

Monthly statistics



May 2014

European Network of
Transmission System Operators
for Electricity

entsoe

Monthly provisional values as of 25 August 2014

Data Expert Group

Monthly statistics - May 2014

Data Expert Group

Monthly provisional values from the ENTSO-E statistical database as of 25 August 2014.

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General remarks and abbreviations used in the tables

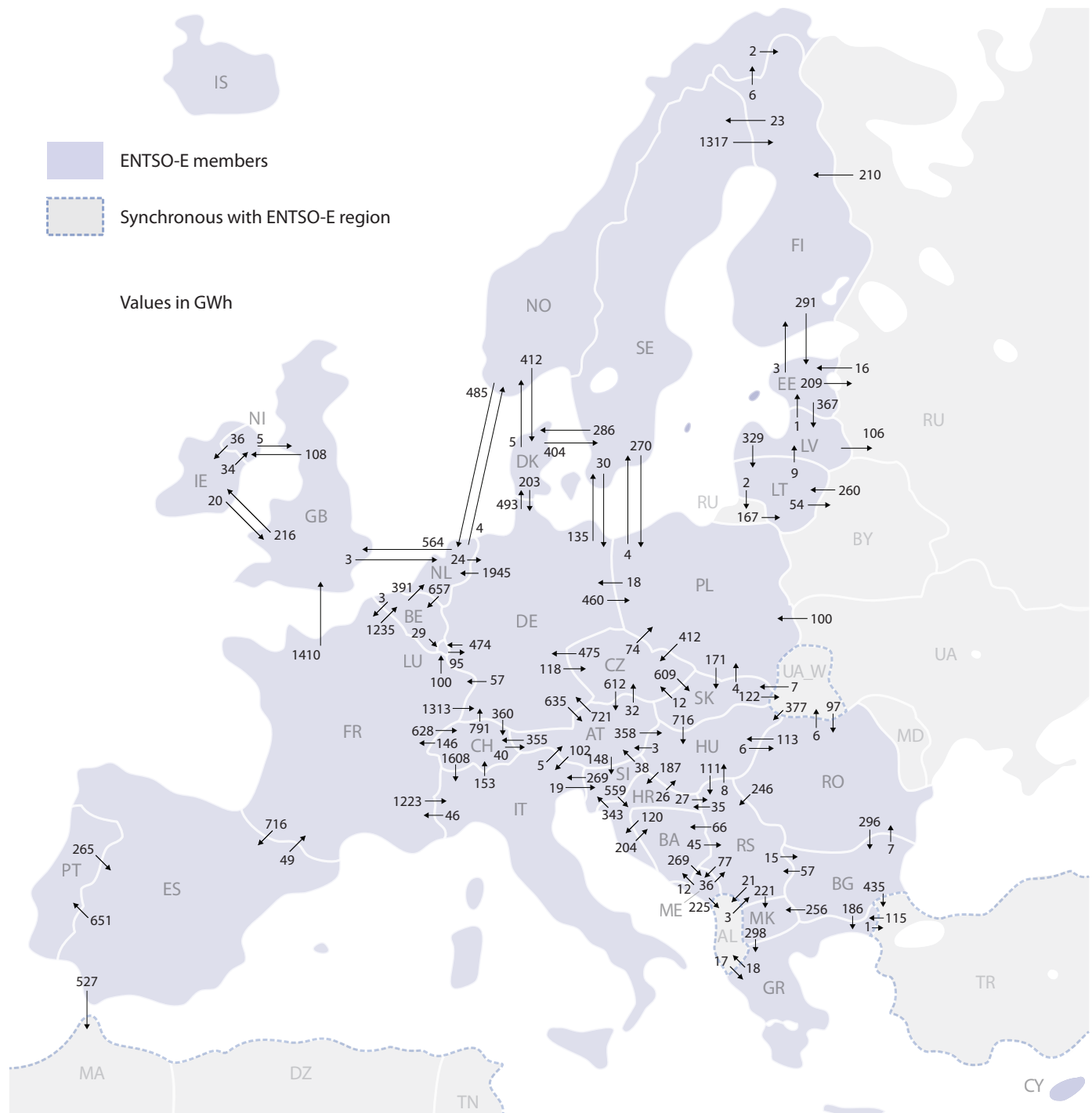
- Definitions of terms used in this report are available at <https://emr.entsoe.eu/>.
- All values of generation and consumption on page 4, 11 and 12 are calculated to represent 100% of the national values.
- All data with the country code GB represents monthly statistical data as sum of England, Scotland and Wales.
- All data with the country code NI represents the monthly statistical data of the Northern Ireland.
- CET: Central European Time.

