Monthly statistics

March 2014

European Network of
Transmission System Operators
for Electricity

entsoe

Monthly provisional values as of 26 June 2014

Data Expert Group

Monthly statistics - March 2014

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Monthly provisional values from the ENTSO-E statistical database as of 26 June 2014.

Table of contents

General remarks and abbreviations used in the tables

- Defintions of terms used in this report are available at https://emr.entsoe.eu/.
- All values of generation and consumption on page 4, 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.

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1. Electricity supply situation of the countries

All values in GWh	Net generation																		Exch. balance	Pumping	Consumption	
	Thermal nuclear	Fossil fuels	of which lignite	of which hard coal	of which gas	of which oil	of which mixed fuels	of which other fossil fuels	Hydro power	of which renew-able	of which other hydro	Renew-ables	of which wind	of which solar	of which biomass	of which other renew-ables	Not clearly identi-fiable	Total				var. [%] (Compared to 1 year before)
AT [1]	0	948	0	206	480	58	0	204	2 701	2 391	310	522	289	0	0	233	866	**5 037**	1 670	443	6 264	4.9
BA	0	842	842	0	0	0	0	0	478	478	0	0	0	0	0	0	0	**1 320**	- 313	0	1 007	-0.2
BE [3]	3 738	1 893	0	210	1 683	0	0	0	133	25	108	874	324	296	254	0	0	**6 638** [4]	883	144	7 377	2.2
BG [3]	1 386	1 491	1 128	192	171	0	0	0	259	175	84	249	143	97	9	0	0	**3 385**	- 442	123	2 820	-3.4
CH	2 459	195	0	0	0	0	0	195	2 777	0	2 777	173	11	0	0	162	0	**5 604** [4]	178	126	5 656	-4.4
CY	0	273	0	0	0	273	0	0	0	0	0	20	20	0	0	0	0	**293**	n.a.	0	293	-1.0
CZ [5]	2 582	4 523	0	0	394	0	0	4 129	257	0	257	292	0	0	0	292	0	**7 654** [4]	-1 960	142	5 552	0.6
DE [6]	8 302	27 193	13 324	8 973	3 549	90	1 257	0	1 680	1 080	600	11 359	4 908	3 333	2 993	125	0	**48 534** [4]	-4 110	683	43 741	-5.8
DK	0	1 284	0	909	372	3	0	0	2	0	2	1 467	1 201	54	212	0	0	**2 753** [4]	218	0	2 971	1.7
EE	0	736	0	0	0	0	0	736	4	4	0	123	66	0	57	0	0	**863**	- 137	0	726	-0.8
ES	5 261	5 242	53	1 315	3 192	682	0	0	5 620	5 207	413	6 634	5 085	1 110	439	0	17	**22 774**	- 226	524	22 024	1.2
FI	2 051	1 496	0	634	518	22	322	0	1 301	1 301	0	1 074	102	0	972	0	88	**6 010**	1 605	0	7 615	1.7
FR	35 798	3 124	0	1 013	1 661	450	0	0	7 096	6 640	456	2 413	1 298	533	582	0	0	**48 431**	-4 637	651	43 143	-13.2
GB [3]	4 946	17 775	0	11 365	6 409	1	0	0	790	519	271	2 061	2 061	0	0	0	0	**25 572**	1 311	340	34 630	21.2
GR	0	2 330	1 857	0	473	0	0	0	349	83	266	635	317	299	19	0	0	**3 314**	725	33	4 006	22.8
HR	0	297	0	189	43	0	65	0	756	756	0	65	65	0	0	0	0	**1 118**	285	13	1 390	-4.2
HU	1 382	750	540	40	166	4	0	0	28	28	0	166	65	1	100	0	0	**2 326**	998	0	3 324	4.9
IE	0	1 542	232	368	940	2	0	0	110	84	26	463	453	0	0	10	13	**2 128**	275	46	2 357	7.9
IS	0	0	0	0	0	0	0	0	966	966	0	431	0	0	0	431	0	**1 397**	n.a.	0	1 397	-0.3
IT	0	12 934	0	3 281	7 446	130	1 005	1 072	4 482	4 235	247	4 357	1 438	2 097	348	474	0	**21 773**	4 718	264	26 227	1.9
LT	0	141	0	0	47	0	81	13	94	57	37	105	62	6	37	0	0	**340**	610	54	896	1.6
LU [2]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	**n.a.**	n.a.	n.a.	n.a.	n.a.
LV	0	305	0	0	255	0	0	50	164	164	0	23	9	0	14	0	0	**492**	189	0	704	8.3
ME	0	124	124	0	0	0	0	0	228	114	114	0	0	0	0	0	0	**352**	0	0	352	-16.2
MK	0	402	391	0	11	0	0	0	72	0	72	0	0	0	0	0	0	**474**	252	0	726	1.0
NI	0	458	0	195	263	0	0	0	1	0	1	168	160	0	5	3	0	**627**	157	0	784	3.8
NL	383	6 020	0	0	0	0	0	6 020	4	4	0	1 304	868	4	432	0	0	**7 711**	1 682	0	9 393	-2.2
NO	0	321	0	0	321	0	0	0	11 702	11 702	0	234	234	0	0	0	0	**12 257**	- 282	62	11 913	-4.6
PL [7]	0	10 834	4 025	5 808	236	0	0	765	268	204	64	1 341	690	0	651	0	0	**12 443** [4]	249	93	12 599	5.5
PT	0	1 075	0	585	459	12	0	19	2 209	2 155	54	1 431	1 158	45	228	0	0	**4 715** [4]	- 497	67	4 151	2.6
RO	970	1 864	907	292	174	0	491	0	1 249	1 249	0	921	730	149	42	0	0	**5 004**	- 411	12	4 581	3.0
RS	0	2 972	2 972	0	0	0	0	0	904	809	95	0	0	0	0	0	0	**3 876**	- 315	71	3 490	-4.6
SE [2]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	**n.a.**	n.a.	n.a.	n.a.	n.a.
SI	517	318	275	34	0	0	0	9	539	522	17	0	0	0	0	0	0	**1 374**	- 336	24	1 014	-5.3
SK	1 293	340	137	90	113	0	0	0	318	298	20	103	1	51	46	5	149	**2 203**	120	28	2 295	2.0
ENTSO-E [8]	**77 473**	**111 067**	**26 807**	**35 879**	**30 004**	**1 746**	**3 419**	**13 212**	**54 268**	**41 258**	**13 010**	**41 111**	**22 654**	**8 079**	**8 637**	**1 735**	**1 133**	**285 052**	**1 865**	**4 075**	**290 465**	-1.3

