

Monthly statistics



March 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Monthly provisional values as of 26 June 2015

Data Expert Group

Monthly statistics - March 2015

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Monthly provisional values from the ENTSO-E statistical database as of 26 June 2015.

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General remarks and abbreviations used in the tables

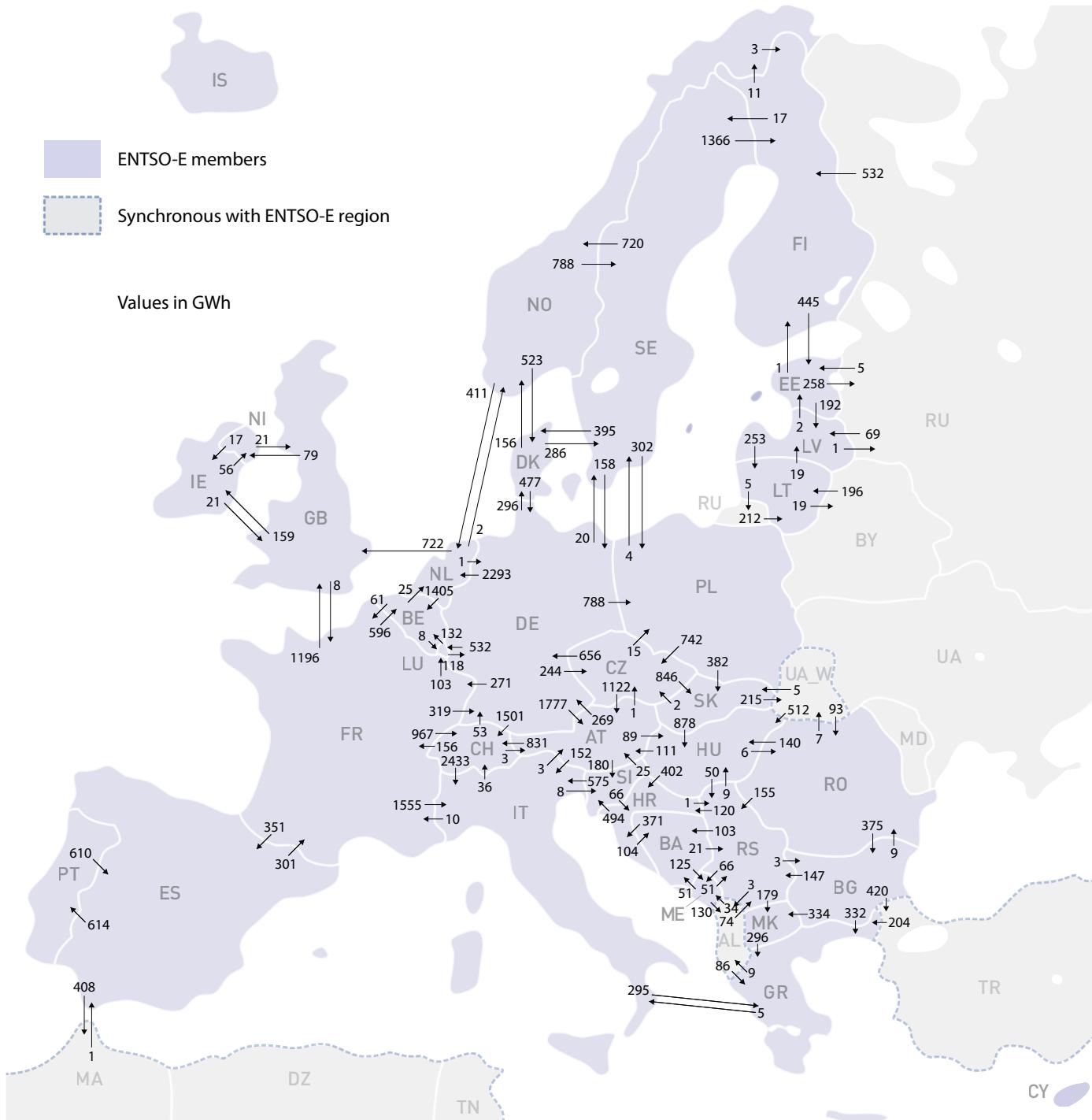
- Definitions of terms used in this report are available at <https://emr.entsoe.eu/>.
- All values of generation and consumption on page 4, 11 and 12 are calculated to represent 100% of the national values.
- All data with the country code GB represents monthly statistical data as sum of England, Scotland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