1. Electricity supply situation of the countries

All values in GWh	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	Net generation			Renew- ables	of which wind	of which solar	of which biomass	of which other renew- ables	Not clearly identi- fiable	Total	Exch. balance	Pumping	Consumption	
									Hydro power	of which renew- able	of which other hydro										var. [%]	(Compared to 1 year before)
AT	0	616	0	49	305	56	0	206	4 325	4 009	316	582	349	0	0	233	1 127	6 650	- 345	452	5 853	8.5
BA	0	471	471	0	0	0	0	0	587	587	0	0	0	0	0	0	0	1 058	- 152	0	906	-1.5
BE ³	2 867	1 604	0	114	1 175	0	315	0	113	11	102	909	320	371	218	0	0	5 493 ⁴	1 475	136	6 832	0.1
BG ³	798	1 195	963	102	130	0	0	0	547	506	36	248	78	148	10	0	0	2 788	- 634	55	2 099	-4.9
CH	2 449	167	0	0	0	0	0	167	3 524	0	3 524	148	11	0	0	137	0	6 288 ⁴	-1 088	226	4 974	-1.6
CY	0	305	0	0	0	305	0	0	0	0	0	15	15	0	0	0	0	320	n.a.	0	320	-3.3
CZ	2 257	3 988	0	0	424	0	0	3 564	263	0	263	275	0	0	0	275	0	6 783 ⁴	-1 217	128	5 438	12.3
DE ⁶	6 057	22 564	11 293	7 690	2 264	75	1 242	0	1 934	1 366	568	11 276	4 101	4 184	2 866	125	0	41 831 ⁴	-1 006	649	40 176	-3.8
DK	0	1 122	0	820	299	3	0	0	1	0	1	919	652	85	182	0	0	2 042 ⁴	579	0	2 621	1.2
EE	0	806	0	0	0	0	0	806	3	3	0	83	36	0	47	0	0	892	- 271	0	621	2.1
ES	4 328	7 581	337	3 083	3 452	709	0	0	3 088	2 787	301	6 317	4 179	1 648	490	0	19	21 333	- 256	435	20 642	0.1
FI	1 655	1 133	0	498	397	14	224	0	1 388	1 388	0	935	74	0	861	0	67	5 178	1 206	0	6 384	1.7
FR	31 713	1 216	0	368	549	299	0	0	6 232	5 726	506	2 794	1 531	695	568	0	0	41 955	-6 469	723	34 763	-5.7
GB ³	5 379	16 393	0	7 818	6 936	0	0	0	501	209	227	2 040	1 224	0	0	0	0	24 313	1 665	311	25 667	5.2
GR	0	2 026	1 764	0	262	0	0	0	423	82	341	617	233	366	18	0	0	3 066	598	6	3 658	-3.2
HR	0	237	0	183	54	0	0	0	732	732	0	48	48	0	0	0	0	1 017	297	16	1 298	0.5
HU	1 061	595	411	50	131	3	0	0	28	28	0	223	79	1	143	0	0	1 907	1 289	0	3 196	3.3
IE	0	1 496	178	302	1 016	0	0	0	64	38	26	354	343	0	0	11	13	1 927	200	47	2 080	-0.6
IS	0	0	0	0	0	0	0	0	1 007	1 007	0	428	0	0	0	428	0	1 435	n.a.	0	1 435	-1.6
IT	0	11 445	0	2 638	6 619	1 263	745	180	5 985	5 655	330	4 736	1 169	2 683	410	474	0	22 166	2 979	221	24 924	-2.9
LT	0	62	0	0	30	0	18	14	90	36	54	79	39	10	30	0	0	231	691	78	844	1.7
LU	0	20	0	0	20	0	0	0	99	4	95	18	7	7	4	0	7	144	508	133	519	n.a.
LV	0	131	0	0	90	0	41	0	304	304	0	54	8	0	17	29	0	489	151	0	640	15.1
ME	0	68	68	0	0	0	0	0	214	107	107	0	0	0	0	0	0	282	0	0	282	-28.6
MK	0	341	341	0	0	0	0	0	71	0	71	0	0	0	0	0	0	412	187	0	599	7.0
NI	0	510	0	220	290	0	0	0	0	0	0	92	84	0	5	3	0	602	106	0	708	-1.3
NL	325	6 256	0	0	0	0	0	6 256	3	3	0	852	400	7	445	0	0	7 436	1 559	0	8 995	5.1
NO ²	0	170	0	0	170	0	0	0	11 035	11 035	0	117	117	0	0	0	0	11 322	-1 662	320	9 340	-0.3
PL ⁷	0	9 898	4 033	4 983	212	0	0	670	292	260	32	1 218	605	0	613	0	0	11 408 ⁴	302	54	11 656	3.5
PT	0	1 412	0	954	423	14	0	21	856	796	60	1 311	1 011	61	239	0	0	3 579 ⁴	387	74	3 892	0.4
RO	612	1 512	982	179	59	0	292	0	2 047	2 047	0	568	327	203	38	0	0	4 739	- 550	47	4 142	3.1
RS	0	1 595	1 595	0	0	0	0	0	1 260	1 178	82	0	0	0	0	0	0	2 855	82	107	2 830	3.1
SE	3 488	205	0	35	2	8	160	0	5 706	5 706	0	1 410	682	0	728	0	0	10 809	- 572	0	10 237	n.a.
SI	515	301	277	22	0	0	0	2	550	527	23	0	0	0	0	0	0	1 366	- 359	32	975	-1.6
SK	1 171	275	128	44	103	0	0	0	512	497	15	104	1	58	39	6	124	2 186 ⁴	- 67	19	2 100	-0.8
ENTSO-E ⁸	64 675	97 716	22 841	30 152	25 412	2 749	3 037	11 886	53 784	46 634	7 080	38 770	17 723	10 527	7 971	1 721	1 357	256 302	- 387	4 269	251 646	-0.4

