

Monthly report



March 2011

Monthly provisional values as of 04 August 2011

European Network of
Transmission System Operators
for Electricity



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 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	2696	2259	0	0	0	640	5595	967	399	6163	2,2
BA	0	881	513	0	0	0	0	1394	-319	0	1075	5,9
BE ²	3927	2522	138	533	162	95	0	7120 ¹	806	154	7772	-0,5
BG	1445	2132	281	40	40	0	0	3898	-696	119	3083	2,2
CH	2426	192	2032	129	5	0	0	4779 ¹	1298	167	5910	-1,0
CY	0	403	0	8	8	0	0	411	0	0	411	8,4
CZ	2395	4385	285	237	34	203	0	7302 ¹	-1432	83	5787	-0,8
DE	10764	31492	1717	6921	3133	1754	0	50894 ¹	-2111	523	48260	-0,9
DK	0	2893	3	914	678	0	0	3810 ¹	-671	0	3139	-1,8
EE	0	1006	2	99	43	0	0	1107	-338	0	769	1,7
ES	4339	10101	4006	6009	4736	618	28	24483	-763	348	23373	0,5
FI	2033	3674	774	1172	62	0	70	7723 ¹	413	0	8136	3,2
FR	37695	6754	4444	1709	1116	91	0	50602	-4656	532	45414	-6,0
GB	6221	21897	525	879	422	0	0	29522	113	341	29294	-5,5
GR	0	3600	378	264	210	21	0	4242 ¹	214	34	4422	2,2
HR	0	455	565	15	14	0	0	1035	533	15	1553	-1,6
HU	1272	2011	0	0	0	0	0	3283	443	0	3726	11,4
IE	0	1976	50	206	206	0	15	2247 ¹	84	0	2331	-4,2
IS	0	0	1082	377	0	0	0	1459	0	0	1459	0,3
IT	0	19607	3283	1616	941	223	0	24506	4049	183	28372	0,7
LT	0	295	106	60	46	0	0	461 ¹	519	70	910	4,6
LU	0	265	148	19	6	0	0	432	303	195	540	-9,7
LV	0	430	226	16	8	0	0	672	-14	0	658	0,9
ME ³	0	98	341	0	0	0	0	439	-79	0	360	n.a.
MK	0	528	148	0	0	0	0	676	173	0	849	19,1
NI	0	581	1	54	49	0	1	637	185	0	822	-0,2
NL	363	8959	0	611	299	n.a.	0	9933	400	0	10333	2,0
NO	0	629	9328	151	151	0	0	10108 ¹	2199	59	12248	-1,4
PL ⁴	0	13182	244	240	214	0	0	13666 ¹	-775	35	12856	1,9
PT	0	1947	1537	1108	875	18	0	4592 ¹	12	36	4568	-3,0
RO	972	2657	1566	143	126	0	0	5338	-403	10	4925	4,2
RS	0	3052	1040	0	0	0	0	4092	166	41	4217	14,6
SE	6475	901	4107	1903	629	0	0	13386 ¹	304	0	13690	-1,6
SI	397	485	257	0	0	0	0	1139	-14	0	1125	7,2
SK	1331	605	339	55	0	6	87	2417 ¹	50	59	2408	0,8
ENTSO-E	82055	153291	41725	25488	14213	3029	841	303400¹	960	3403	300958	-1,0
UA_W	0	569	9	0	0	0	0	578	-161	0	417	7,8

¹ Including deliveries from industry

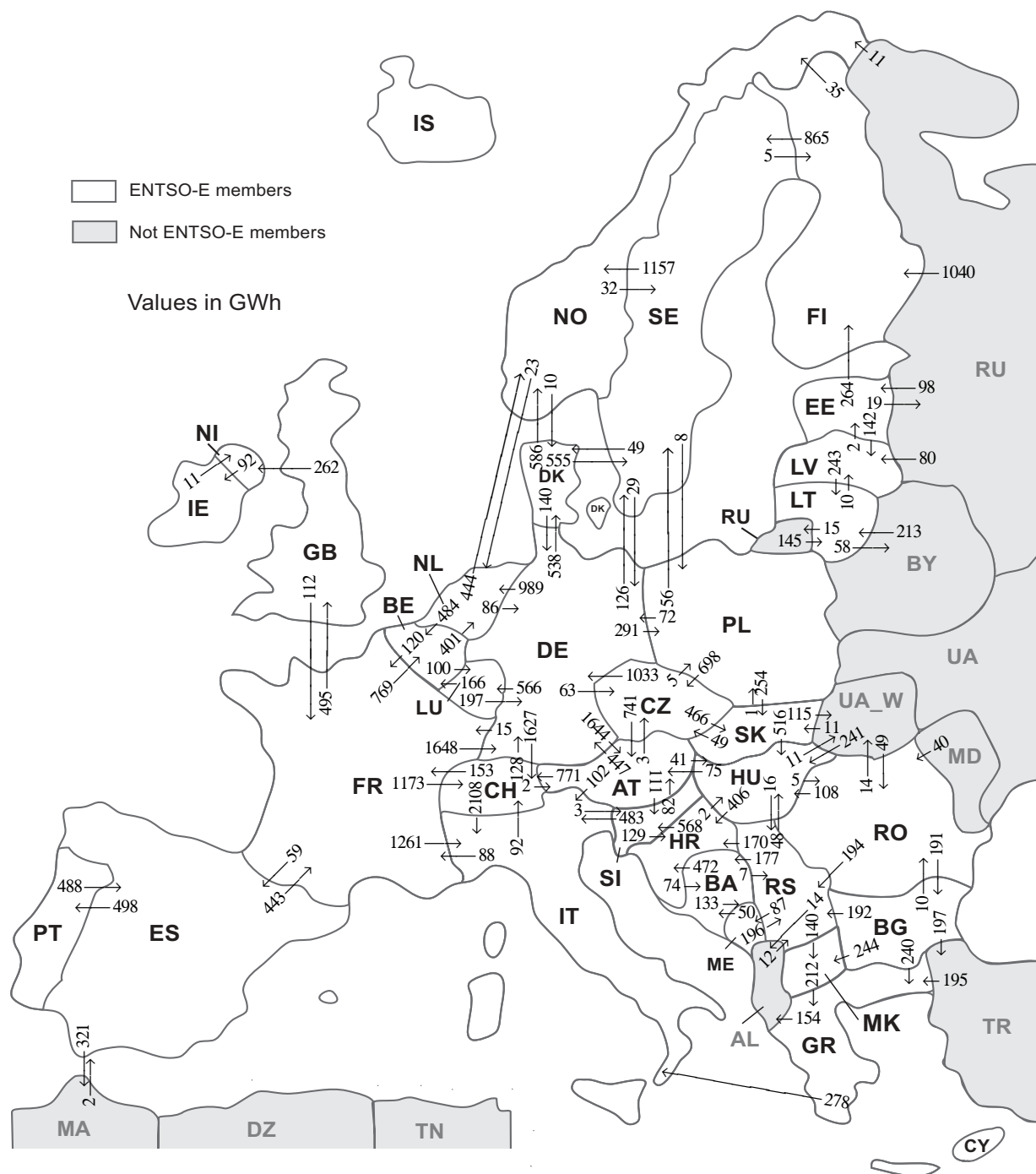
² The reported figures are best estimates based on actual measurements and extrapolations.