	Nuclear	Net generation (GWh)												Not clearly identifiable	Exch. Balance (GWh)	Pumping (GWh)	Consumption				
		Fossil fuels						Hydro power			Renewables					Σ	(GWh)	var. (%)			
		Σ	Lignite	Hard coal	Gas	Oil	Mixed	Other	Σ	Renew.	Other	Σ	Wind	Solar	Biomass	Other					
AT ¹	-	1 506	-	456	769	60	-	221	2 527	2 201	326	657	419	-	-	238	578	5 268	1 401	466	6 203 3.7
BA	-	630	630	-	-	-	-	-	678	678	-	-	-	-	-	-	-	1 308	-259	0	1 049 4.2
BE ²	2 307	1 956	-	330	1 623	3	-	-	132	39	93	1 228	507	234	487	-	-	5 623 ³	2 038	121	7 540 3.2
BG ²	1 430	1 589	1 336	97	156	-	-	-	793	729	64	259	148	96	15	-	-	4 071	-869	91	3 111 10.3
CH	2 299	172	-	-	-	-	-	172	2 500	-	2 500	186	11	-	-	175	-	5 157	677	122	5 712 0.8
CY	-	314	-	-	-	314	-	-	-	-	-	24	24	-	-	-	-	338	0	0	338 15.4
CZ	2 645	4 016	3 130	450	421	3	-	12	285	175	110	624	59	195	159	211	-	7 570 ³	-1 647	149	5 774 5.5
DE ⁴	7 645	28 192	13 269	10 031	3 522	198	1 172	-	2 102	1 435	667	12 729	6 502	2 859	3 311	57	-	50 668 ³	-5 673	703	44 292 1.3
DK	-	1 252	-	802	443	7	-	-	2	2	-	1 366	1 101	47	218	-	-	2 620 ³	296	0	2 916 -1.9
EE	-	595	-	-	-	-	-	595	4	4	-	143	75	-	68	-	-	742	1	0	743 2.3
ES	5 193	7 344	113	2 687	3 700	844	-	-	4 066	3 735	331	6 410	4 903	1 103	404	-	120	23 133	-397	479	22 257 1.1
FI	2 049	1 554	-	609	633	17	295	-	1 245	1 245	-	1 285	219	-	1 066	-	74	6 207	1 432	0	7 639 0.3
FR	36 919	4 039	-	1 097	2 560	382	-	-	6 355	5 925	430	2 910	1 797	544	569	-	-	50 223 ³	-4 319	615	45 289 5.0
GB ²	5 278	18 522	-	10 049	6 436	-	-	-	786	437	239	5 440	2 339	-	-	-	-	30 026	1 665	311	31 380 4.6
GR	-	1 834	1 491	-	343	-	-	-	779	102	677	700	321	240	19	120	-	3 313	1 199	8	4 504 12.4
HR	-	295	-	195	75	-	25	-	749	749	-	89	89	-	-	-	-	1 133	357	29	1 461 5.1
HU	1 416	741	475	42	219	5	-	-	23	23	-	267	77	1	145	44	-	2 447	1 060	0	3 507 5.5
IE	-	1 611	242	429	931	3	-	6	119	94	25	616	594	-	-	22	-	2 346	97	46	2 397 2.7
IS	-	-	-	-	-	-	-	-	1 191	1 191	-	418	1	-	-	417	-	1 609	0	0	1 609 11.5
IT	-	14 380	-	3 129	8 494	1 714	1 043	-	3 115	2 959	156	4 889	1 825	2 051	522	491	-	22 384	4 310	183	26 511 1.1
LT	-	161	-	-	54	-	86	21	90	46	44	113	68	6	39	-	-	364	619	63	920 2.6
LU	-	180	-	-	180	-	-	-	141	12	129	23	9	9	5	-	6	350	393	164	579 4.9
LV	-	142	-	-	81	-	61	-	390	390	-	78	14	-	32	32	-	610	25	0	635 0.3
ME	-	140	140	-	-	-	-	-	178	178	-	-	-	-	-	-	-	318	8	0	326 -7.4
MK	-	318	318	-	-	-	-	-	188	-	188	10	10	-	-	-	-	516	215	0	731 0.7
NI	-	497	-	219	278	-	-	-	1	-	1	194	182	-	6	6	-	692	90	0	782 -0.3
NL	383	7 830	-	-	-	-	-	7 830	12	12	-	785	491	4	290	-	-	9 010	578	0	9 588 2.1
NO	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.
PL ⁵	-	11 364	4 315	5 630	458	-	-	847	274	225	46	1 546	869	2	625	35	-	13 184 ³	-26	65	13 093 3.9
PT	-	1 561	-	1 084	444	12	-	21	1 268	1 166	102	1 461	1 172	66	223	-	-	4 290 ³	3	128	4 165 0.4
RO	925	1 796	1 017	196	161	-	422	-	1 755	1 755	-	895	704	148	43	-	-	5 371	-569	11	4 791 4.6
RS	-	2 474	2 474	-	-	-	-	-	1 331	1 247	84	-	-	-	-	-	-	3 805	13	70	3 748 7.4
SE	5 158	355	-	96	56	7	-	196	6 556	6 556	-	2 540	1 498	-	1 042	-	-	14 609	-1 803	0	12 806 2.1
SI	517	318	309	-	-	-	-	9	286	264	22	52	1	22	13	16	17	1 190	16	28	1 178 4.5
SK	1 206	435	170	89	150	26	-	-	442	410	32	182	-	48	98	36	5	2 270 ³	138	44	2 364 3.5
Σ ⁶	75 370	118 434	29 429	37 717	32 508	3 595	3 104	9 930	52 065	45 686	6 266	48 353	26 263	7 675	9 399	1 900	800	295 022	787	3 958	291 851 2.9

¹ Renewable hydro: Production run-of-river plus production of storage and pumped storage minus 70% of pumped energy.² The reported figures are best estimates based on actual measurements and extrapolations.³ Including deliveries from industry.⁴ Wind, PV and biomass from TSO data, rest from official statistics.⁵ Biomass generation includes biomass co-fired in conventional thermal units. Other renewable represents biogas. Other fossil fuel represents industry. Representativity based on historical differences of total generation⁶ ENTSO-E sum based on data from March 2014 for NO.