[1] Renewable hydro: Production run-of-river plus production of storage and pumped storage minus 70% of pumped energy.

[2] No data available for March 2014.

[3] The reported figures are best estimates based on actual measurements and extrapolations.

[4] Including deliveries from industry.

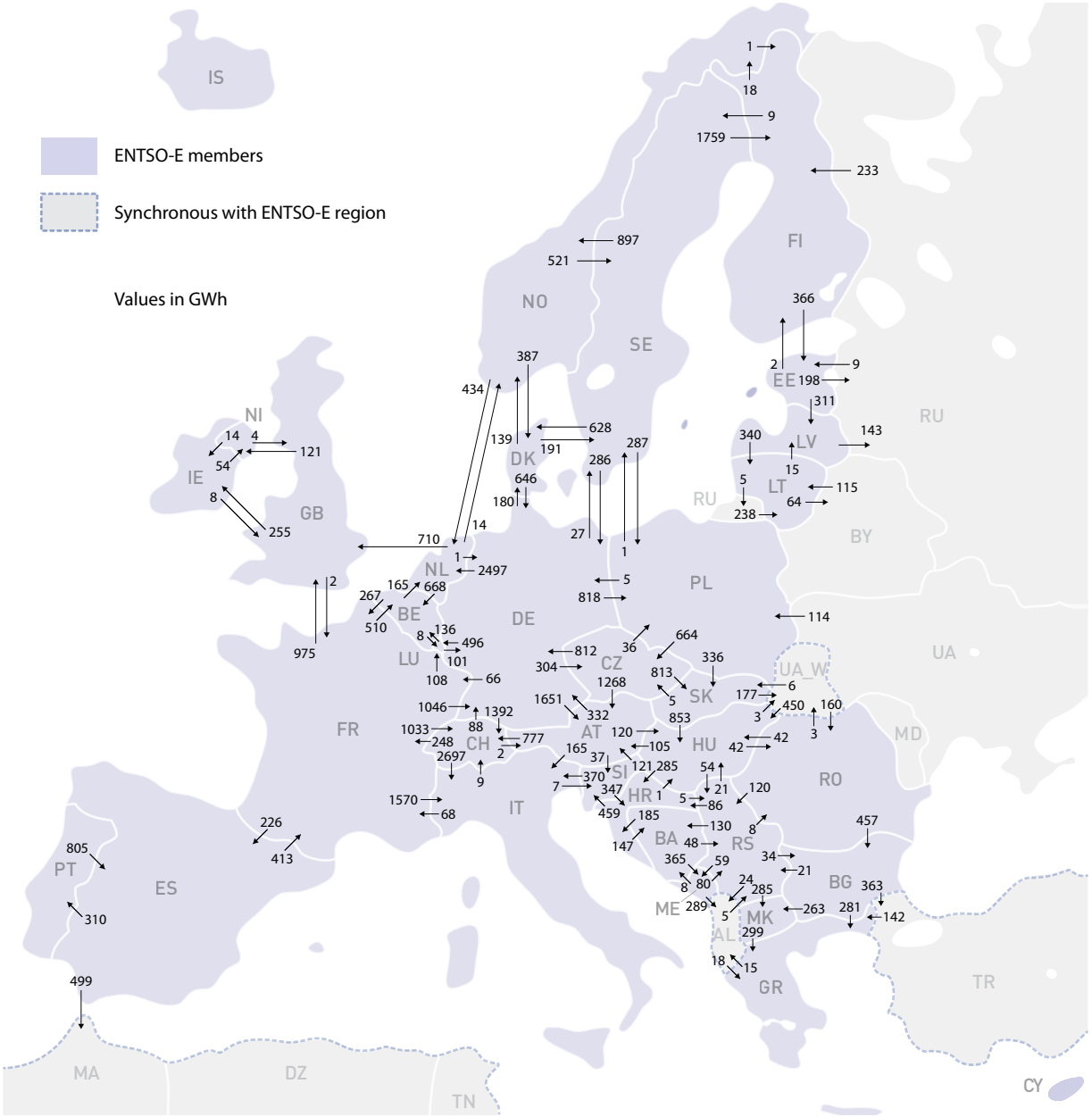
[5] Values estimated by CEPS.