³ National monthly values as of March 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	93	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: **32252GWh**

Total physical energy flows: **35307GWh**

Not ENTSO-E members:

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

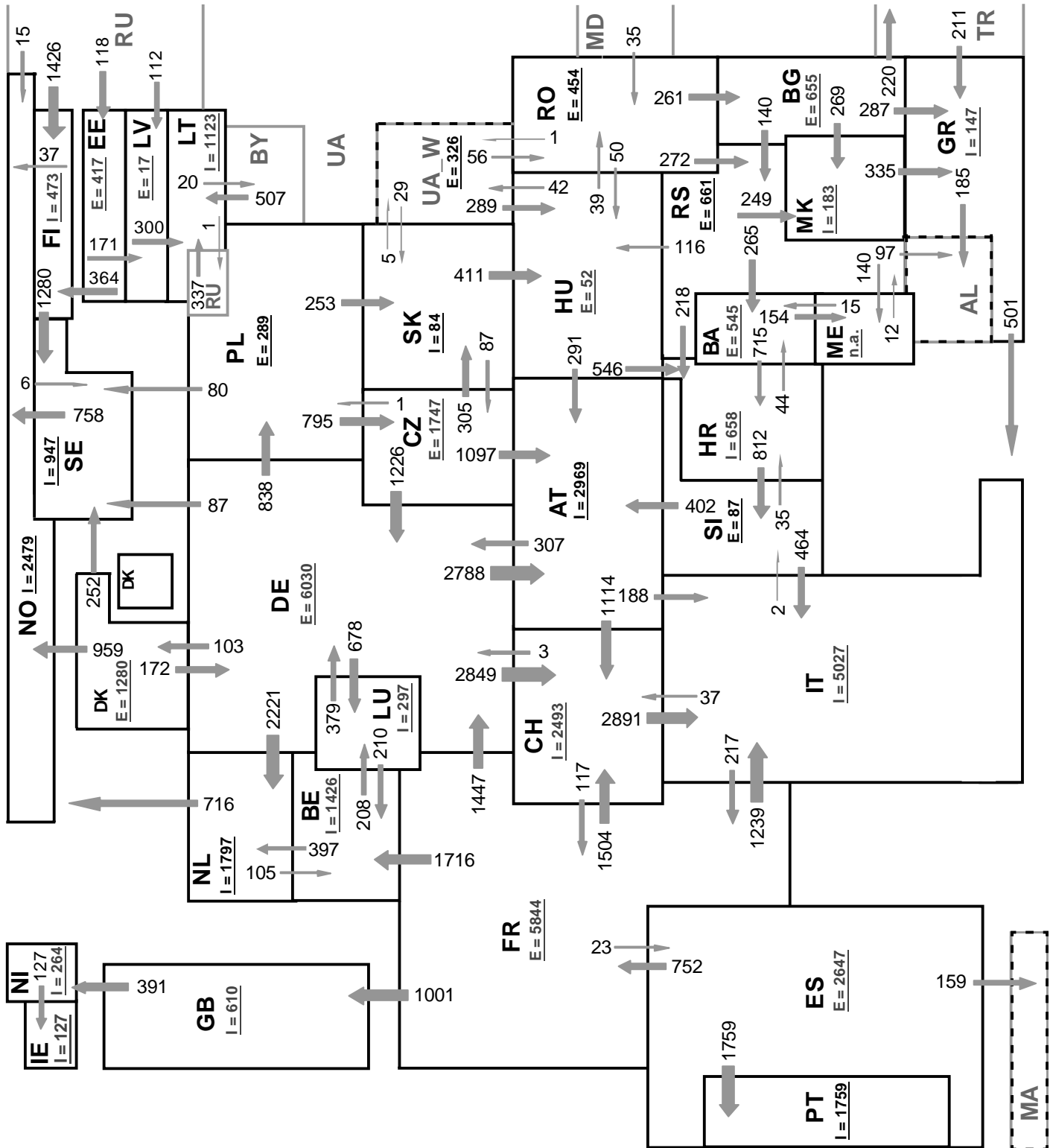
These physical energy flows were measured on the cross-frontier transmission lines (≤ 110 kV) listed in table characteristics of the cross-frontier lines published in the Statistical Yearbook. These values may differ from the official statistics and the exchange balances on page 2.

