Monthly statistics

February 2014

European Network of
Transmission System Operators
for Electricity

entsoe

Monthly provisional values as of 2 June 2014

Data Expert Group

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Monthly provisional values from the ENTSO-E statistical database as of 2 June 2014.

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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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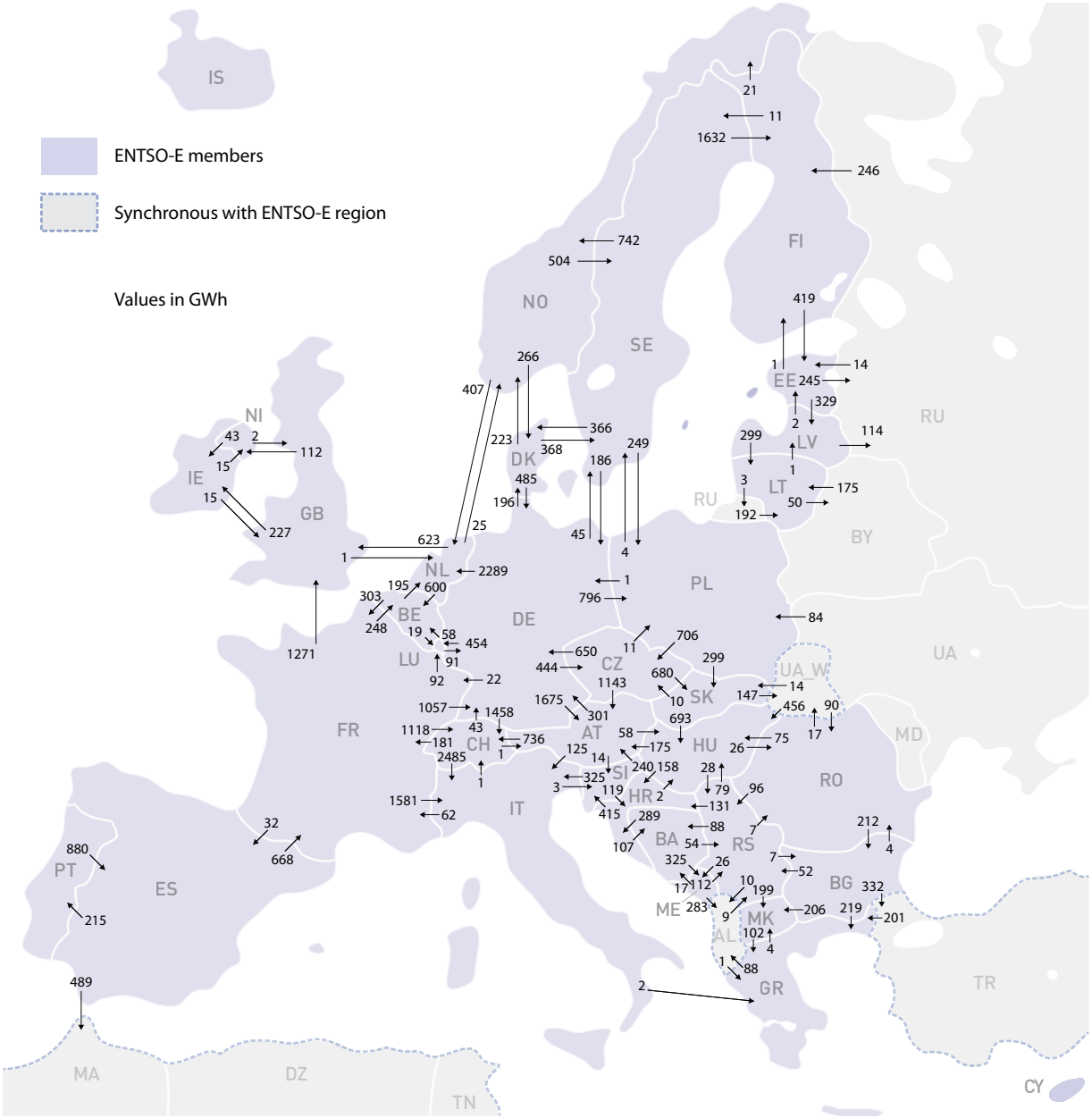
1. Electricity supply situation of the countries