¹ Renewable hydro: Production run-of-river plus production of storage and pumped storage minus 70% of pumped energy.⁵ Values estimated by CEPS.⁸ ENTSO-E sum based on data from May 2014.² No data available for May 2014.⁶ Wind, pv and biomass from TSO data, rest from official statistics.³ The reported figures are best estimates based on actual measurements and extrapolations.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 generation⁴ Including deliveries from industry.

2. Physical energy flows



Sum of physical energy flows between ENTSO-E countries: 30 666 GWh
Total physical energy flows: 33 761 GWh¹

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.

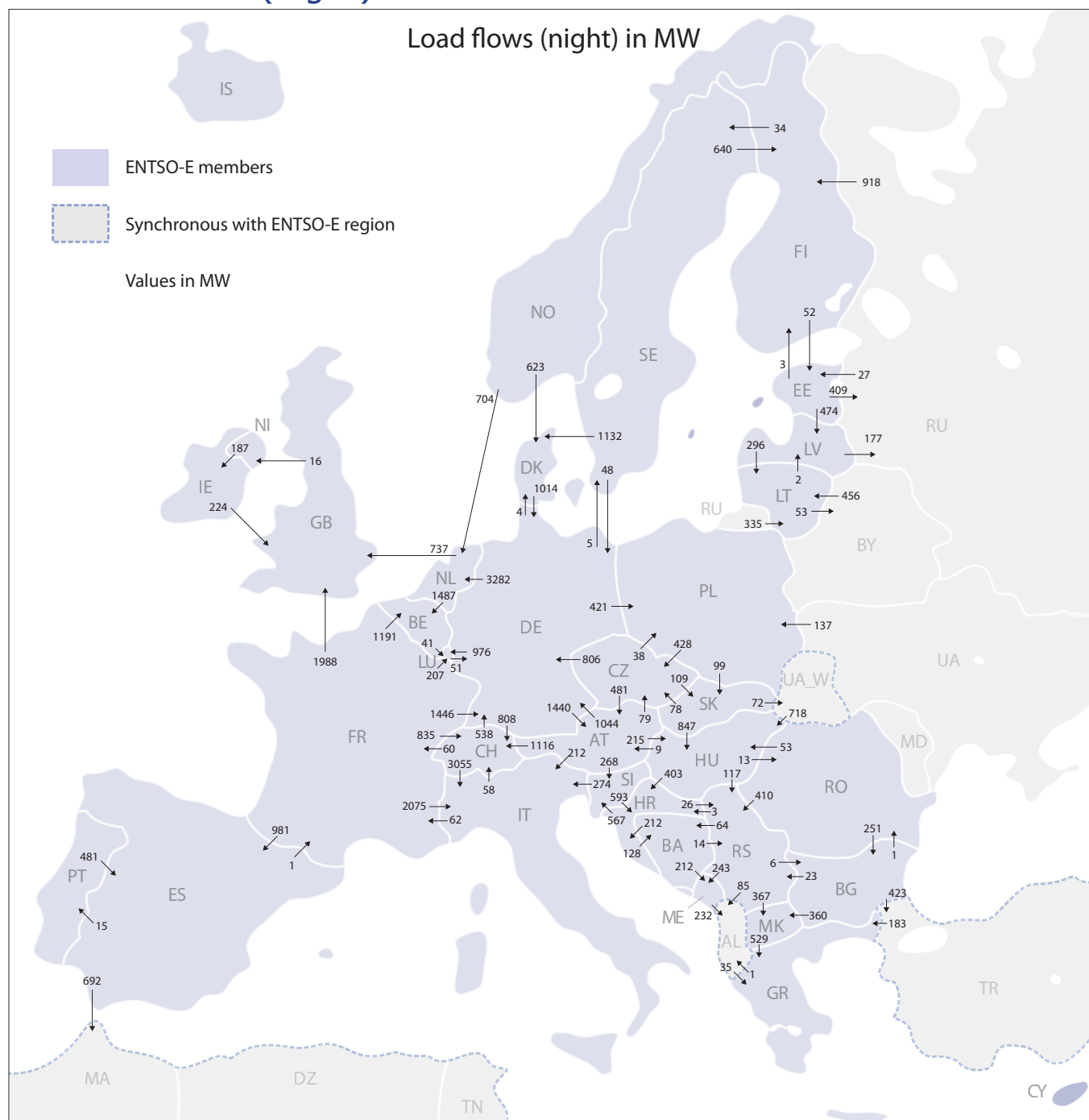
¹ Sum of physical energy flows without exchanges between NO-RU, AT-DE and RO-MD.