Outside flows	Inside flows of the countries																											UA_W	Other III ¹											
	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	-	-	-	-	771	3	447	-	-	-	-	-	-	-	-	41	-	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	-	-					
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
BE	-	-	-	-	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	100	-	-	-	-	-	401	-	-	-	-	-	-	-	-	-					
BG	-	-	-	-	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	10	192	-	-	-	-	-	-				
CH	2	-	-	-	-	-	128	-	-	-	-	153	-	-	-	-	-	2108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CZ	741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	466	-	-				
DE	1644	-	-	-	1627	63	-	538	-	-	-	15	-	-	-	-	-	-	-	566	-	-	-	-	989	-	291	-	-	-	-	-	126	-	-	-				
DK	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	586	-	-	-	-	-	-	555	-	-	-				
EE	-	-	-	-	-	-	-	-	-	-	264	-	-	-	-	-	-	-	-	142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19			
ES	-	-	-	-	-	-	-	-	-	-	-	443	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	498	-	-	-	-	-	-	-	-	321			
FI	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-	865	-	-	-	0			
FR	-	-	769	-	1173	-	1648	-	-	59	-	-	495	-	-	-	-	1261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
GB	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	-	-	-	-	-	-	-	-	-	262	-	-	-	-	-	-	-	-	-	-	-	-	-		
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	154		
HR	-	74	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	278	-	-	-	-	-	-	-	-	-	-	-	0	-	588	-	-	-	-	-			
HU	75	-	-	-	-	-	-	-	-	-	-	-	-	-	406	-	-	-	-	-	-	-	-	-	-	-	-	5	16	-	-	-	0	11	-	-	-			
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
IT	0	-	-	-	92	-	-	-	-	-	-	88	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-			
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73			
LU	-	-	166	-	-	-	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LV	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
ME	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	196	-	-	n.a.			
MK	-	-	-	0	-	-	-	-	-	-	-	-	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-			
NI	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
NL	-	-	484	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	444	-	-	-	-	-	-	-	-	-	-	-		
NO	-	-	-	-	-	-	-	10	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	32	-	-	0			
PL	-	-	-	-	698	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	254	0			
PT	-	-	-	-	-	-	-	-	488	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RO	-	-	-	191	-	-	-	-	-	-	-	-	-	-	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	194	-	-	14	0	
RS	-	177	-	0	-	-	-	-	-	-	-	-	-	170	48	-	-	-	-	-	-	87	140	-	-	-	-	-	-	0	-	-	-	-	-	-	-	14		
SE	-	-	-	-	-	-	29	49	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1157	8	-	-	-	-	-	-	-	-	-	-		
SI	82	-	-	-	-	-	-	-	-	-	-	-	-	-	129	-	483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SK	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	-	-	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	-	-	11	-	-
Other III ¹	-	-	-	0	-	-	-	-	98	2	1040	-	-	195	-	-	-	-	358	-	80	n.a.	-	-	-	-	11	0	-	40	12	-	-	-	-	-	-	-	-	

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	2544	1475	IT	4232	183
BA	301	612	LT	601	83
BE	1419	621	LU	666	363
BG	191	883	LV	232	245
CH	3663	2391	ME	220	246
CZ	813	2245	MK	384	212
DE	3780	5859	NI	273	92
DK	597	1281	NL	1413	1014
EE	100	425	NO	2233	65
ES	549	1262	PL	305	1080
FI	1309	900	PT	498	488
FR	931	5405	RO	104	507
GB	495	374	RS	617	636
GR	647	432	SE	1634	1248
HR	1177	644	SI	682	694
HU	956	513	SK	731	681
IE	92	11	UA_W	140	301