2. Physical energy flows



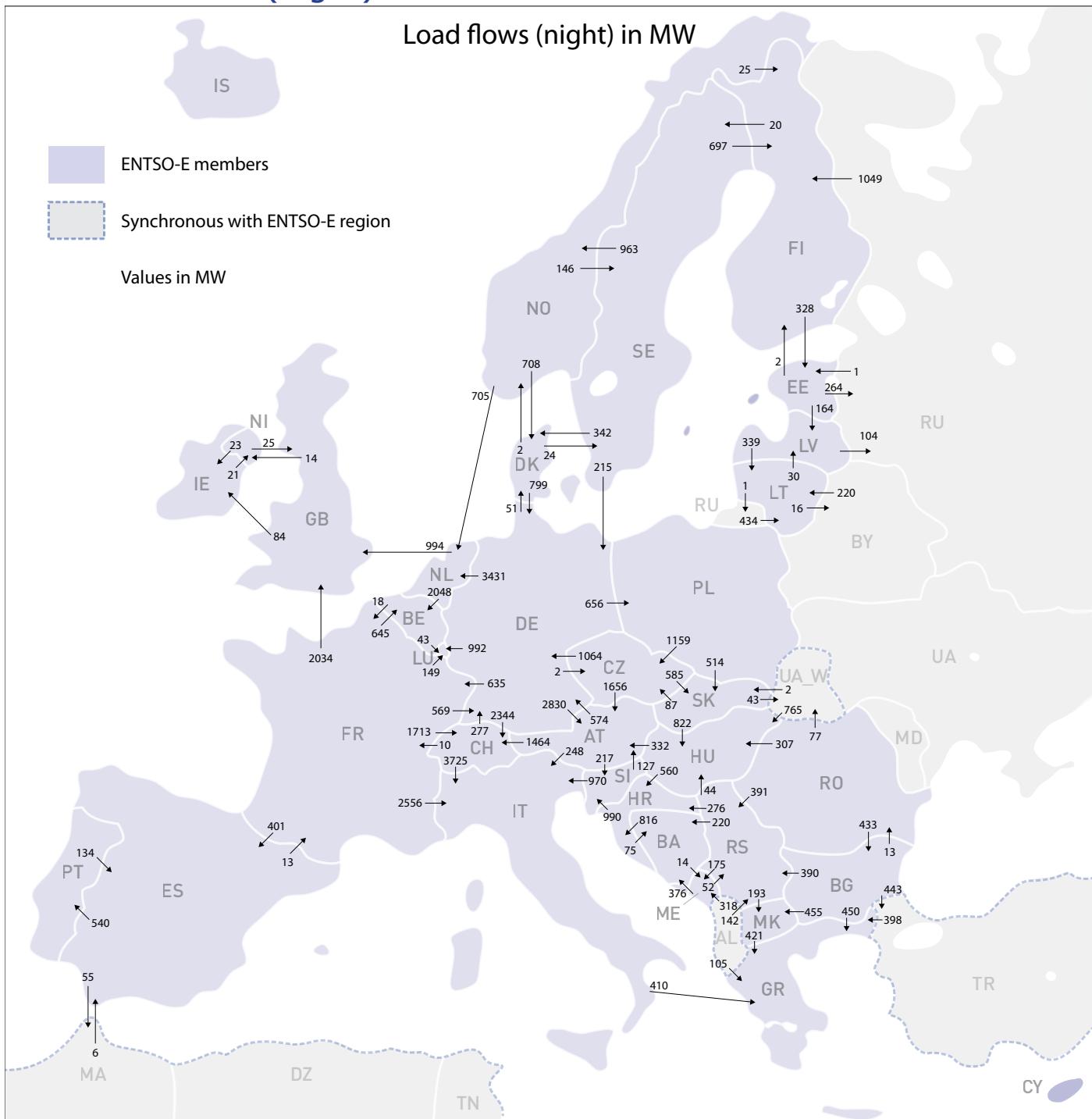
Sum of physical energy flows between ENTSO-E countries: 37 586 GWh

Total physical energy flows: 41 084 GWh

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 4.

4. Load flows (night) on 18.03.2015 at 03:00 a.m. CET



Import (I) and Export (E) balance

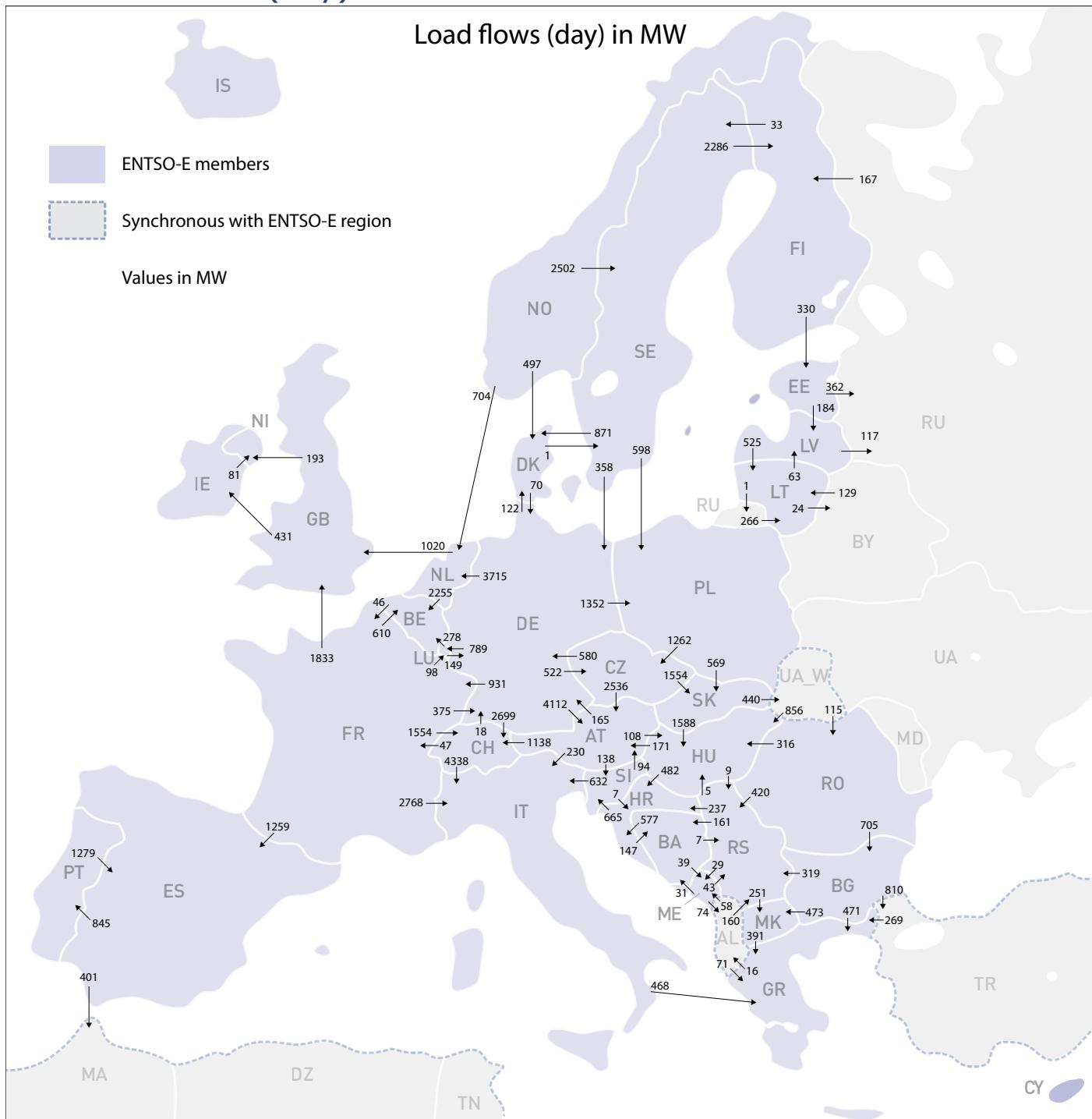
Country	Balance	Country	Balance	Country	Balance	Country	Balance
AT	I = 2442	EE	E = 101	IS ¹	-	NO	n.a.
BA	E = 159	ES	E = 67	IT	I = 7089	PL	E = 1017
BE	I = 2632	FI	I = 1425	LT	I = 946	PT	I = 406
BG	E = 1318	FR	E = 7391	LU	I = 1184	RO	E = 1195
CH	I = 1509	GB	I = 2955	LV	E = 41	RS	I = 67
CY ¹	-	GR	I = 1784	ME	I = 79	SE	E = 2027
CZ	E = 2057	HR	I = 587	MK	I = 227	SI	I = 110
DE	E = 7443	HU	I = 1046	NI	E = 13	SK	I = 149
DK	I = 276	IE	I = 86	NL	I = 1094		