[6] Wind, pv and biomass from TSO data, rest from official statistics.

[7] Operational data. Net generation of biomass includes energy from biogas and from biomass co-fired in conventional thermal units. Net generation of other fossil fuel represents industry generation

[8] ENTSO-E sum based on data from February 2013 for LU and SE.

2. Physical energy flows



Sum of physical energy flows between ENTSO-E countries: 38 263 GWh
Total physical energy flows: 41 536 GWh[1]

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 Yearly Statistic & Adequacy Retrospect. These values may differ from the official statistics and the exchange balances on page 3.

[1] Sum of physical energy flows without exchanges between NO-RU, AT-DE and RO-MD.

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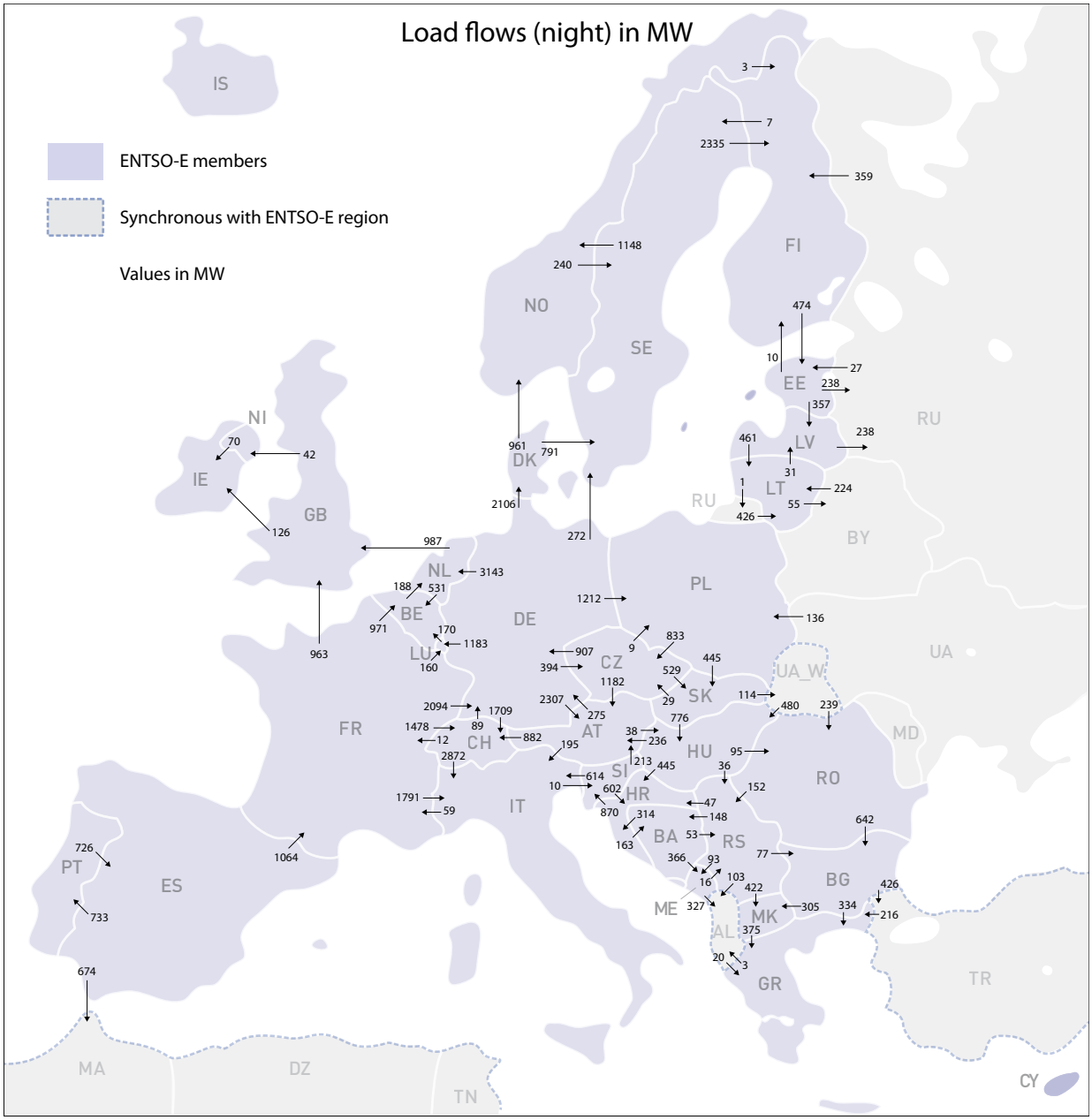
3. Overview of the detailed physical energy flows in GWh

