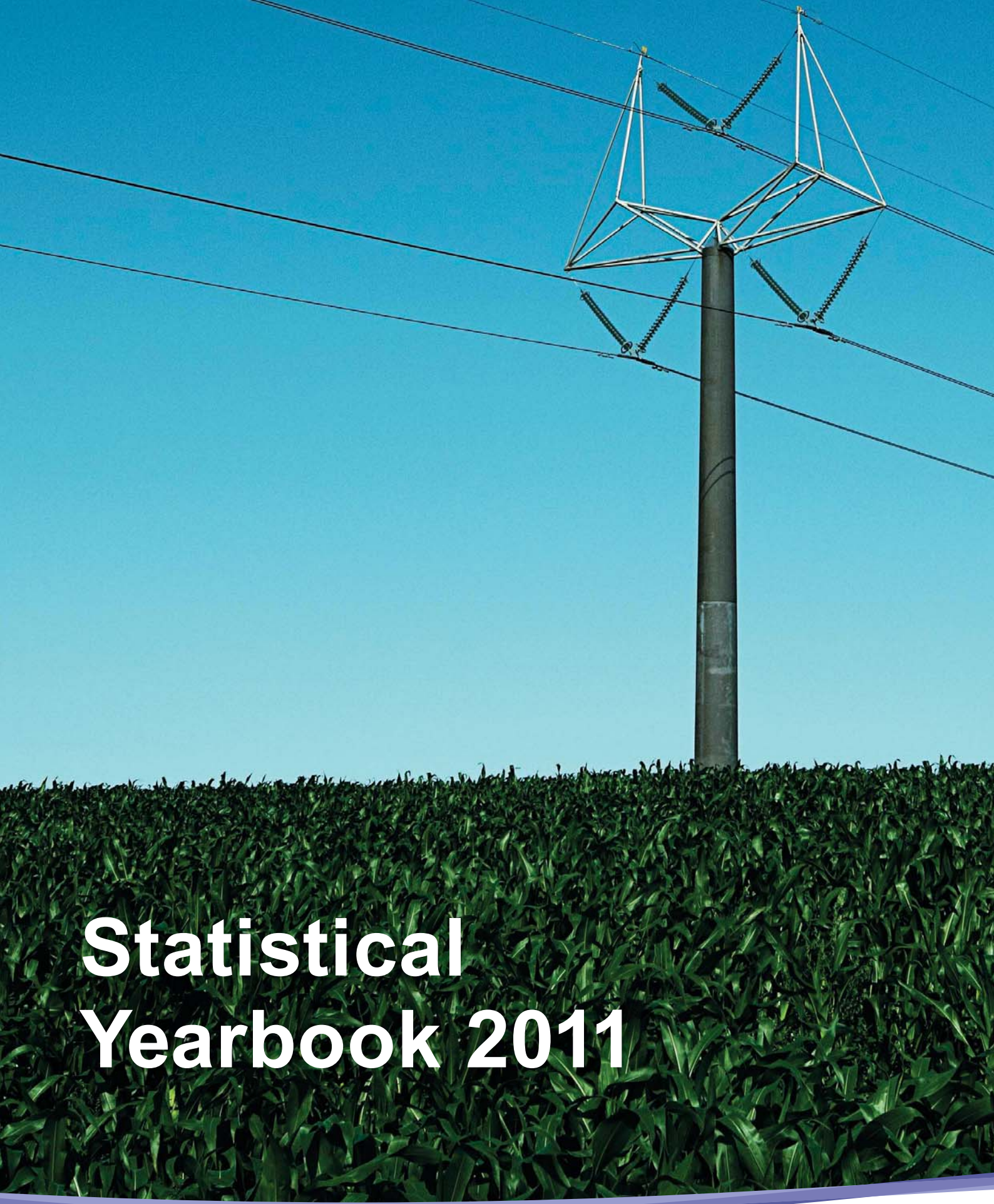

Statistical Yearbook 2011

European Network of
Transmission System Operators
for Electricity

entsoe

Table of contents

Background on the ENTSO-E Statistical Yearbook 2011

The statistical yearbook 2011 covers all 41 ENTSO-E members, across 34 countries. Its purpose is to bring a wide spectrum of retrospect figures on power systems of member transmission system operators (TSOs), among which generation, consumption, cross-border exchanges and network components.

This edition, on which the ENTSO-E data expert group has been working on consolidating the collection of statistical data from all member TSOs' countries, will help you to find data more easily as links have also been added and are available on www.entsoe.eu/resources/data-portal

Activities related to harmonization of data processes, data definitions and IT tools are still ongoing with in ENTSO-E working groups, which will lead to the creation of a central database gathering all the information previously available through former associations.

What is ENTSO-E?

ENTSO-E is the European Network of Transmission System Operators for Electricity. The association is representing 41 transmission System Operators (TSOs) across 34 countries.

With important tasks given by Regulation (EC) 714/2009, ENTSO-E's role is to enhance cooperation between TSOs across Europe in order to assist in the development of a pan-European electricity transmission network in line with European Union energy goals. Its specific aims are to:

- Ensure the secure reliable operation of the increasingly complex network;

- Facilitate cross-border network development and the integration of new renewable sources of energy;

- Enhance the creation of the Internal Electricity Market (IEM) through standardized market integration and transparency procedures

ENTSO-E is responsible for creating common tools (network codes), a Ten-Year Network Development plan, recommendations for the coordination of technical cooperation between, TSOs within the EU, and annual outlooks for summer and winter electricity generation.

Principles of data handling, Statistical Data Correspondents and Data Expert Group

Data Expert Group, Statistical Data Correspondents and the ENTSO-E Secretariat are in charge of statistical data in terms of methodological development, data processing and the production of various reports including this Statistical Yearbook.

Statistical data is regularly collected by Statistical Data Correspondents of member TSOs' countries. The data is stored in the ENTSO-E statistical database, which can be accessed directly through web based queries or via reports published on the website www.entsoe.eu

The figures indicated for various countries may differ from some other national statistics published because ENTSO-E statistics only describe that part of the electricity supply system, which concerns interconnected system operation.

Consequently, this data may not represent the entire interconnected system in some countries.
A corresponding representativeness factor is provided wherever necessary.

ENTSO-E member companies

Country	Company	Abbreviation
AT	Austrian Power Grid AG	APG
	Vorarlberger Übertragungsnetz GmbH (until January 2012 VKW-Netz AG)	VUEN
BA	Nezavisni operator sustava u Bosni i Hercegovini	NOS BiH
BE	Elia System Operator SA	Elia
BG	Electroenergien Sistemen Operator EAD	ESO
CH	swissgrid ag	swissgrid
CY	Cyprus Transmission System Operator	Cyprus TSO
CZ	CEPS a.s.	CEPS
DE	Amprion GmbH	Amprion
	TenneT TSO GmbH	Tennet DE
	TransnetBW GmbH (until February 2012 EnBW Transportnetze AG)	TransnetBW
	50 Hertz Transmission GmbH	50 Hertz
DK	Energinet.dk Independent Public Enterprice	Energinet.dk IPC
EE	Elering AS	Elering AS
ES	Red Eléctrica de España S.A.	REE
FI	Fingrid Oyj	Fingrid
FR	Réseau de Transport d'Electricité	RTE
GB	National Grid Electricity Transmission plc	National Grid
	System Operator for Northern Ireland Ltd	SONI Ltd
	Scottish Hydro Electric Transmission Limited	SHETL
	Scottish Power Transmission plc	SP Transmission
GR	Independent Power Transmission Operator S.A. (until January 2012 Helenic Transmission System Operator S.A.)	IPTO SA
HR	HEP-Operator prijenosnog sustava d.o.o.	HEP-OPS
HU	MAVIR Magyar Villamosenergia-ipari Átviteli Rends-zerirányító Zártköruen Muködo Részvénytársaság	MAVIR ZRt.
IE	EirGrid plc	EirGrid
IS	Landsnet hf	Landsnet
IT	Terna - Rete Elettrica Nazionale SpA	Terna
LT	LITGRID AB	LITGRID AB
LU	Creos Luxembourg S.A.	Creos Luxembourg
LV	AS Augstsprieguma tĪkls	Augstsprieguma tĪkls
ME	Crnogorski elektroprenosni sistem AD	CGES AD
MK	Macedonian Transmission System Operator AD	MEPSO
NL	TenneT TSO B.V.	TenneT NL
NO	Statnett SF	Statnett
PL	PSE Operator S.A.	PSE Operator
PT	Rede Eléctrica Nacional, S.A.	REN
RO	C.N. Transelectrica S.A.	Transelectrica
RS	JP Elektromreža Srbije	EMS
SE	Affärsverket Svenska Kraftnät	Svenska Kraftnät
SI	Elektro Slovenija d.o.o.	ELES
SK	Slovenska elektrizacna prenosova sustava, a.s.	SEPS

Statistical Data Correspondents

The following Statistical Data Correspondents provided the data and can give additional information on the contents and interpretation of the statistics:

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ENTSO-E Net generation, exchanges and consumption 2011

Generation

Exchanges

Consumption

Generation capacity

Overview ENTSO-E in figures 2011 - Electricity system data of member TSOs' countries

Countries		AT	BA	BE [1]	BG	CH [2]	CY	CZ	DE [3]	DK	EE
Net generation "All values are calculated to represent 100% of the national values"											
Nuclear power	GWh	0	0	45943	15172	25560	0	26709	101458	0	0
Fossil fuels	GWh	23007	9404	28996	25889	2107	4833	48998	350456	21811	10271
Hydro power	GWh	33663	4290	1410	3542	33795	0	2821	19853	19	33
Other renewable net generation	GWh	0	0	9279	540	1419	115	2500	86123	11309	1085
- of which wind	GWh	0	0	2307	540	60	115	384	44641	8938	364
- of which solar	GWh	0	0	1493	0	0	0	2115	18341	0	0
Non-identifiable	GWh	8730	0	0	0	0	0	0	0	0	0
Total net generation	**GWh**	**65400**	**13694**	**85628**	**45143**	**62881**	**4948**	**81028**	**557890** [4]	**33139**	**11389**
Consumption "All values are calculated to represent 100% of the national values"											
Consumption	**GWh**	**68567**	**12186**	**86536**	**33233**	**64439**	**4948**	**63040**	**544267**	**34458**	**7827**
Variation (compared with 2010)	%	0,4	3,8	-4,1	5,1	-0,02	-5,8	-1,1	-0,6	-3,4	-2,4
Transmision network losses percentage consumption	%										
Net generation capacity as of 31 December 2011 "All values are identical with the national values and their representativity"											
NGC Nuclear	MW	0	0	5926	2080	3278	0	3692	12048	0	0
NGC Fossil fuels	MW	7425	1506	8539	6400	388	973	10938	66967	7486	2283
NGC Hydro power	MW	12919	1971	1420	3150	13723	0	2161	9209	10	4
NGC Renewable ernergy sources	MW	1054	0	4142	770	508	102	2190	53532	3967	254
- of which wind	MW	1017	0	1056	550	42	102	219	28254	3950	184
- of which solar	MW	0	0	1901	220	111	0	1971	22306	17	0
NGC Other sources	MW	0	0	0	0	205	0	0	3263	44	0
NGC Total	**MW**	**21398**	**3477**	**20027**	**12400**	**18102**	**1075**	**18981**	**145019**	**11507**	**2541**
Representativity of the values	%	100	100	100	99	100	100	100	93	100	100

Countries		PL [7,8]	PT	RO	RS	SE	SI	SK	ENTSO-E [9]
Net generation "All values are calculated to represent 100% of the national values"									
Nuclear power	GWh	0	0	10796	0	58023	5900	14379	**885586**
Fossil fuels	GWh	140894	24732	30099	32104	5359	4602	6331	**1625944**
Hydro power	GWh	2647	11825	14670	9162	65783	3362	4007	**511852**
Other renewable net generation	GWh	8069	11866	1403	0	17256	0	863	**312917**
- of which wind	GWh	2745	9002	1218	0	6070	0	0	**175184**
- of which solar		0	262	0	0	0	0	307	**45649**
Non-identifiable	GWh	0	0	0	0	0	0	968	**11145**
Total net generation	**GWh**	**151610**	**48423**	**56968**	**41266**	**146421**	**13864**	**26548**	**3347445**
Consumption "All values are calculated to represent 100% of the national values"									
Consumption	**GWh**	**145720**	**50499**	**54916**	**40174**	**139222**	**12558**	**26780**	**3311650**
Variation (compared with 2010)	%	1,5	-3,4	2,9	1,6	-5,6	2,5	0,5	**-1,9**
Transmision network losses percentage consumption	%								**1,6**
Net generation capacity as of 31 December 2011 "All values are identical with the national values and their representativity"									
NGC Nuclear	MW	0	0	1300	0	9363	696	1940	**126447**
NGC Fossil fuels	MW	30117	8779	8901	5478	4793	1282	2896	**447174**
NGC Hydro power	MW	2341	5392	6144	2888	16197	1063	2478	**196758**
NGC Renewable ernergy sources	MW	2209	4855	1030	0	6094	0	753	**152948**
- of which wind	MW	2059	4081	1006	0	2899	0	3	**90134**
- of which solar	MW	1	155	0	0	0	0	507	**47636**
NGC Other sources	MW	0	0	0	0	0	0	85	**4984**
NGC Total	**MW**	**34667**	**19026**	**17375**	**8366**	**36447**	**3041**	**8152**	**928311**
Representativity of the values	%	100	97	100	100	100	100	100	

Overview ENTSO-E in figures 2011 - Electricity system data of member TSOs' countries

ES	FI	FR	GB[5]	GR	HR	HU	IE	IS	IT	LT	LU	LV	ME	MK	NI[6]	NL	NO
55050	22266	421118	64550	0	0	14743	0	0	0	0	0	0	0	0	0	3919	0
121327	24167	51505	237151	42431	5161	16755	20417	8	218457	2752	2318	2885	1446	4858	6636	93002	4776
32173	12279	50267	7484	4254	4583	215	679	12743	47202	1049	1127	2870	1186	1469	7	0	121383
55594	10989	20059	19104	3379	217	1786	4359	4402	25758	620	216	183	0	0	1063	12104	1257
41661	482	12075	19104	2594	182	601	4359	0	9776	472	64	72	0	0	1005	5096	1257
9597	0	2415	0	441	0	0	0	0	10670	0	8	0	0	0	0	0	0
341	692	0	0	0	0	0	177	0	0	0	0	219	0	0	18	0	0
264485	**70393**	**542950**	**328289**	**50064**	**9961**	**33499**	**25632**	**17153**	**291417**	**4421**	**3661**	**6157**	**2632**	**6327**	**7724**	**109025**	**127416**
254990	**84244**	**479242**	**329115**	**52915**	**17498**	**40142**	**26122**	**17153**	**334640**	**10362**	**6558**	**7264**	**4183**	**8986**	**9009**	**117837**	**122020**
-2,2	-0,1	-6,7	-2,0	-1,2	-0,6	3,0	-3,4	2,8	1,3	0,8	-2,0	-0,7	3,3	7,3	-1,9	1,2	-6,4
7525	2676	63130	10397	0	0	1892	0	0	0	0	0	0	0	0	0	504	0
43659	8978	27789	61984	9614	1787	6860	6132	52	76287	2544	499	859	220	1157	2335	20137	1166
19081	3157	25405	3876	3223	2110	50	508	1860	21737	876	1134	1556	660	503	4	38	30164
26639	2254	10138	3355	1936	118	695	1615	661	20419	252	91	30	0	0	419	2439	450
20729	197	6639	3355	1363	118	325	1615	0	6918	202	41	30	0	0	405	2340	450
4916	0	2228	0	439	0	0	0	0	12773	0	40	0	0	0	0	51	0
0	44	0	45	0	0	0	242	0	0	0	16	21	0	0	7	1012	0
96904	**17109**	**126462**	**79657**	**14773**	**4015**	**9497**	**8497**	**2573**	**118443**	**3672**	**1740**	**2466**	**880**	**1660**	**2765**	**24130**	**31780**
100	100	100	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100

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

2 Calculations of net generation and consumption based on the ENTSO-E database differ from the official values from the Swiss Federal Office of Energy.

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

4 Electricity generation and consumption also comprise shares of generation from industry's own power stations and feed-in from private generators (total of 12 monthly values). The part of net electricity generation relevant to primary control power amounts to 527,581 TWh.

5 Yearly values with the country code GB represents the sum of England, Scotland and Wales.

6 Yearly values with the country code NI represents the data GB Northern Ireland.

7 Operational data

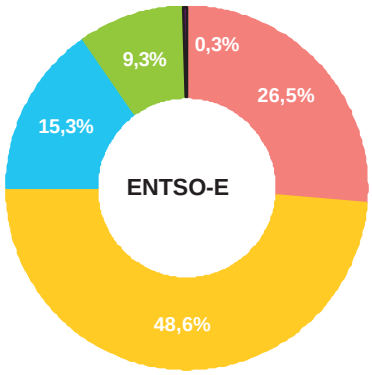
8 Other renewable includes energy from biomass co-firing in conventional thermal units.