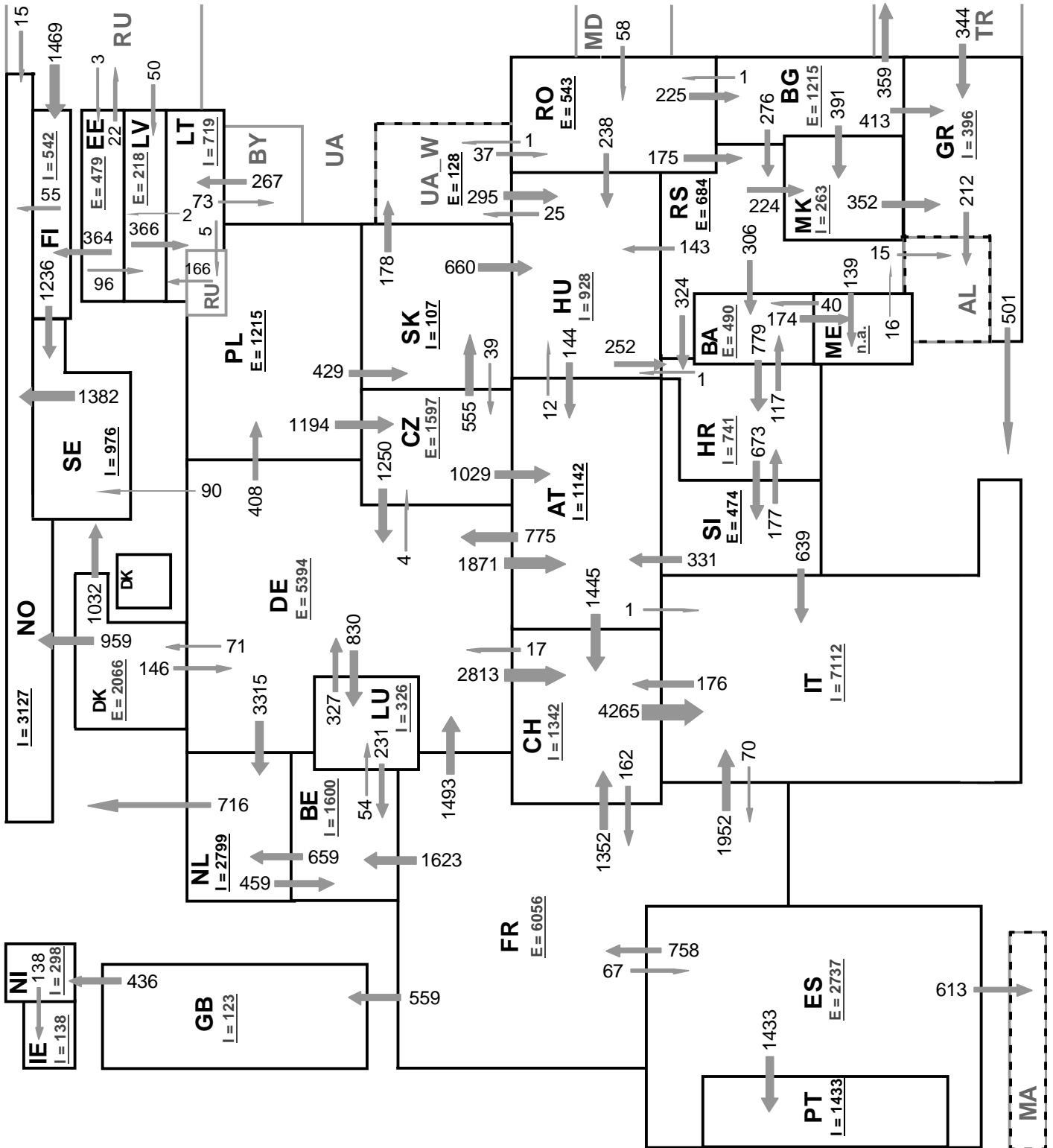
Sum of load flows in MW

ENTSO-E = 41600 MW

Total = 45465 MW

Synchronous operation with ENTSO-E region

I = Import balance
E = Export balance



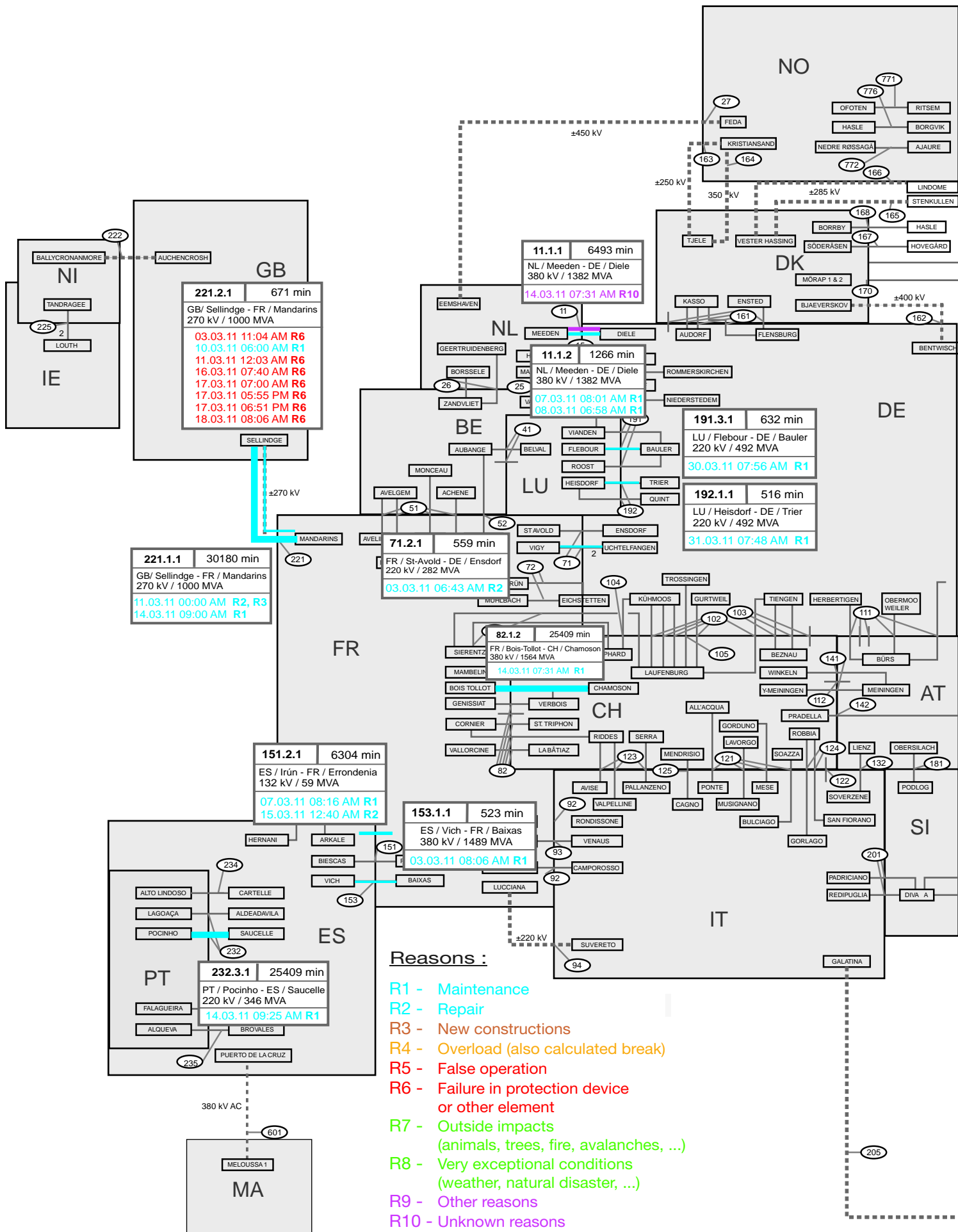
Sum of load flows in MW

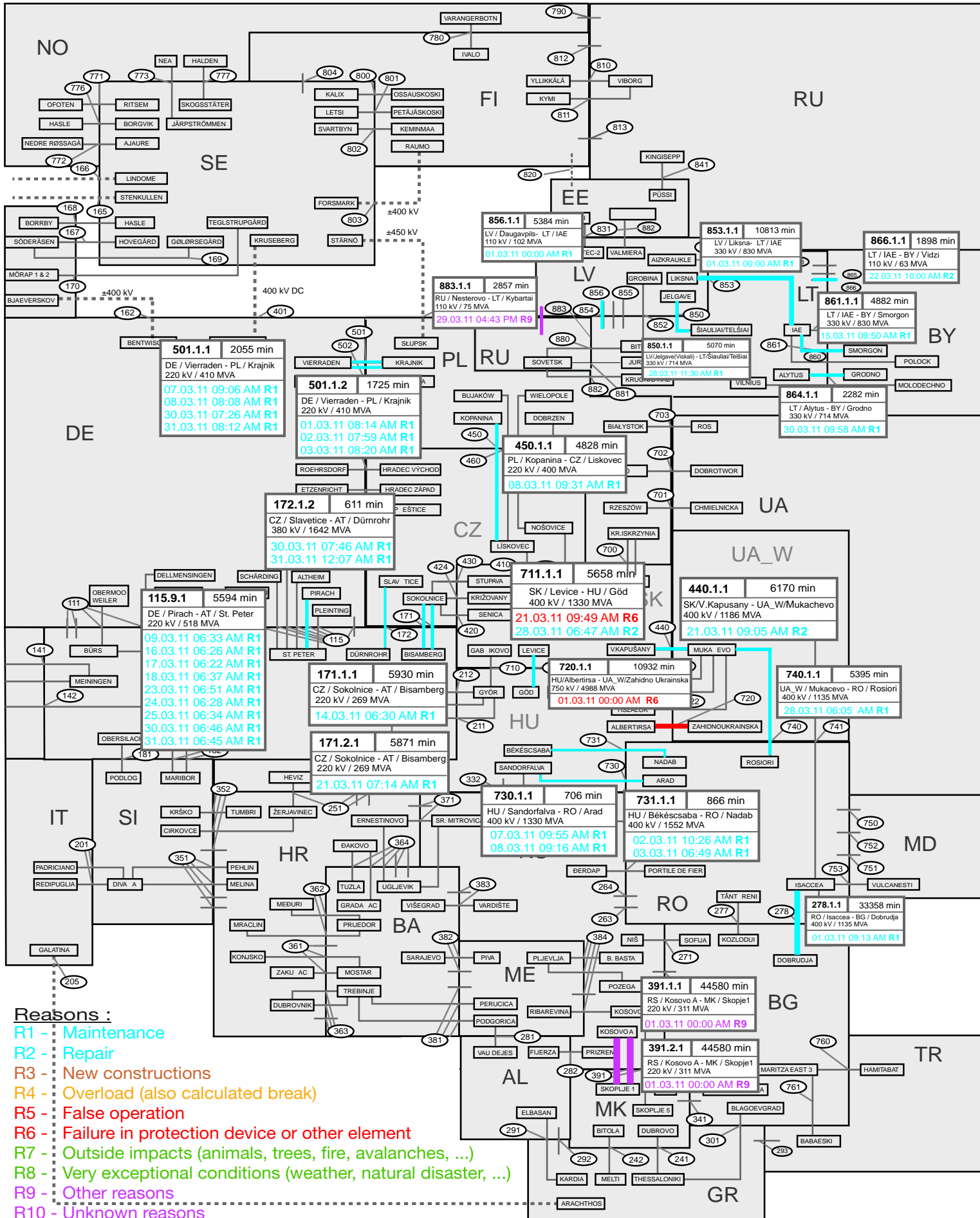
ENTSO-E = 46331 MW

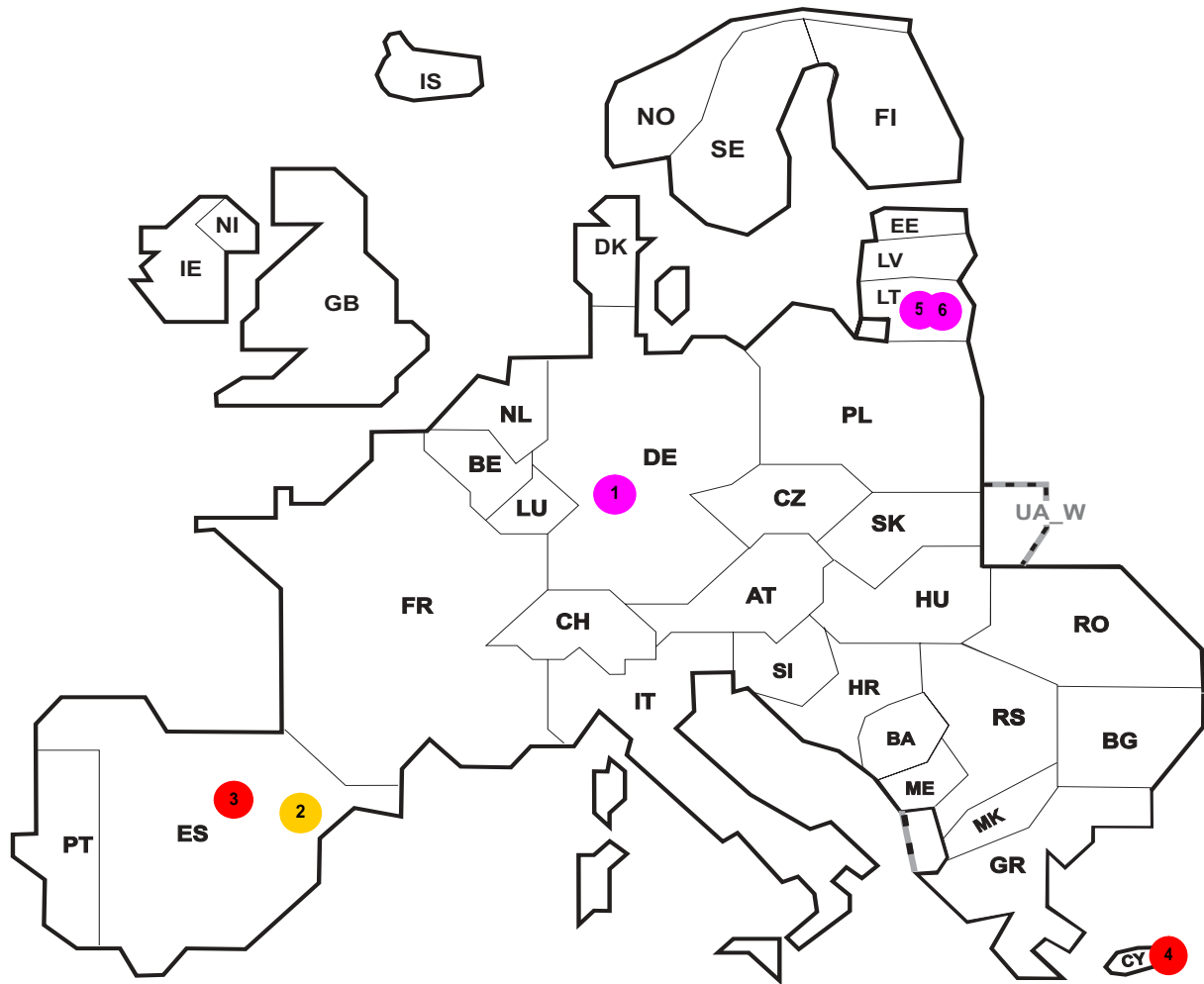
Total = 50634 MW

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	Bürstadt	R9	1167	1167	60	1,116
2	ES	Can Jardí	R4	1	49	272	0,957
3	ES	Lucero	R5	0	18	2	0
4	CY	DHEKELIA 66KV	R6	0	38	59	0
5	LT	Kauno HE	R9	0	25	40	0
6	LT	VE-2	R9	0	16	30	0