	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	Other[1]	**Sum exp.**
AT					777		332									120		165													37			**1 431**
BA															185							365								48					**598**
BE												267								8					165										**440**
BG														281									263							21				363	**928**
CH	2						88					248						2 697																	**3 035**
CZ	1 268						812																			36						813		**2 929**
DE	1 651				1 392	304		180				66								496					2 497		818				27				**7 431**
DK							646																			139					191				**976**
EE											2										311													198	**511**
ES												413																310						499	**1 222**
FI									366																	18					9			233	**626**
FR			510		1 033		1 046			226			982					1 570		108															**5 475**
GB												2					n.a.							121											**123**
GR																																		15	**15**
HR		147														1														5		459			**612**
HU	105														285														42	54				3	**489**
IE													n.a.											54											**54**
IT					9							68																				7			**84**
LT																					15													69	**84**
LU			136				101																												**237**
LV																			340																**340**
ME		8																												80				289	**377**
MK														299																					**299**
NI													4				14																		**18**
NL			668				1						709													14									**1 392**
NO								387			1														434						521				**1 343**
PL						664	5																								1		336		**1 006**
PT										805																									**805**
RO				457												42														120				3	**622**
RS		130		34											86	21						59	285						8					24	**647**
SE							286	628			1 759															897	287								**3 857**
SI	121														347			370																	**838**
SK						5										853																		177	**1 035**
Other[1]									9					160		450			353								114		160	5			6		**1 257**
Sum imp.	**3 147**	**285**	**1 314**	**491**	**3 211**	**973**	**3 317**	**1 195**	**375**	**1 031**	**1 762**	**1 064**	**1 695**	**740**	**903**	**1 487**	**14**	**4 802**	**693**	**612**	**326**	**424**	**548**	**175**	**3 096**	**1 068**	**1 255**	**310**	**210**	**333**	**749**	**503**	**1 155**	**1 873**	

[1] Other: Albania, Belarus, Morocco, Republic of Moldavia, Republic of Turkey, Russia, Ukraine and Ukraine-West.

4. Load flows (night) on 19.03.2014 at 03:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	I = 2548
BA	E = 422
BE	I = 1484
BG	E = 346
CH	I = 1096
CY[1]	-
CZ	E = 1371
DE	E = 8961
DK	I = 354

Country	Balance
EE	E = 104
ES	E = 1745
FI	I = 1508
FR	E = 6327
GB	I = 1926
GR	I = 942
HR	I = 375
HU	I = 482
IE	I = 70

Country	Balance
IS[1]	-
IT	I = 5403
LT	I = 1024
LU	I = 1173
LV	E = 73
ME	I = 95
MK	I = 352
NI	E = 28
NL	I = 1800

Country	Balance
NO[2]	n.a.
PL	I = 79
PT	I = 7
RO	E = 460
RS	E = 612
SE	E = 2173
SI	E = 549
SK	I = 55

Sum of load flows (night) in MW: ENTSO-E: 46 998 Total: 51 304 [2,3]

[1] Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.
[2] Without data between NO-RU, AT-DE and RO-MD.
[3] Including synchronous operation with ENTSO-E region.

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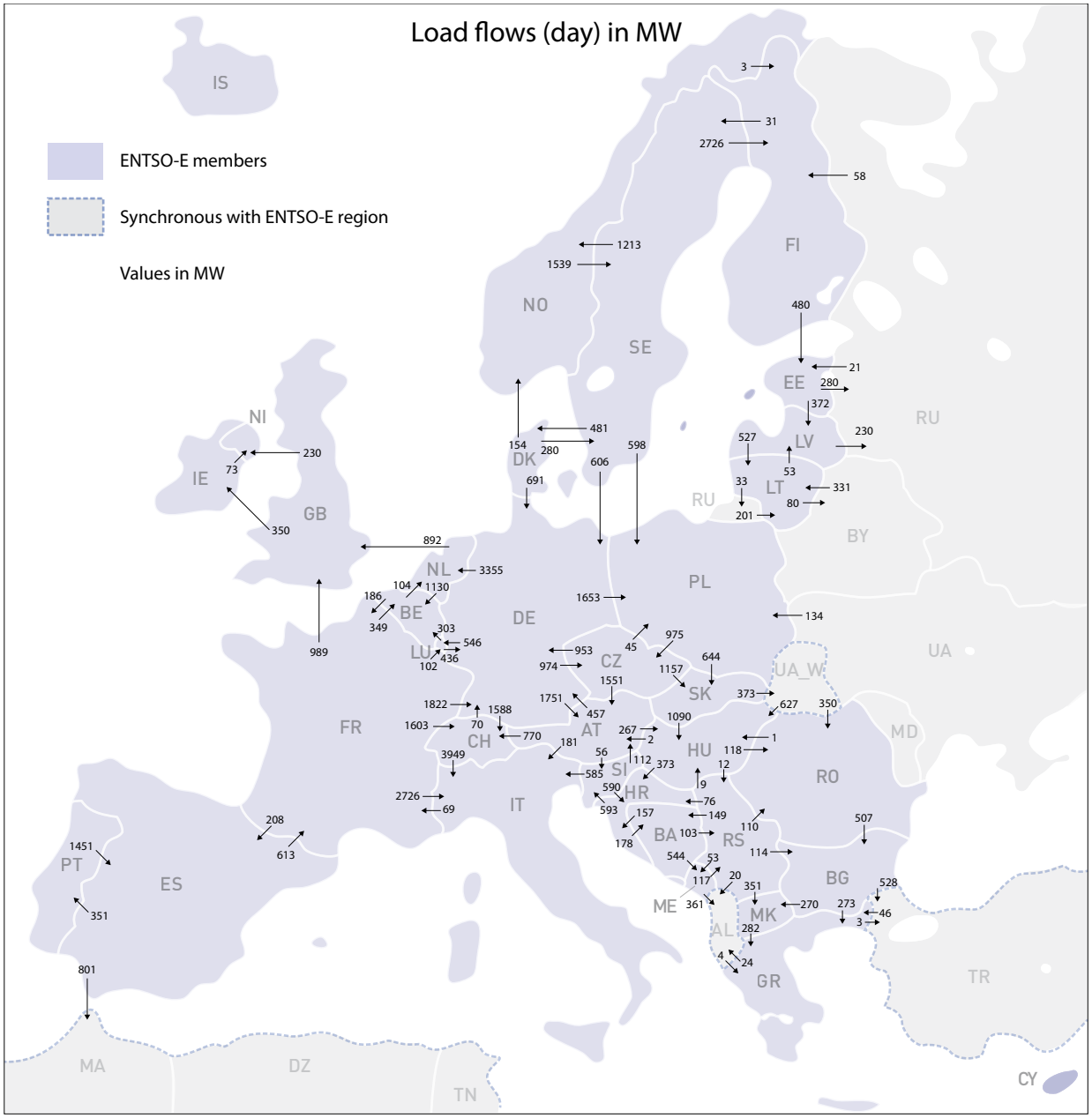
5. Load flows (day) on 19.03.2014 at 11:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	I = 1685
BA	E = 477
BE	I = 1492
BG	E = 450
CH	E = 58
CY[1]	-
CZ	E = 1757
DE	E = 4832
DK	E = 644