Sum of load flows (night) in MW:

ENTSO-E: 49 366

Total: 53 809²¹ Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.² Including synchronous operation with ENTSO-E region.

5. Load flows (day) on 18.03.2015 at 11:00 a.m. CET



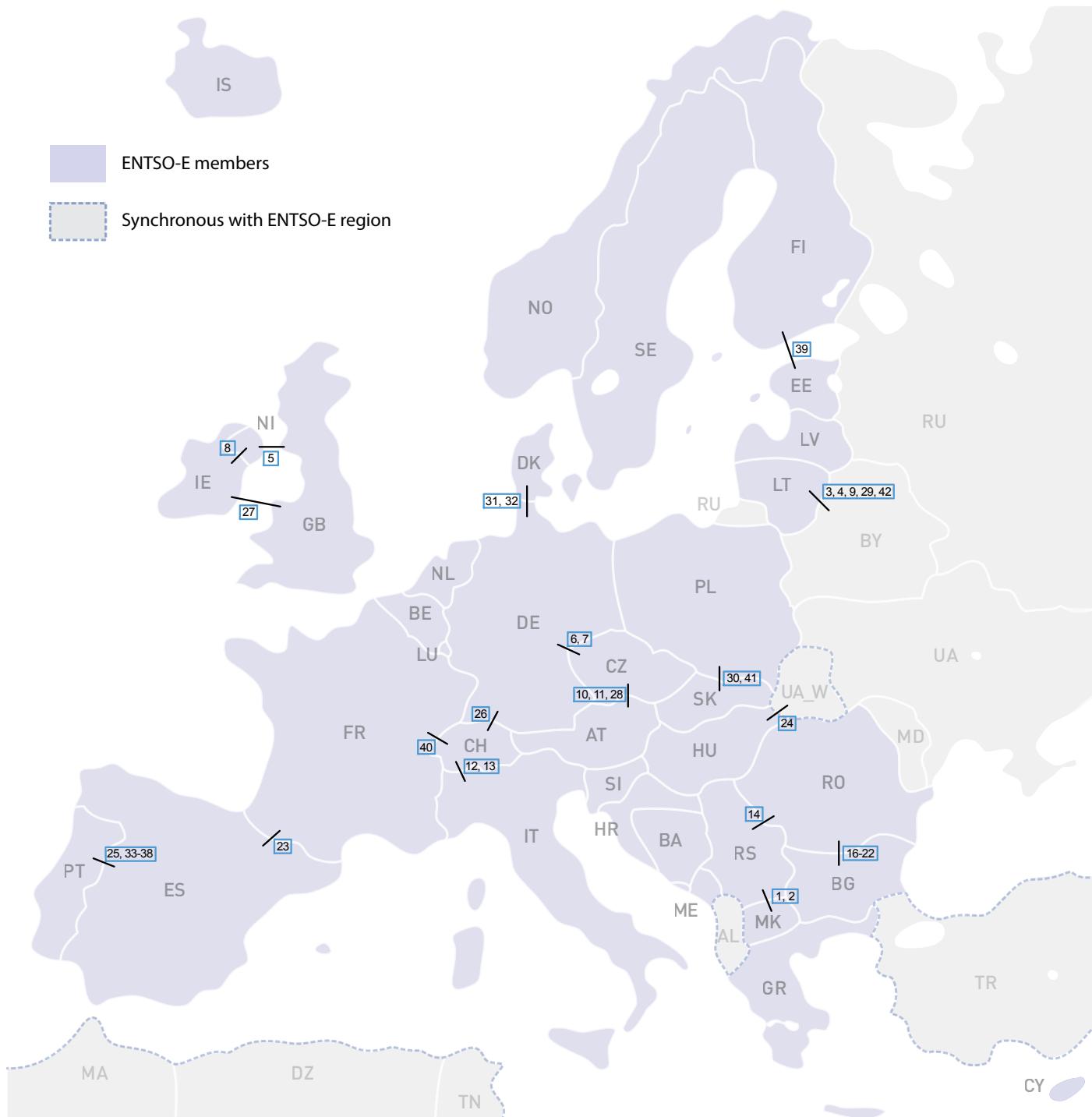
Import (I) and Export (E) balance

Country	Balance	Country	Balance	Country	Balance	Country	Balance
AT	I = 5134	EE	E = 216	IS ¹	-	NO	n.a.
BA	E = 284	ES	I = 1292	IT	I = 7500	PL	I = 119
BE	I = 3097	FI	I = 2090	LT	I = 832	PT	E = 434
BG	E = 1368	FR	E = 7473	LU	I = 460	RO	E = 1326
CH	I = 988	GB	I = 2229	LV	E = 161	RS	I = 275
CY ¹	-	GR	I = 1654	ME	E = 22	SE	E = 1577
CZ	E = 2886	HR	I = 491	MK	I = 333	SI	I = 70
DE	E = 12527	HU	I = 2211	NI	I = 274	SK	I = 95
DK	I = 1419	IE	I = 350	NL	I = 1144		