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 16.03.2011 CET of each country

	Highest load MW	variation % ¹	Lowest load MW	variation % ¹	Load representativity %
AT	8621	-1,9	5276	-9,1	100
BA	1784	0,2	1040	0,7	100
BE ²	12288	3,4	8725	-3,6	100
BG	5185	-11,4	3498	-7,9	100
CH	9391	-0,8	6367	-11,6	100
CY ³	674	1,5	378	8,0	100
CZ	8671	-4,4	6559	-8,2	100
DE	76427	0,2	52232	-9,7	91
DK	5309	-0,1	3326	2,4	100
EE	1221	-3,5	860	6,2	100
ES	38846	0,9	24581	-2,7	98
FI	12182	2,5	10506	3,0	100
FR	67223	-8,2	49872	-15,3	100
GB	49304	0,8	29482	-1,5	100
GR	6903	-4,2	4341	-0,1	100
HR	2605	-5,7	1517	-2,9	100
HU	5281	-1,9	3066	-15,6	100
IE	3910	12,7	2465	4,4	100
IS	2034	1,4	1899	3,0	100
IT	48661	3,3	29191	2,7	100
LT	1485	3,7	922	6,7	100
LU	932	-7,4	745	10,0	100
LV	1032	-4,3	545	-19,7	100
ME ⁴	568	n.a.	379	n.a.	100
MK	1219	3,1	837	15,8	100
NI	1476	10,1	826	2,9	100
NL	15580	2,5	9559	-0,6	100
NO	18858	-0,3	15278	1,2	100
PL ⁵	20857	-0,4	14108	-3,1	100
PT	8214	1,8	4942	-0,9	97
RO	7206	-7,4	5230	-6,6	100
RS	5819	-9,4	3662	-14,2	100
SE	21602	1,0	17104	0,3	100
SI	1804	1,3	1261	11,6	100
SK	3790	-2,5	2871	-4,1	100
ENTSO-E	471539	n.a.	327135	n.a.	
UA_W	816	-5,1	560	7,5	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