9 Calculated sum of the ENTSO-E member TSO's countries.

Net electricity generation[1] and its structure

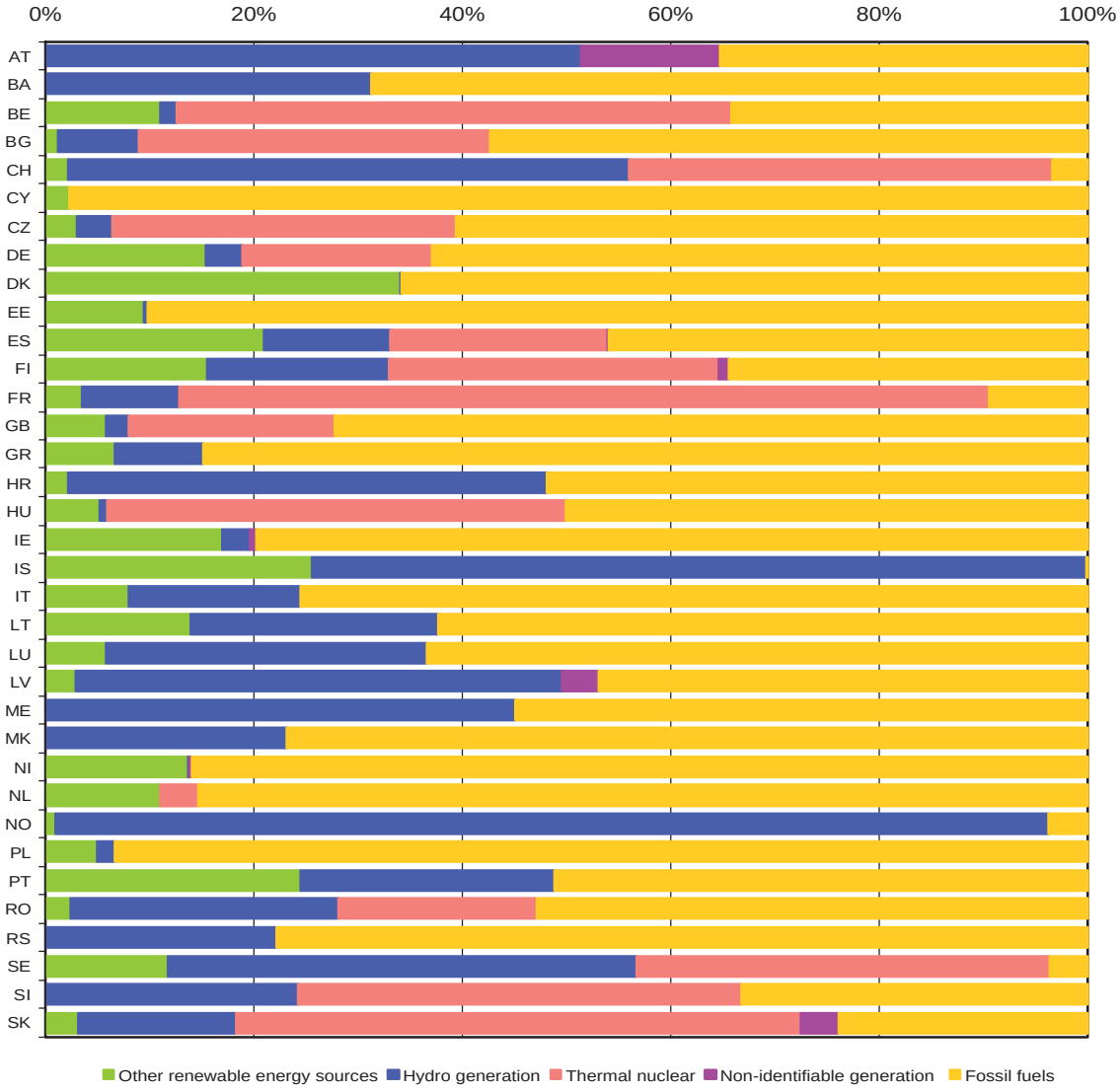
Overview generation mix as sum of the ENTSO-E member TSOs' countries

	GWh
Other renewable generation (wind, solar, geothermal, waste, bio fuels)	312917
Hydro generation (storage, run of river, pumped storage)	511852
Thermal nuclear	885586
Non-identifiable generation	11145
Fossil fuels (lignite and hard coal, gas,oil, mixed fuels, peat)	1625944



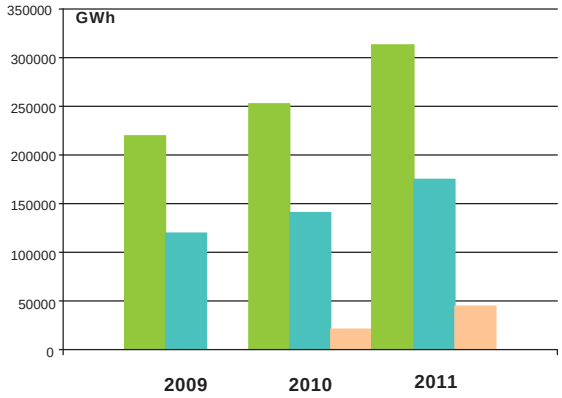
[1] All values are calculated to represent 100% of the national values.

Share of energy produced of each member TSOs' country 2011 in %
(Based on the net generation values as of the table on page 10 and 11)



Other renewable generation [1] including wind and solar power 2010 and 2011

Renewable generation except hydro of which wind and of which solar as sum of the ENTSO-E member TSOs' countries[1]



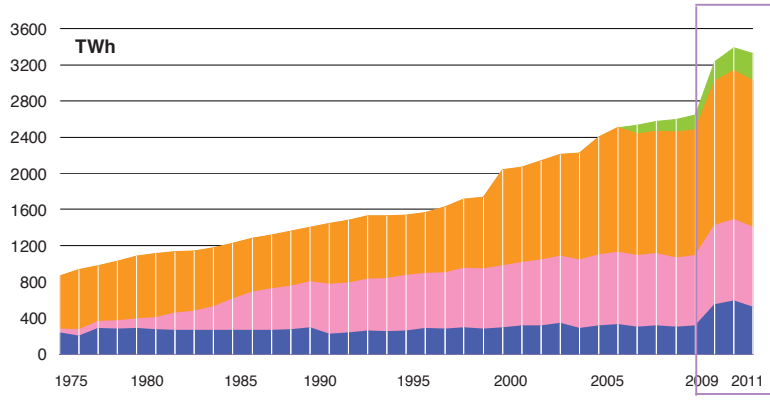
	year	GWh
Total other renewable generation except hydro	2009	219566
	2010	252990
	2011	312917
- of which wind	2009	120489
	2010	141521
	2011	175184
- of which solar[2]	2009	-
	2010	21539
	2011	45649

Monthly overview of the total other renewable generation except hydro with the share of wind and solar as sum of the ENTSO-E member TSOs' countries[1]

month	other renew except hydro	of which wind	of which solar		other renew except hydro	of which wind	of which solar
	2010 GWh	2010 GWh	2010 GWh		2011 GWh	2011 GWh	2011 GWh
January	21096	12408	597		24314	14674	1124
February	21374	13079	846		25193	15465	1845
March	23875	14366	1522		26762	14855	3340
April	19249	9655	2112		25719	13214	4560
May	20297	10594	2291		26305	13225	5257
June	17129	7913	2482		23199	10835	5310
July	18408	8558	3057		23155	12231	4592
August	19198	9329	2656		23384	10569	5753
September	19301	10284	2220		24548	12411	5205
October	24091	14566	1927		28290	16418	4256
November	24599	15484	1039		25450	15205	2578
December	24373	15286	790		36598	26082	1829
Sum 2010	**252990**	**141521**	**21539**	**Sum 2011**	**312917**	**175184**	**45649**

[1] All values are calculated to represent 100% of the national values.
[2] Data collection from year 2010 onwards.

Development of net electrity generation [1]

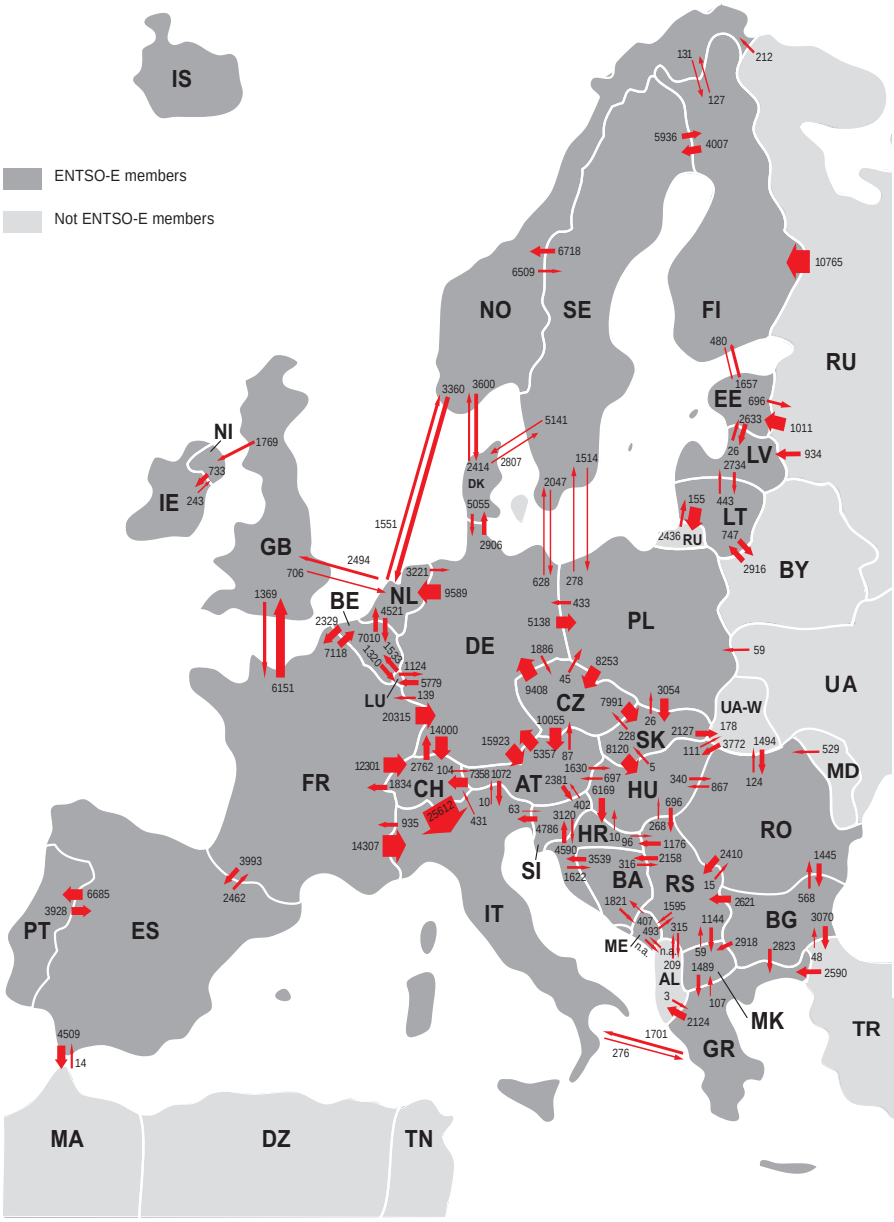


From year 2009 on calculated statistical data of ENTSO-E as sum of the member TSOs' countries. All yearly data from 1975 to 2008 are statistical data from the ENTSO-E Regional Group Continental Europe (former UCTE).

Year	Hydro power TWh	Thermal nuclear TWh	Fossil fuels TWh	Other sources [2] TWh	Total TWh
1975	222,9	50,0	585,4		858,3
1976	191,2	69,5	669,1		929,8
1977	276,2	82,2	610,4		968,8
1978	266,1	97,4	659,9		1023,4
1979	275,4	110,6	691,3		1077,3
1980	263,4	133,9	712,1		1109,4
1981	256,4	191,0	678,4		1125,8
1982	258,0	211,2	665,5		1134,7
1983	255,9	258,8	653,3		1168,0
1984	257,0	348,5	617,3		1222,8
1985	255,2	426,3	597,3		1278,8
1986	253,3	464,4	593,6		1311,3
1987	264,9	483,0	607,7		1442,1
1988	282,9	514,6	597,0		1483,5
1989	216,2	551,6	669,2		1528,7
1990	222,8	558,5	690,6		1565,9
1991	246,2	579,6	701,7		1625,0
1992	240,2	591,2	689,5		1618,0
1993	251,2	616,9	664,9		1630,0
1994	278,8	606,1	674,7		1657,5
1995 [3]	265,8	627,7	732,8		1740,2
1996	284,6	657,2	770,1		1841,4
1997	272,0	665,2	792,1		1861,3
1998 [4]	284,4	689,5	1057,7		2172,3
1999	292,5	707,0	1035,9		2128,7
2000	305,1	733,8	1093,4		2246,4
2001	331,6	744,4	1129,8		2291,0
2002	276,1	757,6	1187,6		2303,8
2003 [5]	307,4	787,4	1305,7		2484,6
2004	319,8	798,6	1386,3		2525,2
2005	292,4	792,6	1349,1	98,2	2540,4
2006	305,4	801,9	1354,3	115,8	2584,9
2007 [6]	294,2	759,4	1402,3	143,3	2607,1
2008	306,5	774,8	1384,1	170,0	2643,8
2009 [7]	540,2	877,0	1595,1	223,8	3236,2
2010	584,3	896,0	1650,1	261,3	3403,6
2011	511,0	885,6	1618,8	314,1	3347,4

[1] Values of detailed generation are national values; total net generation data are calculated to represent 100% of the national values.
[2] Before 2005, the information on other renewable energy sources was collected in a different manner. Some countries added them to fossil fuels, some considered them as the part of not represented in the figures (through the factor "representativity").
[3] As of September 1995 total German values
[4] Including values of CZ, HU, PL, SK as of 1998
[5] Including values of RO, BG as of 2003
[6] Including values of DK_W as of June 2007
[7] All yearly data from 1975 to 2008 are statistical data from the ENTSO-E Regional Group Continental Europe (former UCTE). From year 2009 on calculated statistical data of the ENTSO-E member TSOs' countries.

Physical energy flows 2011 - graphical overview in GWh



Consolidated physical inside and outside flows in GWh[1] :

	Inside	Outside
AT	27 191	17 885
BA	4 187	5 676
BE	13 189	10 652
BG	1 493	12 000
CH	34 090	30 312
CY	–	–
CZ	10 457	27 501
DE	49 722	55 988
DK	11 647	10 276
EE	1 517	4 986
ES	7 935	13 656
FI	18 489	4 614
FR	9 068	64 185
GB	8 645	3 844
GR	7 181	3 932
HR	14 004	6 318
HU	14 667	8 018
IE	733	243
IS	–	–
IT	47 478	1 715
LT	8 086	1 345
LU	7 099	2 657
LV	4 010	2 760
ME	3 416	900
MK	4 169	1 548
NI	2 012	733
NL	20 665	11 787
NO	11 022	13 600
PL	6 779	12 023
PT	6 685	3 928
RO	2 946	4 846
RS	6 900	6 671
SE	14 229	21 356
SI	7 034	8 308
SK	11 228	10 501

values in GWh

Sum of physical energy flows between ENTSO-E countries = 370786 GWh [2]

Total physical energy flows = 411934 GWh [2]

[1] Consolidated yearly values might differ from detailed flow data from the ENTSO-E database due to ex-post consolidation taking into account national statistical resources.

[2] Calculation based on the detailed physical energy flows in the table on page 16 without exchanges ME-AL

Physical energy flows 2011 - Detailed inside and outside flows between the countries in GWh [1]

Outside flows countries	Inside flows of the countries																																						
	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IT	LT	LU	LV	ME [2]	MK	NI	NL	NO	PL	PT	RO	RS	SE	SI	SK	AL [3]	BY [3]	MA [3]	MD [3]	RU [3]	TR [3]	UA [3]	UA-W [3]
AT	-	-	-	-	7358	87	5357	-	-	-	-	-	-	-	-	1630	-	1072	-	-	-	-	-	-	-	-	-	-	-	-	-	2381	-	-	-	-	-	-	-	-
BA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3539	-	-	-	-	-	-	1821	-	-	-	-	-	-	-	316	-	-	-	-	-	-	-	-	-	-
BE	-	-	-	-	-	-	-	-	-	-	-	2329	-	-	-	-	-	-	-	1320	-	-	-	-	7010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BG	-	-	-	-	-	-	-	-	-	-	-	-	-	2823	-	-	-	-	-	-	-	-	2918	-	-	-	-	-	568	2621	-	-	-	-	-	-	-	3070	-	-
CH	104	-	-	-	-	-	2762	-	-	-	-	1834	-	-	-	-	-	25612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CZ	10055	-	-	-	-	-	9408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	7991	-	-	-	-	-	-	-
DE	15923	-	-	-	14000	1886	-	2906	-	-	-	139	-	-	-	-	-	-	-	5779	-	-	-	-	9589	-	5138	-	-	-	628	-	-	-	-	-	-	-	-	-
DK	-	-	-	-	-	-	5055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2414	-	-	-	-	2807	-	-	-	-	-	-	-	-	-
EE	-	-	-	-	-	-	-	-	-	-	1657	-	-	-	-	-	-	-	-	-	2633	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	696	-	-	-
ES	-	-	-	-	-	-	-	-	-	-	-	2462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6685	-	-	-	-	-	4509	-	-	-	-	-	-
FI	-	-	-	-	-	-	-	-	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	-	-	-	-	4007	-	-	-	-	-	0	-	-	-
FR	-	-	7118	-	12301	-	20315	-	-	3993	-	-	6151	-	-	-	-	14307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GB	-	-	-	-	-	-	-	-	-	-	-	1369	-	-	-	-	-	-	-	-	-	-	-	1769	706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1701	-	-	-	-	107	-	-	-	-	-	-	-	-	-	2124	-	-	-	-	0	-	-
HR	-	1622	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	96	-	4590	-	-	-	-	-	-	-	-
HU	697	-	-	-	-	-	-	-	-	-	-	-	-	-	6169	-	-	-	-	-	-	-	-	-	-	-	-	-	340	696	-	-	5	-	-	-	-	-	-	111
IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IT	10	-	-	-	431	-	-	-	-	-	-	935	-	276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	-
LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	443	-	-	-	-	-	-	-	-	-	-	-	-	747	-	-	155	-	-	-
LU	-	-	1533	-	-	-	1124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LV	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	2734	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
ME [2]	-	407	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	493	-	-	-	n.a.	-	-	-	-	-	-
MK	-	-	-	0	-	-	-	-	-	-	-	-	-	1489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-
NI	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	733	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	-	-	4521	-	-	-	3221	-	-	-	-	-	2494	-	-	-	-	-	-	-	-	-	-	-	-	1551	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO	-	-	-	-	-	-	-	3600	-	-	131	-	-	-	-	-	-	-	-	-	-	-	-	-	3360	-	-	-	-	6509	-	-	-	-	-	0	-	-	-
PL	-	-	-	-	-	8253	433	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	278	-	3054	-	0	-	-	-	0	-
PT	-	-	-	-	-	-	-	-	-	3928	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RO	-	-	-	1445	-	-	-	-	-	-	-	-	-	-	-	867	-	-	-	-	-	-	-	-	-	-	-	-	-	2410	-	-	-	-	-	0	-	-	-	124
RS	-	2158	-	0	-	-	-	-	-	-	-	-	-	-	1176	268	-	-	-	-	-	1595	1144	-	-	-	-	-	15	-	-	-	-	315	-	-	-	-	-	-
SE	-	-	-	-	-	-	2047	5141	-	-	5936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6718	1514	-	-	-	-	-	-	-	-	-	-	-	-	-
SI	402	-	-	-	-	-	-	-	-	-	-	-	-	-	3120	-	-	4786	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SK	-	-	-	-	-	228	-	-	-	-	-	-	-	-	-	8120	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	2127
AL [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	n.a.	-	-	-	-	-	-	-	209	-	-	-	-	-	-	-	-	-	-
BY [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2916	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
MA [3]	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	529	-	-	-	-	-	-	-	-	-	-	-
RU [3]	-	-	-	-	-	-	-	-	1011	-	10765	-	-	-	-	-	-	2436	-	934	-	-	-	-	-	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TR [3]	-	-	-	48	-	-	-	-	-	-	-	-	-	2590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UA [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-
UA-W [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3772	-	-	-	-	-	-	-	-	-	-	-	-	1494	-	-	-	178	-	-	-	-	-	-	-	-