Sum of load flows (day) in MW: ENTSO-E: 59 759 Total: 64 095²¹ Cyprus and Iceland are isolated power systems and therefore are not connected to the ENTSO-E network.² Including synchronous operation with ENTSO-E region.

6. Unavailability of international tie lines

(major events with sum over 30 hours)



Each unavailability is referred by number with description on the following page.

6. Unavailability of international tie lines

(major events with sum over 30 hours)

#	Line	Substation 1	Substation 2	Voltage (kV)	Capacity (MVA)	Date/Time Start	Reason	Duration (minutes)
1	391.1.1	Skopje 1 (MK)	Kosovo A (RS)	220	311	01.03.2015 00:00	R9	44 580
2	391.2.1	Skopje 1 (MK)	Kosovo A (RS)	220	311	01.03.2015 00:00	R9	44 580
3	861.1.1	IAE (LT)	Smargon (BY)	330	832	01.03.2015 00:00	R9	44 580
4	864.1.1	Alytus (LT)	Grodno (BY)	330	696	01.03.2015 00:00	R3	44 580
5	222.2.1	Auchencrosh (GB)	Ballycronanmore (NI)	250	250	01.03.2015 00:01	R10	44 579
6	321.1.2	Prestice (CZ)	Etzenricht (DE)	400	1 569	01.03.2015 00:00	R1 R3	43 228
7	321.1.2	Prestice (CZ)	Etzenricht (DE)	400	1 569	02.03.2015 10:17	R1 R3 R1	43 228
8	225.2.1	Louth (IE)	Tandragee (NI)	275	660	01.03.2015 01:00	R10	43 080
9	867.1.1	Didžiasalis (LT)	Kaziani (BY)	110	45	16.03.2015 12:00	R1	22 260
10	172.1.2	Dürnrohr (AT)	Slavetice (CZ)	380	1 642	09.03.2015 07:32	R3	18 784
11	172.1.2	Dürnrohr (AT)	Slavetice (CZ)	380	1 642	23.03.2015 07:51	R9	18 784
12	121.2.1	Gorduno (CH)	Mese (IT)	220	365	09.03.2015 08:00	R1	12 480
13	121.2.1	Gorduno (CH)	Mese (IT)	220	365	16.03.2015 08:00	R1	12 480
14	261.1.1	Djerdap 1 (RS)	Portile de Fier (RO)	400	1 250	23.03.2015 07:49	R1	12 371
15	221.2.1	Sellindge (GB)	Mandarins (FR)	270	1 000	23.03.2015 00:01	R1	11 518
16	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	04.03.2015 06:57	R1	11 310
17	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	06.03.2015 08:10	R1	11 310
18	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	09.03.2015 06:50	R1	11 310
19	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	10.03.2015 06:45	R1	11 310
20	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	16.03.2015 06:52	R1	11 310
21	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	17.03.2015 06:42	R1	11 310
22	278.1.1	Rahman (RO)	Dobrudja (BG)	400	1 135	18.03.2015 06:17	R1	11 310
23	151.3.1	Arkale (ES)	Argia (FR)	220	406	09.03.2015 08:04	R8	6 435
24	721.1.1	Sajószöged (HU)	Mukachevo (UA_W)	400	1 621	04.03.2015 07:50	R1	6 100
25	231.1.1	Las Conchas (ES)	Lindoso (PT)	132	90	09.03.2015 10:49	R1	5 871
26	107.1.1	Laufenburg 220 kV (CH)	Laufenburg 110 kV (DE)	110	200	16.03.2015 07:00	R1	4 920
27	223.1.1	Deeside (GB)	Woodland (IE)	400	500	10.03.2015 06:00	R1	4 500
28	172.1.1	Dürnrohr (AT)	Slavetice (CZ)	380	1 642	03.03.2015 14:44	R3	4 492
29	868.1.1	Pabrad_ (LT)	Podolci (BY)	110	45	16.03.2015 17:00	R9	4 220
30	700.1.1	Krosno Iskrzynia (PL)	Lemešany (SK)	400	1 252	23.03.2015 07:45	R1	3 473
31	161.2.1	Flensburg (DE)	Kassø (DK)	220	349	11.03.2015 09:19	R1	3 292
32	161.3.2	Jardelund (DE)	Kassø (DK)	400	1 535	02.03.2015 09:20	R2	3 054
33	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	16.03.2015 11:03	R1	2 965
34	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	17.03.2015 08:41	R1	2 965
35	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	18.03.2015 08:41	R1	2 965
36	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	19.03.2015 08:40	R1	2 965
37	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	28.03.2015 08:20	R3	2 965
38	233.1.1	Cedillo (ES)	Falagueira (PT)	380	1 300	29.03.2015 09:11	R3	2 965
39	821.1.1	Anttila (FI)	Püssi (EE)	450	650	18.03.2015 07:00	R1	2 220
40	82.1.2	Chamoson (CH)	Bois-Tollot (FR)	380	1 552	16.03.2015 07:00	R1	2 040
41	700.1.2	Krosno Iskrzynia (PL)	Lemešany (SK)	400	1 252	26.03.2015 06:58	R1	1 969
42	869.1.1	Kalveliai (LT)	Asmenna (BY)	110	63	24.03.2015 08:26	R3	1 882

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, ...)

