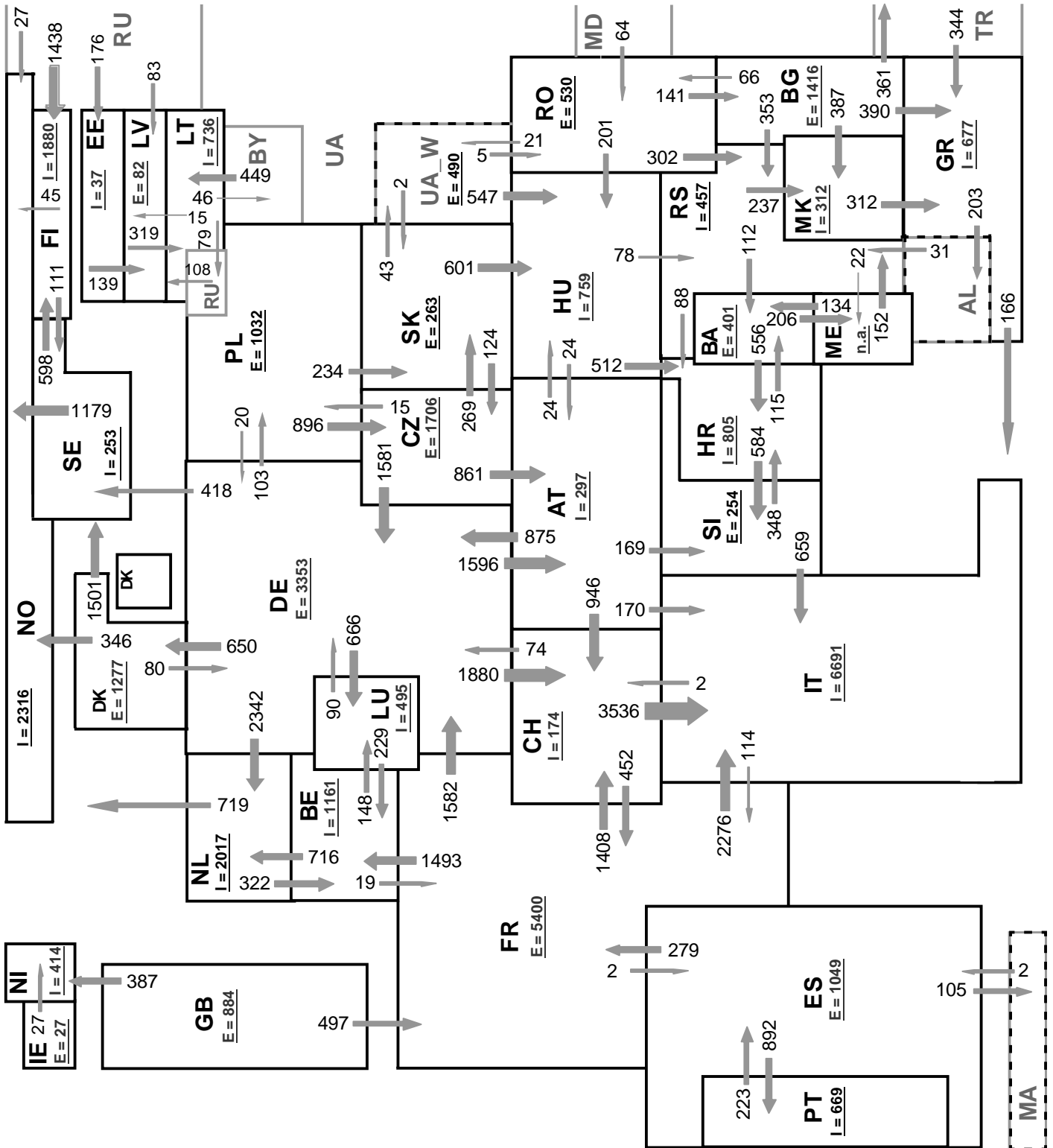
Sum of load flows in MW

ENTSO-E = 39172 MW

Total = 43350 MW

Synchronous operation with ENTSO-E region