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. [%]
AT [1]	0	1 155	0	283	652	53	0	167	2 176	1 856	320	489	256	0	0	233	718	**4 538**	1 954	457	6 035	1.0
BA	0	786	786	0	0	0	0	0	629	629	0	0	0	0	0	0	0	**1 415**	- 457	0	958	-5.1
BE [3]	4 005	1 778	0	166	1 612	0	0	0	150	38	112	957	609	110	238	0	0	**6 890** [4]	397	150	7 137	-1.1
BG [3]	1 292	1 888	1 454	257	177	0	0	0	201	125	76	207	119	78	10	0	0	**3 588**	- 569	111	2 908	-0.4
CH	2 233	161	0	0	0	0	0	161	2 518	0	2 518	143	11	0	0	132	0	**5 055** [4]	603	122	5 536	-6.4
CY	0	273	0	0	0	273	0	0	0	0	0	11	11	0	0	0	0	**284**	n.a.	0	284	-4.1
CZ [5]	2 253	4 187	0	0	357	0	0	3 830	245	0	245	170	0	0	0	170	0	**6 855** [4]	-1 325	135	5 395	-2.2
DE [6]	8 007	26 475	12 230	9 068	3 954	109	1 114	0	1 576	968	608	10 681	6 195	1 616	2 751	119	0	**46 739** [4]	-4 567	627	41 545	-10.5
DK	0	1 462	0	1 035	419	8	0	0	2	0	2	1 628	1 410	24	194	0	0	**3 092** [4]	- 248	0	2 844	-2.7
EE	0	758	0	0	0	0	0	758	3	3	0	104	50	0	54	0	0	**865**	- 140	0	725	-1.0
ES	4 703	4 867	0	957	3 199	711	0	0	6 105	5 658	447	6 857	5 917	533	407	0	18	**22 550**	- 491	633	21 426	-1.5
FI	1 864	1 684	0	683	616	20	365	0	1 224	1 224	0	1 095	80	0	1 015	0	84	**5 951**	1 416	0	7 367	-1.7
FR	36 396	2 827	0	691	1 673	463	0	0	7 199	6 726	473	3 287	2 487	264	536	0	0	**49 709**	-4 392	676	44 641	-10.2
GB [3]	4 763	15 981	0	10 496	5 483	2	0	0	706	461	245	2 752	2 752	0	0	0	0	**24 202**	1 561	324	34 307	20.1
GR	0	2 840	1 943	0	897	0	0	0	295	28	267	736	228	490	18	0	0	**3 871**	175	1	4 045	24.0
HR	0	264	0	153	32	0	79	0	851	851	0	73	73	0	0	0	0	**1 188**	168	2	1 354	-6.7
HU	1 292	758	475	38	242	3	0	0	23	23	0	165	60	0	105	0	0	**2 238**	975	0	3 213	1.4
IE	0	1 246	215	216	814	1	0	0	120	94	26	598	592	0	0	6	10	**1 974**	239	46	2 167	-0.8
IS	0	0	0	0	0	0	0	0	955	955	0	388	0	0	0	388	0	**1 343**	n.a.	0	1 343	-4.1
IT	0	13 081	0	3 037	7 427	1 373	185	1 059	4 286	4 050	236	3 323	1 549	1 187	173	414	0	**20 690**	4 448	248	24 890	-3.3
LT	0	159	0	0	50	0	97	12	80	42	38	96	62	3	31	0	0	**335**	613	57	891	1.0
LU	0	98	0	0	98	0	0	0	108	16	92	18	12	2	4	0	5	**229**	416	127	518	-0.6
LV	0	256	0	0	204	0	52	0	165	165	0	65	13	0	26	26	0	**486**	143	0	629	-3.2
ME	0	126	126	0	0	0	0	0	428	214	214	0	0	0	0	0	0	**554**	61	0	615	46.4
MK	0	345	336	0	9	0	0	0	65	0	65	0	0	0	0	0	0	**410**	312	0	722	0.4
NI	0	476	0	195	281	0	0	0	1	1	0	184	181	0	3	0	0	**661**	82	0	743	-1.6
NL	300	5 979	0	0	0	0	0	5 979	4	4	0	1 188	783	5	400	0	0	**7 471**	1 625	0	9 096	-5.3
NO	0	275	0	0	275	0	0	0	11 343	11 343	0	245	245	0	0	0	0	**11 863**	- 171	57	11 635	-6.9
PL [7]	0	10 419	3 811	5 651	212	0	0	745	227	163	64	1 259	729	0	530	0	0	**11 905** [4]	131	92	11 944	0.0
PT	0	758	0	252	478	11	0	17	2 487	2 439	48	1 666	1 456	25	185	0	0	**4 911** [4]	- 664	61	4 186	3.5
RO	878	2 424	1 070	243	368	0	743	0	1 153	1 153	0	457	353	61	43	0	0	**4 912**	- 272	8	4 632	4.2
RS	0	2 937	2 925	0	12	0	0	0	790	731	59	0	0	0	0	0	0	**3 727**	- 196	95	3 436	-6.1
SE	5 876	492	0	85	233	8	166	0	6 342	6 342	0	1 802	872	0	930	0	0	**14 512**	-2 241	0	12 271	-8.8
SI	466	292	224	59	0	0	0	9	503	480	23	0	0	0	0	0	0	**1 261**	- 253	30	978	-8.7
SK	1 199	367	144	108	115	0	0	0	311	291	20	68	1	21	42	4	135	**2 080** [4]	143	28	2 195	-2.5
ENTSO-E	**75 527**	**107 874**	**25 739**	**33 673**	**29 889**	**3 035**	**2 801**	**12 737**	**53 271**	**47 073**	**6 198**	**40 712**	**27 106**	**4 419**	**7 695**	**1 492**	**970**	**278 354**	**- 524**	**4 087**	**282 611**	-2.7

[1] Renewable hydro: Production run-of-river plus production of storage and pumped storage minus 70% of pumped energy.
[2] No data available for February 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.

2. Physical energy flows



Sum of physical energy flows between ENTSO-E countries: 35 489 GWh
Total physical energy flows: 38 749 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.

