

Monthly statistics



January 2014

European Network of
Transmission System Operators
for Electricity

entsoe

Monthly provisional values as of 1 July 2014

Data Expert Group

Monthly statistics - January 2014

Data Expert Group

Monthly provisional values from the ENTSO-E statistical database as of 1 July 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. [%]	
AT	0	1 470	0	414	792	55	0	209	2 429	2 062	367	489	256	0	0	233	739	5 127	2 041	524	6 644	1.6
BA	0	854	854	0	0	0	0	0	570	570	0	0	0	0	0	0	0	1 424	-349	0	1 075	-3.2
BE ²	4 234	1 998	0	166	1 832	0	0	0	176	46	130	906	580	67	259	0	0	7 314 ³	741	174	7 881	-1.9
BG ²	1 426	2 372	1 880	265	227	0	0	0	228	148	80	174	113	52	9	0	0	4 200	-778	114	3 307	-2.4
CH	2 469	172	0	0	0	0	0	172	2 509	0	2 509	154	11	0	0	143	0	5 304 ³	966	154	6 116	-2.5
CY	0	316	0	0	0	316	0	0	0	0	0	26	26	0	0	0	0	342	n.a.	0	342	-3.1
CZ	2 882	4 376	0	0	293	0	0	4 083	268	0	268	89	0	0	0	89	0	7 615 ³	-1 555	144	5 916	-3.3
DE ⁵	8 430	30 816	13 806	10 578	5 136	181	1 115	0	1 954	1 255	699	9 971	6 126	717	2 997	131	0	51 171 ³	-4 332	740	46 099	-5.2
DK	0	1 837	0	1 278	545	14	0	0	2	0	2	2 243	2 022	5	216	0	0	4 082 ³	-810	0	3 272	-1.9
EE	0	830	0	0	0	0	0	830	4	4	0	104	45	0	59	0	0	938	-81	0	857	-0.3
ES	4 512	7 286	174	2 193	4 069	850	0	0	4 689	4 065	624	7 550	6 568	454	528	0	25	24 062	28	858	23 232	-2.4
FI	2 061	2 361	0	997	861	27	476	0	1 417	1 417	0	1 311	91	0	1 220	0	95	7 245	1 660	0	8 905	2.5
FR	42 694	3 363	0	948	1 918	497	0	0	7 046	6 504	542	2 935	2 190	171	574	0	0	56 038	-5 968	774	49 296	-8.3
GB ²	5 693	18 358	0	12 189	6 167	2	0	0	812	516	296	2 552	2 552	0	0	0	0	27 415	1 651	383	37 786	17.1
GR	0	3 136	2 280	0	856	0	0	0	337	67	270	510	279	213	18	0	0	3 983	459	27	4 415	-5.5
HR	0	321	0	196	40	0	85	0	738	738	0	59	59	0	0	0	0	1 118	380	9	1 489	-4.9
HU	1 293	908	537	60	307	4	0	0	24	24	0	154	60	0	94	0	0	2 379	1 121	0	3 500	-1.0
IE	0	1 458	232	248	972	6	0	0	130	105	25	560	549	0	0	11	12	2 160	273	45	2 388	-0.9
IS	0	0	0	0	0	0	0	0	1 092	1 092	0	432	0	0	0	432	0	1 524	n.a.	0	1 524	-0.6
IT	0	15 574	0	3 080	9 152	2 355	987	0	4 158	3 929	229	3 121	1 717	779	162	463	0	22 853	4 256	223	26 886	-2.3
LT	0	185	0	0	51	0	134	0	103	44	59	132	94	2	36	0	0	420	676	77	1 019	-1.9
LU	0	126	0	0	126	0	0	0	109	17	92	39	11	1	4	23	0	274	423	128	569	-1.6
LV	0	256	0	0	198	0	58	0	257	257	0	74	17	0	29	28	0	587	137	0	724	-6.3
ME	0	137	137	0	0	0	0	0	190	0	190	0	0	0	0	0	0	327	0	0	327	-19.9
MK	0	410	348	0	62	0	0	0	64	0	64	0	0	0	0	0	0	474	375	0	849	0.7
NI	0	1 084	0	193	349	0	542	0	1	1	0	164	160	0	4	0	0	1 249	125	0	1 374	62.0
NL	382	6 515	0	0	0	0	0	6 515	10	10	0	1 548	777	8	763	0	0	8 455	1 744	0	10 199	34.3
NO	0	313	0	0	313	0	0	0	14 072	14 072	0	357	357	0	0	0	0	14 742	-689	57	13 996	-2.2
PL ⁴	0	11 936	4 341	6 512	239	0	0	844	246	164	82	1 395	886	0	509	0	0	13 577 ³	-53	117	13 407	-0.6
PT	0	1 196	0	691	473	11	0	21	2 410	2 304	106	1 879	1 633	22	224	0	0	5 485 ³	-773	136	4 576	2.2
RO	970	2 693	1 330	256	420	0	687	0	1 195	1 195	0	575	516	23	36	0	0	5 433	-540	8	4 885	-2.2
RS	0	3 178	3 137	0	41	0	0	0	771	713	58	0	0	0	0	0	0	3 949	26	80	3 895	-5.5
SE	6 375	563	0	66	304	22	171	0	6 860	6 860	0	2 270	1 214	0	1 056	0	0	16 068	-1 342	0	14 726	-3.2
SI	517	393	281	101	1	0	0	10	476	449	27	0	0	0	0	0	0	1 386	-256	35	1 095	-5.8
SK	1 339	424	182	104	138	0	0	0	319	288	31	63	1	10	42	10	131	2 276 ³	160	43	2 393	-3.8
ENTSO-E	85 277	127 215	29 519	40 535	35 882	4 340	4 255	12 684	55 666	48 916	6 750	41 836	28 910	2 524	8 839	1 563	1 002	310 996	-284	4 850	314 964	-0.6