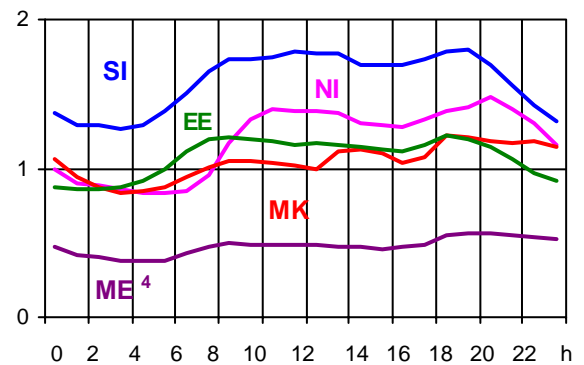
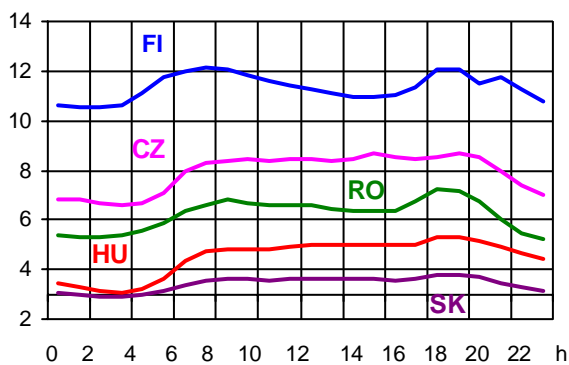
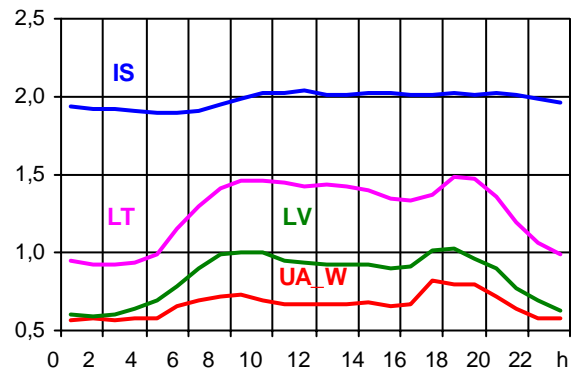
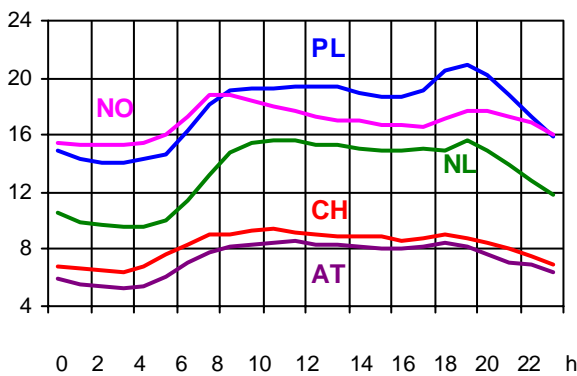
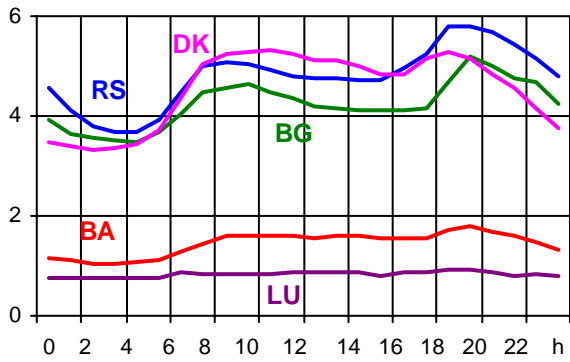
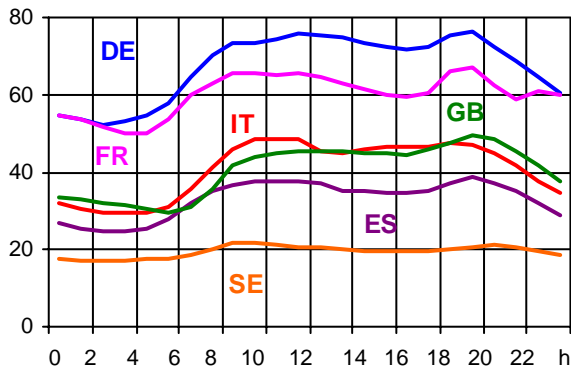
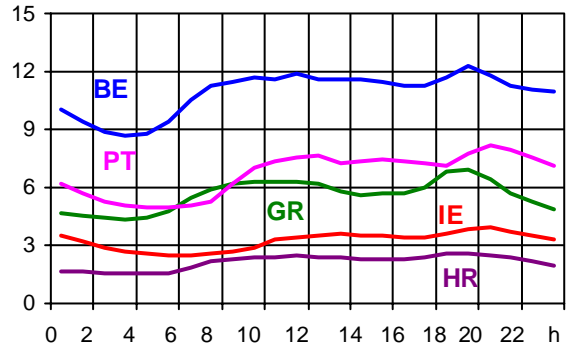
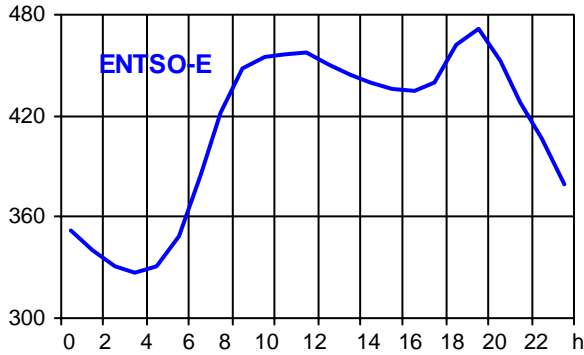
³ Only highest and lowest load value available