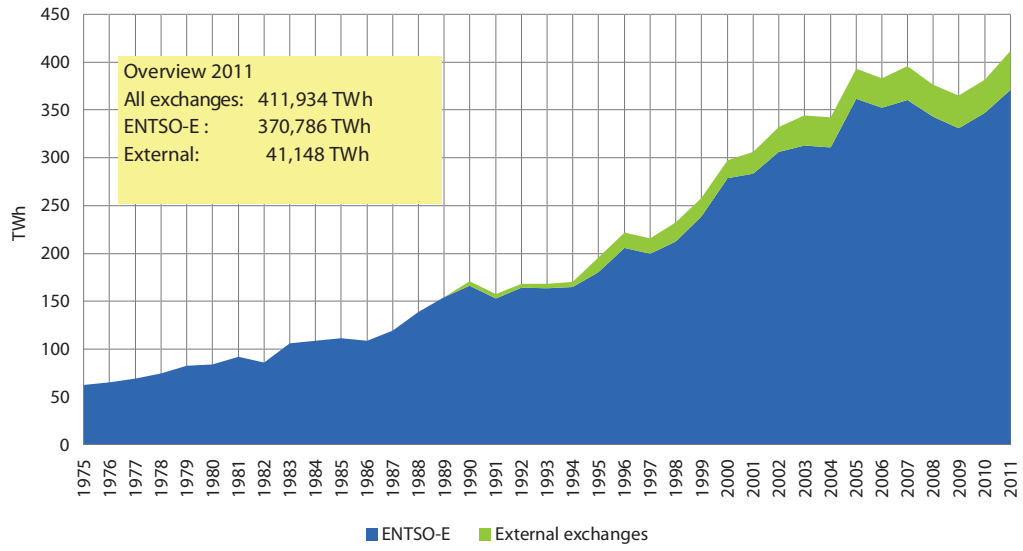
[1] Detailed harmonized values from the ENTSO-E statistical database.

[2] The information about the physical energy flows between ME and AL are not available.

[3] In synchroneous operation with ENTSO-E countries (not ENTSO-E members):
Albania (AL), Belarus (BY), Morocco (MA), Republic of Moldavia (MD), Russia (RU), Republic of Turkey (TR), Ukraine (UA) and Ukraine West (UA-W)

Development of the physical exchanges on tie lines

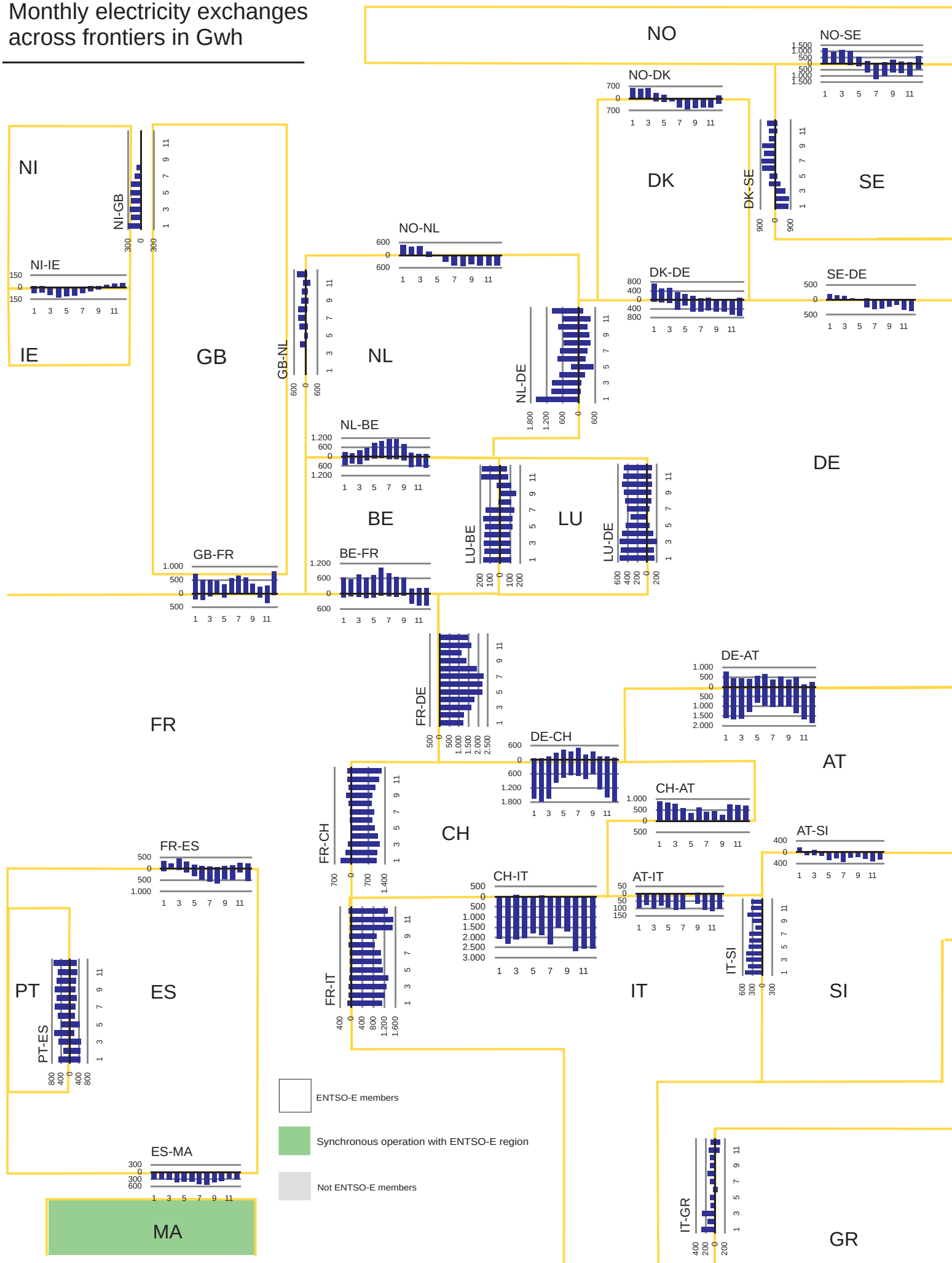
Development of overall cross-border exchanges of ENTSO-E member TSOs' countries since 1975



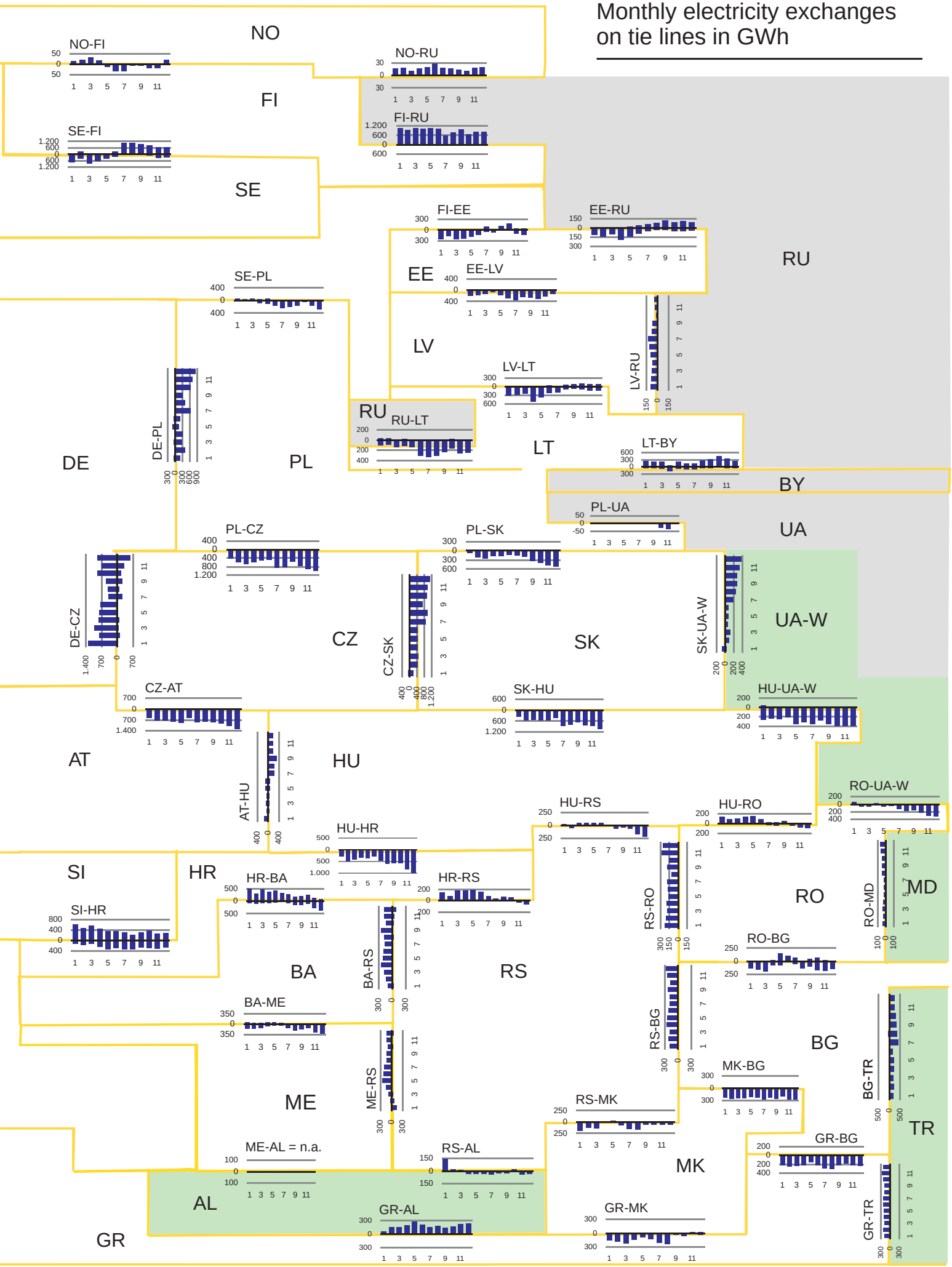
Year	Sum of total electricity exchanges	External exchanges
	TWh	TWh
1975	62,8	0,0
1976	65,4	0,0
1977	68,8	0,0
1978	74,3	0,0
1979	82,7	0,0
1980	84,1	0,0
1981	91,6	0,0
1982	85,7	0,0
1983	105,9	0,0
1984	108,9	0,0
1985	111,2	0,0
1986	108,8	0,0
1987	119,3	0,0
1988	138,6	0,0
1989	154,2	0,0
1990 [1]	170,9	4,6
1991	157,8	5,1
1992	168,2	4,4
1993	168,3	4,7
1994	170,2	5,0
1995 [2,3]	195,4	14,9
1996	221,7	15,8
1997	215,6	15,7
1998	232,7	20,2
1999	257,6	19,4
2000	297,3	18,4
2001	306,0	22,6
2002	332,0	26,3
2003	344,1	31,1
2004	342,5	31,6
2005	393,1	31,5
2006	383,2	31,0
2007	395,9	35,5
2008	376,4	33,6
2009 [4]	364,7	33,8
2010	381,6	34,4
2011 [5]	411,9	41,1

1 External exchanges of the Nordic countries are reliable since 1990
2 Reliable Baltic data is available since 1995
3 There were no exchanges between Republic of Ireland and Northern Ireland before 1995
4 External exchanges include Albania, Belarus, Moldavia, Morocco, Russia, Turkey, Ukraine and Ukraine-West since 2009
5 Sum of all cross-border exchanges 2011 without exchange data between Montenegro and Albania

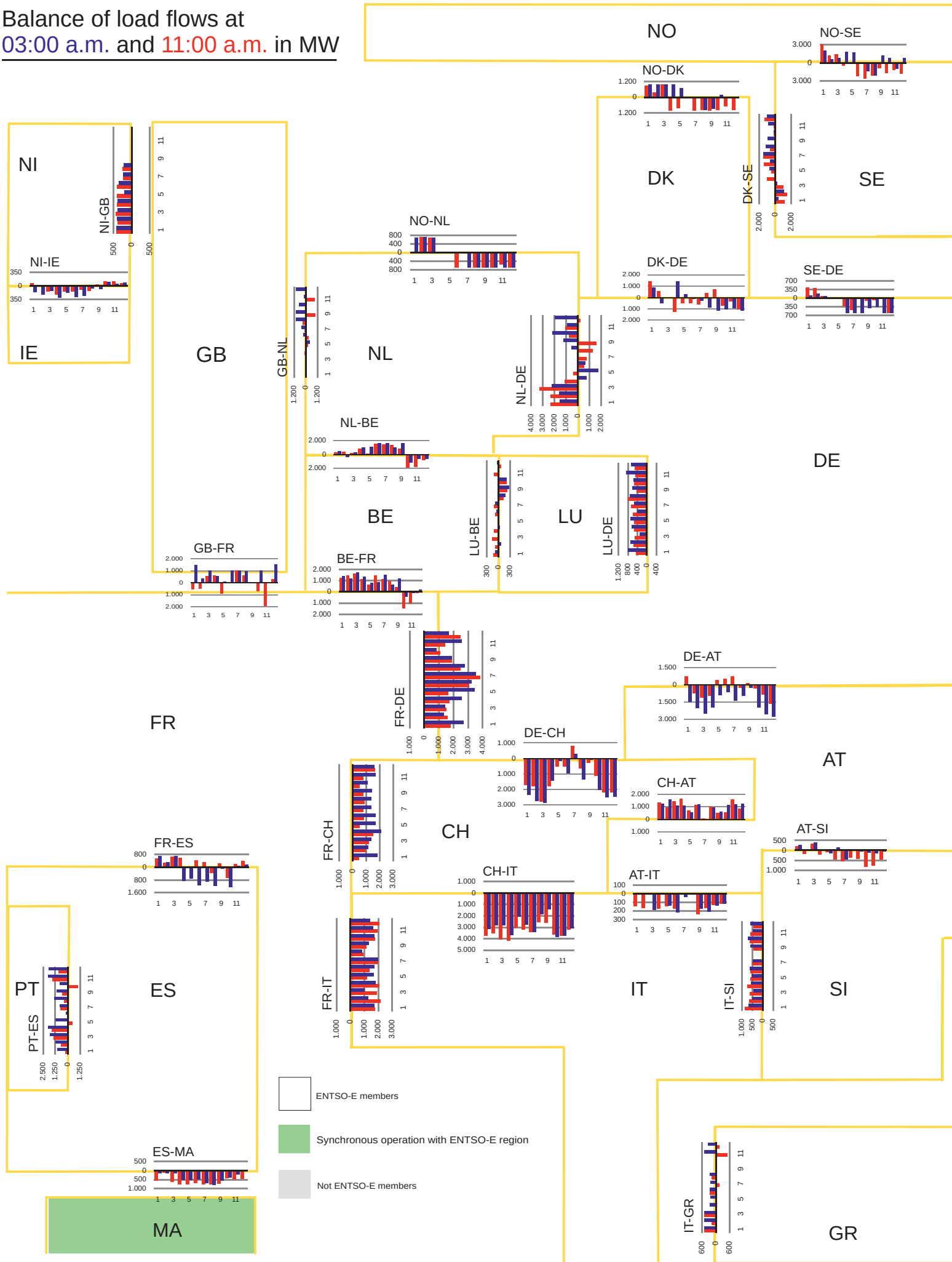
Monthly electricity exchanges across frontiers in Gwh