I = Import balance
E = Export balance



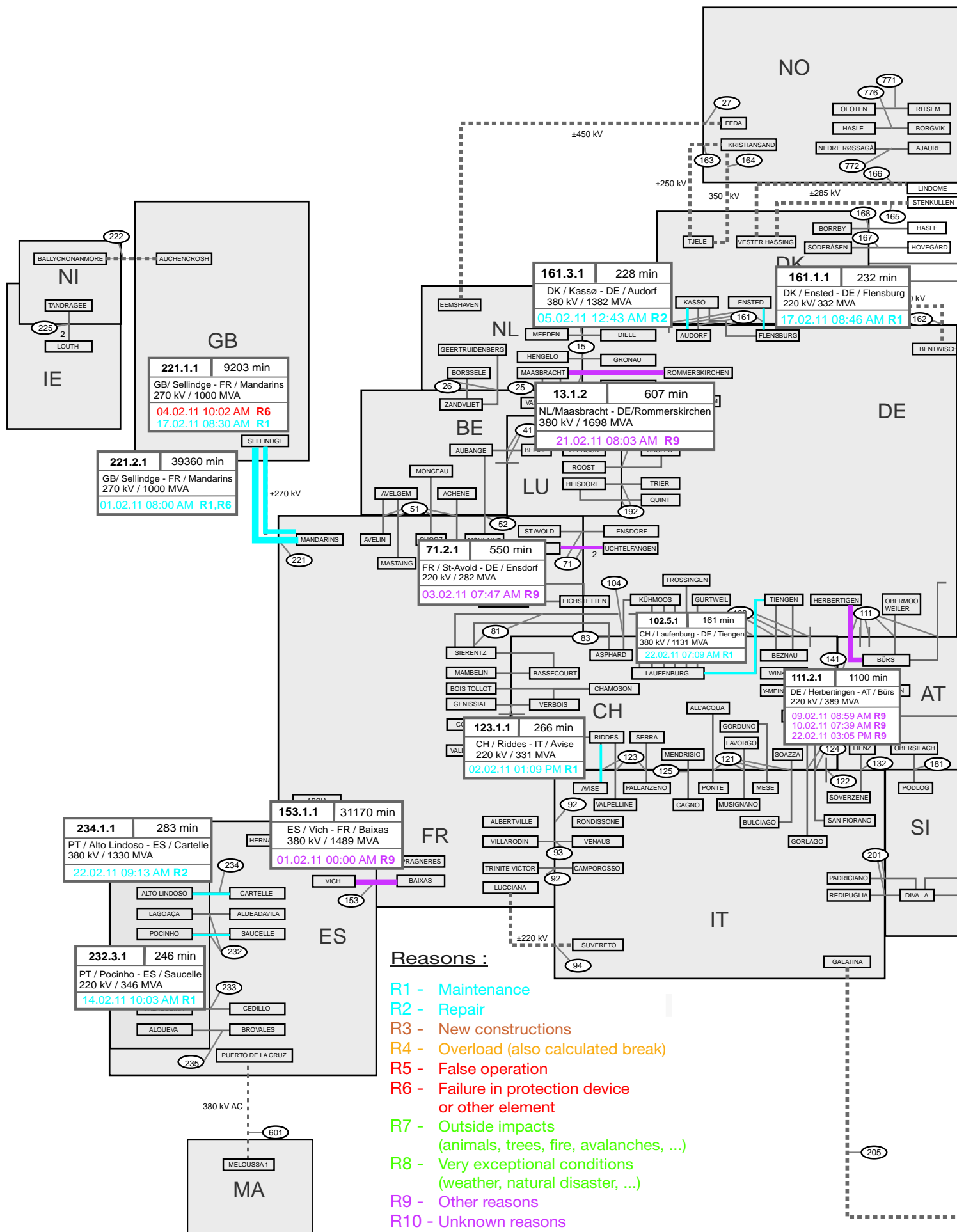
Sum of load flows in MW

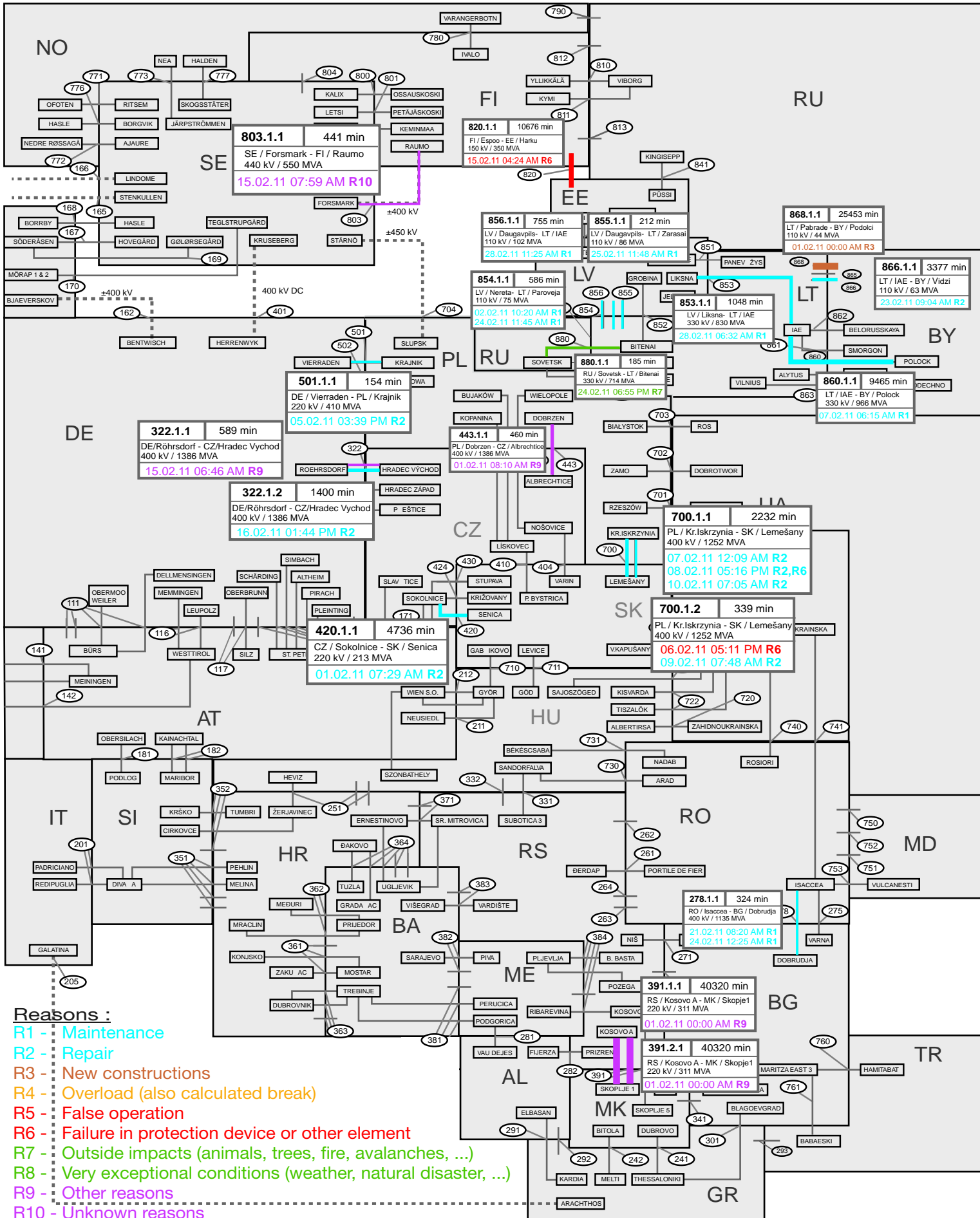