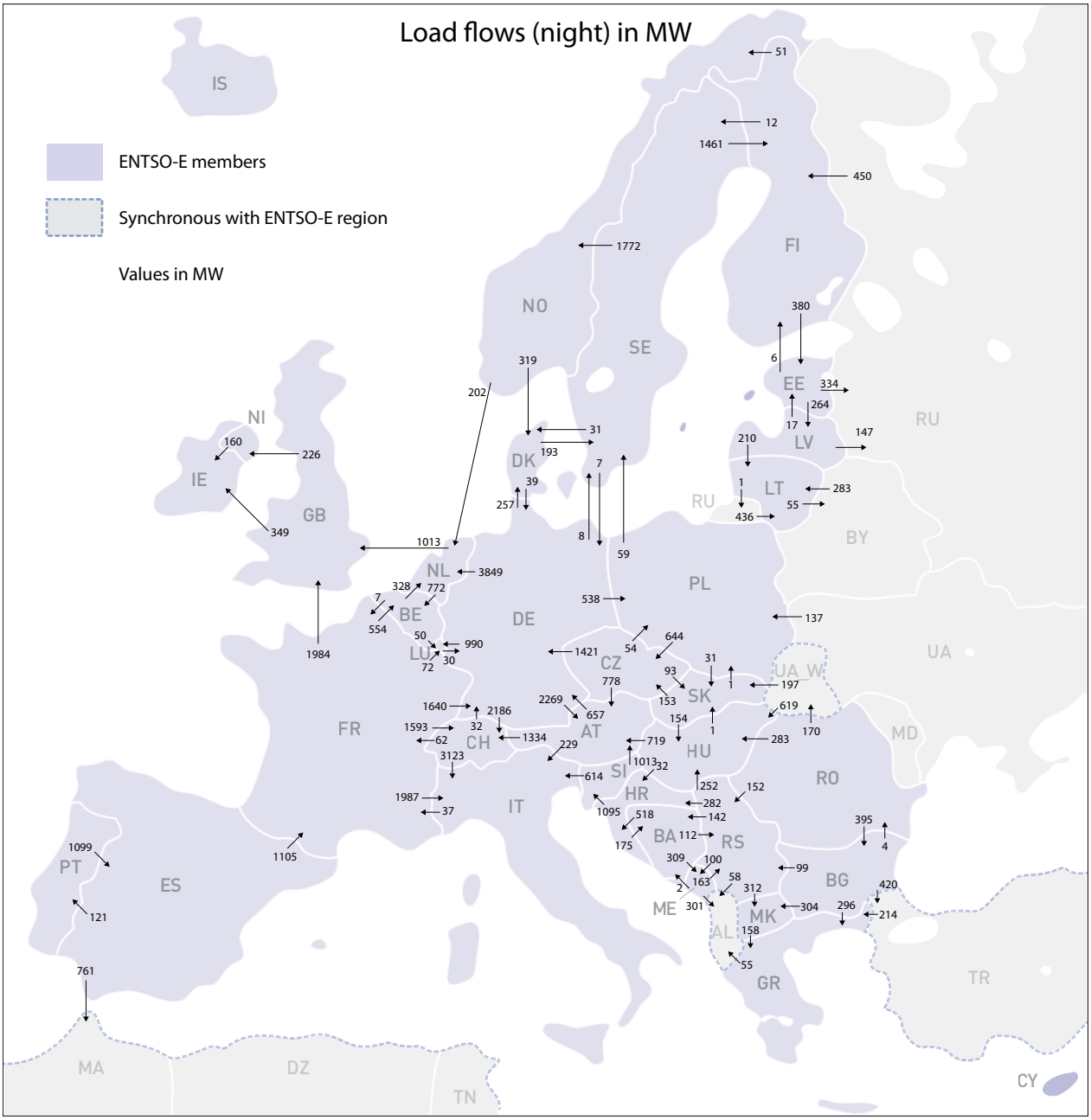
[1] Sum of physical energy flows without exchanges between NO-RU, AT-DE and RO-MD.

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					736		301									58		125														14			**1 234**
BA															289							325								54					**668**
BE												303								19					195										**517**
BG														219									206						4	52				332	**813**
CH	1						43					181						2 485																	**2 710**
CZ	1 143						650																				11						680		**2 484**
DE	1 675				1 458	444		196				22								454					2 289		796				45				**7 379**
DK							485																			223					368				**1 076**
EE											1										329													245	**575**
ES												668																215						489	**1 372**
FI									419																	21					11				**451**
FR			248		1 118		1 057			32			1 271					1 581		92														**5 399**
GB																	227							112	1									**340**
GR																							4											88	**92**
HR		107														2																415			**524**
HU	175														158														26	28					**387**
IE													15											15											**30**
IT					1							62		2																		3			**68**
LT																					1													53	**54**
LU			58				91																												**149**
LV									2										299																**301**
ME		17																												112				283	**412**
MK														102																					**102**
NI													2				43																		**45**
NL			600										623													25									**1 248**
NO								266																	407						504				**1 177**
PL						706	1																								4		299		**1 010**
PT										880																									**880**
RO				212												75														96				17	**400**
RS		88		7											131	79						26	199						7					10	**547**
SE							186	366			1 632															742	249								**3 175**
SI	240														119			325																	**684**
SK						10										693																		147	**850**
Other[1]									14		246			202		456			367		114					84		90	9			14		**1 596**
Sum imp.	**3 234**	**212**	**906**	**219**	**3 313**	**1 160**	**2 814**	**828**	**435**	**912**	**1 879**	**1 236**	**1 911**	**525**	**697**	**1 363**	**270**	**4 516**	**666**	**565**	**444**	**351**	**409**	**127**	**2 892**	**1 011**	**1 140**	**215**	**127**	**351**	**932**	**432**	**993**	**1 664**	

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

4. Load flows (night) on 19.02.2014 at 03:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	I = 2559
BA	E = 620
BE	I = 941
BG	E = 728
CH	I = 1896
CY[1]	-
CZ	E = 1549
DE	E = 6271
DK	I = 375

Country	Balance
EE	E = 207
ES	E = 888
FI	I = 1474
FR	E = 6619
GB	I = 2422
GR	I = 613
HR	E = 438
HU	I = 556
IE	I = 509