¹ Reported data from January 2013.² The reported figures are best estimates based on actual measurements and extrapolations.³ Including deliveries from industry.⁴ 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.⁵ Wind, pv and biomass from TSO data, rest from official statistics.

2. Physical energy flows



Sum of physical energy flows between ENTSO-E countries: 38 671 GWh

Total physical energy flows: 42 270 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.

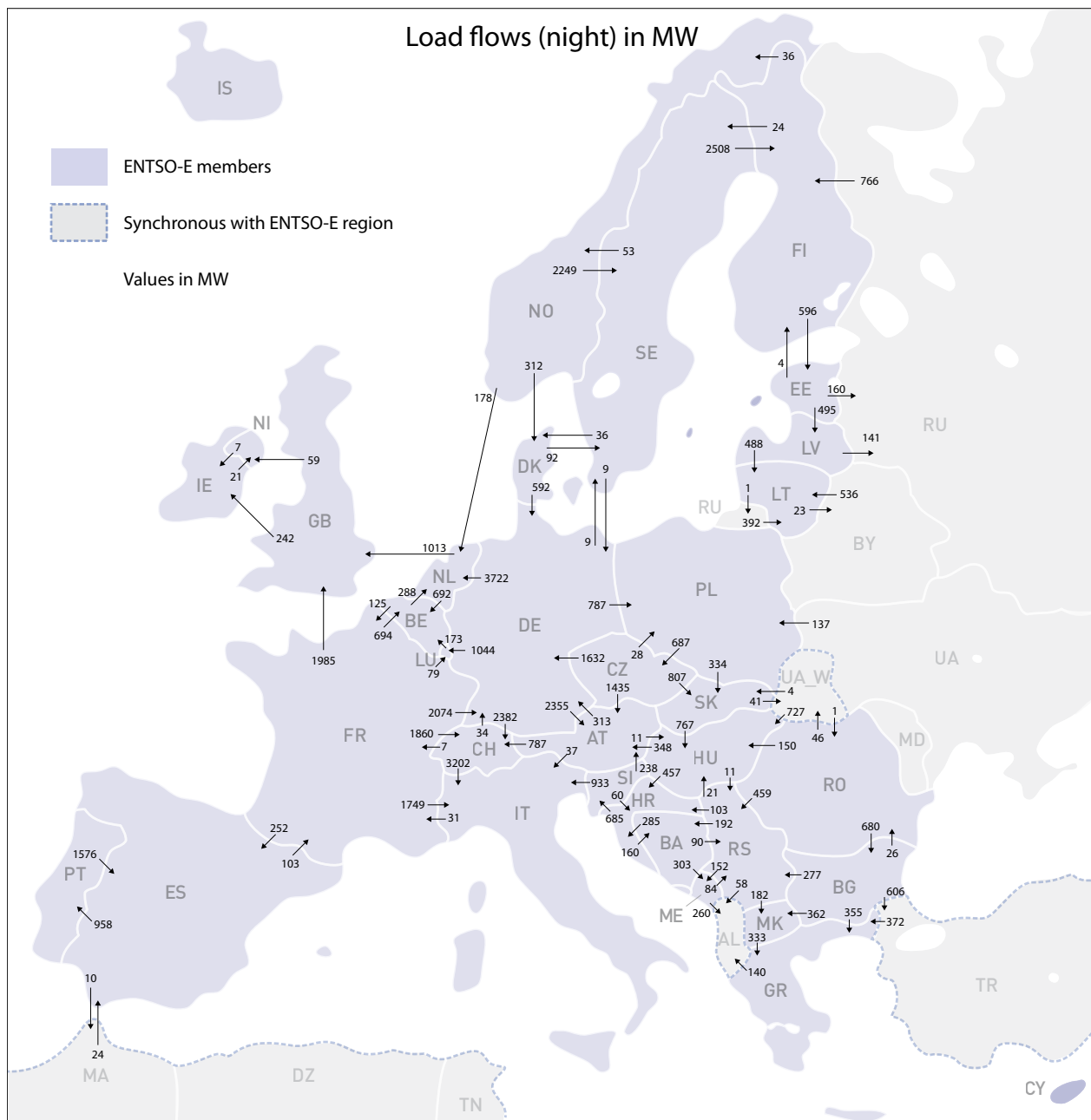
¹ Sum of physical energy flows without exchanges between NO-RU, AT-DE and RO-MD.