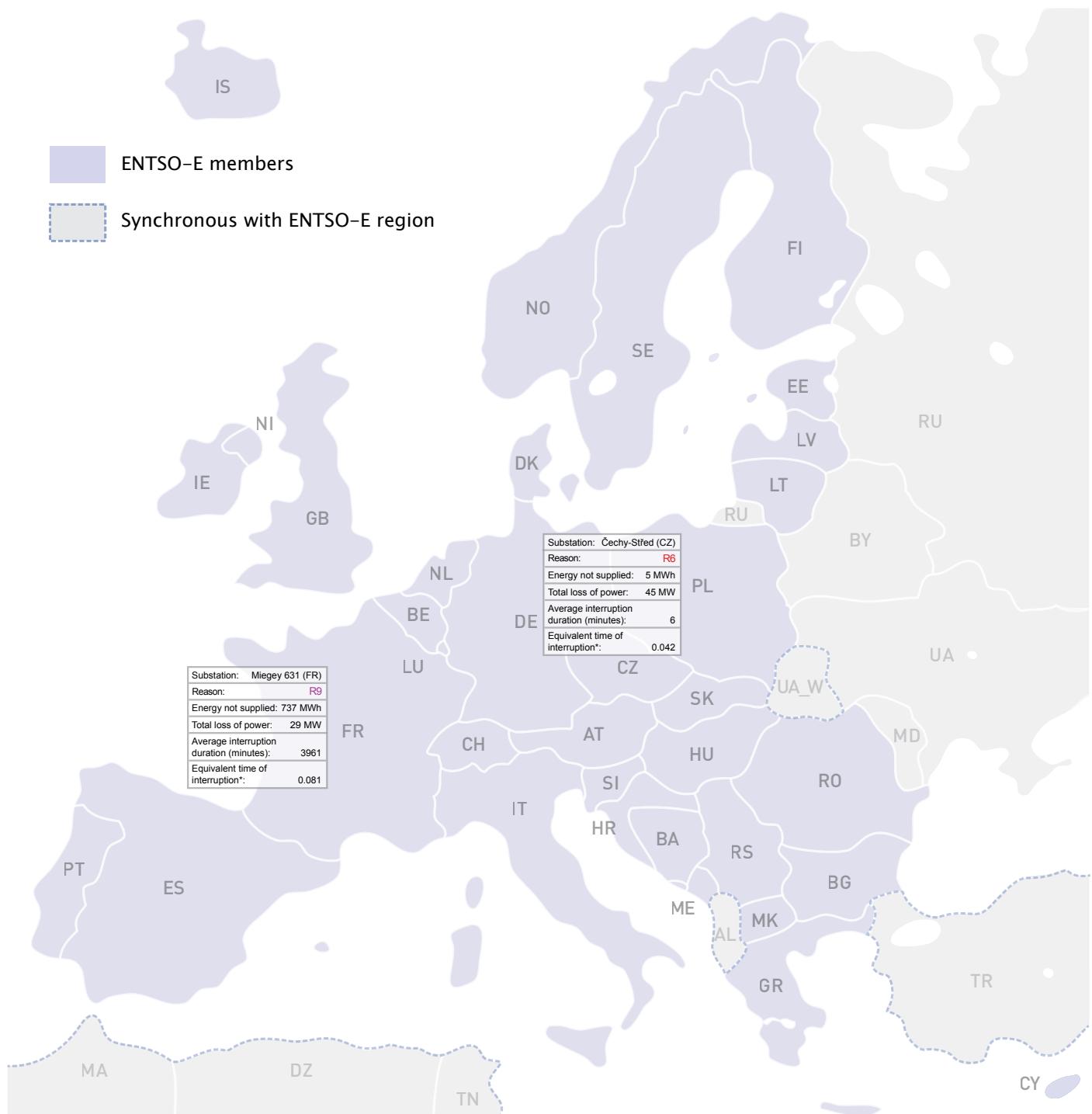
R8: Very exceptional conditions (weather, natural disaster, ...)