Country	Balance
IS[1]	-
IT	I = 5916
LT	I = 873
LU	I = 1082
LV	I = 184
ME	E = 57
MK	I = 458
NI	I = 66
NL	I = 2594

Country	Balance
NO[2]	n.a.
PL	E = 4
PT	E = 978
RO	E = 996
RS	E = 620
SE	E = 2999
SI	E = 532
SK	I = 14

Sum of load flows (night) in MW: ENTSO-E: 44 545 Total: 49 183 [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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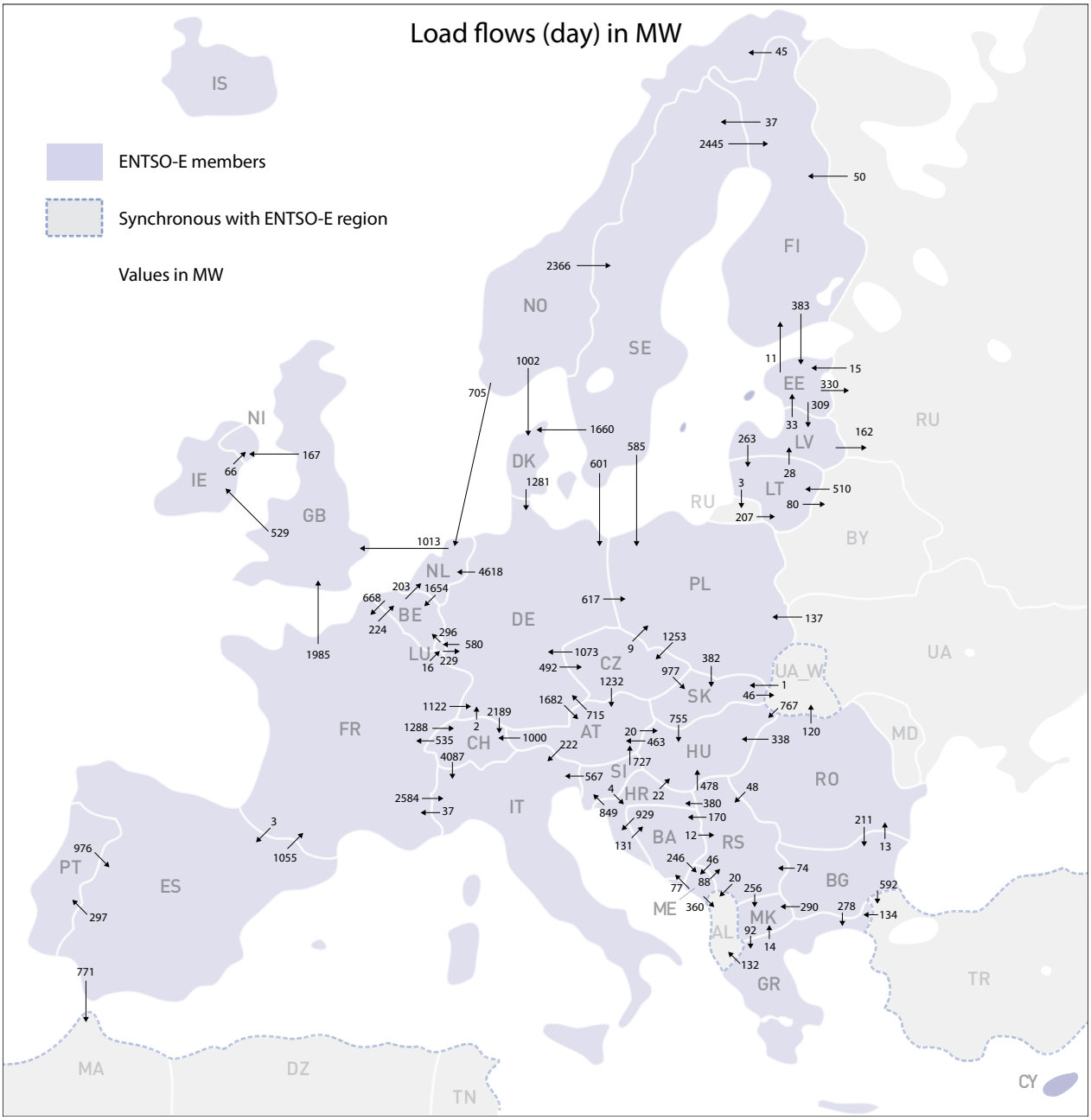
5. Load flows (day) on 19.02.2014 at 11:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	I = 2147
BA	E = 809
BE	I = 1303
BG	E = 1036
CH	E = 147
CY[1]	-
CZ	E = 1546
DE	E = 5155
DK	I = 1381

Country	Balance
EE	E = 219
ES	E = 1144
FI	I = 2041
FR	E = 4927
GB	I = 2302
GR	I = 358
HR	I = 311
HU	I = 1917
IE	I = 463

Country	Balance
IS[1]	-
IT	I = 7423
LT	I = 869
LU	I = 71
LV	I = 203
ME	E = 233
MK	I = 468
NI	I = 233
NL	I = 2859

Country	Balance
NO[2]	n.a.
PL	E = 287
PT	E = 679
RO	E = 704
RS	E = 1128
SE	E = 2888
SI	E = 449
SK	I = 559