Country	Balance
EE	E = 151
ES	E = 106
FI	I = 2160
FR	E = 6935
GB	I = 1666
GR	I = 578
HR	I = 425
HU	I = 1489
IE	E = 73

Country	Balance
IS[1]	-
IT	I = 7372
LT	I = 893
LU	E = 91
LV	E = 102
ME	I = 119
MK	I = 339
NI	I = 303
NL	I = 1426

Country	Balance
NO[2]	n.a.
PL	I = 811
PT	E = 1100
RO	I = 70
RS	E = 650
SE	E = 3774
SI	E = 638
SK	I = 338

Sum of load flows (day) in MW: ENTSO-E: 51 452 Total: 55 957 [2,3]

[1] Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.
[2] Without data between NO-RU, AT-DE and RO-MD.
[3] Including synchronous operation with ENTSO-E region.

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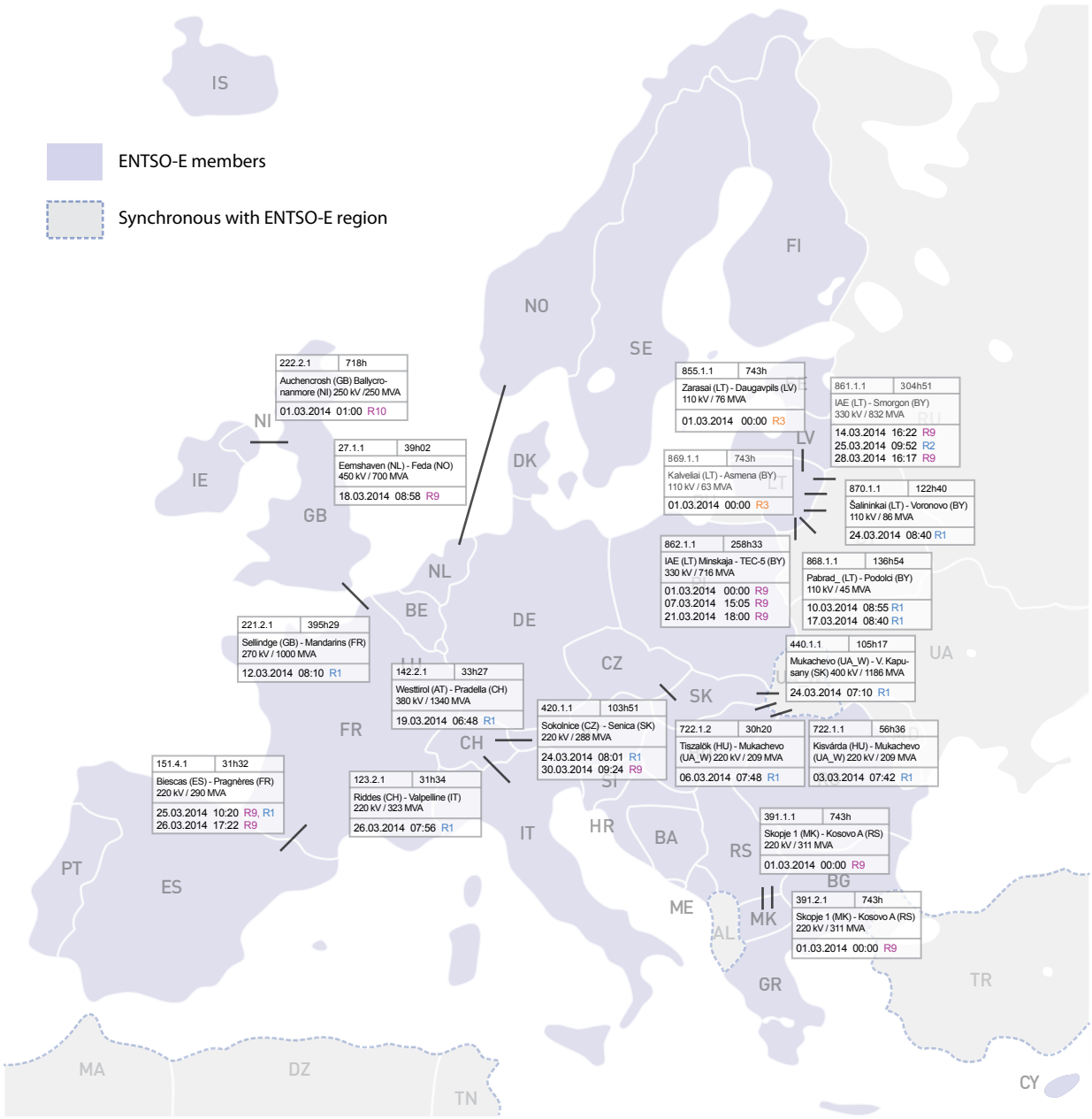
6. Unavailability of international tie lines