ENTSO-E = 40266 MW

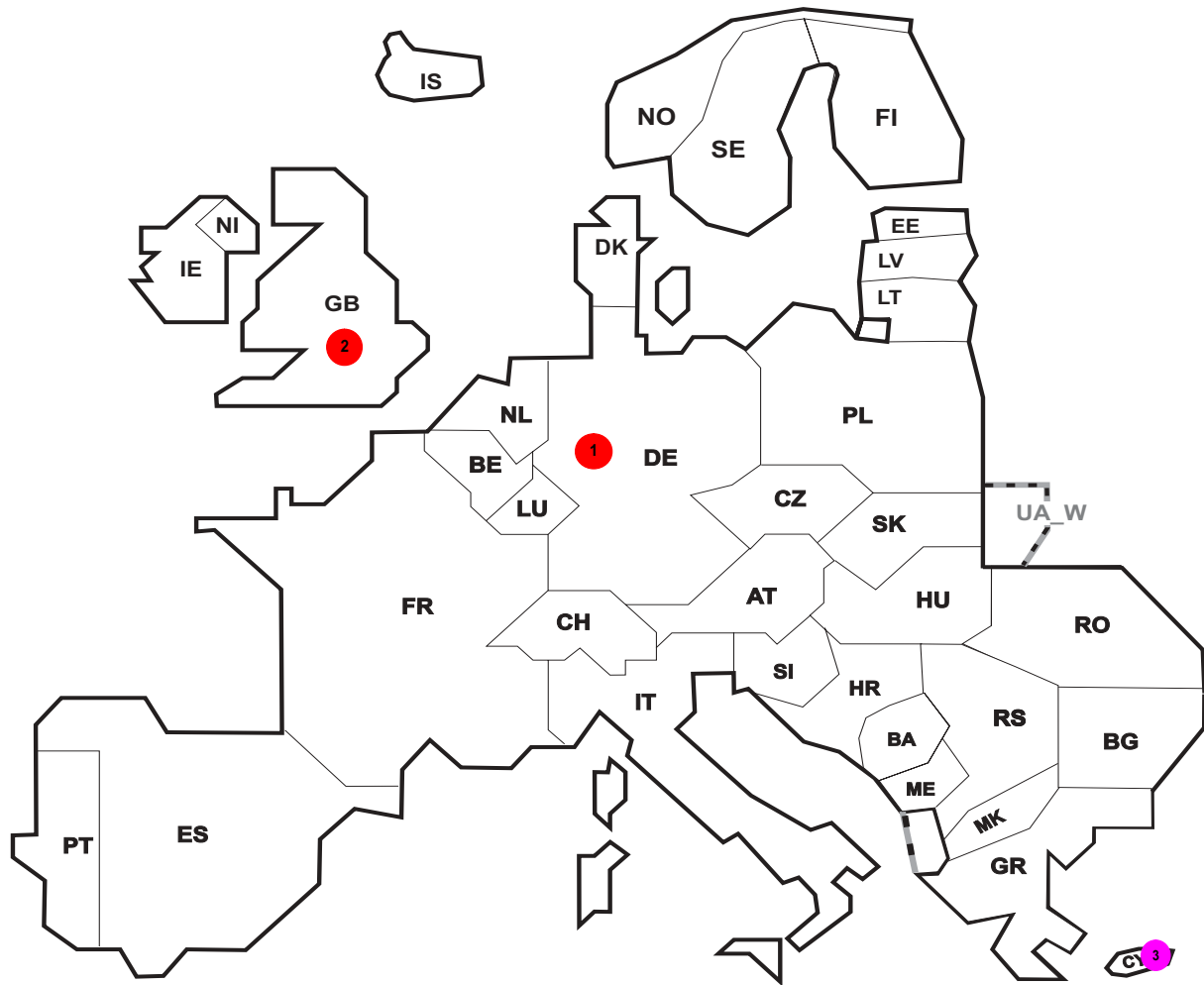
Total = 44539 MW

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	DE	Rommerskirchen	R6	520	578	54	0,497
2	GB	Patford Bridge	R6	0	0	188	0,000
3	CY	Vasikos Power Station - UNITTG2	R9	0	50	1	0,000