Sum of load flows (night) in MW: ENTSO-E: 55 409 Total: 59 846 [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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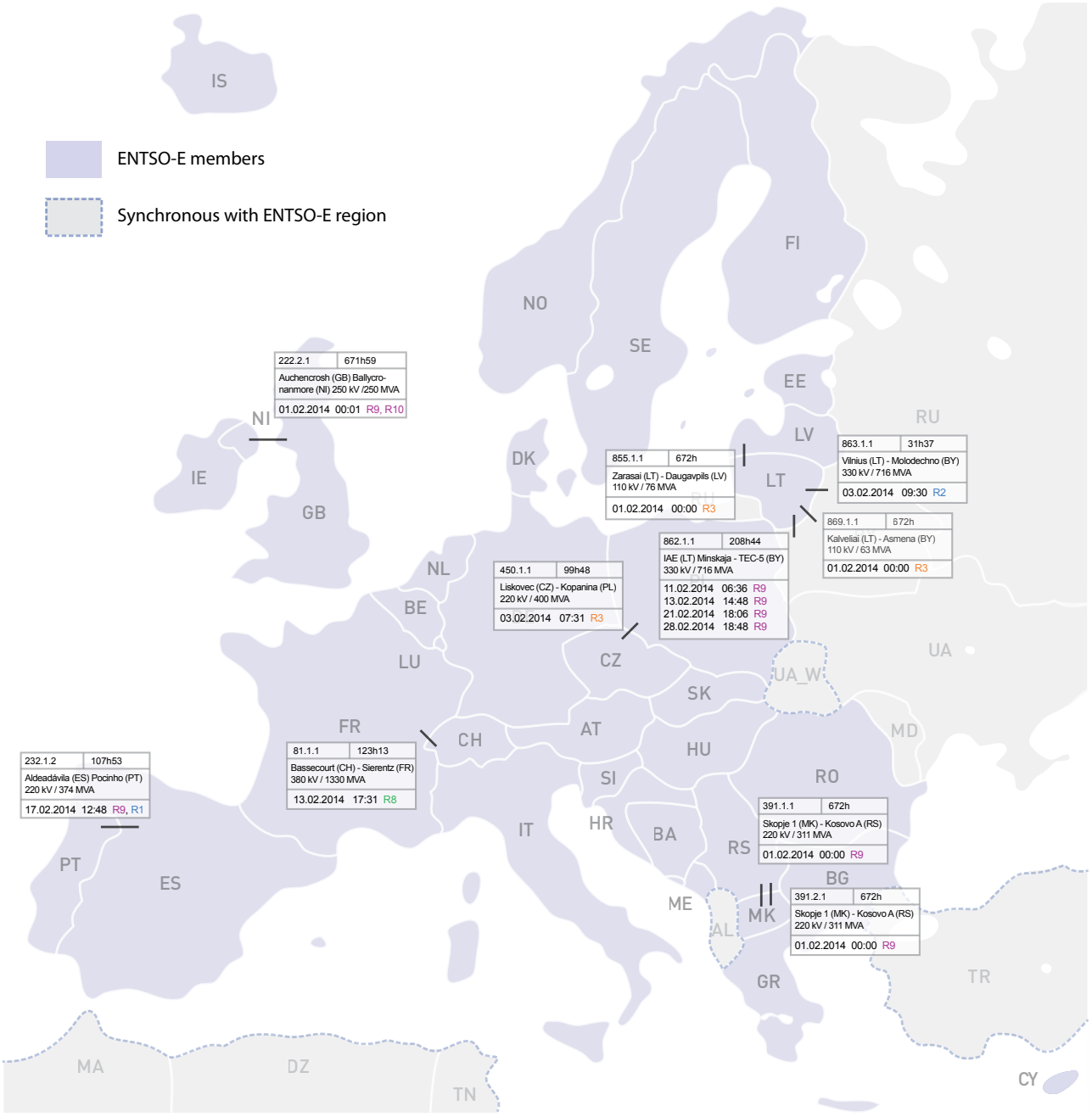
6. Unavailability of international tie lines