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					355	32	721									358		102														148			1 716
BA															120							269								45					434
BE												3								29					391										423
BG														186								256						7	57				435	941	
CH	40						791					146						1 608																	2 585
CZ	612						475																			74						609		1 770	
DE	635				360	118		493				57								474					1 945		460				135				4 677
DK							203																			5					404				612
EE											3										367												209	579	
ES												49															651						527	1 227	
FI									291																6					23				320	
FR			1 235		628		1 313			716			1 410					1 223		100															6 625
GB																	216							108	3										327
GR																																	19	19	
HR		204														26														27		343			600
HU	3														187													6	111						307
IE													20											34											54
IT	5				153							46																				19			223
LT																					9													56	65
LU							95																												95
LV									1											329															330
ME		12																												36				225	273
MK														298																					298
NI													5				36																		41
NL			657				24						564													4									1 249
NO							412				2														485						n.a.				899
PL						412	18																								4		171		605
PT										265																									265
RO				296												113														246				6	661
RS		66		15											35	8						77	221										21	443	
SE							30	286			1 317															n.a.	270								1 903
SI	38														559			269																	866
SK						12										716												4						122	854
Other ¹									16		210			132		377			427		106						100		97	3			7		1 475
Sum imp.	1 333	282	1 892	311	1 496	574	3 670	1 191	308	981	1 532	301	1 999	616	901	1 598	252	3 202	756	603	482	346	477	142	2 824	15	908	651	110	525	566	510	787	1 620	

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

4. Load flows (night) on 21.05.2014 at 03:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	E = 1004
BA	E = 246
BE	I = 2637
BG	E = 550
CH	E = 836
CY ¹	-
CZ	E = 849
DE	E = 1989
DK	I = 745

Country	Balance
EE	E = 807
ES	I = 754
FI	I = 1475
FR	E = 8600
GB	I = 2933
GR	I = 746
HR	I = 490
HU	I = 1291
IE	E = 37

Country	Balance
IS ¹	-
IT	I = 5496
LT	I = 1032
LU	I = 1173
LV	I = 357
ME	I = 223
MK	I = 198
NI	E = 171
NL	I = 1762

Country	Balance
NO ²	n.a.
PL	I = 69
PT	E = 466
RO	E = 700
RS	E = 178
SE	E = 1781
SI	E = 32
SK	E = 789

Sum of load flows (night) in MW:

ENTSO-E: 38 392

Total: 43 345 ^{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 and RO-MD.³ Including synchronous operation with ENTSO-E region.

5. Load flows (day) on 21.05.2014 at 11:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance
AT	E = 1518
BA	E = 487
BE	I = 2673
BG	E = 794
CH	E = 2461
CY ¹	-
CZ	E = 1967
DE	I = 5
DK	I = 910

Country	Balance
EE	E = 512
ES	E = 1732
FI	I = 2407
FR	E = 7639
GB	I = 2144
GR	I = 290
HR	I = 549
HU	I = 2565
IE	I = 648

Country	Balance
IS ¹	-
IT	I = 5669
LT	I = 1044
LU	I = 722
LV	I = 125
ME	I = 83
MK	I = 151
NI	E = 34
NL	I = 1205

Country	Balance
NO ²	n.a.
PL	I = 628
PT	I = 333
RO	E = 1078
RS	I = 361
SE	E = 2079
SI	E = 615
SK	E = 545