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					545		292									91		38														139			1 105	
BA															291							285								46					622	
BE												192								17					327										536	
BG														246									274						3	131				453	1 107	
CH	22						70					112						2 317																	2 521	
CZ	1 348						642																			6							882		2 878	
DE	1 677				1 510	426		214				8								480						2 308		879				46			7 548	
DK							523																			275					577				1 375	
EE											7										361													185	553	
ES												475																397						455	1 327	
FI									425																	31					21				477	
FR			594		1 405		1 396			213			1 396					1 463		95															6 562	
GB																	269							144	2										415	
GR																							6											88	94	
HR		121														18														1		378			518	
HU	120														327													15	35						497	
IE													18												20										38	
IT					30							64		3																		5			102	
LT																					1													60	61	
LU			78				91																												169	
LV																					359														359	
ME		18																													80			242	340	
MK														103																	1				104	
NI													1				38																		39	
NL			595				4						674														32								1 305	
NO								155																		429						810			1 394	
PL						892	5																								26		372		1 295	
PT										1 168																									1 168	
RO				334												73															240				11	658
RS		133													83	39						44	192											23	514	
SE							197	196			1 796																404	266							2 859	
SI	43														201			540																	784	
SK						3										861																		237	1 101	
Other ¹									48		343			202		535			378		133						91		99	8			8		1 845	
Sum imp.	3 210	272	1 267	334	3 490	1 321	3 220	565	473	1 381	2 146	851	2 089	554	902	1 617	307	4 358	737	592	495	329	472	164	3 066	742	1 242	397	117	542	1 480	522	1 262	1 754		

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

4. Load flows (night) on 15.01.2014 at 03:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance	Country	Balance	Country	Balance	Country	Balance
AT	I = 3228	EE	E = 63	IS ¹	-	NO ²	n.a.
BA	E = 326	ES	I = 781	IT	I = 5890	PL	E = 69
BE	I = 1146	FI	I = 2622	LT	I = 1392	PT	E = 618
BG	E = 946	FR	E = 8427	LU	I = 950	RO	E = 1308
CH	I = 1786	GB	I = 2697	LV	I = 148	RS	I = 213
CY ¹	-	GR	I = 920	ME	I = 111	SE	E = 232
CZ	E = 3215	HR	I = 60	MK	I = 211	SI	E = 546
DE	E = 5645	HU	I = 860	NL	I = 73	SK	I = 337
DK	E = 336	IE	I = 228				

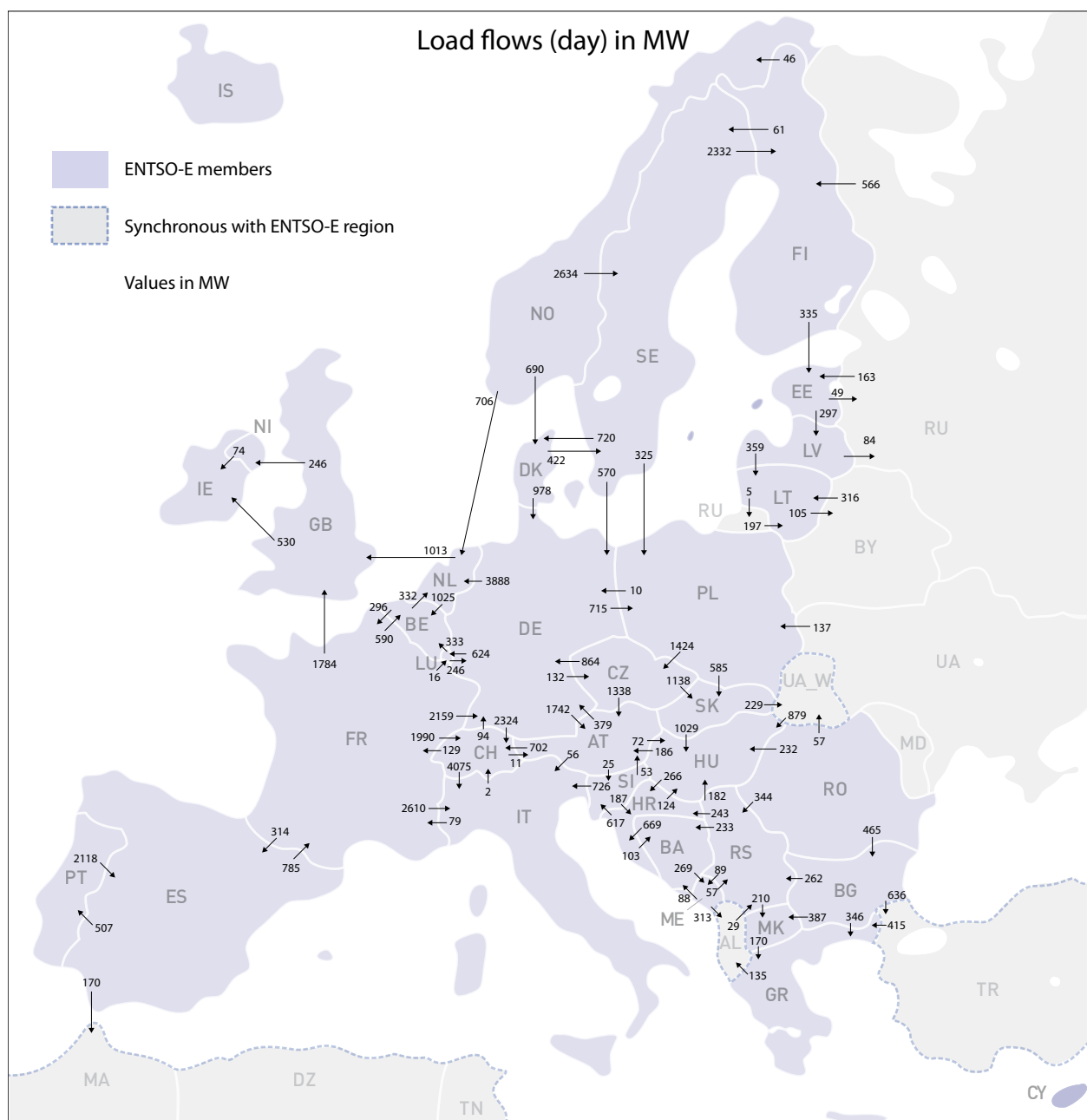
Sum of load flows (night) in MW: ENTSO-E: 48 979 Total: 53 424^{2,3}