(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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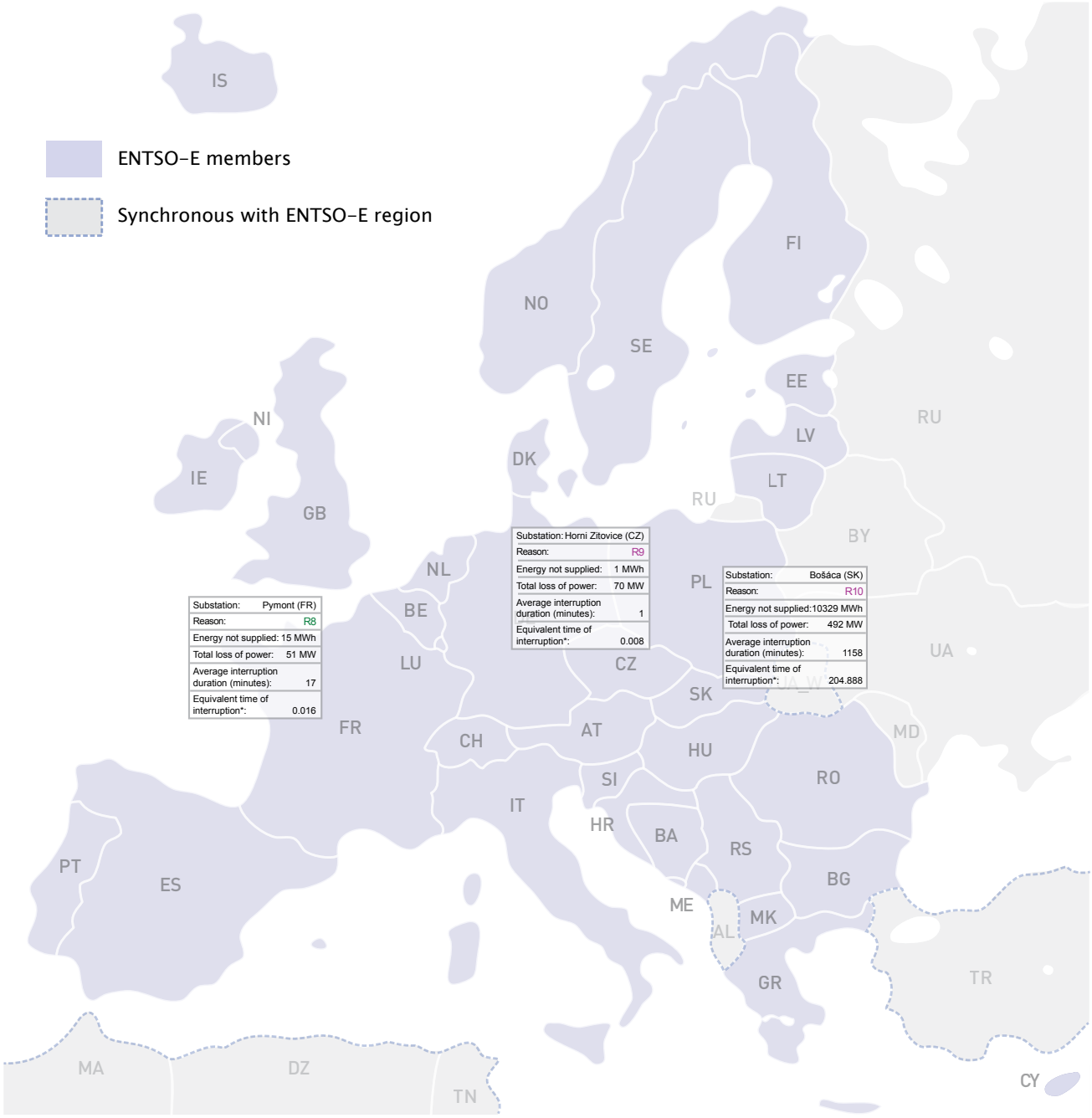
7. Supply interruption

(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.

	Last 12 months	Date	Time	Feb-14	Date	Time	Last 12 months	Date	Time	Feb-14	Date	Time
AT	11 441	27/11/2013	18:00	10 882	03/02/2014	18:00	4 607	20/05/2013	04:00	5 779	16/02/2014	04:00
BA	2 074	24/12/2013	18:00	1 898	05/02/2014	19:00	866	02/05/2013	06:00	992	17/02/2014	04:00
BE [3]	13 294	12/12/2013	18:00	12 203	13/02/2014	19:00	6 136	28/07/2013	07:00	7 698	09/02/2014	06:00
BG	6 985	31/01/2014	19:00	6 711	03/02/2014	19:00	2 432	12/05/2013	05:00	3 479	23/02/2014	05:00
CH	7 937	26/02/2013	11:00	7 721	07/02/2014	12:00	2 453	01/08/2013	08:00	5 376	23/02/2014	08:00
CY	815	30/08/2013	15:00	664	03/02/2014	19:00	254	01/12/2013	05:00	278	23/02/2014	04:00
CZ	10 093	28/11/2013	17:00	9 631	05/02/2014	18:00	3 952	07/07/2013	06:00	6 005	16/02/2014	06:00
DE	84 462	29/01/2014	19:00	78 355	05/02/2014	19:00	32 473	02/06/2013	07:00	45 228	23/02/2014	07:00
DK	6 002	30/01/2014	18:00	5 642	04/02/2014	18:00	1 088	10/05/2013	21:00	2 902	23/02/2014	03:00
EE	1 490	30/01/2014	17:00	1 356	06/02/2014	09:00	486	07/07/2013	04:00	719	24/02/2014	04:00
ES	39 501	27/02/2013	20:00	38 666	04/02/2014	20:00	17 091	01/04/2013	04:00	20 571	09/02/2014	04:00
FI	14 321	20/01/2014	08:00	13 154	01/02/2014	18:00	5 244	23/06/2013	05:00	9 097	25/02/2014	03:00
FR	88 198	25/02/2013	19:00	80 396	05/02/2014	19:00	29 869	11/08/2013	07:00	48 450	23/02/2014	17:00
GB	58 023	06/02/2014	19:00	58 023	06/02/2014	19:00	19 989	23/06/2013	07:00	26 680	23/02/2014	07:00
GR	8 525	12/12/2013	18:00	8 136	04/02/2014	19:00	2 224	05/05/2013	14:00	3 337	16/02/2014	14:00
HR	2 813	11/02/2013	20:00	2 607	03/02/2014	20:00	1 105	31/03/2013	04:00	1 325	17/02/2014	04:00
HU	5 863	12/12/2013	17:00	5 722	04/02/2014	19:00	2 661	20/05/2013	06:00	3 424	09/02/2014	04:00
IE	4 491	17/12/2013	19:00	4 435	11/02/2014	20:00	1 722	04/08/2013	08:00	2 235	24/02/2014	06:00
IS	2 258	06/03/2013	12:00	2 138	03/02/2014	19:00	1 388	08/02/2014	07:00	1 388	08/02/2014	07:00
IT	53 976	26/07/2013	12:00	48 936	05/02/2014	19:00	19 124	27/10/2013	04:00	22 606	24/02/2014	04:00
LT	1 834	23/01/2014	10:00	1 721	03/02/2014	10:00	745	21/07/2013	05:00	908	17/02/2014	03:00
LU	994	13/12/2013	18:00	801	13/02/2014	12:00	375	02/01/2014	04:00	466	16/02/2014	05:00
LV	1 331	30/01/2014	17:00	1 242	03/02/2014	09:00	436	22/07/2013	04:00	605	24/02/2014	01:00
ME	621	11/02/2013	21:00	530	02/02/2014	20:00	196	30/09/2013	05:00	278	23/02/2014	05:00
MK	1 527	22/12/2013	18:00	1 393	02/02/2014	19:00	520	03/06/2013	06:00	788	19/02/2014	05:00
NI	1 675	14/01/2014	19:00	1 605	12/02/2014	19:00	503	14/07/2013	07:00	662	09/02/2014	07:00
NL	18 409	11/12/2013	18:00	17 080	13/02/2014	19:00	8 257	16/06/2013	06:00	9 337	09/02/2014	05:00
NO	22 957	13/01/2014	09:00	20 557	20/02/2014	09:00	8 558	04/08/2013	06:00	14 207	26/02/2014	03:00
PL [4]	23 715	29/01/2014	18:00	22 073	03/02/2014	19:00	10 206	05/05/2013	06:00	12 772	23/02/2014	04:00
PT	8 322	09/12/2013	21:00	8 296	04/02/2014	21:00	3 470	28/04/2013	08:00	4 157	23/02/2014	08:00
RO	8 114	10/12/2013	18:00	8 059	04/02/2014	18:00	3 456	06/05/2013	06:00	4 683	24/02/2014	03:00
RS	6 930	18/12/2013	18:00	6 717	03/02/2014	19:00	2 352	06/05/2013	04:00	3 508	17/02/2014	05:00
SE	24 735	13/01/2014	17:00	22 022	04/02/2014	18:00	8 813	27/07/2013	06:00	14 299	23/02/2014	03:00
SI	1 984	13/02/2013	19:00	1 862	12/02/2014	20:00	775	31/08/2013	07:00	1 011	17/02/2014	04:00
SK	4 126	17/12/2013	17:00	3 992	05/02/2014	18:00	2 227	09/06/2013	06:00	2 631	24/02/2014	03:00
ENTSO-E	525 685	29/01/2014	19:00	506 589	05/02/2014	19:00	230 711	09/06/2013	06:00	298 969	23/02/2014	05:00