Sum of load flows (day) in MW:

ENTSO-E: 42 402

Total: 46 817 ^{2,3}

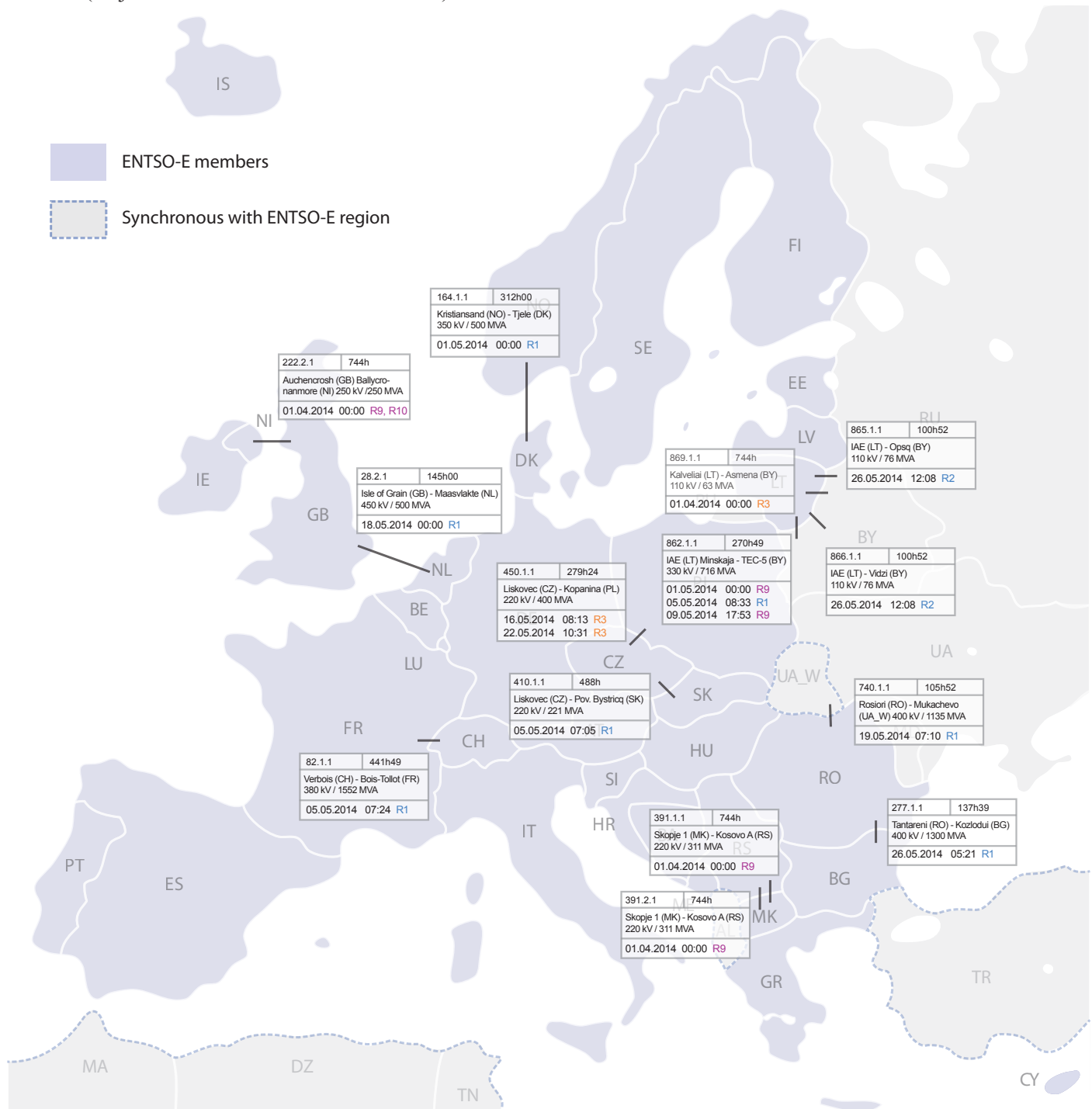
¹ Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.

² Without data between NO-RU and RO-MD.

³ Including synchronous operation with ENTSO-E region.

6. Unavailability of international tie lines

(major events with sum over 100 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

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.

8. Highest and lowest load values of the month

The following table shows highest and lowest load values¹ collected over the last 12 months and includes the reporting month for purposes of comparison.