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 16.02.2011 CET of each country

	Highest load MW	variation % ¹	Lowest load MW	variation % ¹	Load representativity %
AT	9273	2,3	5909	-1,8	100
BA	1853	1,9	1133	4,9	100
BE ²	12458	-2,7	9374	-7,4	100
BG	6395	5,2	4292	3,2	100
CH	9879	0,2	7126	-5,4	100
CY ³	780	8,2	411	11,7	100
CZ	9713	-0,5	7447	-4,4	100
DE	78474	-1,0	56981	-5,6	91
DK	5716	-0,3	3502	-0,7	100
EE	1495	8,6	1097	12,3	100
ES	40891	-1,3	25391	-0,7	98
FI	14265	5,4	12606	11,7	100
FR	75441	-10,3	60857	-12,1	100
GB	51511	-6,1	31003	-8,8	100
GR	7518	3,6	4498	3,3	100
HR	2771	-1,4	1534	-4,8	100
HU	5667	2,0	3859	1,6	100
IE	4313	-2,4	2458	-3,9	100
IS	2034	0,7	1874	1,7	100
IT	50065	1,9	29033	2,6	100
LT	1519	3,9	1034	23,2	100
LU	1036	6,3	794	12,5	100
LV	1226	4,8	742	7,5	100
ME ⁴	586	n.a.	381	n.a.	100
MK	1421	15,1	882	14,1	100
NI	1509	-0,3	820	-2,5	100
NL	16031	-2,5	9806	-2,1	100
NO	21512	1,6	17235	2,9	100
PL ⁵	21988	4,6	15367	2,6	100
PT	8840	-2,6	5159	3,0	97
RO	8421	5,9	6039	5,8	100
RS	6803	0,7	4579	-3,8	100
SE	24238	3,4	19220	8,0	100
SI	1893	5,8	1352	18,5	100
SK	4126	3,6	3144	1,4	100
ENTSO-E	507791	-0,5	359535	-3,4	
UA_W	1025	17,8	664	10,3	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