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

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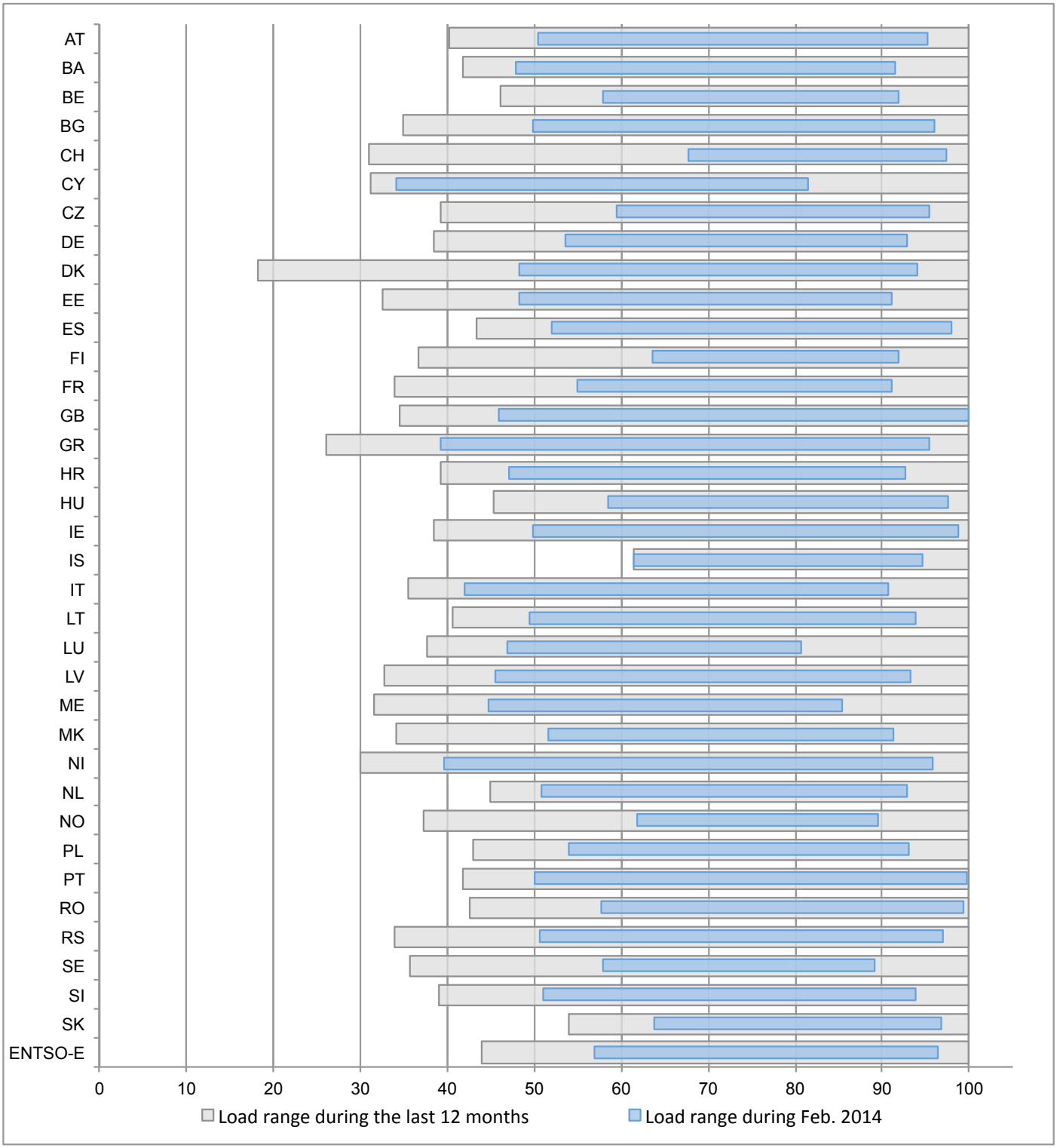
The following diagram shows the percentual load range for the current month compared to the percentual load range of the last 12 months, the reference values beeing the highest load value of the last 12 months.