	Highest load values in MW						Lowest load values in MW					
	Last 12 months			Reported month			Last 12 months			Reported month		
	Load value	Date	Time	Load value	Date	Time	Load value	Date	Time	Load value	Date	Time
AT	11 441	27/11/2013	18:00	10 222	16/05/2014	11:00	4 634	18/08/2013	04:00	4 937	11/05/2014	04:00
BA	2 074	24/12/2013	18:00	1 657	05/05/2014	21:00	845	19/05/2014	04:00	845	19/05/2014	04:00
BE ³	13 294	12/12/2013	18:00	11 938	12/05/2014	12:00	6 136	28/07/2013	07:00	6 615	25/05/2014	06:00
BG	6 985	31/01/2014	19:00	4 591	08/05/2014	22:00	2 630	02/06/2013	06:00	2 757	25/05/2014	06:00
CH	7 792	18/12/2013	09:00	6 258	07/05/2014	12:00	2 453	01/08/2013	08:00	3 397	29/05/2014	10:00
CY	815	30/08/2013	15:00	599	29/05/2014	12:00	254	01/12/2013	05:00	276	11/05/2014	06:00
CZ ⁴	10 093	28/11/2013	17:00	8 407	16/05/2014	10:00	3 952	07/07/2013	06:00	4 666	25/05/2014	06:00
DE	83 102	05/12/2013	18:00	74 885	22/05/2014	12:00	32 473	02/06/2013	07:00	39 732	25/05/2014	06:00
DK	6 002	30/01/2014	18:00	4 675	28/05/2014	11:00	1 897	29/06/2013	06:00	2 336	25/05/2014	06:00
EE	1 490	30/01/2014	17:00	1 081	05/05/2014	10:00	486	07/07/2013	04:00	508	25/05/2014	05:00
ES	39 411	28/11/2013	19:00	31 830	28/05/2014	12:00	17 599	08/06/2013	04:00	18 639	04/05/2014	07:00
FI	14 321	20/01/2014	08:00	10 331	05/05/2014	08:00	5 237	23/06/2013	05:00	6 505	25/05/2014	05:00
FR	85 125	28/11/2013	19:00	58 135	13/05/2014	12:00	29 869	11/08/2013	07:00	34 030	25/05/2014	06:00
GB	57 364	06/02/2014	19:00	45 254	08/05/2014	19:00	20 207	23/06/2013	07:00	21 256	18/05/2014	07:00
GR	8 525	12/12/2013	18:00	6 321	28/05/2014	21:00	2 343	20/04/2014	14:00	2 763	01/05/2014	15:00
HR	2 812	29/07/2013	14:00	2 243	16/05/2014	12:00	1 114	09/06/2013	06:00	1 166	11/05/2014	06:00
HU	5 863	12/12/2013	17:00	5 247	15/05/2014	13:00	2 828	21/08/2013	04:00	2 841	02/05/2014	04:00
IE	4 491	17/12/2013	19:00	3 520	20/05/2014	19:00	1 722	04/08/2013	08:00	1 810	18/05/2014	08:00
IS	2 207	09/12/2013	18:00	2 067	27/05/2014	12:00	1 337	14/05/2014	12:00	1 337	14/05/2014	12:00
IT	53 976	26/07/2013	12:00	44 455	23/05/2014	12:00	19 124	27/10/2013	04:00	20 764	01/05/2014	07:00
LT	1 834	23/01/2014	10:00	1 456	08/05/2014	10:00	745	21/07/2013	05:00	789	18/05/2014	05:00
LU	994	13/12/2013	18:00	743	23/05/2014	12:00	368	28/03/2014	00:00	404	29/05/2014	07:00
LV	1 331	30/01/2014	17:00	997	08/05/2014	09:00	436	22/07/2013	04:00	463	18/05/2014	04:00
ME	570	26/01/2014	20:00	451	04/05/2014	22:00	196	30/09/2013	05:00	217	18/05/2014	06:00
MK	1 527	22/12/2013	18:00	1 127	04/05/2014	21:00	520	03/06/2013	06:00	568	29/05/2014	04:00
NI	1 675	14/01/2014	19:00	1 333	01/05/2014	19:00	503	14/07/2013	07:00	559	25/05/2014	07:00
NL	18 409	11/12/2013	18:00	15 460	09/05/2014	12:00	8 257	16/06/2013	06:00	8 320	18/05/2014	07:00
NO	22 957	13/01/2014	09:00	15 909	09/05/2014	09:00	8 558	04/08/2013	06:00	9 789	25/05/2014	06:00
PL	23 715	29/01/2014	18:00	19 621	16/05/2014	13:00	9 761	21/04/2014	06:00	10 500	04/05/2014	06:00
PT	8 322	09/12/2013	21:00	6 470	15/05/2014	16:00	3 317	20/04/2014	08:00	3 609	25/05/2014	08:00
RO	8 114	10/12/2013	18:00	6 770	14/05/2014	21:00	3 704	21/04/2014	14:00	3 970	25/05/2014	06:00
RS	6 930	18/12/2013	18:00	5 220	05/05/2014	22:00	2 436	25/05/2014	06:00	2 436	25/05/2014	06:00
SE	24 735	13/01/2014	17:00	18 012	07/05/2014	11:00	8 696	27/07/2013	06:00	9 565	25/05/2014	06:00
SI	1 966	18/12/2013	18:00	1 750	13/05/2014	09:00	775	31/08/2013	07:00	840	02/05/2014	01:00
SK	4 126	17/12/2013	17:00	3 509	15/05/2014	10:00	2 202	25/05/2014	06:00	2 202	25/05/2014	06:00
ENTSO-E	515 029	29/01/2014	19:00	414 561	14/05/2014	12:00	230 929	09/06/2013	0.25	239 190	25/05/2014	06:00