(major events with sum over 30 hours)



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

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7. Supply interruption

(major reported events)

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

Information about incidents in other countries are not shown with energy not supply equal zero or unavailable in the database.

* Equivalent time of interruption: (year [in min] * energy not supplied) / consumption last 12 months.

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8. Highest and lowest load values of the month

The following table shows the highest and lowest load values[1] for the current month compared to the last 12 months.

	Highest load values in MW						**Lowest** load values in MW					
	Last 12 months	Date	Time	Mar-14	Date	Time	Last 12 months	Date	Time	Mar-14	Date	Time
AT	11 441	27/11/2013	18:00	10 596	06/03/2014	11:00	4 607	20/05/2013	04:00	5 232	23/03/2014	04:00
BA	2 074	24/12/2013	18:00	1 824	05/03/2014	19:00	866	02/05/2013	06:00	945	31/03/2014	04:00
BE [3]	13 294	12/12/2013	18:00	12 165	11/03/2014	12:00	6 136	28/07/2013	07:00	7 163	30/03/2014	05:00
BG	6 985	31/01/2014	19:00	6 058	10/03/2014	20:00	2 432	12/05/2013	05:00	2 974	24/03/2014	04:00
CH	7 792	18/12/2013	09:00	7 278	04/03/2014	14:00	2 453	01/08/2013	08:00	4 379	30/03/2014	16:00
CY	815	30/08/2013	15:00	637	13/03/2014	20:00	254	01/12/2013	05:00	257	23/03/2014	06:00
CZ [4]	10 093	28/11/2013	17:00	9 122	05/03/2014	19:00	3 952	07/07/2013	06:00	5 278	23/03/2014	06:00
DE	84 462	29/01/2014	19:00	81 232	19/03/2014	12:00	32 473	02/06/2013	07:00	45 488	30/03/2014	03:00
DK	6 002	30/01/2014	18:00	5 180	05/03/2014	11:00	1 088	10/05/2013	21:00	2 673	30/03/2014	05:00
EE	1 490	30/01/2014	17:00	1 203	03/03/2014	13:00	486	07/07/2013	04:00	680	31/03/2014	04:00
ES	39 411	28/11/2013	19:00	36 958	04/03/2014	20:00	17 091	01/04/2013	04:00	19 881	23/03/2014	07:00
FI	14 321	20/01/2014	08:00	12 156	19/03/2014	19:00	5 237	23/06/2013	05:00	8 622	30/03/2014	07:00
FR	85 125	28/11/2013	19:00	75 394	03/03/2014	19:00	29 869	11/08/2013	07:00	41 321	16/03/2014	17:00
GB [2]	57 951	30/01/2014	19:00	57 334	11/03/2014	20:00	19 989	23/06/2013	07:00	28 582	10/03/2014	07:00
GR	8 525	12/12/2013	18:00	7 819	11/03/2014	19:00	2 224	05/05/2013	14:00	2 948	25/03/2014	14:00
HR	2 812	29/07/2013	14:00	2 550	05/03/2014	20:00	1 114	09/06/2013	06:00	1 292	22/03/2014	04:00
HU	5 863	12/12/2013	17:00	5 470	05/03/2014	19:00	2 661	20/05/2013	06:00	3 104	16/03/2014	04:00
IE	4 491	17/12/2013	19:00	4 158	05/03/2014	20:00	1 722	04/08/2013	08:00	2 105	18/03/2014	06:00
IS	2 207	09/12/2013	18:00	2 050	07/03/2014	15:00	1 388	08/02/2014	07:00	1 698	25/03/2014	04:00
IT	53 976	26/07/2013	12:00	47 040	04/03/2014	12:00	19 124	27/10/2013	04:00	20 887	31/03/2014	03:00
LT	1 834	23/01/2014	10:00	1 553	17/03/2014	11:00	745	21/07/2013	05:00	844	31/03/2014	03:00
LU [2]	994	13/12/2013	18:00	965	27/03/2014	12:00	373	01/01/2014	07:00	485	24/03/2014	07:00
LV [2]	1 331	30/01/2014	17:00	1 231	14/03/2014	09:00	436	22/07/2013	04:00	622	30/03/2014	01:00
ME	570	26/01/2014	20:00	518	02/03/2014	20:00	196	30/09/2013	05:00	254	23/03/2014	05:00
MK	1 527	22/12/2013	18:00	1 271	09/03/2014	20:00	520	03/06/2013	06:00	689	24/03/2014	04:00
NI	1 675	14/01/2014	19:00	1 514	05/03/2014	20:00	503	14/07/2013	07:00	645	23/03/2014	08:00
NL	18 409	11/12/2013	18:00	16 309	21/03/2014	12:00	8 257	16/06/2013	06:00	8 866	30/03/2014	05:00
NO	22 957	13/01/2014	09:00	19 447	19/03/2014	09:00	8 558	04/08/2013	06:00	13 060	30/03/2014	04:00
PL	23 715	29/01/2014	18:00	21 334	06/03/2014	20:00	10 206	05/05/2013	06:00	11 716	23/03/2014	06:00
PT	8 322	09/12/2013	21:00	7 408	05/03/2014	21:00	3 470	28/04/2013	08:00	3 707	23/03/2014	08:00
RO	8 114	10/12/2013	18:00	7 527	06/03/2014	19:00	3 456	06/05/2013	06:00	4 362	24/03/2014	03:00
RS	6 930	18/12/2013	18:00	6 132	10/03/2014	20:00	2 352	06/05/2013	04:00	3 177	23/03/2014	05:00
SE [2]	24 735	13/01/2014	17:00	24 323	15/03/2014	08:00	8 696	27/07/2013	06:00	15 292	31/03/2014	17:00
SI	1 966	18/12/2013	18:00	1 808	11/03/2014	20:00	775	31/08/2013	07:00	968	24/03/2014	01:00
SK	4 126	17/12/2013	17:00	3 735	13/03/2014	20:00	2 227	09/06/2013	06:00	2 459	31/03/2014	04:00
ENTSO-E	525 769	29/01/2014	19:00	479 562	04/03/2014	20:00	230 694	09/06/2013	0.25	241 368	31/03/2014	03:00