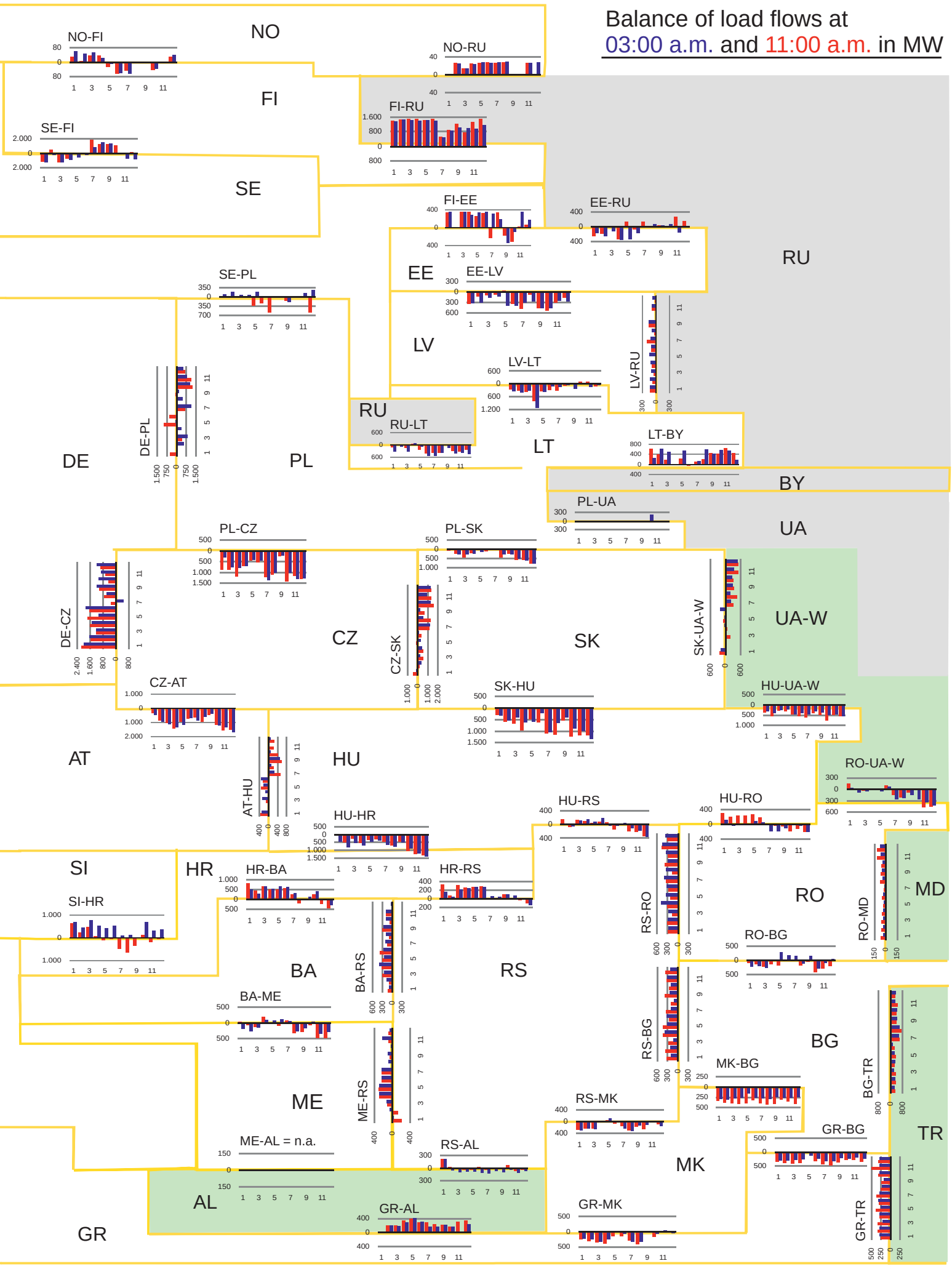
Monthly electricity exchanges on tie lines in GWh



Balance of load flows at 03:00 a.m. and 11:00 a.m. in MW



Balance of load flows at 03:00 a.m. and 11:00 a.m. in MW

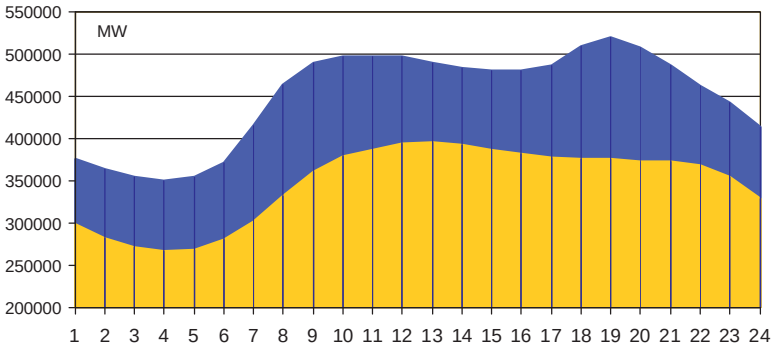


Highest and lowest hourly load value in each country 2011 in MW [1]

	Highest hourly load value in each country				Lowest hourly load value in each country			
	Date	Day	Time	MW	Date	Day	Time	MW
AT	19 December	Monday	06:00 p.m.	9701	16 June	Thursday	06:00 a.m.	3794
BA	31 December	Saturday	06:00 p.m.	2150	22 July	Friday	04:00 a.m.	872
BE	31 January	Monday	07:00 p.m.	14081	22 May	Sunday	06:00 a.m.	6336
BG	01February	Tuesday	08:00 p.m.	6897	25 April	Monday	05:00 a.m.	2660
CH [2]	01 February	Tuesday	11:00 a.m.	8083	01 August	Monday	08:00 a.m.	2865
CY	16 February	Wednesday	08:00 p.m.	780	20 April	Wednesday	04:00 a.m.	343
CZ	01 February	Thursday	11:00 a.m.	10210	24 July	Sunday	06:00 a.m.	4315
DE	07 December	Wednesday	06:00 p.m.	83990	13 June	Monday	04:00 a.m.	35597
DK	05 January	Wednesday	06:00 p.m.	6231	24 July	Sunday	06:00 a.m.	2177
EE	23 February	Wednesday	09:00 a.m.	1510	24 June	Friday	04:00 a.m.	446
ES	24 January	Monday	07:00 p.m.	43596	24 April	Sunday	07:00 a.m.	17989
FI	18 February	Friday	09:00 a.m.	14965	26 June	Sunday	09:00 a.m.	5219
FR	04 January	Tuesday	07:00 p.m.	91720	07 August	Sunday	07:00 a.m.	31268
GB	06 January	Thursday	07:00 p.m.	57875	07 August	Sunday	07:00 a.m.	20001
GR	20 July	Wednesday	01:00 p.m.	9868	01 May	Sunday	06:00 a.m.	3356
HR	25 January	Tuesday	07:00 p.m.	2970	25 April	Monday	04:00 a.m.	1185
HU	24 November	Thursday	05:00 p.m.	5931	31 July	Sunday	06:00 a.m.	2630
IE	13 December	Tuesday	07:00 p.m.	4610	08 October	Saturday	06:00 a.m.	1586
IS	30 November	Wednesday	07:00 p.m.	2138	07 October	Friday	05:00 a.m.	1346
IT	13 July	Wednesday	12:00 a.m.	53668	24 April	Sunday	07:00 a.m.	20582
LT	25 February	Friday	09:00 a.m.	1734	26 June	Sunday	05:00 a.m.	703
LU	21 December	Wednesday	06:00 p.m.	1188	28 March	Monday	01:00 a.m.	148
LV	23 February	Wednesday	09:00 a.m.	1239	17 October	Monday	05:00 a.m.	141
ME	30 October	Sunday	03:00 a.m.	746	23 May	Monday	06:00 a.m.	305
MK	31 December	Saturday	03:00 p.m.	1642	26 June	Sunday	06:00 a.m.	540
NI	10 January	Monday	07:00 p.m.	1744	10 July	Sunday	07:00 a.m.	538
NL	13 December	Tuesday	06:00 p.m.	18049	12 June	Sunday	07:00 a.m.	8167
NO	21 February	Monday	09:00 a.m.	22129	24 July	Sunday	06:00 a.m.	8665
PL	22 December	Thursday	06:00 p.m.	22755	25 April	Monday	06:00 a.m.	9476
PT	24 January	Monday	09:00 p.m.	9192	24 April	Sunday	06:00 a.m.	3310
RO	03 February	Thursday	07:00 a.m.	8724	24 April	Sunday	03:00 p.m.	4086
RS	02 February	Wednesday	07:00 p.m.	7341	03 July	Sunday	06:00 a.m.	2436
SE	23 February	Wednesday	07:00 p.m.	26015	23 July	Saturday	07:00 a.m.	9261
SI	02 March	Wednesday	08:00 p.m.	1949	02 May	Monday	05:00 a.m.	784
SK	02 February	Wednesday	06:00 p.m.	4290	31 July	Sunday	06:00 a.m.	2213
ENTSO-E [3]	**01 February**	**Tuesday**	**07:00 p.m.**	**532599**	**31 July**	**Sunday**	**07:00 a.m.**	**234658**

[1] All values are calculated to represent 100% of the national values.
[2] Lowest and highest physical hourly vertical load value of the Swiss transmission grid.
[3] Calculated as sum of the ENTSO-E member TSO's hourly load values.

Highest and lowest load in each country on 3rd Wednesday in 2011



ENTSO-E load curve on 19 January 2011

with highest load: 518949 MW [3]
with lowest load: 350259 MW [3]

ENTSO-E load curve on 17 August 2011

with lowest load: 267285 MW [3]
with highest load: 394813 MW [3]

Highest load on 3rd Wednesday in each country [1]

Country	MW	Date	Time
AT	9442	21 December	06:00 p.m.
BA	1997	21 December	06:00 p.m.
BE [2]	13881	19 January	07:00 p.m.
BG	6395	16 February	08:00 p.m.
CH	10161	21 December	06:00 p.m.
CY	780	16 February	08:00 p.m.
CZ	9672	16 February	04:00 p.m.
DE	80593	16 November	06:00 p.m.
DK	5897	19 January	06:00 p.m.
EE	1495	16 February	09:00 a.m.
ES	40073	16 February	08:00 p.m.
FI	14272	16 February	07:00 a.m.
FR	82450	19 January	07:00 p.m.
GB	56621	19 January	07.00 p.m.
GR	9868	20 July	01:00 p.m.
HR	2874	21 December	06:00 p.m.
HU	5705	16 November	06:00 p.m.
IE	4528	19 January	07:00 p.m.
IS	2101	21 December	07:00 p.m.
IT	51050	21 December	06:00 p.m.
LT	1688	21 December	05:00 p.m.
LU	1188	21 December	06:00 p.m.
LV	1226	16 February	09:00 a.m.
ME	648	21 December	07:00 p.m.
MK	1486	21 December	03:00 p.m.
NI	1681	19 January	07:00 p.m.
NL	17346	16 November	06:00 p.m.
NO	21512	16 February	09:00 a.m.
PL	22697	21 December	06:00 p.m.
PT	8575	16 February	09:00 p.m.
RO	8447	16 February	07:00 p.m.
RS	6803	16 February	07:00 p.m.
SE	24238	16 February	07:00 p.m.
SI	1893	16 February	12:00 a.m.
SK	4126	16 February	10:00 a.m.
ENTSO-E [3]	**518949**	**19 January**	**07:00 p.m.**

Lowest load on 3rd Wednesday in each country [1]

MW	Date	Time
4580	17 August	04:00 a.m.
949	15 June	04:00 a.m.
7198	20 July	04:00 a.m.
2861	21 September	03:00 a.m.
4991	20 July	04:00 a.m.
343	20 April	01:00 a.m.
5520	17 August	05:00 a.m.
43617	17 August	04:00 a.m.
2423	20 July	05:00 a.m.
520	20 July	04:00 a.m.
21873	16 November	04:00 a.m.
6749	20 July	04:00 a.m.
35416	17 August	05:00 a.m.
24101	15 June	06:00 a.m.
3979	18 May	04:00 a.m.
1443	18 May	03:00 a.m.
3066	16 March	04:00 a.m.
1880	20 July	07:00 a.m.
1730	20 July	03:00 a.m.
25013	17 August	05:00 a.m.
810	15 June	04:00 a.m.
563	17 August	05:00 a.m.
449	15 June	04:00 a.m.
323	18 May	05:00 a.m.
624	15 June	04:00 a.m.
556	20 July	07:00 a.m.
9308	20 April	04:00 a.m.
8942	20 July	05:00 a.m.
12696	20 July	05:00 a.m.
4182	17 August	08:00 a.m.
4942	15 June	03:00 a.m.
2612	15 June	05:00 a.m.
10016	20 July	06:00 a.m.
1080	17 August	03:00 a.m.
2492	17 August	03:00 a.m.
267285	**17 August**	**04.00 a.m.**

[1] All values are calculated to represent 100% of the national values.
[2] The reported figures are best estimated based on actual measurements.
[3] Calculated load values as sum of the ENTSO-E member TSOs´ countries.

	NGC Nuclear		NGC Fossil fuels		NGC Hydro power		NGC Renewable		of which wind		of which solar		NGC Other resources		NGC Sum		Representativity [1]	
	MW		MW		MW		MW		MW		MW		MW		MW		%	
Country	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
AT	0	0	7425	7389	12919	12665	1054	1031	1017	1002	0	0	0	0	21398	21085	100	100
BA	0	0	1506	1506	1971	1971	0	0	0	0	0	0	0	0	3477	3477	100	100
BE	5926	5945	8539	8668	1420	1421	4142	2659	1056	888	1901	766	0	0	20027	18693	100	100
BG	2080	2000	6400	6451	3150	3108	770	513	550	488	220	25	0	0	12400	12072	99	99
CH	3278	3253	388	384	13723	13522	508	355	42	18	111	71	205	213	18101	17727	100	100
CY	0	0	973	1385	0	0	102	82	102	82	0	0	0	0	1075	1467	100	100
CZ	3692	3666	10938	10892	2161	2203	2190	2177	219	218	1971	1959	0	0	18981	18938	100	100
DE	12048	20300	66967	69300	9209	10700	53532	47400	28254	26600	22306	16600	3263	4500	145019	152200	93	100
DK	0	0	7486	8867	10	9	3967	3802	3950	3802	17	0	44	697	11507	13375	100	100
EE	0	0	2283	2324	4	4	254	156	184	156	0	0	0	0	2541	2484	100	100
ES	7525	7525	43659	40841	19081	19051	26639	24641	20729	19821	4916	4104	0	0	96904	92058	100	100
FI	2676	2646	8978	9004	3157	3133	2254	2254	197	197	0	0	44	44	17109	17081	100	100
FR	63130	63130	27789	27403	25405	25418	10138	7559	6639	5603	2228	762	0	0	126462	123510	100	100
GB	10397	10608	61984	62535	3876	3887	3355	2630	3355	2630	0	0	45	45	79657	79705	90	89
GR	0	0	9614	9396	3223	3215	1936	1322	1363	1039	439	153	0	0	14773	13933	100	100
HR	0	0	1787	1781	2110	2113	118	116	118	79	0	0	0	0	4015	4010	100	100
HU	1892	1892	6860	6181	50	50	695	630	325	240	0	0	0	0	9497	8753	100	100
IE	0	0	6132	6219	508	508	1615	1615	1615	1615	0	0	242	208	8497	8550	100	100
IS	0	0	52	121	1860	1883	661	575	0	0	0	0	0	0	2573	2579	100	100
IT	0	0	76287	74976	21737	21521	20419	9992	6918	5814	12773	3470	0	0	118443	106489	100	100
LT	0	0	2544	2539	876	875	252	193	202	161	0	0	0	0	3672	3607	100	99
LU	0	0	499	509	1134	1128	91	95	41	43	40	27	16	0	1740	1732	100	100
LV	0	0	859	848	1556	1555	30	59	30	37	0	0	21	0	2466	2462	100	100
ME	0	0	220	210	660	660	0	0	0	0	0	0	0	0	880	870	100	100
MK	0	0	1157	1157	503	503	0	0	0	0	0	0	0	0	1660	1660	100	100
NIR	0	0	2335	2317	4	4	419	358	405	346	0	0	7	14	2765	2693	100	100
NL	504	480	20137	22005	38	37	2439	2943	2340	2273	51	68	1012	0	24130	25465	100	100
NO	0	0	1166	1166	30164	30164	450	450	450	450	0	0	0	0	31780	31780	100	100
PL	0	0	30117	29612	2341	2331	2209	1366	2059	1274	1	0	0	0	34667	33309	100	100
PT	0	0	8779	8547	5392	4988	4855	4370	4081	3705	155	122	0	0	19026	17905	100	97
RO	1300	1300	8901	9166	6144	6087	1030	501	1006	479	0	0	0	0	17375	17054	100	100
RS	0	0	5478	5475	2888	2884	0	0	0	0	0	0	0	0	8366	8359	100	100
SE	9363	9151	4793	5035	16197	16200	6094	5315	2899	2163	0	0	0	0	36447	35701	100	100
SI	696	696	1282	1282	1063	1063	0	0	0	0	0	0	0	0	3041	3041	100	100
SK	1940	1820	2896	2614	2478	2478	753	143	3	3	507	82	85	725	8152	7780	100	100
ENTSOE [2]	**126447**	**134412**	**447210**	**448105**	**197012**	**197339**	**152917**	**125302**	**90149**	**81226**	**47636**	**28209**	**4984**	**6446**	**928624**	**911604**		

[1] Percentage as referred to the total values of a country
(The total values of a country are defined as the synchronously interconnected system plus the areas directly connected via AC or DC to the mainland system.).
[2] Calculated sum of ENTSO-E member TSOs´countries

Country	Reported year	Fossil fuels power units								Nuclear power units	
		10 MW ≤ x < 200 MW		200 MW ≤ x < 400 MW		≥ 400 MW		Total		Total	
		Number	MW	Number	MW	Number	MW	Number	MW	Number	MW
AT	2008	62	3146	8	2735	0	0	70	5881	0	0
BA	2011	6	810	3	696	0	0	9	1506	0	0
BE	2011	68	3704	12	3595	3	1232	83	8531	7	5926
BG	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2080
CH	2011	42	462	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5	3278
CY [1]	2011	31	973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0
CZ [2]	2010	n.a.	10661	0	0	1	460	n.a.	11121	6	3692
DE	2011	320	20600	67	20300	61	38600	448	79500	9	12100
DK	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0
EE	2011	18	2219	0	0	0	0	18	2219	0	0
ES	2011	225	6069	46	15949	37	20480	308	42498	8	7525
FI	2010	110	5500	10	2355	1	565	121	8420	4	2671
FR	2011	183	6717	22	5468	23	12686	228	24871	58	63130
GB [3]	2011	50	2094	24	7550	93	52340	167	61984	21	10397
GR	2011	21	2360	19	5566	4	1688	44	9614	0	0
HR	2011	16	837	4	950	0	0	20	1787	0	0
HU	2011	61	3212	14	2984	1	425	76	6621	4	1892
IE	2011	23	1672	8	2324	4	2136	35	6132	0	0
IS	2011	2	36	0	0	0	0	2	36	0	0
IT	2011	1490	18909	106	31630	38	22706	1634	73245	0	0
LT [4]	2011	14	1409	4	1200	0	0	18	2609	0	0
LU	2010	0	0	1	385	0	0	1	385	0	0
LV	2010	8	540	1	291	0	0	9	831	0	0
ME	2007	1	190	0	0	0	0	1	190	0	0
MK	2010	2	301	4	856	0	0	6	1157	0	0
NIR	2011	12	958	4	966	1	402	17	2326	0	0
NL	2011	n.a.	1832	20	6080	21	12225	n.a.	20137	1	504
NO	2010	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0
PL [5]	2011	n.a.	13330	57	14111	5	2676	n.a.	30117	0	0
PT	2010	49	1991	16	4888	4	1707	69	8586	0	0
RO	2011	81	5520	11	3148	0	0	92	8668	2	1300
RS	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
SE	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9363
SI	2007	2	276	1	312	1	672	4	1260	1	696
SK	2011	41	2420	1	288	0	0	42	2708	4	1940
ENTSO-E [6]		**2938**	**118748**	**463**	**134627**	**298**	**171000**	**3522**	**422940**	**130**	**126494**

[1] The difference from 2010 depends on the explosion of the Vasilikos Power Station and the introduction of small Temporary generating units.
[2] Fossil fuels >= 5MW
[3] > 400 MW: Mothballed and commissioning units are excluded.
[4] 10 MW < x < 200 MW: Except for the generation of bio-power.
[5] Units with the capacity <10MW are included too. No precise information about number of units with the capacity <50MW.
[6] Calculated sum of fossil fuels except BG, DK, NO, RS and SE.