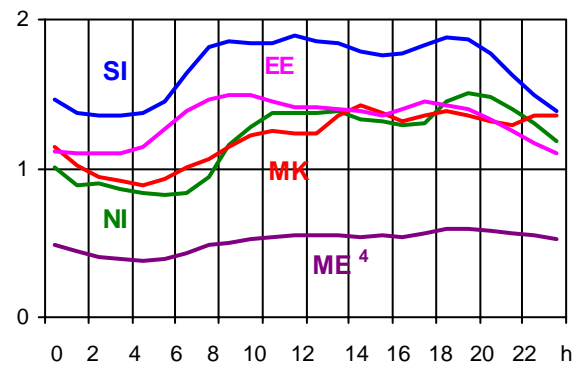
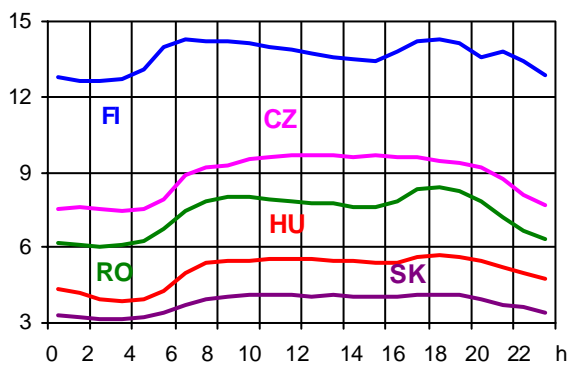
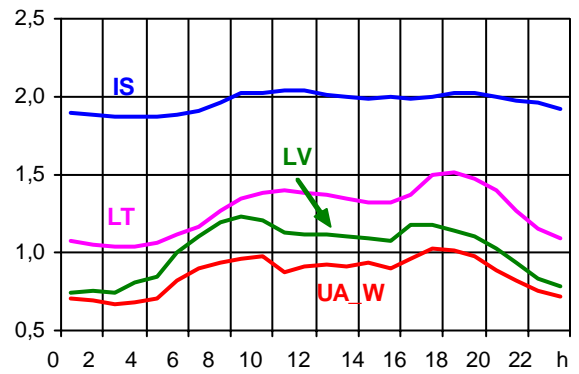
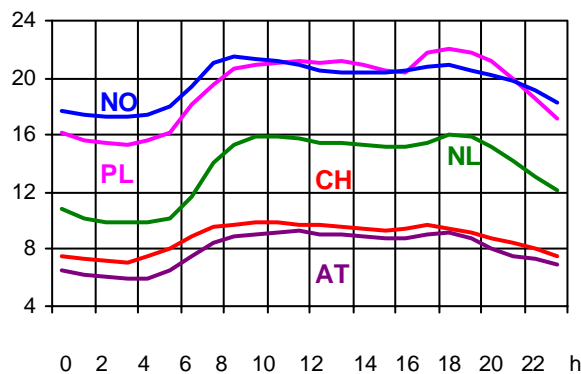
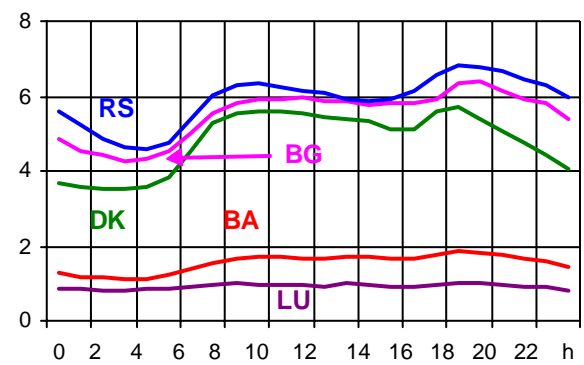
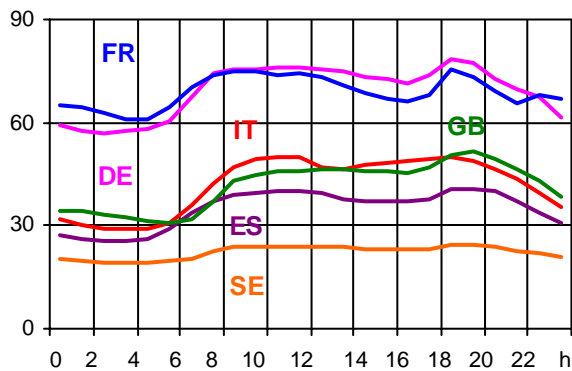
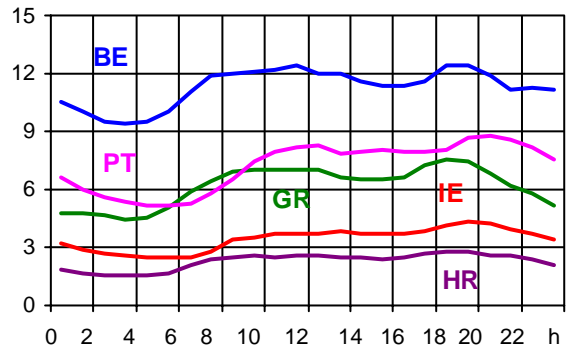
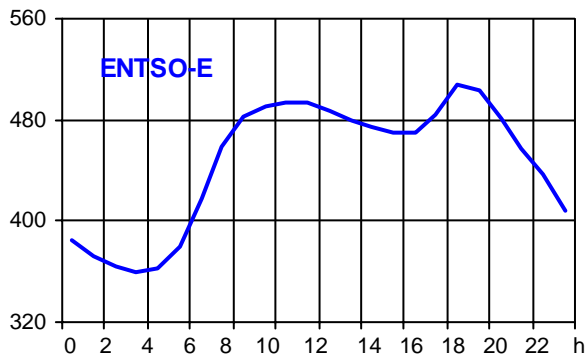
³ Only highest and lowest load value available