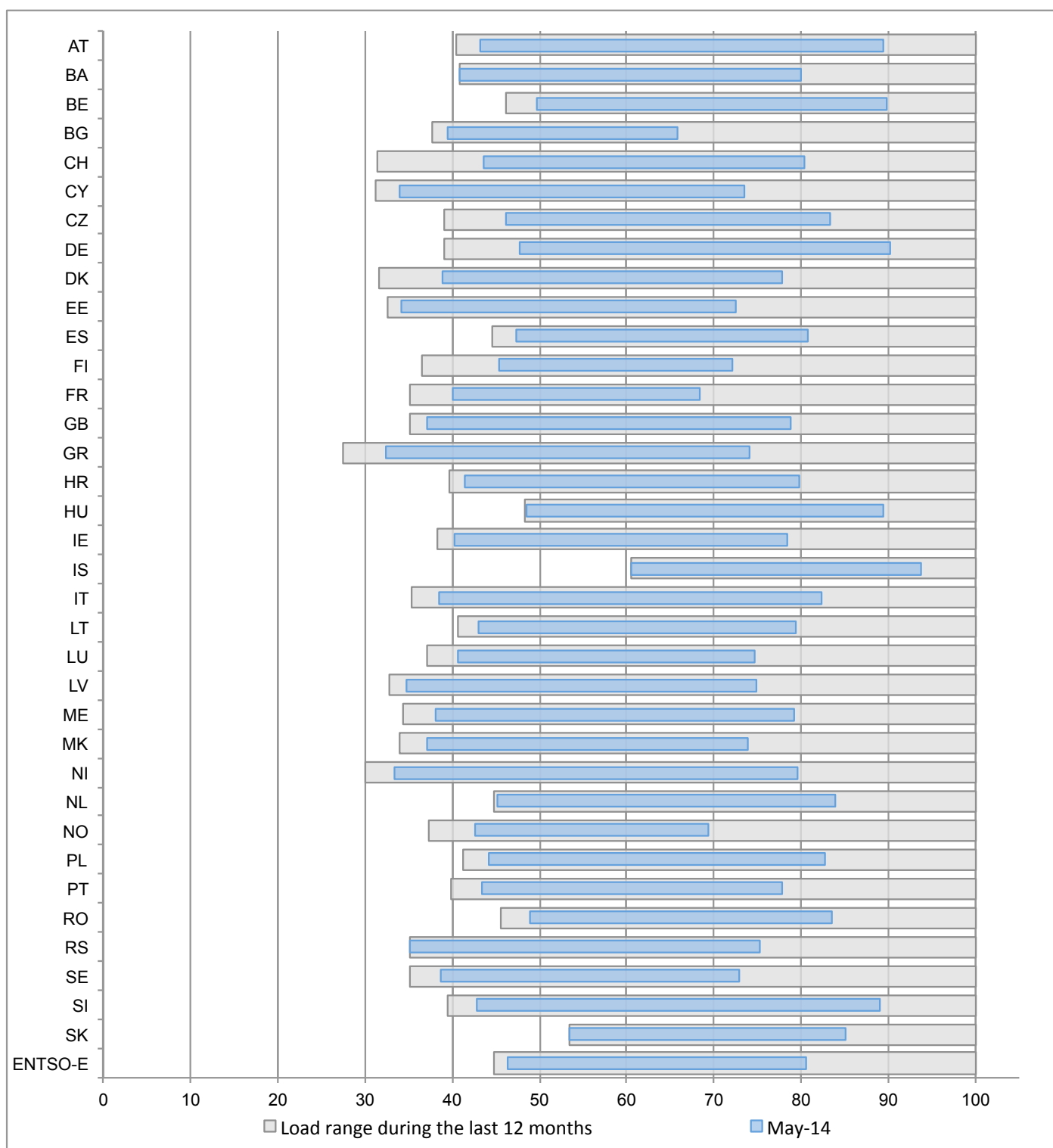
¹ All values are calculated to represent 100% of the national values.