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.

5. Load flows (day) on 15.01.2014 at 11:00 a.m. CET in MW



Import (I) and Export (E) balance

Country	Balance	Country	Balance	Country	Balance	Country	Balance
AT	I = 2096	EE	I = 152	IS ¹	-	NO ²	n.a.
BA	E = 514	ES	I = 970	IT	I = 7386	PL	E = 842
BE	I = 1320	FI	I = 2456	LT	I = 762	PT	E = 1611
BG	E = 1166	FR	E = 8174	LU	I = 61	RO	E = 1098
CH	I = 709	GB	I = 2021	LV	I = 22	RS	E = 265
CY ¹	-	GR	I = 796	ME	E = 100	SE	E = 830
CZ	E = 1784	HR	I = 521	MK	I = 427	SI	E = 324
DE	E = 4125	HU	I = 2066	NI	I = 172	SK	I = 465
DK	I = 10	IE	I = 604	NL	I = 2888		

Sum of load flows (night) in MW: ENTSO-E: 55 388 Total: 59 873^{2,3}

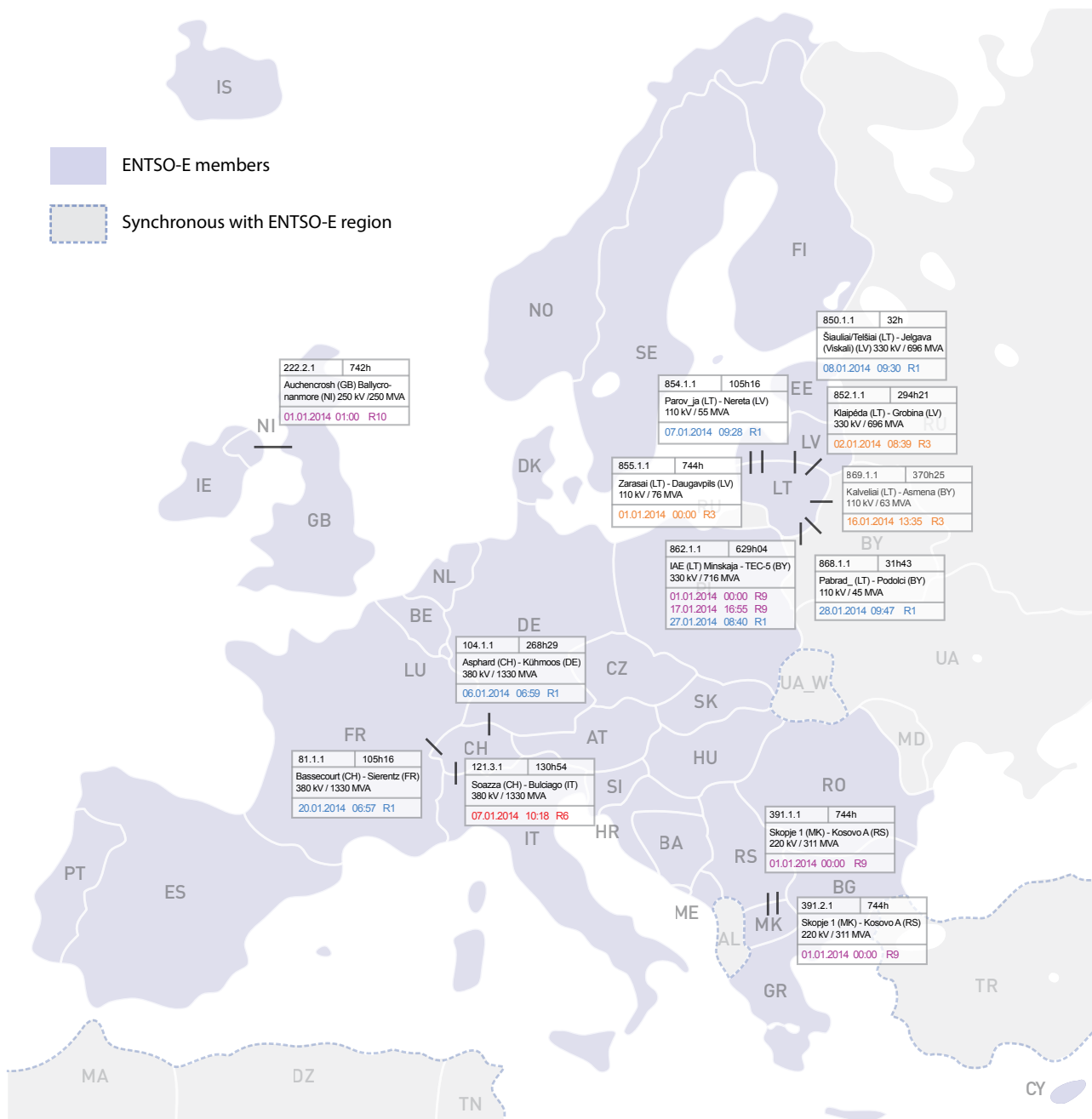
¹ Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.