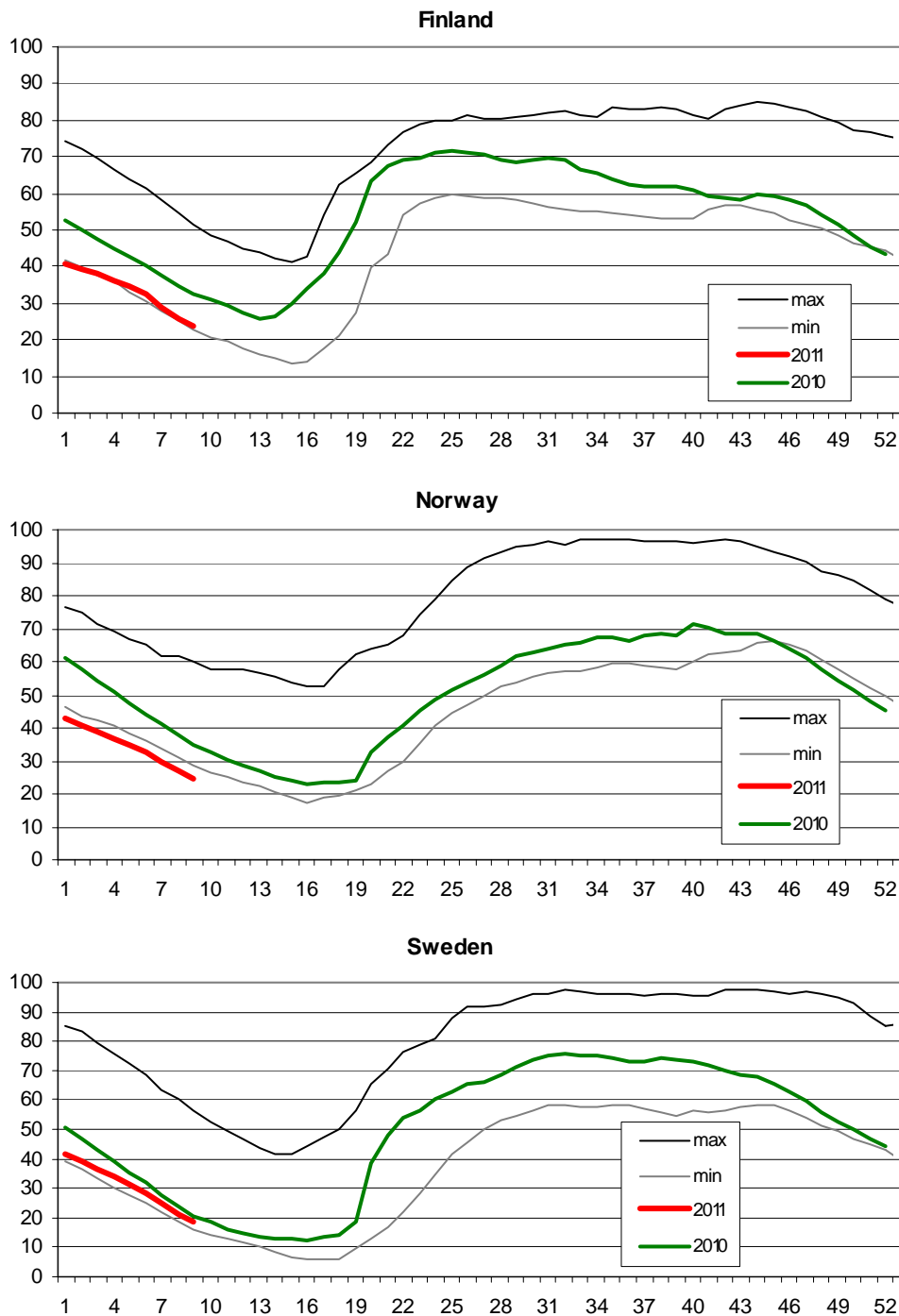
⁴ Monthly load values as of 20th February 2010

⁵ Operational data

Consumption hourly load curves on 16.02.2011 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

Contact

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

info@entsoe.eu
www.entsoe.eu