[1] All values are calculated to represent 100% of the national values.
[2] Values from 2013
[3] The reported figures are best estimates based on actual measurements and extrapolations.
[4] Values estimated by CEPS.

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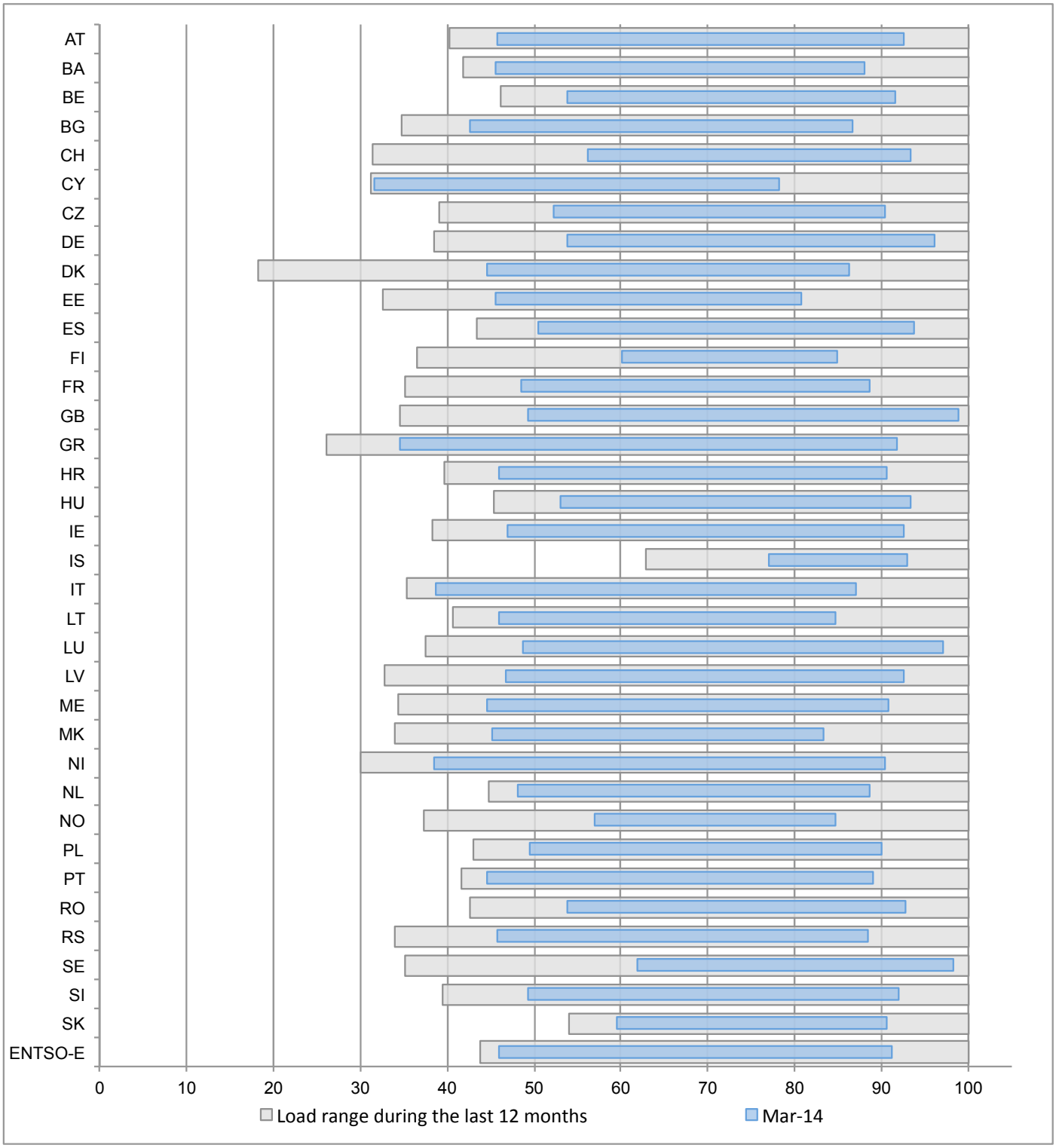
The following diagram shows the percentual load range for the current month compared to the percentual load range of the last 12 months, the reference values beeing the highest load value of the last 12 months.