Inventory of hydro power units											
Country	Reported year	1 MW ≤ x < 10 MW		10 MW ≤ x < 50 MW		50 MW ≤ x < 100 MW		≥ 100 MW		Total	
		Number	MW	Number	MW	Number	MW	Number	MW	Number	MW
AT	2008	582	910	100	2496	19	1473	27	6918	728	11797
BA	2011	n.a.	n.a.	13	343	12	765	6	863	31	1971
BE	2011	17	59	7	194	0	0	6	1164	30	1417
BG [1]	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3150
CH	2011	203	703	109	2804	43	2917	34	7530	389	13954
CY	2011	0	0	0	0	0	0	0	0	0	0
CZ	2010	n.a.	280	10	239	6	484	6	1100	n.a.	2103
DE	2000	234	898	78	1648	14	1026	15	4841	341	8413
DK [1]	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10
EE	2011	0	0	0	0	0	0	0	0	0	0
ES	2011	520	1729	138	3135	43	2937	38	11055	739	18856
FI	2010	94	351	65	2328	7	434	0	0	166	3113
FR	2011	550	1753	184	4462	38	2793	62	15955	834	24963
GB	2011	3	23	26	587	9	727	12	2539	50	3876
GR	2011	96	174	5	84	2	120	11	2845	114	3223
HR	2011	12	52	23	605	6	453	8	978	49	2088
HU	2011	10	47	0	0	0	0	0	0	10	47
IE	2011	5	20	11	196	4	292	0	0	20	508
IS	2011	11	50.9	15	484	11	652	6	690	43	1877
IT	2011	743	2329	237	5556	29	1964	42	11692	1051	21541
LT	2011	4	8	4	101	0	0	4	900	12	1009
LU	2010	3	20	1	11	1	1	1	1096	6	1128
LV	2011	1	1	4	72	21	1455	0	0	26	1528
ME	2007	3	8	0	0	0	0	2	649	5	657
MK	2010	12	15	3	73	3	265	1	150	19	503
NI [1]	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4
NL	2011	3	12	2	26	n.a.	n.a.	n.a.	n.a.	5	38
NO	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	30164
PL [2]	2011	75	153	21	504	5	293	8	1256	109	2206
PT	2010	114	396	4	903	33	2199	8	1395	159	4893
RO	2011	193	969	102	2193	17	1175	9	1670	321	6007
RS [1]	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2888
SE [1]	2011	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16197
SI	2007	1	8	11	314	5	319	2	230	19	871
SK	2011	29	190	36	734	10	820	6	734	81	2478
ENTSO-E		**3518** [3]	**11108** [3]	**1209** [3]	**30092** [3]	**338** [3]	**23564** [3]	**314** [3]	**76250** [3]	**n.a.**	**193478** [4]

[1] Total hydro power units in MW as reported NGC hydro power as of 31 December 2011
[2] Additionally 134 MW in 865 Hydro power units with the capacity <1MW.
[3] Calculated sum except BG, DK, NI, NO, RS and SE
[4] Calculated sum with reported values of NGC hydro power as of 31 December 2011 from BG, DK, NI, NO, RS and SE

European Network of
Transmission System Operators
for Electricity

entsoe

Yearly values operation and physical exchanges

Yearly values operation and physical exchanges per country for the years 2006, 2010 and 2011

Statistical database as of 31 August 2012

Page

[1] Yearly values operation are available from the year 2009 on. Exchanges with "Other" are inside and outside flows between the ENTSO-E member TSOs' countries and Albania (AL), Belarus (BY), Morocco (MA), Republic of Moldavia (MD), Russia (RU), Republic of Turkey (TR), Ukraine (UA) and Ukraine-West (UA-W). Detailed monthly information are available on the ENTSO-E website www.entsoe.eu/Resources/DataPortal.

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

[3] Yearly values with the country code GB represents the sum of England, Scotland and Wales.

[4] Yearly values before the year 2007 are data of the whole country Serbia&Montenegro (CS) and available on the ENTSO-E website www.entsoe.eu/Resources/DataPortal.

[5] FYROM = Former Yugoslav Republic of Macedonia

[6] Yearly values with the country code NI represents the data of the GB Northern Ireland.

[7] Generation and load values are operational data.

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	n.a. 896053 885586
Fossil fuels net generation	GWh	Σ	2006 2010 2011	n.a. 1650129 1618830
Hydraulic net generation	GWh	Σ	2006 2010 2011	n.a. 584329 511029
Other renewable net generation	GWh	Σ	2006 2010 2011	n.a. 249443 302983
- of which wind	GWh	Σ	2006 2010 2011	n.a. 138298 165250
- of which solar	GWh	Σ	2006 2010 2011	n.a. 21539 45649
Non-identifiable net generation	GWh	Σ	2006 2010 2011	n.a. 11819 11145
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 [1] 2011 [1]	n.a. 3403569 3347445
Sum of physical inside flows	GWh	Σ	2006 2010 2011	n.a. 372453 397956
Sum of physical outside flows	GWh	Σ	2006 2010 2011	n.a. 356422 384765
Total exchange balance	GWh	Σ	2006 2010 2011	n.a. 17000 8098
Consumption of pumps	GWh	Σ	2006 2010 2011	n.a. 44954 43225
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	n.a. 3375615 3311650
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	 15.12.10 16.02.11	n.a. 398614 360976
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	 15.12.10 19.01.11	n.a. 528684 496633
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	 15.12.10 19.01.11	n.a. 555852 518954
Time of highest load on the 3rd Wednesday		CET	 15.12.10 19.01.11	n.a. 18:00 19:00

[1] Including deliveries from industry

Annual physical electricity exchange in interconnected operation (GWh)

INSIDE FLOWS COUNTRIES

OUTSIDE FLOWS COUNTRIES

	Year	AT	BA	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE
AT	2006					7304	23	5842									465	
	2010					7915	252	6750									1014	
	2011					7358	87	5357									1630	
BA	2006															3647		
	2010															4927		
	2011															3539		
BE	2006												1981					
	2010												5402					
	2011												2329					
BG	2006														4468			
	2010														3453			
	2011														2823			
CH	2006	82						2917					2156					
	2010	53						2581					5120					
	2011	104						2762					1834					
CZ	2006	6139						12054										
	2010	6545						9400										
	2011	10055						9408										
DE	2006	14799				13694	647		3972				838					
	2010	14705				14553	564		6471				795					
	2011	15923				14000	1886		2906				139					
DK	2006							5855										
	2010							2707										
	2011							5055										
EE	2006											7						
	2010											1967						
	2011											1657						
ES	2006												1479					
	2010												3512					
	2011												2462					
FI	2006									7								
	2010									246								
	2011									480								
FR	2006			10644		11322		16172			5910			10929				
	2010			3048		9679		15126			1991			7136				
	2011			7118		12301		20315			3993			6151				
GB	2006												899					
	2010												4109					
	2011												1369					
GR	2006				0													
	2010				1													
	2011				0													
HR	2006		674														1	
	2010		1109														93	
	2011		1622														10	
HU	2006	1062														5561		
	2010	641														3045		
	2011	697														6169		
IE	2006																	
	2010																	
	2011																	
IT	2006	3				422							726		455			
	2010	2				493							1012		72			
	2011	10				431							935		276			
LT	2006																	
	2010																	
	2011																	
LU	2006			2482				804										
	2010			1847				1361										
	2011			1533				1124										
LV	2006									n.a.								
	2010									38								
	2011									26								
ME	2006																	
	2010		628															
	2011		407															
MK	2006				0										1202			
	2010				0										3857			
	2011				0										1489			
NI	2006													n.a.				n.a.
	2010													0				744
	2011													0				733
NL	2006			5603				283										
	2010			7392				3072						2494				
	2011			4521				3221										
NO	2006								1127			150						
	2010								1458			115						
	2011								3600			131						
PL	2006						10181	722										
	2010						5500	167										
	2011						8253	433										
PT	2006										3183							
	2010										3190							
	2011										3928							
RO	2006				1138												1437	
	2010				1106												1252	
	2011				1445												867	
RS	2006		2341		0											3005	53	
	2010		1319		58											1740	544	
	2011		2158		0											1176	268	
SE	2006							1491	589			3676						
	2010							1007	2656			2636						
	2011							2047	5141			5936						
SI	2006	1062														1036		
	2010	584														2647		
	2011	402														3120		
SK	2006						612										8592	
	2010						366										4934	
	2011						228										8120	
Other	2006				0					n.a.	27	15379			26		4851	
	2010				13					1459	33	11636			1141		2060	
	2011				48					1011	14	10765			2593		3772	
Sum of inside flows	**2006**	**23147**	**3015**	**18729**	**1138**	**32742**	**11463**	**46140**	**5688**	**n.a.**	**9120**	**15379**	**8079**	**n.a.**	**6151**	**13249**	**15399**	**n.a.**
	2010	**22530**	**3056**	**12287**	**1178**	**32640**	**6682**	**42171**	**10585**	**1743**	**5214**	**16354**	**19950**	**7136**	**8523**	**12359**	**9897**	**744**
	2011	**27191**	**4187**	**13172**	**1493**	**34090**	**10454**	**49722**	**11647**	**1517**	**7935**	**18489**	**9068**	**8645**	**7181**	**14004**	**14667**	**733**

IT	LT	LU	LV	ME	MK	NI	NL	NO	PL	PT	RO	RS	SE	SI	SK	Other	Sum of outside flows
1415 1328 1072														833 2011 2381			**15882 19270 17885**
				1597 1821								1476 362 316					**5123 6886 5676**
		1697 1123 1320					5019 5318 7010										**8697 11843 10659**
					860 2953 2918						710 677 568	2837 1794 2621				0 401 3070	**8875 9278 12000**
23885 23176 25612																	**29040 30930 30312**
									42 136 45						5857 5498 7991		**24092 21579 27499**
		5134 6159 5779					22336 8942 9589		2548 5334 5138				1944 2355 628				**65912 59878 55988**
								2324 4055 2414					1743 0 2807				**9922 11740 10276**
			n.a. 2695 2633													n.a. 285 696	**n.a. 4947 4986**
										8481 5667 6685						1899 3938 4509	**11859 13117 13656**
								84 162 127					3767 5470 4007			0 0 0	**3858 5878 4614**
14891 11583 14307																	**69868 48563 64185**
						n.a. 2299 1769	706										**n.a. 6408 3844**
945 2299 1701					12 8 107											979 493 2124	**1936 2801 3932**
												31 14 96		6871 6480 4590			**7577 7696 6318**
											29 146 340	1520 392 696			0 56 5	13 426 111	**8185 4706 8018**
						n.a. 293 243											**n.a. 293 243**
														12 120 63			**1618 1699 1715**
			n.a. 234 443													n.a. 1951 902	**n.a. 2185 1345**
																	3286 3208 2657
	n.a. 3055 2734															n.a. 8 0	**n.a. 3101 2760**
												1450 493				305 n.a.	**2383 n.a.**
												0 0 59					**1202 3857 1548**
																	n.a. 744 733
								2347 1551									**5886 12811 11787**
							1329 3360						7667 3691 6509			0 0 0	**8944 6593 13600**
													1500 494 278		3374 1498 3054	0 0 0	**15777 7659 12018**
																	3183 3190 3928
												3262 1968 2410				47 381 124	**5884 4707 4846**
				511 1595	2126 2309 1144						3 74 15					261 149 315	**7789 6704 6671**
								7178 7668 6718	264 761 1514								**13198 14728 21356**
5389 7513 4786																	**7487 10744 8308**
									4 83 26							1717 912 2127	**10925 6295 10501**
	n.a. 5122 5352		n.a. 1044 934	225 n.a.				215 209 212	1913 0 59		893 894 2023	613 1047 209			94 290 178		
46525 45899 47478	**n.a. 8177 8086**	**6831 7282 7099**	**n.a. 3973 4010**	**2333 n.a.**	**2998 5270 4169**	**n.a. 2592 2012**	**27355 15589 20665**	**9801 14441 11022**	**4771 6314 6782**	**8481 5667 6685**	**1635 1791 2946**	**9739 7027 6900**	**16621 12010 14229**	**7716 8611 7034**	**9325 7342 11228**		

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	22481 24638 23007
Hydraulic net generation	GWh	Σ	2006 2010 2011	34102 36496 33663
Other renewable net generation [1]	GWh	Σ	2006 2010 2011	n.a. n.a. n.a.
- of which wind [1]	GWh	Σ	2006 2010 2011	n.a. n.a. n.a.
- of which solar [1]	GWh	Σ	2006 2010 2011	n.a. n.a. n.a.
Non-identifiable net generation	GWh	Σ	2006 2010 2011	6407 9551 8730
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	62990 70685 65400
Sum of physical inside flows	GWh	Σ	2006 2010 2011	23147 22530 27191
Sum of physical outside flows	GWh	Σ	2006 2010 2011	15882 19270 17885
Total exchange balance	GWh	Σ	2006 2010 2011	6848 2203 8228
Consumption of pumps	GWh	Σ	2006 2010 2011	3338 4564 5061
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	66500 68324 68567
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	6638 7020 6413
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	8951 9217 9202
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 21.12.11	9222 9548 9442
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 21.12.11	18:00 18:00 18:00

[1] Other renewable net generation is included in non-identifiable net generation.

Physical exchanges in interconnected operation [1]

Austria | GWh

MM_YY	AT→CH	AT→CZ	AT→DE	AT→HU	AT→IT	AT→SI	Sum_OF	CH→AT	CZ→AT	DE→AT	HU→AT	IT→AT	SI→AT	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	754	0	419	2	75	10	1260	0	631	1706	196	2	222	2757	1497
II.06	687	4	405	3	89	14	1202	0	527	1531	138	1	158	2355	1153
III.06	696	7	541	11	112	25	1392	1	425	1405	123	0	128	2082	690
IV.06	613	2	548	43	113	139	1458	1	421	1050	106	0	12	1590	132
V.06	374	2	622	25	140	86	1249	11	485	638	112	0	6	1252	3
VI.06	694	0	687	49	113	98	1641	0	428	899	62	0	25	1414	-227
VII.06	511	4	823	37	131	108	1614	28	392	898	12	0	73	1403	-211
VIII.06	489	3	652	26	137	96	1403	20	123	843	181	0	56	1223	-180
IX.06	486	0	358	51	114	65	1074	12	649	1108	58	0	85	1912	838
X.06	615	0	277	47	133	90	1162	1	672	1449	39	0	112	2273	1111
XI.06	610	1	322	125	124	52	1234	5	575	1360	6	0	46	1992	758
XII.06	775	0	188	46	134	50	1193	3	811	1912	29	0	139	2894	1701
2006	**7304**	**23**	**5842**	**465**	**1415**	**833**	**15882**	**82**	**6139**	**14799**	**1062**	**3**	**1062**	**23147**	**7265**
I.10	861	12	510	31	106	127	1647	0	735	1663	15	0	35	2448	801
II.10	747	4	419	35	102	146	1453	0	718	1513	7	0	36	2274	821
III.10	814	5	415	36	119	104	1493	0	620	1675	5	0	33	2333	840
IV.10	703	4	249	42	112	80	1190	1	690	1577	69	0	55	2392	1202
V.10	614	54	596	83	125	111	1583	1	367	1000	60	0	30	1458	-125
VI.10	486	40	804	115	119	204	1768	4	323	701	16	0	10	1054	-714
VII.10	461	5	544	201	127	337	1675	17	624	853	9	0	0	1503	-172
VIII.10	450	27	702	168	93	170	1610	14	382	733	14	2	6	1151	-459
IX.10	623	23	617	140	104	233	1740	6	449	969	27	0	1	1452	-288
X.10	615	1	539	113	91	364	1723	6	767	1178	65	0	3	2019	296
XI.10	724	10	562	37	118	130	1581	1	555	1376	149	0	72	2153	572
XII.10	817	67	793	13	112	5	1807	3	315	1467	205	0	303	2293	486
2010	**7915**	**252**	**6750**	**1014**	**1328**	**2011**	**19270**	**53**	**6545**	**14705**	**641**	**2**	**584**	**22530**	**3260**
I.11	885	15	788	28	97	28	1841	1	558	1589	158	0	169	2475	634
II.11	827	0	442	53	78	111	1511	1	720	1653	54	0	27	2455	944
III.11	771	3	447	41	102	111	1475	2	741	1644	75	0	82	2544	1069
IV.11	596	12	386	48	82	127	1251	5	797	1285	59	0	33	2179	928
V.11	357	12	549	68	93	274	1353	3	886	820	113	1	6	1829	476
VI.11	617	20	647	67	109	220	1680	1	588	959	103	0	13	1664	-16
VII.11	430	9	382	221	108	344	1494	20	850	1037	14	0	3	1924	430
VIII.11	436	5	514	228	1	185	1369	23	795	1006	11	0	11	1846	477
IX.11	275	7	358	321	68	163	1192	41	853	1012	7	8	18	1939	747
X.11	745	4	509	178	112	242	1790	2	919	1366	41	0	18	2346	556
XI.11	720	0	113	191	118	327	1469	1	1066	1685	23	0	7	2782	1313
XII.11	699	0	222	186	104	249	1460	4	1282	1867	39	1	15	3208	1748
2011	**7358**	**87**	**5357**	**1630**	**1072**	**2381**	**17885**	**104**	**10055**	**15923**	**697**	**10**	**402**	**27191**	**9306**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	7452 7684 9404
Hydraulic net generation	GWh	Σ	2006 2010 2011	5857 7870 4290
Other renewable net generation [1]	GWh	Σ	2006 2010 2011	0 0 0
- of which wind [1]	GWh	Σ	2006 2010 2011	0 0 0
- of which solar [1]	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	13309 15554 13694
Sum of physical inside flows	GWh	Σ	2006 2010 2011	3015 3056 3780
Sum of physical outside flows	GWh	Σ	2006 2010 2011	5123 6886 3855
Total exchange balance	GWh	Σ	2006 2010 2011	-2200 -3827 -1487
Consumption of pumps	GWh	Σ	2006 2010 2011	0 2 21
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	11109 11725 12186
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 21.12.11	1162 1220 1205
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 21.12.11	1644 1812 1797
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 21.12.11	1826 2051 1997
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 21.12.11	18:00 18:00 18:00