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 previous 12 months (Mar. 2014 to Feb. 2015) 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	11 471	10/12/14	17:00	10 724	11/03/15	12:00	4 673	17/08/14	04:00	5 564	29/03/15	05:00
BA	2 207	31/12/14	18:00	1 881	07/03/15	19:00	833	05/08/14	06:00	979	26/03/15	04:00
BE ^{3,4}	13 129	22/01/15	19:00				6 623	27/07/14	07:00			
BG	7 106	31/12/14	19:00	6 174	10/03/15	20:00	2 656	22/06/14	06:00	3 366	03/03/15	05:00
CH	10 155	12/02/15	09:00	9 569	02/03/15	12:00	2 843	26/07/14	06:00	5 895	21/03/15	06:00
CY	871	25/08/14	15:00	645	23/03/15	20:00	248	20/10/14	03:00	289	09/03/15	04:00
CZ	10 058	10/12/14	17:00	9 312	02/03/15	13:00	4 290	10/08/14	06:00	5 796	29/03/15	06:00
DE	81 738	03/12/14	18:00	76 310	02/03/15	12:00	36 709	21/04/14	04:00	43 214	29/03/15	05:00
DK	6 002	30/01/14	18:00	5 208	02/03/15	19:00	2 296	08/06/14	06:00	1 251	28/03/15	00:00
EE	1 490	30/01/14	17:00	1 215	23/03/15	13:00	492	20/07/14	05:00	713	09/03/15	03:00
ES	40 324	04/02/15	20:00	36 679	23/03/15	20:00	18 176	20/04/14	05:00	20 313	29/03/15	04:00
FI	14 367	20/01/14	08:00	11 574	06/03/15	19:00	5 901	22/06/14	05:00	8 724	29/03/15	07:00
FR	91 611	06/02/15	19:00	75 189	06/03/15	09:00	29 493	17/08/14	07:00	45 059	29/03/15	06:00
GB	59 576	19/01/15	19:00	58 948	16/03/15	20:00	19 955	17/08/14	07:00	27 419	08/03/15	07:00
GR	9 304	08/01/15	19:00	8 105	13/03/15	19:00	2 343	20/04/14	14:00	4 195	30/03/15	03:00
HR	2 974	31/12/14	18:00	2 642	05/03/15	20:00	1 166	11/05/14	06:00	1 376	27/03/15	04:00
HU	6 002	01/12/14	17:00	5 688	12/03/15	19:00	2 822	21/08/14	04:00	3 359	16/03/15	04:00
IE	4 662	14/01/15	18:00	4 327	03/03/15	20:00	1 684	06/07/14	07:00	2 204	22/03/15	07:00
IS	2 327	25/02/15	14:00	2 317	05/03/15	12:00	1 337	14/05/14	12:00	1 910	14/03/15	09:00
IT	51 587	18/07/14	12:00	48 034	06/03/15	11:00	18 738	26/12/14	05:00	21 731	09/03/15	04:00
LT	1 835	23/01/14	10:00	1 589	30/03/15	11:00	755	06/07/14	05:00	868	15/03/15	03:00
LU	878	26/03/14	10:00	777	10/03/15	12:00	368	28/03/14	00:00	394	28/03/15	07:00
LV	1 331	30/01/14	17:00	1 110	03/03/15	09:00	453	24/06/14	04:00	568	09/03/15	01:00
ME ³	638	31/12/14	20:00				217	18/05/14	06:00			
MK	1 507	31/12/14	18:00	1 363	15/03/15	20:00	555	21/09/14	07:00	698	02/03/15	05:00
NI	1 745	10/12/14	19:00	7 747	27/03/15	14:00	500	13/07/14	07:00	613	10/03/15	08:00
NL	18 460	03/12/14	18:00	16 566	03/03/15	12:00	6 233	29/11/14	05:00	8 901	29/03/15	06:00
NO ³⁻⁵	22 957	13/01/14	09:00				8 633	20/07/14	06:00			
PL ⁶	23 715	29/01/14	18:00	21 706	05/03/15	19:00	9 761	21/04/14	06:00	12 498	22/03/15	06:00
PT	8 618	07/01/15	21:00	7 409	02/03/15	21:00	3 317	20/04/14	08:00	3 761	22/03/15	08:00
RO	8 522	09/12/14	18:00	8 047	06/03/15	20:00	3 704	21/04/14	14:00	4 764	30/03/15	03:00
RS	7 399	31/12/14	18:00	6 249	12/03/15	19:00	2 423	22/06/14	06:00	3 591	27/03/15	05:00
SE	24 872	13/01/14	17:00	21 043	05/03/15	09:00	8 754	20/07/14	06:00	13 576	09/03/15	01:00
SI	2 233	12/12/14	18:00	1 989	10/03/15	20:00	965	02/05/14	01:00	1 133	23/03/15	04:00
SK	4 119	27/11/14	18:00	3 960	04/03/15	10:00	2 119	03/08/14	06:00	2 573	29/03/15	04:00
ENTSO-E	522 043	29/01/14	19:00	455 193	04/03/15	20:00	230 343	17/08/14	14:00	264 160	29/03/15	06:00

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

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

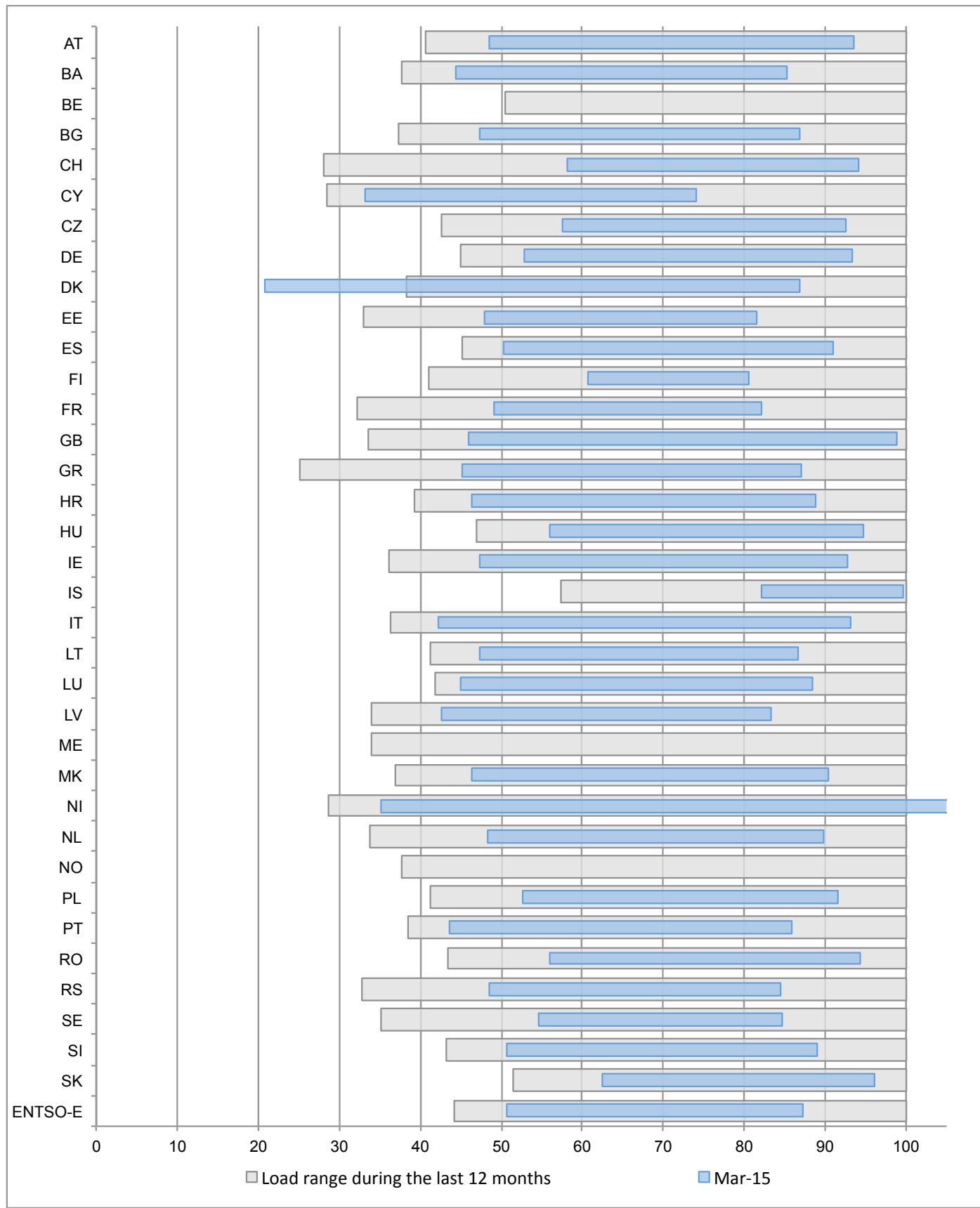
³ Missing values for March 2015.