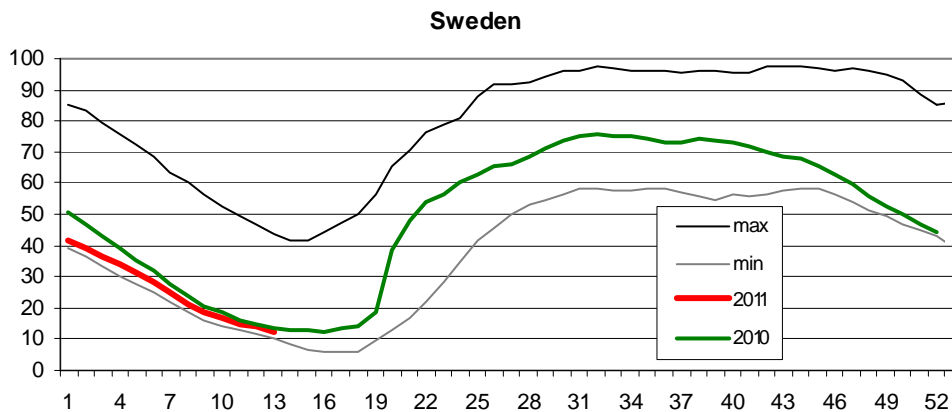
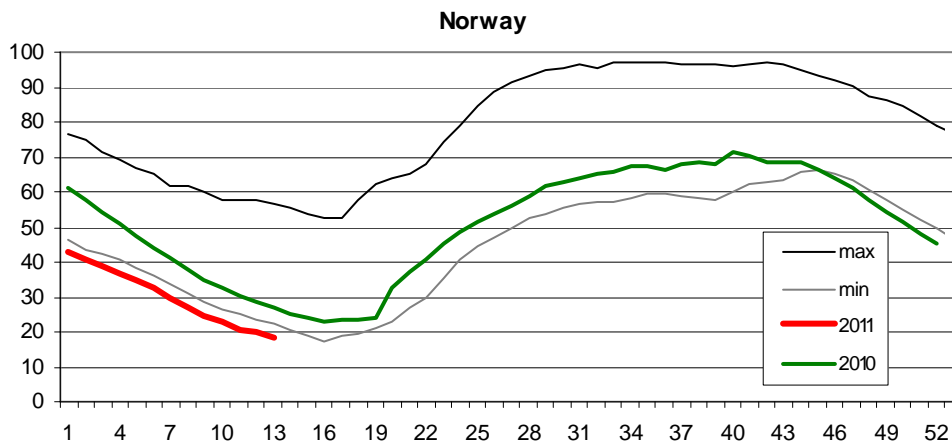
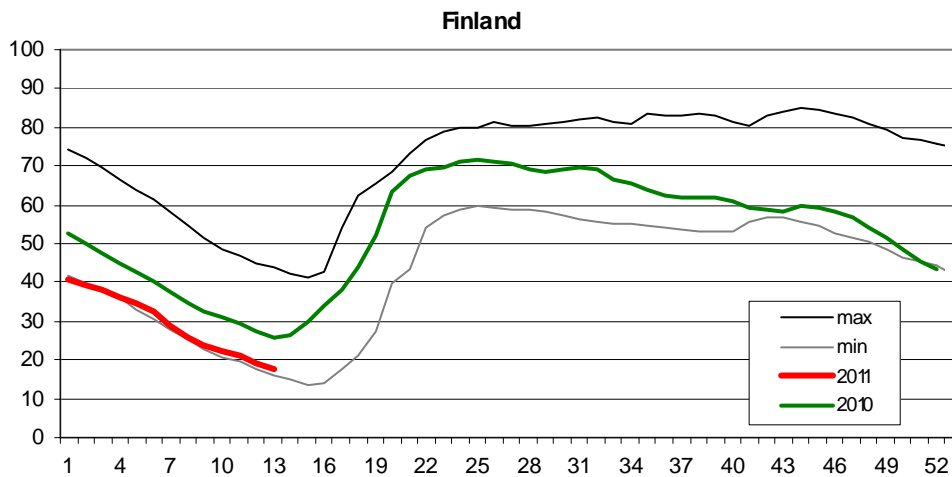
⁴ Monthly load values as of 17 March 2010

⁵ Operational data

Consumption hourly load curves on 16.03.2011 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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