Physical exchanges in interconnected operation [1]

Bosnia-Herzegovina | GWh

MM_YY	BA→CS	BA→HR	BA→ME	BA→RS	Sum_ OF	HR→CS	HR→BA	ME→BA	RS→BA	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	159	352			511	106	62			168	-343
II.06	101	298			399	127	76			203	-196
III.06	7	391			398	80	64			144	-254
IV.06	100	395			495	87	64			151	-344
V.06	105	352			457	208	51			259	-198
VI.06	60	320			380	264	65			329	-51
VII.06	94	361			455	230	25			255	-200
VIII.06	170	259			429	220	41			261	-168
IX.06	163	206			369	200	46			246	-123
X.06	191	242			433	252	58			310	-123
XI.06	184	234			418	252	53			305	-113
XII.06	142	237			379	315	69			384	5
2006	**1476**	**3647**			**5123**	**2341**	**674**			**3015**	**-2108**
I.10		426	258	71	755		97	46	29	172	-583
II.10		465	181	30	676		53	44	54	151	-525
III.10		520	178	38	736		61	50	32	143	-593
IV.10		448	61	20	529		67	57	64	188	-341
V.10		528	74	54	656		69	55	22	146	-510
VI.10		373	77	7	457		57	89	114	260	-197
VII.10		207	155	7	369		115	33	247	395	26
VIII.10		111	210	8	329		206	10	209	425	96
IX.10		229	139	12	380		121	26	211	358	-22
X.10		400	62	14	476		99	42	197	338	-138
XI.10		522	70	32	624		86	78	95	259	-365
XII.10		698	132	69	899		78	98	45	221	-678
2010		**4927**	**1597**	**362**	**6886**		**1109**	**628**	**1319**	**3056**	**-3830**
I.11		504	156	28	688		76	61	100	237	-451
II.11		301	149	19	469		100	43	142	285	-184
III.11		472	133	7	612		74	42	177	293	-319
IV.11		375	66	7	448		79	67	243	389	-59
V.11		417	43	8	468		64	74	207	345	-123
VI.11		335	54	11	400		45	46	193	284	-116
VII.11		272	122	15	409		90	29	167	286	-123
VIII.11		175	206	31	412		171	9	174	354	-58
IX.11		207	168	21	396		151	10	253	414	18
X.11		246	134	29	409		112	18	139	269	-140
XI.11		143	277	49	469		285	3	182	470	1
XII.11		92	313	91	496		375	5	181	561	65
2011		**3539**	**1821**	**316**	**5676**		**1622**	**407**	**2158**	**4187**	**-1489**

[1] These physical energy flows were measured on the cross-frontier transmission lines (≥110 kV). These values may differ from the official statistics and the total physical balance in the table "Monthly values / Operation".

Belgium

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	44315 45729 45943
Fossil fuels net generation	GWh	Σ	2006 2010 2011	32567 36770 28996
Hydraulic net generation	GWh	Σ	2006 2010 2011	1613 1646 1410
Other renewable net generation	GWh	Σ	2006 2010 2011	3400 7286 9279
- of which wind	GWh	Σ	2006 2010 2011	359 1286 2307
- of which solar	GWh	Σ	2006 2010 2011	n.a. 556 1493
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	81895 91431 85628
Sum of physical inside flows	GWh	Σ	2006 2010 2011	18729 12395 13189
Sum of physical outside flows	GWh	Σ	2006 2010 2011	8697 11844 10652
Total exchange balance	GWh	Σ	2006 2010 2011	10157 551 2537
Consumption of pumps	GWh	Σ	2006 2010 2011	1690 1786 1629
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	90362 90196 86536
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 19.01.11	10350 11066 10174
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 19.01.11	12770 13390 13246
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 19.01.11	13385 14039 13881
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 19.01.11	18:00 19:00 19:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

MM_YY	BE→FR	BE→LU	BE→NL	Sum_ OF	FR→BE	LU→BE	NL→BE	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	320	147	64	531	296	222	888	1406	875
II.06	564	127	29	720	127	130	1118	1375	655
III.06	446	147	27	620	265	227	1275	1767	1147
IV.06	11	139	412	562	1032	201	419	1652	1090
V.06	15	162	443	620	1114	223	323	1660	1040
VI.06	23	161	771	955	1230	239	190	1659	704
VII.06	52	179	801	1032	1272	226	137	1635	603
VIII.06	30	85	860	975	1456	192	6	1654	679
IX.06	15	132	790	937	1468	202	75	1745	808
X.06	46	146	521	713	1062	186	120	1368	655
XI.06	89	143	222	454	952	208	303	1463	1009
XII.06	370	129	79	578	370	226	749	1345	767
2006	**1981**	**1697**	**5019**	**8697**	**10644**	**2482**	**5603**	**18729**	**10032**
I.10	805	96	111	1012	111	160	947	1218	206
II.10	601	88	258	947	84	153	670	907	-40
III.10	610	104	326	1040	140	157	623	920	-120
IV.10	449	108	264	821	153	142	456	751	-70
V.10	596	133	428	1157	155	102	586	843	-314
VI.10	117	73	745	935	566	160	326	1052	117
VII.10	178	100	841	1119	380	154	246	780	-339
VIII.10	126	52	1168	1346	478	152	183	813	-533
IX.10	248	103	571	922	359	145	392	896	-26
X.10	849	108	200	1157	80	173	1067	1320	163
XI.10	499	99	282	880	222	154	828	1204	324
XII.10	324	59	124	507	320	195	1068	1583	1076
2010	**5402**	**1123**	**5318**	**11843**	**3048**	**1847**	**7392**	**12287**	**444**
I.11	145	112	292	549	633	169	559	1361	812
II.11	99	101	212	412	565	157	425	1147	735
III.11	120	100	401	621	769	166	484	1419	798
IV.11	156	99	586	841	628	155	235	1018	177
V.11	139	124	878	1141	724	154	118	996	-145
VI.11	65	123	1011	1199	1035	171	85	1291	92
VII.11	102	138	1109	1349	812	144	144	1100	-249
VIII.11	111	111	1110	1332	656	14	181	851	-481
IX.11	81	157	804	1042	631	0	243	874	-168
X.11	389	107	240	736	209	36	673	918	182
XI.11	461	79	187	727	220	186	639	1045	318
XII.11	461	69	180	710	236	181	735	1152	442
2011	**2329**	**1320**	**7010**	**10659**	**7118**	**1533**	**4521**	**13172**	**2513**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Bulgaria

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	18957 14181 15172
Fossil fuels net generation	GWh	Σ	2006 2010 2011	20480 21084 25889
Hydraulic net generation	GWh	Σ	2006 2010 2011	4497 5431 3542
Other renewable net generation	GWh	Σ	2006 2010 2011	0 331 540
- of which wind	GWh	Σ	2006 2010 2011	0 331 540
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	43934 41027 45143
Sum of physical inside flows	GWh	Σ	2006 2010 2011	1138 1178 1493
Sum of physical outside flows	GWh	Σ	2006 2010 2011	8875 9278 12000
Total exchange balance	GWh	Σ	2006 2010 2011	-7806 -8517 -10726
Consumption of pumps	GWh	Σ	2006 2010 2011	456 973 1184
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	35672 31537 33233
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 16.02.11	5004 4399 4407
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 20.01.10 16.02.11	6041 6076 5903
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	6340 6640 6395
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 16.02.11	20:00 19:00 20:00

Physical exchanges in interconnected operation [1]

Bulgaria | GWh

MM_YY	BG→CS	BG→GR	BG→MK	BG→RO	BG→RS	BG→TR	Sum_ OF	CS→BG	GR→BG	MK→BG	RO→BG	RS→BG	TR→BG	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	338	427	78	32		0	875	0	0	0	74		0	74	-801
II.06	332	422	73	40		0	867	0	0	0	55		0	55	-812
III.06	302	423	68	70		0	863	0	0	0	65		0	65	-798
IV.06	231	370	65	66		0	732	0	0	0	13		0	13	-719
V.06	225	202	46	55		0	528	0	0	0	41		0	41	-487
VI.06	183	403	92	82		0	760	0	0	0	70		0	70	-690
VII.06	158	392	69	84		0	703	0	0	0	85		0	85	-618
VIII.06	280	406	78	102		0	866	0	0	0	141		0	141	-725
IX.06	100	344	72	151		0	667	0	0	0	74		0	74	-593
X.06	152	318	71	26		0	567	0	0	0	85		0	85	-482
XI.06	223	350	72	2		0	647	0	0	0	248		0	248	-399
XII.06	313	411	76	0		0	800	0	0	0	187		0	187	-613
2006	**2837**	**4468**	**860**	**710**		**0**	**8875**	**0**	**0**	**0**	**1138**		**0**	**1138**	**-7737**
I.10		214	183	12	87	0	496		0	0	175	5	0	180	-316
II.10		227	202	27	124	0	580		1	0	85	0	0	86	-494
III.10		279	198	22	71	0	570		0	0	80	3	0	83	-487
IV.10		243	171	25	37	0	476		0	0	73	17	0	90	-386
V.10		167	139	118	24	0	448		0	0	62	33	0	95	-353
VI.10		345	258	167	148	0	918		0	0	2	0	0	2	-916
VII.10		458	387	93	226	0	1164		0	0	23	0	0	23	-1141
VIII.10		480	412	21	233	0	1146		0	0	115	0	0	115	-1031
IX.10		353	314	31	174	0	872		0	0	134	0	0	134	-738
X.10		220	216	72	193	0	701		0	0	239	0	0	239	-462
XI.10		245	245	36	226	209	961		0	0	76	0	12	88	-873
XII.10		222	228	53	251	192	946		0	0	42	0	1	43	-903
2010		**3453**	**2953**	**677**	**1794**	**401**	**9278**		**1**	**0**	**1106**	**58**	**13**	**1178**	**-8100**
I.11		230	233	16	189	191	859		0	0	133	0	1	134	-725
II.11		250	253	14	222	223	962		0	0	158	0	0	158	-804
III.11		240	244	10	192	197	883		0	0	191	0	0	191	-692
IV.11		227	245	23	261	204	960		0	0	83	0	0	83	-877
V.11		163	219	155	244	219	1000		0	0	78	0	2	80	-920
VI.11		224	224	108	219	151	926		0	0	10	0	1	11	-915
VII.11		302	281	70	191	419	1263		0	0	50	0	0	50	-1213
VIII.11		305	230	16	184	352	1087		0	0	138	0	44	182	-905
IX.11		233	254	44	225	314	1070		0	0	99	0	0	99	-971
X.11		186	190	75	175	290	916		0	0	171	0	0	171	-745
XI.11		225	267	22	243	255	1012		0	0	181	0	0	181	-831
XII.11		238	278	15	276	255	1062		0	0	153	0	0	153	-909
2011		**2823**	**2918**	**568**	**2621**	**3070**	**12000**		**0**	**0**	**1445**	**0**	**48**	**1493**	**-10507**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	26244 25205 25560
Fossil fuels net generation	GWh	Σ	2006 2010 2011	2282 2208 2107
Hydraulic net generation	GWh	Σ	2006 2010 2011	32558 37450 33795
Other renewable net generation	GWh	Σ	2006 2010 2011	1059 1389 1419
- of which wind	GWh	Σ	2006 2010 2011	6 24 60
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	62143 66252 62881
Sum of physical inside flows	GWh	Σ	2006 2010 2011	32742 32640 34090
Sum of physical outside flows	GWh	Σ	2006 2010 2011	29040 30930 30312
Total exchange balance	GWh	Σ	2006 2010 2011	3800 1951 4024
Consumption of pumps	GWh	Σ	2006 2010 2011	2720 2494 2466
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 [2] 2010 [2] 2011 [2]	63223 65709 64439
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.03.06 15.12.10 21.12.11	7717 8381 7432
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.01.11	10049 10532 9910
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 21.01.11	10218 10835 10161
Time of highest load on the 3rd Wednesday		CET	15.02.06 15.12.10 21.01.11	10:00 18:00 18:00

[1] Including deliveries from industry

[2] Calculations based on the ENTSO-E database differ from the official values of the Swiss Federal Office of Energy.

Physical exchanges in interconnected operation [1]

Switzerland | GWh

MM_YY	CH→AT	CH→DE	CH→FR	CH→IT	Sum_ OF	AT→CH	DE→CH	FR→CH	IT→CH	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	0	120	439	1058	1617	754	1639	784	149	3326	1709
II.06	0	110	509	1089	1708	687	1523	627	129	2966	1258
III.06	1	92	365	1412	1870	696	1426	870	98	3090	1220
IV.06	1	202	5	2164	2372	613	961	1151	0	2725	353
V.06	11	438	36	2062	2547	374	539	960	2	1875	-672
VI.06	0	234	62	2179	2475	694	962	642	5	2303	-172
VII.06	28	520	271	2118	2937	511	698	525	29	1763	-1174
VIII.06	20	292	28	1756	2096	489	698	1031	2	2220	124
IX.06	12	406	100	2230	2748	486	807	968	1	2262	-486
X.06	1	208	72	2738	3019	615	1207	1192	5	3019	0
XI.06	5	202	55	2472	2734	610	1377	1355	1	3343	609
XII.06	3	93	214	2607	2917	775	1857	1217	1	3850	933
2006	**82**	**2917**	**2156**	**23885**	**29040**	**7304**	**13694**	**11322**	**422**	**32742**	**3702**
I.10	0	90	652	1686	2428	861	1656	745	52	3314	886
II.10	0	57	426	1903	2386	747	1660	840	27	3274	888
III.10	0	90	324	2185	2599	814	1713	1084	45	3656	1057
IV.10	1	143	147	2126	2417	703	1260	924	44	2931	514
V.10	1	270	276	2003	2550	614	639	672	60	1985	-565
VI.10	4	548	165	1953	2670	486	486	748	65	1785	-885
VII.10	17	428	362	2503	3310	461	781	641	27	1910	-1400
VIII.10	14	406	246	1730	2396	450	795	786	9	2040	-356
IX.10	6	216	377	1784	2383	623	1146	783	17	2569	186
X.10	6	124	697	2043	2870	615	1520	858	16	3009	139
XI.10	1	106	543	1817	2467	724	1433	902	27	3086	619
XII.10	3	103	905	1443	2454	817	1464	696	104	3081	627
2010	**53**	**2581**	**5120**	**23176**	**30930**	**7915**	**14553**	**9679**	**493**	**32640**	**1710**
I.11	1	71	461	2058	2591	885	1640	1037	40	3602	1011
II.11	1	55	242	2328	2626	827	1754	1068	18	3667	1041
III.11	2	128	153	2108	2391	771	1627	1173	92	3663	1272
IV.11	5	288	15	2053	2361	596	948	1113	46	2703	342
V.11	3	422	26	1800	2251	357	744	980	33	2114	-137
VI.11	1	345	74	1897	2317	617	647	867	82	2213	-104
VII.11	20	504	78	2343	2945	430	672	947	21	2070	-875
VIII.11	23	230	115	1527	1895	436	793	842	36	2107	212
IX.11	41	351	216	1690	2298	275	592	883	25	1775	-523
X.11	2	137	129	2686	2954	745	1230	983	13	2971	17
XI.11	1	132	167	2563	2863	720	1579	1164	14	3477	614
XII.11	4	99	158	2559	2820	699	1774	1244	11	3728	908
2011	**104**	**2762**	**1834**	**25612**	**30312**	**7358**	**14000**	**12301**	**431**	**34090**	**3778**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	24499 26441 26709
Fossil fuels net generation	GWh	Σ	2006 2010 2011	49972 48713 48998
Hydraulic net generation	GWh	Σ	2006 2010 2011	3244 3380 2821
Other renewable net generation	GWh	Σ	2006 2010 2011	175 948 2500
- of which wind	GWh	Σ	2006 2010 2011	49 334 384
- of which solar	GWh	Σ	2006 2010 2011	n.a. 604 2115
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	77890 79482 81028
Sum of physical inside flows	GWh	Σ	2006 2010 2011	11463 6682 10454
Sum of physical outside flows	GWh	Σ	2006 2010 2011	24092 21579 27499
Total exchange balance	GWh	Σ	2006 2010 2011	-12632 -14949 -17044
Consumption of pumps	GWh	Σ	2006 2010 2011	950 797 944
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	64308 63736 63040
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	8353 7989 7524
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	9722 9944 9560
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	10095 10307 9672
Time of highest load on the 3rd Wednesday		CET	18.01.06 15.12.10 16.02.11	17:00 17:00 16:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