² Values from 2013

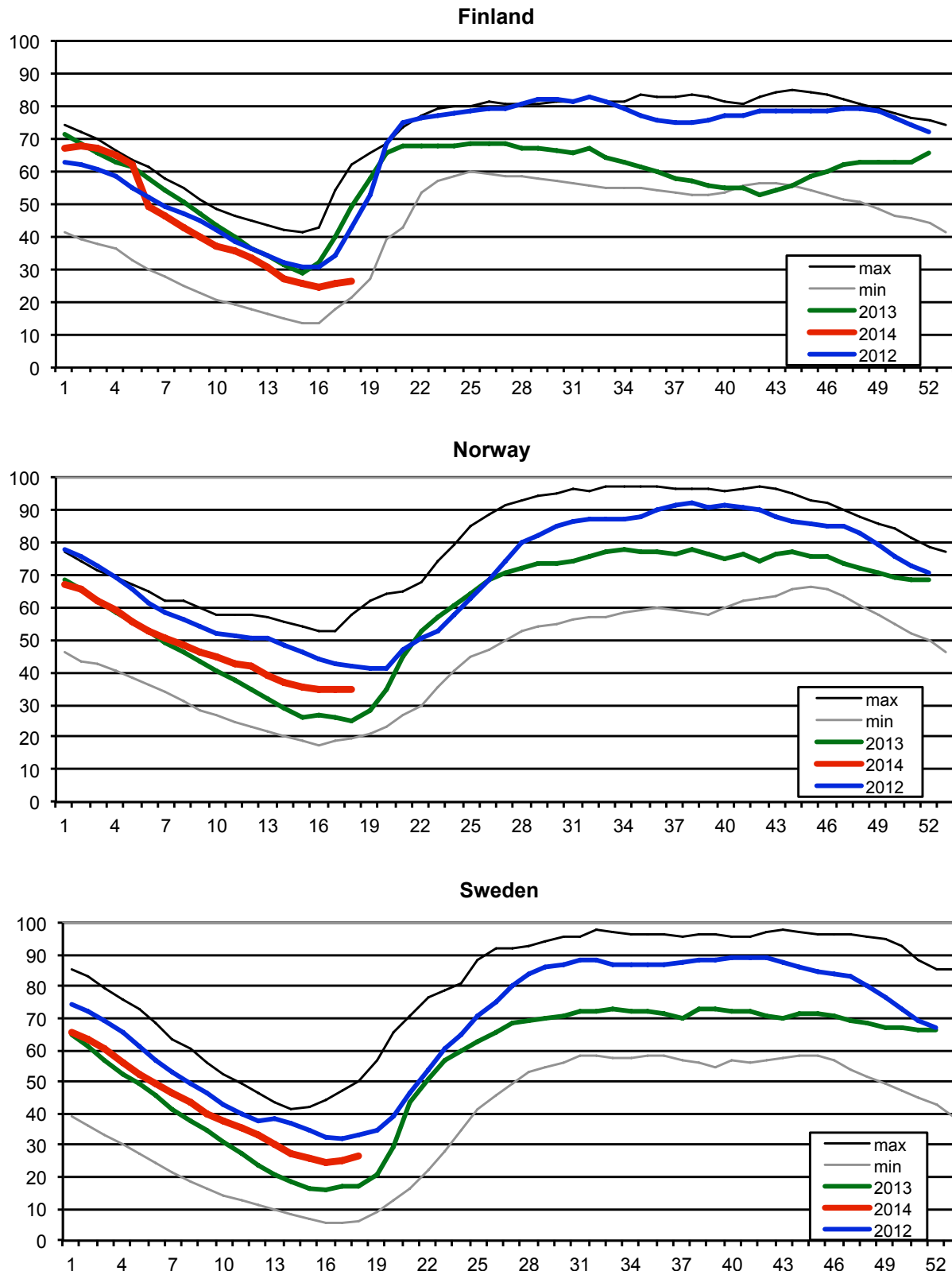
³ The reported figures are best estimates based on actual measurements and extrapolations.

⁴ Values estimated by CEPS.

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 being the highest load value of the last 12 months.



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/>

Contribution

This publication, based on data collected by the ENTSO-E Statistical Data Correspondents, has been supervised by the following Data Expert Group members:

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