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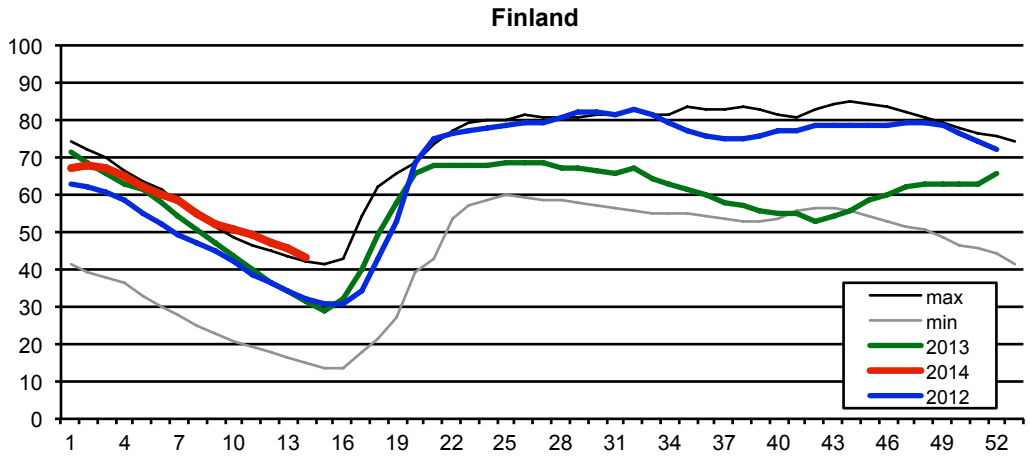
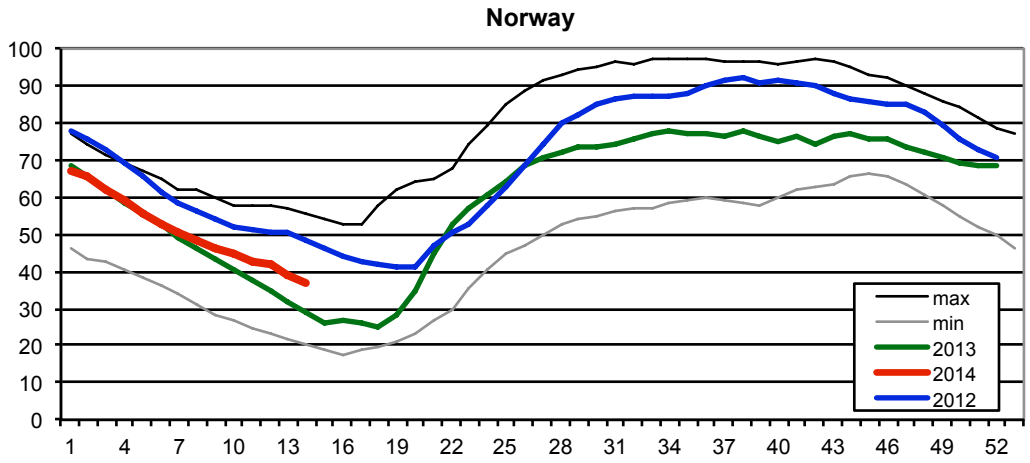
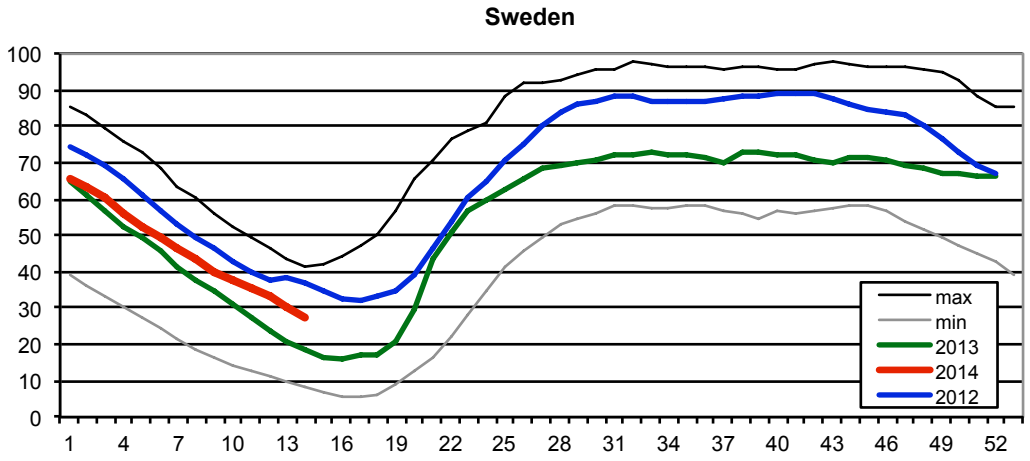
9. Water reservoirs Nordic







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.

10. Appendix: Data sources and references

ENTSO-E data portal: https://www.entsoe.eu/data/data-portal/
Nord Pool Spot: http://www.nordpoolspot.com/

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