Czech Republic | GWh

MM_YY	CZ→AT	CZ→DE	CZ→PL	CZ→SK	Sum_ OF	AT→CZ	DE→CZ	PL→CZ	SK→CZ	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	631	1027	0	495	2153	0	111	1174	107	1392	-761
II.06	527	1015	0	445	1987	4	93	1043	69	1209	-778
III.06	425	1300	1	371	2097	7	2	1025	97	1131	-966
IV.06	421	1083	1	287	1792	2	1	831	63	897	-895
V.06	485	1101	8	316	1910	2	0	781	80	863	-1047
VI.06	428	1004	8	317	1757	0	0	584	49	633	-1124
VII.06	392	1090	10	408	1900	4	1	558	39	602	-1298
VIII.06	123	1035	12	597	1767	3	5	538	34	580	-1187
IX.06	649	754	1	457	1861	0	11	695	6	712	-1149
X.06	672	769	0	627	2068	0	97	866	29	992	-1076
XI.06	575	927	1	743	2246	1	121	1043	14	1179	-1067
XII.06	811	949	0	794	2554	0	205	1043	25	1273	-1281
2006	**6139**	**12054**	**42**	**5857**	**24092**	**23**	**647**	**10181**	**612**	**11463**	**-12629**
I.10	735	971	4	409	2119	12	41	521	24	598	-1521
II.10	718	831	2	475	2026	4	35	643	6	688	-1338
III.10	620	1100	4	421	2145	5	17	511	16	549	-1596
IV.10	690	783	3	457	1933	4	17	451	19	491	-1442
V.10	367	484	18	346	1215	54	47	360	28	489	-726
VI.10	323	632	25	306	1286	40	42	260	34	376	-910
VII.10	624	688	8	861	2181	5	53	442	1	501	-1680
VIII.10	382	560	14	431	1387	27	78	322	22	449	-938
IX.10	449	682	28	591	1750	23	45	416	6	490	-1260
X.10	767	726	11	677	2181	1	92	618	7	718	-1463
XI.10	555	845	5	388	1793	10	78	550	54	692	-1101
XII.10	315	1098	14	136	1563	67	19	406	149	641	-922
2010	**6545**	**9400**	**136**	**5498**	**21579**	**252**	**564**	**5500**	**366**	**6682**	**-14897**
I.11	558	1309	10	197	2074	15	6	440	73	534	-1540
II.11	720	819	6	442	1987	0	116	582	19	717	-1270
III.11	741	1033	5	466	2245	3	63	698	49	813	-1432
IV.11	797	839	6	434	2076	12	73	580	32	697	-1379
V.11	886	800	6	451	2143	12	38	514	26	590	-1553
VI.11	588	754	6	430	1778	20	18	473	21	532	-1246
VII.11	850	415	1	879	2145	9	226	866	6	1107	-1038
VIII.11	795	429	3	984	2211	5	95	821	0	921	-1290
IX.11	853	512	2	689	2056	7	221	577	1	806	-1250
X.11	919	887	0	928	2734	4	164	772	1	941	-1793
XI.11	1066	709	0	990	2765	0	291	921	0	1212	-1553
XII.11	1282	902	0	1101	3285	0	575	1009	0	1584	-1701
2011	**10055**	**9408**	**45**	**7991**	**27499**	**87**	**1886**	**8253**	**228**	**10454**	**-17045**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	158725 133373 101458
Fossil fuels net generation	GWh	Σ	2006 2010 2011	359126 344278 350456
Hydraulic net generation	GWh	Σ	2006 2010 2011	23997 21698 19853
Other renewable net generation	GWh	Σ	2006 2010 2011	45964 73801 86123
- of which wind	GWh	Σ	2006 2010 2011	32295 36665 44641
- of which solar	GWh	Σ	2006 2010 2011	n.a. 10874 18341
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	587812 573150 557890
Sum of physical inside flows	GWh	Σ	2006 2010 2011	46140 42171 49722
Sum of physical outside flows	GWh	Σ	2006 2010 2011	65912 59878 55988
Total exchange balance	GWh	Σ	2006 2010 2011	-19771 -17707 -6276
Consumption of pumps	GWh	Σ	2006 2010 2011	8963 8021 7347
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	559078 547422 544267
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.11.11	59000 65661 54573
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 19.01.11	78574 80694 78280
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 16.11.11	80750 83090 80593
Time of highest load on the 3rd Wednesday		CET	15.02.06 15.12.10 16.11.11	19:00 18:00 18:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

Germany | GWh

MM_YY	DE→AT	DE→CH	DE→CZ	DE→DK	DE→DK_W	DE→DK_E	DE→FR	DE→LU	DE→NL	DE→PL	DE→SE	Sum_OF	AT→DE	CH→DE	CZ→DE	DK→DE	DK_W→DE	DK_E→DE	FR→DE	LU→DE	NL→DE	PL→DE	SE→DE	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)												Inside flows (IF)												Balance
I.06	1706	1639	111		22	22	123	466	2486	303	23	6901	419	120	1027		770	291	534	69	0	9	233	3472	-3429
II.06	1531	1523	93		7	18	350	416	2322	279	25	6564	405	110	1015		723	297	275	61	0	7	272	3165	-3399
III.06	1405	1426	2		43	114	266	442	2759	231	147	6835	541	92	1300		585	179	436	64	0	13	131	3341	-3494
IV.06	1050	961	1		200	214	10	406	2113	56	258	5269	548	202	1083		244	68	1520	67	0	94	74	3900	-1369
V.06	638	539	0		258	72	5	426	2031	120	147	4236	622	438	1101		226	24	1666	76	1	44	112	4310	74
VI.06	899	962	0		265	225	20	416	1564	11	241	4603	687	234	1004		228	86	1567	72	8	212	76	4174	-429
VII.06	898	698	1		194	176	44	440	1178	153	136	3918	823	520	1090		247	166	1258	67	35	102	187	4495	577
VIII.06	843	698	5		437	360	0	392	929	78	339	4081	652	292	1035		46	13	2118	60	214	133	11	4574	493
IX.06	1108	807	11		236	233	4	422	1115	88	216	4240	358	406	754		122	29	1980	65	22	77	20	3833	-407
X.06	1449	1207	97		237	236	0	447	1478	287	186	5624	277	208	769		244	103	2051	72	2	30	51	3807	-1817
XI.06	1360	1377	121		69	161	0	434	1986	411	156	6075	322	202	927		376	171	1690	64	0	1	146	3899	-2176
XII.06	1912	1857	205		109	64	16	427	2375	531	70	7566	188	93	949		412	205	1077	67	1	0	178	3170	-4396
2006	**14799**	**13694**	**647**		**2077**	**1895**	**838**	**5134**	**22336**	**2548**	**1944**	**65912**	**5842**	**2917**	**12054**		**4223**	**1632**	**16172**	**804**	**283**	**722**	**1491**	**46140**	**-19772**
I.10	1663	1656	41	614			239	542	643	548	329	6275	510	90	971	205			576	116	239	3	1	2711	-3564
II.10	1513	1660	35	663			57	486	410	584	374	5782	419	57	831	115			910	104	247	0	0	2683	-3099
III.10	1675	1713	17	836			28	511	362	622	293	6057	415	90	1100	47			1308	103	555	0	1	3619	-2438
IV.10	1577	1260	17	465			7	518	881	584	85	5394	249	143	783	232			1244	129	114	0	32	2926	-2468
V.10	1000	639	47	296			52	562	1036	360	31	4023	596	270	484	411			920	155	209	10	230	3285	-738
VI.10	701	486	42	471			3	507	920	161	61	3352	804	548	632	240			1934	111	191	42	220	4722	1370
VII.10	853	781	53	439			6	482	943	525	139	4221	544	428	688	424			1690	82	138	5	199	4198	-23
VIII.10	733	795	78	583			0	435	576	405	127	3732	702	406	560	168			2408	77	291	25	102	4739	1007
IX.10	969	1146	45	594			6	470	584	254	254	4322	617	216	682	178			1507	89	327	16	41	3673	-649
X.10	1178	1520	92	423			168	521	330	513	224	4969	539	124	726	368			924	109	481	1	97	3369	-1600
XI.10	1376	1433	78	377			99	546	707	466	206	5288	562	106	845	257			1096	138	210	16	79	3309	-1979
XII.10	1467	1464	19	710			130	579	1550	312	232	6463	793	103	1098	62			609	148	70	49	5	2937	-3526
2010	**14705**	**14553**	**564**	**6471**			**795**	**6159**	**8942**	**5334**	**2355**	**59878**	**6750**	**2581**	**9400**	**2707**			**15126**	**1361**	**3072**	**167**	**1007**	**42171**	**-17707**
I.11	1589	1640	6	728			27	567	1578	207	191	6533	788	71	1309	97			1236	140	11	71	18	3741	-2792
II.11	1653	1754	116	511			18	540	1022	399	152	6165	442	55	819	123			1275	139	61	14	14	2942	-3223
III.11	1644	1627	63	538			15	566	989	291	126	5859	447	128	1033	140			1648	197	86	72	29	3780	-2079
IV.11	1285	948	73	350			16	515	730	319	43	4279	386	288	839	457			1819	123	228	27	22	4189	-90
V.11	820	744	38	248			0	440	279	160	13	2742	549	422	800	241			2232	49	542	121	23	4979	2237
VI.11	959	647	18	171			2	342	795	219	42	3195	647	345	754	519			2201	0	250	77	256	5049	1854
VII.11	1037	672	226	72			1	413	688	630	11	3750	382	504	415	540			2274	47	309	4	303	4778	1028
VIII.11	1006	793	95	80			10	452	555	413	10	3414	514	230	429	474			1937	79	424	16	293	4396	982
IX.11	1012	592	221	45			8	471	588	319	0	3256	358	351	512	540			1392	79	396	22	227	3877	621
X.11	1366	1230	164	47			35	512	764	636	11	4765	509	137	887	524			1149	101	321	6	165	3799	-966
XI.11	1685	1579	291	26			3	482	594	712	8	5380	113	132	709	674			1654	80	427	3	330	4122	-1258
XII.11	1867	1774	575	90			4	479	1007	833	21	6650	222	99	902	726			1498	90	166	0	367	4070	-2580
2011	**15923**	**14000**	**1886**	**2906**			**139**	**5779**	**9589**	**5138**	**628**	**55988**	**5357**	**2762**	**9408**	**5055**			**20315**	**1124**	**3221**	**433**	**2047**	**49722**	**-6266**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	37198
			2010	26294
			2011	21811
Hydraulic net generation	GWh	Σ	2006	23
			2010	23
			2011	19
Other renewable net generation	GWh	Σ	2006	6107
			2010	10445
			2011	11309
- of which wind	GWh	Σ	2006	6107
			2010	7813
			2011	8938
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1]	43328
			2010 [1]	36762
			2011 [1]	33139
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	10585
			2011	11647
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	11740
			2011	10276
Total exchange balance	GWh	Σ	2006	-6936
			2010	-1122
			2011	1319
Consumption of pumps	GWh	Σ	2006	0
			2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	36392
			2010	35640
			2011	34458
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	3653
			16.02.11	3502
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	5945
			16.02.11	5610
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	6312
			19.01.11	5897
Time of highest load on the 3rd Wednesday		CET		n.a.
			15.12.10	18:00
			19.01.11	18:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

Denmark | GWh

MM_YY	DK_W→DE	DK_E→DE	DK→DE	DK_W→NO	DK→NO	DK_W→SE	DK→SE	Sum_ OF	DE→DK_W	DE→DK_E	DE→DK	NO→DK_W	NO→DK	SE→DK_W	SE→DK	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)								Inside flows (IF)								Balance
I.06	770	291		84		71		1216	22	22		269		72		385	-831
II.06	723	297		50		67		1137	7	18		145		81		251	-886
III.06	585	179		179		158		1101	43	114		78		17		252	-849
IV.06	244	68		261		105		678	200	214		30		37		481	-197
V.06	226	24		203		107		560	258	72		53		83		466	-94
VI.06	228	86		180		164		658	265	225		87		20		597	-61
VII.06	247	166		138		87		638	194	176		143		90		603	-35
VIII.06	46	13		254		301		614	437	360		29		7		833	219
IX.06	122	29		240		212		603	236	233		32		9		510	-93
X.06	244	103		236		173		756	237	236		57		68		598	-158
XI.06	376	171		196		193		936	69	161		78		30		338	-598
XII.06	412	205		303		105		1025	109	64		126		75		374	-651
2006	**4223**	**1632**		**2324**		**1743**		**9922**	**2077**	**1895**		**1127**		**589**		**5688**	**-4234**
I.10			205		384		680	1269			614		130		3	747	-522
II.10			115		479		790	1384			663		49		2	714	-670
III.10			47		629		796	1472			836		2		7	845	-627
IV.10			232		420		290	942			465		34		126	625	-317
V.10			411		337		44	792			296		124		535	955	163
VI.10			240		243		38	521			471		117		697	1285	764
VII.10			424		163		86	673			439		277		647	1363	690
VIII.10			168		155		132	455			583		204		357	1144	689
IX.10			178		159		467	804			594		214		62	870	66
X.10			368		241		461	1070			423		184		98	705	-365
XI.10			257		352		359	968			377		89		117	583	-385
XII.10			62		493		835	1390			710		34		5	749	-641
2010			**2707**		**4055**		**4978**	**11740**			**6471**		**1458**		**2656**	**10585**	**-1155**
I.11			97		599		739	1435			728		6		31	765	-670
II.11			123		535		775	1433			511		8		19	538	-895
III.11			140		586		555	1281			538		10		49	597	-684
IV.11			457		304		257	1018			350		156		388	894	-124
V.11			241		190		115	546			248		203		337	788	242
VI.11			519		19		33	571			171		173		774	1118	547
VII.11			540		0		46	586			72		531		821	1424	838
VIII.11			474		6		27	507			80		632		693	1405	898
IX.11			540		0		8	548			45		561		783	1389	841
X.11			524		9		46	579			47		517		375	939	360
XI.11			674		12		86	772			26		506		393	925	153
XII.11			726		154		120	1000			90		297		478	865	-135
2011			**5055**		**2414**		**2807**	**10276**			**2906**		**3600**		**5141**	**11647**	**1371**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	n.a.
			2010	10465
			2011	10271
Hydraulic net generation	GWh	Σ	2006	n.a.
			2010	27
			2011	33
Other renewable net generation	GWh	Σ	2006	n.a.
			2010	836
			2011	1085
- of which wind	GWh	Σ	2006	n.a.
			2010	276
			2011	364
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	11328
			2011	11389
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	1743
			2011	1517
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	4947
			2011	4986
Total exchange balance	GWh	Σ	2006	n.a.
			2010	-3317
			2011	-3562
Consumption of pumps	GWh	Σ	2006	n.a.
			2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	8011
			2011	7827
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	1038
			16.02.11	1098
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	1445
			16.02.11	1450
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	1495
			16.02.11	1495
Time of highest load on the 3rd Wednesday		CET		n.a.
			20.01.10	17:00
			16.02.11	9:00

Physical exchanges in interconnected operation [1]

MM_YY	EE→FI	EE→LV	EE→RU	Sum_OF	FI→EE	LV→EE	RU→EE	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**7**	**n.a.**	**n.a.**	**n.a.**	**4**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.10	213	116	8	337	0	8	149	157	-180
II.10	223	126	7	356	0	1	134	135	-221
III.10	246	126	12	384	0	13	92	105	-279
IV.10	222	90	7	319	1	15	196	212	-107
V.10	172	151	36	359	24	1	77	102	-257
VI.10	121	232	60	413	24	0	63	87	-326
VII.10	90	337	34	461	31	0	102	133	-328
VIII.10	45	284	45	374	61	0	46	107	-267
IX.10	66	314	27	407	65	0	85	150	-257
X.10	101	323	31	455	30	0	114	144	-311
XI.10	200	251	10	461	10	0	144	154	-307
XII.10	268	345	8	621	0	0	257	257	-364
2010	**1967**	**2695**	**285**	**4947**	**246**	**38**	**1459**	**1743**	**-3204**
I.11	254	207	10	471	0	0	113	113	-358
II.11	171	176	7	354	0	0	145	145	-209
III.11	264	142	19	425	0	2	98	100	-325
IV.11	245	74	17	336	1	22	183	206	-130
V.11	194	179	22	395	1	0	144	145	-250
VI.11	138	290	45	473	8	0	91	99	-374
VII.11	40	347	67	454	90	0	51	141	-313
VIII.11	73	244	88	405	26	0	26	52	-353
IX.11	20	265	125	410	118	2	29	149	-261
X.11	15	317	93	425	169	0	48	217	-208
XI.11	104	239	109	452	34	0	48	82	-370
XII.11	139	153	94	386	33	0	35	68	-318
2011	**1657**	**2633**	**696**	**4986**	**480**	**26**	**1011**	**1517**	**-3469**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	57417 59310 55050
Fossil fuels net generation	GWh	Σ	2006 2010 2011	148906 114052 121327
Hydraulic net generation	GWh	Σ	2006 2010 2011	28884 44617 32173
Other renewable net generation	GWh	Σ	2006 2010 2011	26782 55057 55594
- of which wind	GWh	Σ	2006 2010 2011	22737 43357 41661
- of which solar	GWh	Σ	2006 2010 2011	n.a. 6718 9597
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 364 341
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	268007 273400 264485
Sum of physical inside flows	GWh	Σ	2006 2010 2011	9120 5214 7935
Sum of physical outside flows	GWh	Σ	2006 2010 2011	11859 13117 13656
Total exchange balance	GWh	Σ	2006 2010 2011	-3280 -8333 -6127
Consumption of pumps	GWh	Σ	2006 2010 2011	5262 4458 3368
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	259465 260609 254990
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 21.07.10 19.01.11	27472 25404 25119
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	40658 40073 39181
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	42744 41455 40073
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 16.02.11	19:00 20:00 20:00