² Without data between NO-RU, AT-DE and RO-MD.

³ Including synchronous operation with ENTSO-E region.

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, ...)

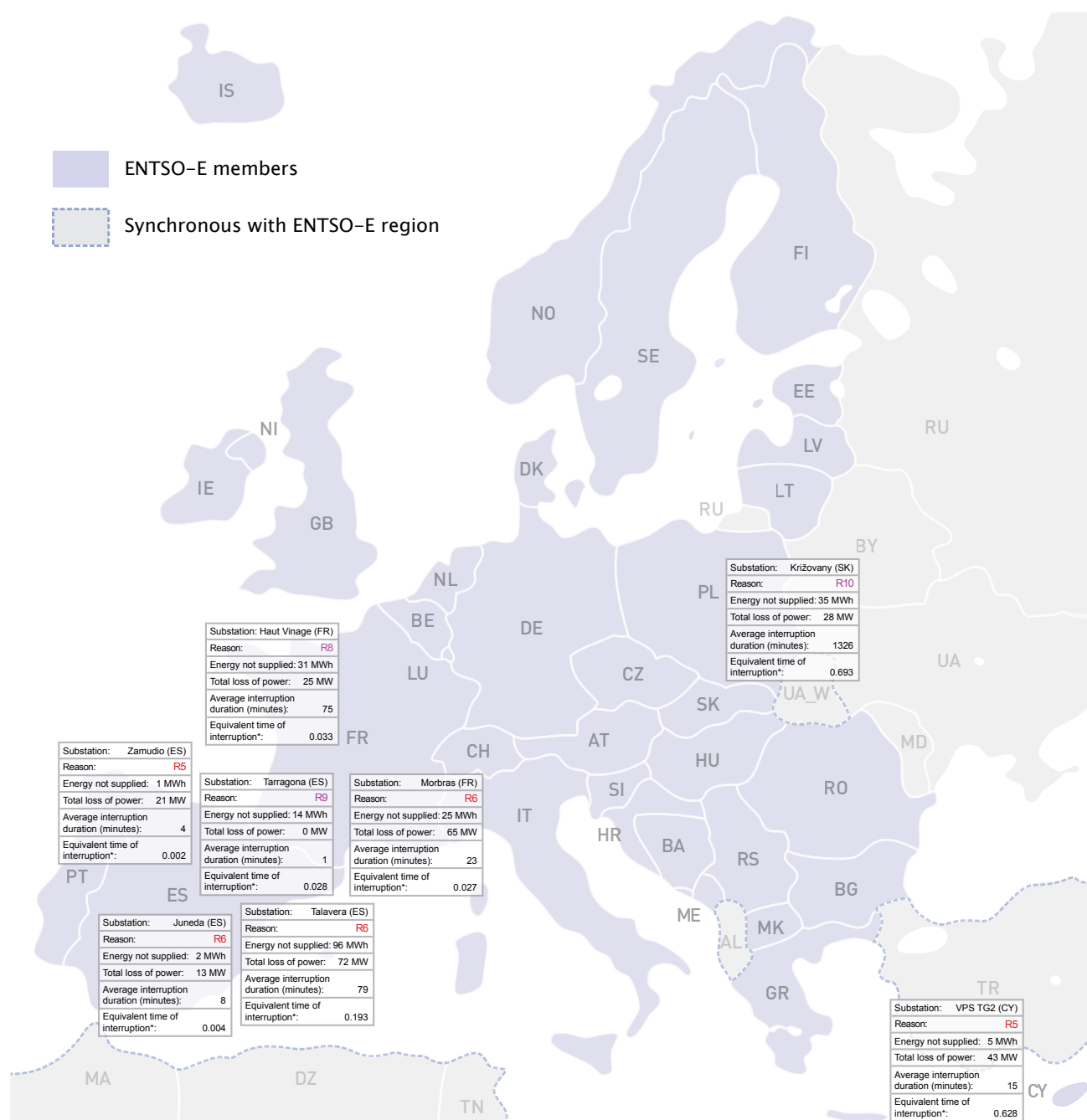
R8: Very exceptional conditions (weather, natural disaster, ...)