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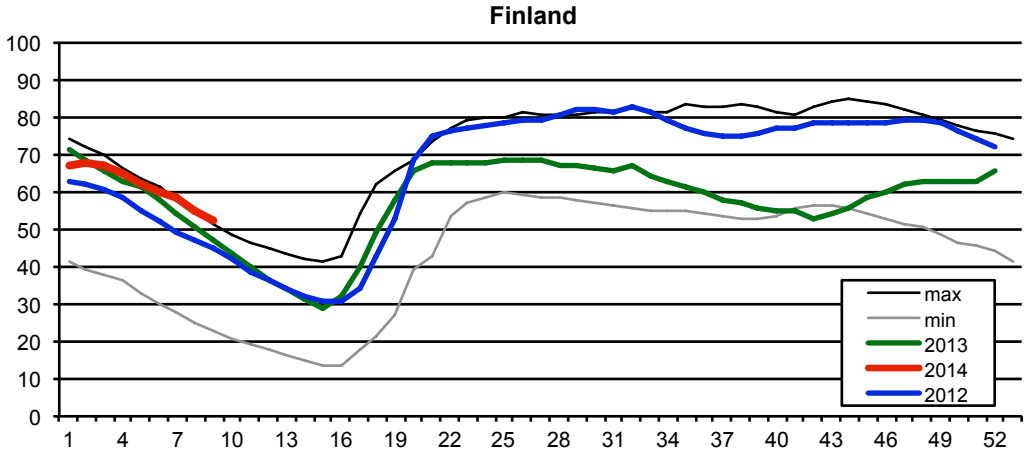
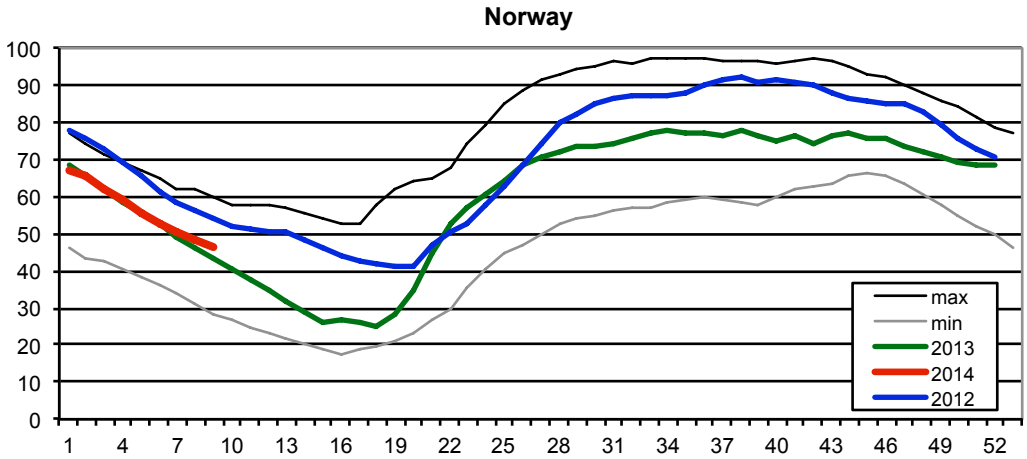
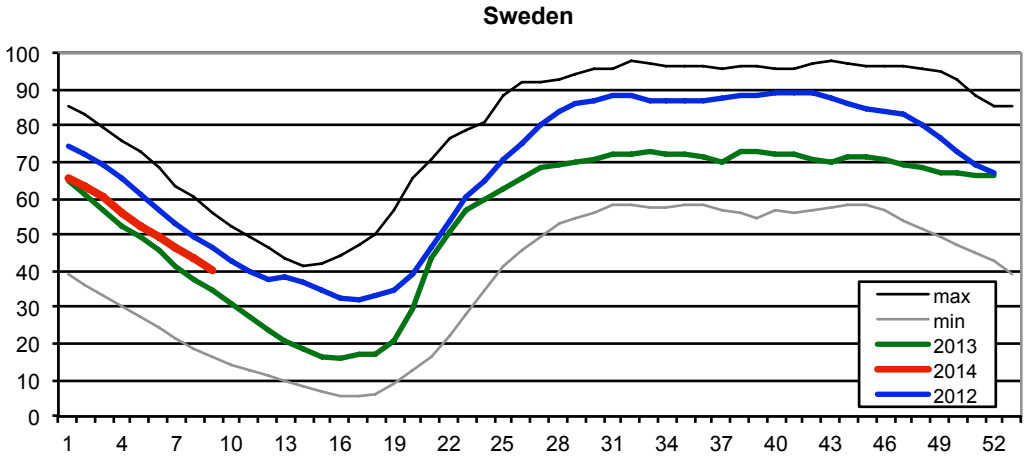
9. Water reservoirs Nordic







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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