⁴ Missing values for February 2015.

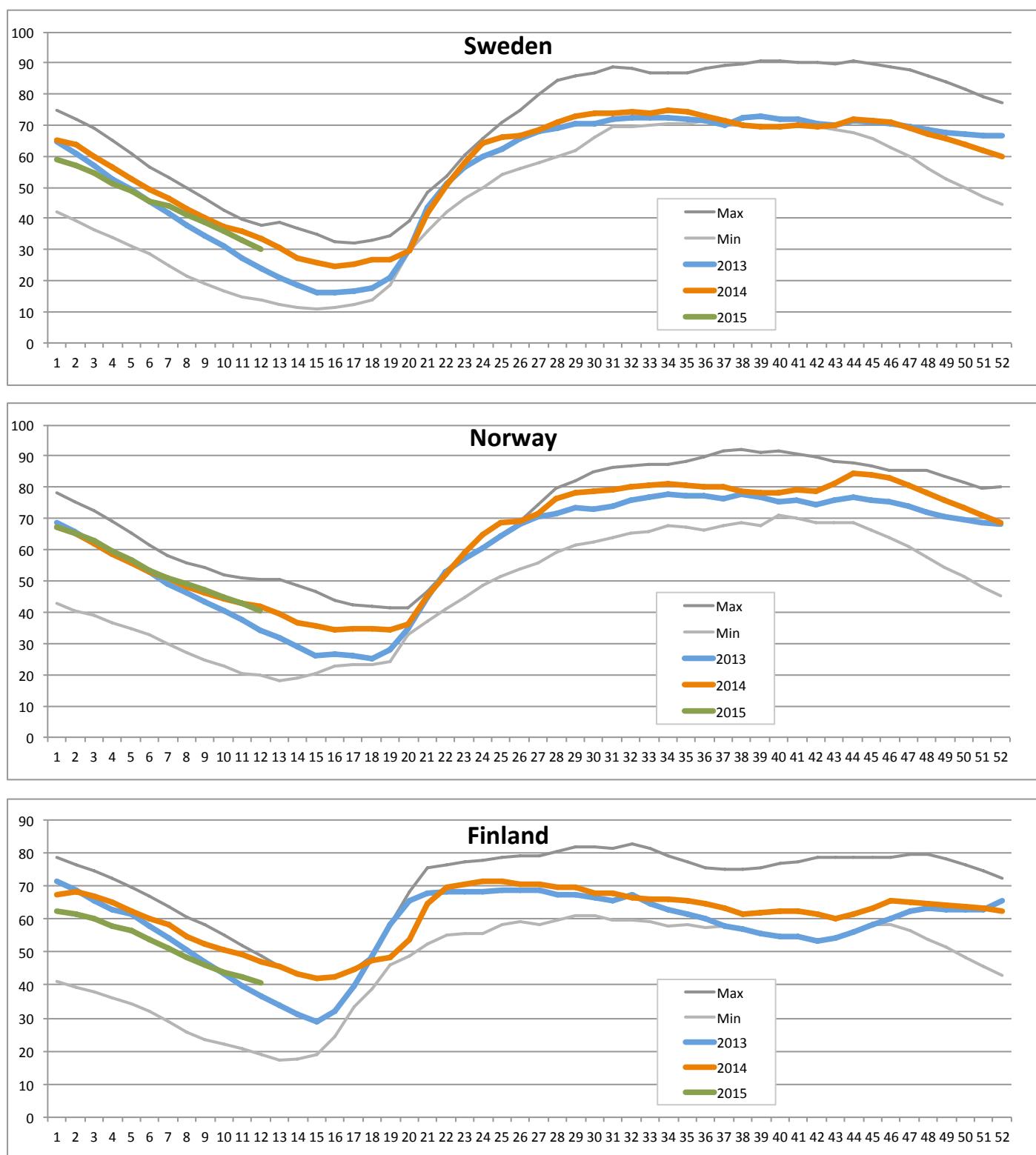
⁵ Missing values for January 2015.

⁶ Load data comes from PSE measurement - no other source of this data.

The following diagram shows the percentual load range for the current month compared to the percentual load range of the last 12 months (Mar. 2014 to Feb. 2015), the reference values being the highest load value of the last 12 months.



9. Water reservoirs Nordic



Minimum and maximum limits are based on values for the years 2009-2015.

Finland: Reservoir capacity: 5.530 GWh.

Norway: Reservoir capacity: 82.224 GWh. The statistics are supposed to cover 97.1 percent of the total reservoir capacity. The total reservoir capacity is 84.3 TWh.

Sweden: Reservoir capacity: 33.675 GWh

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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