R9: Other reasons

R10: Unknown reasons

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 the highest and lowest load values¹ 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	Jan-14	Date	Time	Last 12 months	Date	Time	Jan-14	Date	Time
AT	11 441	27/11/2013	18:00	11 310	29/01/2014	18:00	4 607	20/05/2013	04:00	5 505	05/01/2014	04:00
BA	2 074	24/12/2013	18:00	1 966	28/01/2014	18:00	866	02/05/2013	06:00	997	06/01/2014	04:00
BE ³	13 345	14/01/2013	19:00	13 077	21/01/2014	19:00	6 136	28/07/2013	07:00	7 145	02/01/2014	05:00
BG	6 985	31/01/2014	19:00	6 985	31/01/2014	19:00	2 432	12/05/2013	05:00	3 601	02/01/2014	04:00
CH	7 937	26/02/2013	11:00	7 684	29/01/2014	09:00	2 453	01/08/2013	08:00	4 984	05/01/2014	08:00
CY	815	30/08/2013	15:00	652	27/01/2014	19:00	254	01/12/2013	05:00	294	27/01/2014	04:00
CZ ⁴	10 093	28/11/2013	17:00	9 941	29/01/2014	10:00	3 952	07/07/2013	06:00	5 056	01/01/2014	09:00
DE	84 462	29/01/2014	19:00	84 462	29/01/2014	19:00	32 473	02/06/2013	07:00	41 870	01/01/2014	07:00
DK	6 109	24/01/2013	18:00	6 002	30/01/2014	18:00	1 088	10/05/2013	21:00	2 775	05/01/2014	05:00
EE	1 490	30/01/2014	17:00	1 490	30/01/2014	17:00	486	07/07/2013	04:00	687	01/01/2014	05:00
ES	39 640	22/01/2013	19:00	38 291	20/01/2014	19:00	17 091	01/04/2013	04:00	18 531	01/01/2014	08:00
FI	14 321	20/01/2014	08:00	14 321	20/01/2014	08:00	5 244	23/06/2013	05:00	8 670	01/01/2014	04:00
FR	92 900	17/01/2013	19:00	82 463	29/01/2014	19:00	29 869	11/08/2013	07:00	49 629	02/01/2014	04:00
GB	59 440	16/01/2013	19:00	57 951	30/01/2014	19:00	19 989	23/06/2013	07:00	26 819	01/01/2014	07:00
GR	8 764	08/01/2013	19:00	8 109	28/01/2014	19:00	2 224	05/05/2013	14:00	4 001	20/01/2014	04:00
HR	2 813	11/02/2013	20:00	2 746	29/01/2014	19:00	1 105	31/03/2013	04:00	1 276	20/01/2014	04:00
HU	5 863	12/12/2013	17:00	5 792	28/01/2014	18:00	2 661	20/05/2013	06:00	2 928	02/01/2014	04:00
IE	4 491	17/12/2013	19:00	4 415	14/01/2014	19:00	1 722	04/08/2013	08:00	2 073	02/01/2014	06:00
IS	2 258	06/03/2013	12:00	2 186	08/01/2014	19:00	1 551	08/01/2013	14:00	1 885	19/01/2014	04:00
IT	53 976	26/07/2013	12:00	50 099	30/01/2014	11:00	19 124	27/10/2013	04:00	19 903	02/01/2014	04:00
LT	1 834	23/01/2014	10:00	1 834	23/01/2014	10:00	745	21/07/2013	05:00	827	02/01/2014	03:00
LU	994	13/12/2013	18:00	788	14/01/2014	12:00	373	01/01/2013	07:00	375	02/01/2014	04:00
LV	1 380	14/01/2013	16:00	1 331	30/01/2014	17:00	436	22/07/2013	04:00	604	02/01/2014	03:00
ME	621	11/02/2013	21:00	570	26/01/2014	20:00	196	30/09/2013	05:00	280	20/01/2014	05:00
MK	1 527	22/12/2013	18:00	1 474	26/01/2014	18:00	520	03/06/2013	06:00	813	07/01/2014	05:00
NI	1 697	21/01/2013	19:00	1 675	14/01/2014	19:00	503	14/07/2013	07:00	648	01/01/2014	07:00
NL	18 457	17/01/2013	18:00	17 839	20/01/2014	18:00	8 257	16/06/2013	06:00	9 179	05/01/2014	05:00
NO	25 229	22/01/2013	18:00	22 957	13/01/2014	09:00	8 558	04/08/2013	06:00	13 534	05/01/2014	05:00
PL ⁴	23 715	29/01/2014	18:00	23 715	29/01/2014	18:00	10 206	05/05/2013	06:00	11 316	01/01/2014	09:00
PT	8 322	09/12/2013	21:00	8 064	21/01/2014	21:00	3 470	28/04/2013	08:00	3 696	01/01/2014	09:00
RO	8 312	14/01/2013	17:00	8 075	31/01/2014	18:00	3 456	06/05/2013	06:00	4 515	02/01/2014	04:00
RS	6 930	18/12/2013	18:00	6 840	31/01/2014	19:00	2 352	06/05/2013	04:00	3 785	19/01/2014	05:00
SE	26 871	25/01/2013	09:00	24 735	13/01/2014	17:00	8 813	27/07/2013	06:00	13 771	04/01/2014	05:00
SI	1 984	13/02/2013	19:00	1 952	30/01/2014	12:00	775	31/08/2013	07:00	909	01/01/2014	09:00
SK	4 126	17/12/2013	17:00	4 076	27/01/2014	18:00	2 227	09/06/2013	06:00	2 377	01/01/2014	08:00
ENTSO-E	528 769	17/01/2013	19:00	525 685	29/01/2014	19:00	230 711	09/06/2013	0.25	285 705	01/01/2014	07:00

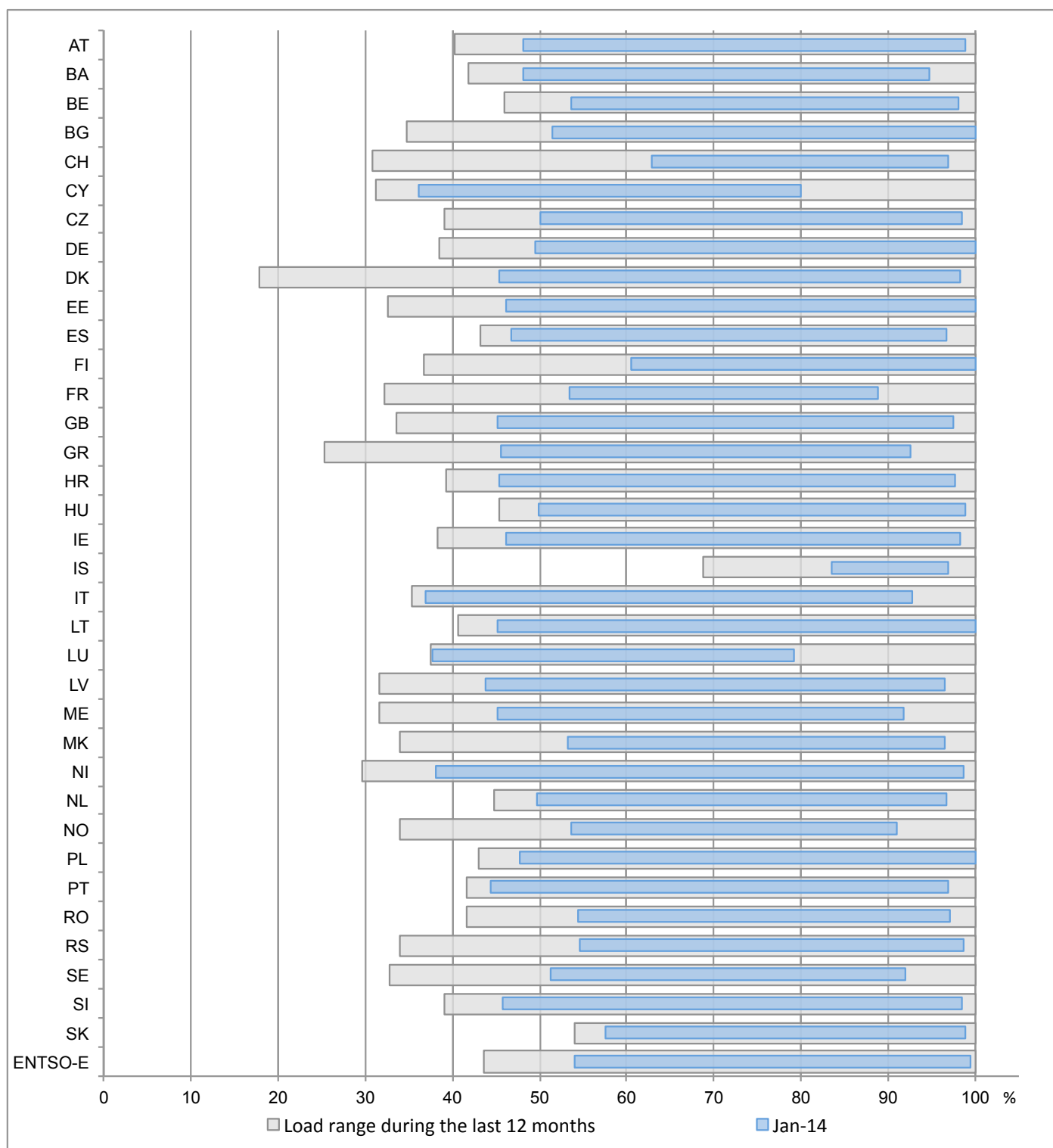
¹ All values are calculated to represent 100% of the national values.

² Values from January 2013.

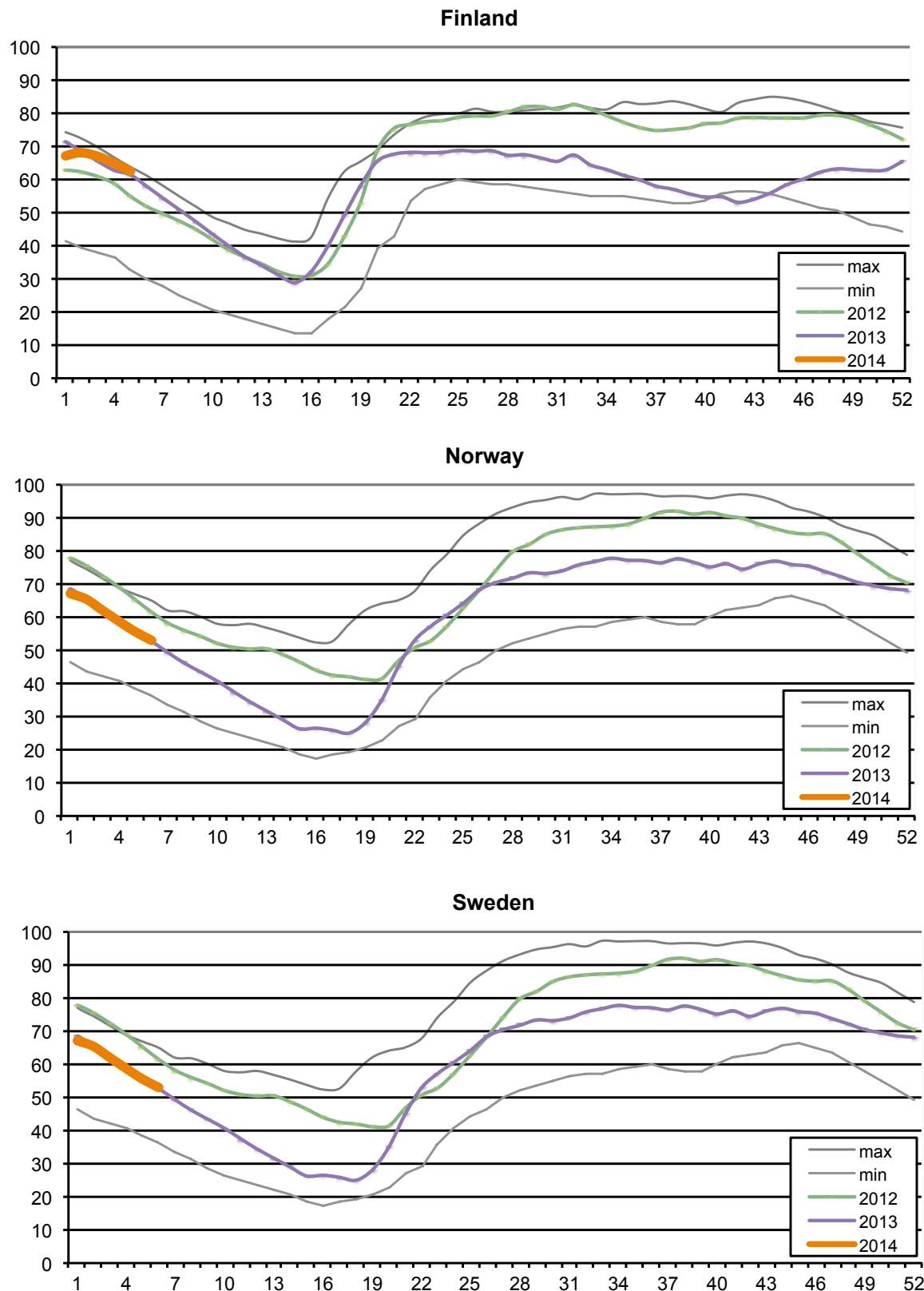
³ The reported figures are best estimates based on actual measurements and extrapolations.

⁴ Operational data.

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:

Anagnostou, Apostolos	IPTO	Greece	Active member
Callan, Mick	EirGrid	Ireland	Active member
Fučík, Zdeněk	ČEPS	Czech Republic	Active member
Jeżyński, Łukasz	PSE S.A.	Poland	Active member
Kok, Raymond	TenneT NL	Netherlands	Convener
Kouveliotis, Nikos	IPTO	Greece	Active member
Martinez Casares, Felix	REE	Spain	Active member
Pharabod, Erik	RTE	France	Active member
Radoi, Cristian	Transelectrica	Romania	Active member
Reitinger-Hubner, Ernst	APG	Austria	Active member
Schwaiger, Florian	TenneT TSO GmbH	Germany	Active member

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Photo cover: ELES, d.o.o.

Contact

ENTSO-E AISBL

Avenue de Cortenbergh 100
1000 Brussels
Belgium

Tel +32 2 741 09 50

Fax +32 2 741 09 51

info@entsoe.eu

www.entsoe.eu



European Network of
Transmission System Operators
for Electricity