Physical exchanges in interconnected operation [1]

MM_YY	ES→FR	ES→PT	ES→MA	Sum_ OF	FR→ES	PT→ES	MA→ES	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	121	914	84	1119	582	223	6	811	-308
II.06	166	806	156	1128	338	251	2	591	-537
III.06	265	824	158	1247	165	330	3	498	-749
IV.06	86	541	116	743	527	271	4	802	59
V.06	13	727	0	740	700	196	0	896	156
VI.06	63	812	105	980	579	151	1	731	-249
VII.06	163	775	103	1041	427	254	3	684	-357
VIII.06	43	643	209	895	687	299	0	986	91
IX.06	37	808	215	1060	677	110	0	787	-273
X.06	78	783	206	1067	595	258	5	858	-209
XI.06	208	502	220	930	327	357	1	685	-245
XII.06	236	346	327	909	306	483	2	791	-118
2006	**1479**	**8481**	**1899**	**11859**	**5910**	**3183**	**27**	**9120**	**-2739**
I.10	468	336	195	999	122	617	2	741	-258
II.10	371	416	78	865	47	350	9	406	-459
III.10	440	385	161	986	91	358	12	461	-525
IV.10	363	323	346	1032	36	287	0	323	-709
V.10	239	345	338	922	107	291	0	398	-524
VI.10	229	534	402	1165	246	122	0	368	-797
VII.10	186	671	438	1295	220	100	0	320	-975
VIII.10	75	691	486	1252	458	80	0	538	-714
IX.10	200	603	491	1294	279	87	0	366	-928
X.10	300	689	498	1487	148	70	0	218	-1269
XI.10	201	456	301	958	183	232	1	416	-542
XII.10	440	218	204	862	54	596	9	659	-203
2010	**3512**	**5667**	**3938**	**13117**	**1991**	**3190**	**33**	**5214**	**-7903**
I.11	337	499	296	1132	113	465	3	581	-551
II.11	218	289	284	791	34	461	1	496	-295
III.11	443	498	321	1262	59	488	2	549	-713
IV.11	316	697	411	1424	163	197	0	360	-1064
V.11	165	386	409	960	308	436	0	744	-216
VI.11	132	542	406	1080	481	224	0	705	-375
VII.11	93	674	499	1266	570	240	0	810	-456
VIII.11	50	580	521	1151	653	301	0	954	-197
IX.11	104	677	434	1215	456	231	0	687	-528
X.11	136	597	359	1092	485	255	0	740	-352
XI.11	250	526	268	1044	150	338	6	494	-550
XII.11	218	720	301	1239	521	292	2	815	-424
2011	**2462**	**6685**	**4509**	**13656**	**3993**	**3928**	**14**	**7935**	**-5721**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	22000 21884 22266
Fossil fuels net generation	GWh	Σ	2006 2010 2011	33890 30961 24167
Hydraulic net generation	GWh	Σ	2006 2010 2011	11300 12765 12279
Other renewable net generation	GWh	Σ	2006 2010 2011	11400 10646 10989
- of which wind	GWh	Σ	2006 2010 2011	200 293 482
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 711 692
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	78590 76967 70393
Sum of physical inside flows	GWh	Σ	2006 2010 2011	11521 16354 18489
Sum of physical outside flows	GWh	Σ	2006 2010 2011	n.a. 5878 4614
Total exchange balance	GWh	Σ	2006 2010 2011	11521 10500 13851
Consumption of pumps	GWh	Σ	2006 2010 2011	0 0 0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	90111 87467 84244
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10 16.02.11	n.a. 11501 12617
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10 16.02.11	n.a. 13591 13992
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10 16.02.11	n.a. 13923 14272
Time of highest load on the 3rd Wednesday		CET	15.12.10 16.02.11	n.a. 16:00 7:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

MM_YY	FI→EE	FI→NO	FI→SE	FI→RU	Sum_OF	EE→FI	NO→FI	SE→FI	RU→FI	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**7**	**84**	**3767**	**0**	**3858**	**4**	**150**	**3676**	**11549**	**15379**	**11521**
I.10	0	14	329	0	343	213	3	100	1065	1381	1038
II.10	0	21	557	0	578	223	0	157	932	1312	734
III.10	0	40	946	0	986	246	0	1	1060	1307	321
IV.10	1	36	881	0	918	222	0	11	934	1167	249
V.10	24	13	396	0	433	172	9	191	1019	1391	958
VI.10	24	5	296	0	325	121	4	189	976	1290	965
VII.10	31	5	36	0	72	90	38	698	494	1320	1248
VIII.10	61	0	43	0	104	45	24	570	990	1629	1525
IX.10	65	0	277	0	342	66	21	235	1023	1345	1003
X.10	30	1	502	0	533	101	11	174	1059	1345	812
XI.10	10	17	472	0	499	200	2	234	1031	1467	968
XII.10	0	10	735	0	745	268	3	76	1053	1400	655
2010	**246**	**162**	**5470**	**0**	**5878**	**1967**	**115**	**2636**	**11636**	**16354**	**10476**
I.11	0	15	722	0	737	254	1	89	1050	1394	657
II.11	0	22	373	0	395	171	1	222	936	1330	935
III.11	0	35	865	0	900	264	0	5	1040	1309	409
IV.11	1	19	617	0	637	245	1	22	1018	1286	649
V.11	1	3	427	0	431	194	12	63	1064	1333	902
VI.11	8	0	231	0	239	138	33	263	1034	1468	1229
VII.11	90	0	13	0	103	40	33	1080	571	1724	1621
VIII.11	26	5	11	0	42	73	6	1044	784	1907	1865
IX.11	118	5	23	0	146	20	6	972	983	1981	1835
X.11	169	0	91	0	260	15	19	849	646	1529	1269
XI.11	34	0	334	0	368	104	19	671	815	1609	1241
XII.11	33	23	300	0	356	139	0	656	824	1619	1263
2011	**480**	**127**	**4007**	**0**	**4614**	**1657**	**131**	**5936**	**10765**	**18489**	**13875**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

France

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	428674 407877 421118
Fossil fuels net generation	GWh	Σ	2006 2010 2011	53952 59453 51505
Hydraulic net generation	GWh	Σ	2006 2010 2011	60927 67995 50267
Other renewable net generation	GWh	Σ	2006 2010 2011	5521 14984 20059
- of which wind	GWh	Σ	2006 2010 2011	2222 9603 12075
- of which solar	GWh	Σ	2006 2010 2011	n.a. 562 2415
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	549074 550309 542950
Sum of physical inside flows	GWh	Σ	2006 2010 2011	8079 19950 9068
Sum of physical outside flows	GWh	Σ	2006 2010 2011	69868 48563 64185
Total exchange balance	GWh	Σ	2006 2010 2011	-63272 -30520 -56873
Consumption of pumps	GWh	Σ	2006 2010 2011	7442 6497 6834
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	478360 513292 479242
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	65988 78377 62648
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 19.01.11	76392 93188 78514
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 19.01.11	80966 96710 82450
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 19.01.11	19:00 19:00 19:00

Physical exchanges in interconnected operation [1]

France | GWh

MM_YY	FR→BE	FR→CH	FR→DE	FR→ES	FR→GB	FR→IT	Sum_OF	BE→FR	CH→FR	DE→FR	ES→FR	GB→FR	IT→FR	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	296	784	534	582	968	694	3858	320	439	123	121	81	122	1206	-2652
II.06	127	627	275	338	610	694	2671	564	509	350	166	191	103	1883	-788
III.06	265	870	436	165	1126	1042	3904	446	365	266	265	48	100	1490	-2414
IV.06	1032	1151	1520	527	1395	1614	7239	11	5	10	86	0	36	148	-7091
V.06	1114	960	1666	700	1318	1439	7197	15	36	5	13	0	42	111	-7086
VI.06	1230	642	1567	579	680	1366	6064	23	62	20	63	52	44	264	-5800
VII.06	1272	525	1258	427	741	1249	5472	52	271	44	163	72	54	656	-4816
VIII.06	1456	1031	2118	687	962	860	7114	30	28	0	43	20	32	153	-6961
IX.06	1468	968	1980	677	639	1395	7127	15	100	4	37	69	32	257	-6870
X.06	1062	1192	2051	595	941	1619	7460	46	72	0	78	31	36	263	-7197
XI.06	952	1355	1690	327	939	1546	6809	89	55	0	208	65	47	464	-6345
XII.06	370	1217	1077	306	610	1373	4953	370	214	16	236	270	78	1184	-3769
2006	**10644**	**11322**	**16172**	**5910**	**10929**	**14891**	**69868**	**1981**	**2156**	**838**	**1479**	**899**	**726**	**8079**	**-61789**
I.10	111	745	576	122	145	811	2510	805	652	239	468	797	115	3076	566
II.10	84	840	910	47	222	1057	3160	601	426	57	371	714	75	2244	-916
III.10	140	1084	1308	91	336	1171	4130	610	324	28	440	701	77	2180	-1950
IV.10	153	924	1244	36	381	1020	3758	449	147	7	363	314	83	1363	-2395
V.10	155	672	920	107	671	861	3386	596	276	52	239	186	55	1404	-1982
VI.10	566	748	1934	246	992	1230	5716	117	165	3	229	14	35	563	-5153
VII.10	380	641	1690	220	1033	1311	5275	178	362	6	186	21	66	819	-4456
VIII.10	478	786	2408	458	1297	839	6266	126	246	0	75	4	96	547	-5719
IX.10	359	783	1507	279	594	947	4469	248	377	6	200	122	48	1001	-3468
X.10	80	858	924	148	247	867	3124	849	697	168	300	599	111	2724	-400
XI.10	222	902	1096	183	548	957	3908	499	543	99	201	355	87	1784	-2124
XII.10	320	696	609	54	670	512	2861	324	905	130	440	282	164	2245	-616
2010	**3048**	**9679**	**15126**	**1991**	**7136**	**11583**	**48563**	**5402**	**5120**	**795**	**3512**	**4109**	**1012**	**19950**	**-28613**
I.11	633	1037	1236	113	736	1119	4874	145	461	27	337	221	138	1329	-3545
II.11	565	1068	1275	34	512	1206	4660	99	242	18	218	243	94	914	-3746
III.11	769	1173	1648	59	495	1261	5405	120	153	15	443	112	88	931	-4474
IV.11	628	1113	1819	163	483	1339	5545	156	15	16	316	27	67	597	-4948
V.11	724	980	2232	308	343	1131	5718	139	26	0	165	153	51	534	-5184
VI.11	1035	867	2201	481	568	1094	6246	65	74	2	132	7	55	335	-5911
VII.11	812	947	2274	570	666	1073	6342	102	78	1	93	0	56	330	-6012
VIII.11	656	842	1937	653	606	855	5549	111	115	10	50	7	86	379	-5170
IX.11	631	883	1392	456	355	925	4642	81	216	8	104	35	81	525	-4117
X.11	209	983	1149	485	249	1485	4560	389	129	35	136	139	54	882	-3678
XI.11	220	1164	1654	150	313	1506	5007	461	167	3	250	364	61	1306	-3701
XII.11	236	1244	1498	521	825	1313	5637	461	158	4	218	61	104	1006	-4631
2011	**7118**	**12301**	**20315**	**3993**	**6151**	**14307**	**64185**	**2329**	**1834**	**139**	**2462**	**1369**	**935**	**9068**	**-55117**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	n.a.
			2010	58203
			2011	64550
Fossil fuels net generation	GWh	Σ	2006	n.a.
			2010	254647
			2011	230036
Hydraulic net generation	GWh	Σ	2006	n.a.
			2010	5207
			2011	6661
Other renewable net generation	GWh	Σ	2006	n.a.
			2010	3327
			2011	9170
- of which wind	GWh	Σ	2006	n.a.
			2010	3327
			2011	9170
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	332569
			2011	328289
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	7136
			2011	8645
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	6408
			2011	3844
Total exchange balance	GWh	Σ	2006	n.a.
			2010	6185
			2011	4676
Consumption of pumps	GWh	Σ	2006	n.a.
			2010	3045
			2011	3850
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	335709
			2011	329115
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	37697
			21.12.11	36061
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	52261
			19.01.11	50237
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	59008
			19.01.11	56621
Time of highest load on the 3rd Wednesday		CET		n.a.
			15.12.10	18:00
			19.01.11	19:00

Physical exchanges in interconnected operation [1]

Great Britain | GWh

MM_YY	GB→FR	GB→NI	GB→NL	Sum_ OF	FR→GB	NI→GB	NL→GB	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	81	n.a.		n.a.	968	n.a.		n.a.	n.a.
II.06	191	n.a.		n.a.	610	n.a.		n.a.	n.a.
III.06	48	n.a.		n.a.	1126	n.a.		n.a.	n.a.
IV.06	0	n.a.		n.a.	1395	n.a.		n.a.	n.a.
V.06	0	n.a.		n.a.	1318	n.a.		n.a.	n.a.
VI.06	52	n.a.		n.a.	680	n.a.		n.a.	n.a.
VII.06	72	n.a.		n.a.	741	n.a.		n.a.	n.a.
VIII.06	20	n.a.		n.a.	962	n.a.		n.a.	n.a.
IX.06	69	n.a.		n.a.	639	n.a.		n.a.	n.a.
X.06	31	n.a.		n.a.	941	n.a.		n.a.	n.a.
XI.06	65	n.a.		n.a.	939	n.a.		n.a.	n.a.
XII.06	270	n.a.		n.a.	610	n.a.		n.a.	n.a.
2006	**899**	**n.a.**		**n.a.**	**10929**	**n.a.**		**n.a.**	**n.a.**
I.10	797	235		1032	145	0		145	-887
II.10	714	218		932	222	0		222	-710
III.10	701	248		949	336	0		336	-613
IV.10	314	190		504	381	0		381	-123
V.10	186	223		409	671	0		671	262
VI.10	14	82		96	992	0		992	896
VII.10	21	155		176	1033	0		1033	857
VIII.10	4	220		224	1297	0		1297	1073
IX.10	122	134		256	594	0		594	338
X.10	599	139		738	247	0		247	-491
XI.10	355	165		520	548	0		548	28
XII.10	282	290		572	670	0		670	98
2010	**4109**	**2299**		**6408**	**7136**	**0**		**7136**	**728**
I.11	221	300	0	521	736	0	0	736	215
II.11	243	235	0	478	512	0	0	512	34
III.11	112	262	0	374	495	0	0	495	121
IV.11	27	232	28	287	483	0	299	782	495
V.11	153	242	75	470	343	0	81	424	-46
VI.11	7	235	67	309	568	0	310	878	569
VII.11	0	154	26	180	666	0	402	1068	888
VIII.11	7	109	51	167	606	0	397	1003	836
IX.11	35	0	107	142	355	0	237	592	450
X.11	139	0	96	235	249	0	197	446	211
XI.11	364	0	219	583	313	0	121	434	-149
XII.11	61	0	37	98	825	0	450	1275	1177
2011	**1369**	**1769**	**706**	**3844**	**6151**	**0**	**2494**	**8645**	**4801**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	42653 37920 42431
Hydraulic net generation	GWh	Σ	2006 2010 2011	6449 7457 4254
Other renewable net generation	GWh	Σ	2006 2010 2011	1293 2503 3379
- of which wind	GWh	Σ	2006 2010 2011	1199 2062 2594
- of which solar	GWh	Σ	2006 2010 2011	n.a. 133 441
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	50395 47880 50064
Sum of physical inside flows	GWh	Σ	2006 2010 2011	6151 8523 7181
Sum of physical outside flows	GWh	Σ	2006 2010 2011	1936 2801 3932
Total exchange balance	GWh	Σ	2006 2010 2011	4203 5708 3231
Consumption of pumps	GWh	Σ	2006 2010 2011	610 37 380
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	53988 53551 52915
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	19.07.06 21.07.10 20.07.11	5280 6230 6723
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	21.06.06 21.07.10 20.07.11	8370 9279 9322
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	21.06.06 16.06.10 20.07.11	8586 9732 9868
Time of highest load on the 3rd Wednesday		CET	21.06.06 16.06.10 20.07.11	13:00 13:00 13:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

Greece | GWh

MM_YY	GR→BG	GR→IT	GR→MK	GR→AL	GR→TR	Sum_ OF	BG→GR	IT→GR	MK→GR	AL→GR	TR→GR	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)						Inside flows (IF)						Balance
I.06	0	169	1	125		295	427	4	56	0		487	192
II.06	0	50	1	125		176	422	0	58	0		480	304
III.06	0	222	0	92		314	423	0	117	0		540	226
IV.06	0	173	0	21		194	370	3	127	4		504	310
V.06	0	149	0	3		152	202	0	119	21		342	190
VI.06	0	19	1	43		63	403	4	109	1		517	454
VII.06	0	7	0	75		82	392	14	181	0		587	505
VIII.06	0	4	0	73		77	406	75	110	0		591	514
IX.06	0	34	1	61		96	344	48	80	0		472	376
X.06	0	50	8	109		167	318	69	79	0		466	299
XI.06	0	40	0	92		132	350	100	101	0		551	419
XII.06	0	28	0	160		188	411	138	65	0		614	426
2006	**0**	**945**	**12**	**979**		**1936**	**4468**	**455**	**1202**	**26**		**6151**	**4215**
I.10	0	312	0	19	0	331	214	2	286	22	0	524	193
II.10	1	200	0	13	0	214	227	1	312	14	0	554	340
III.10	0	206	0	1	0	207	279	15	357	77	0	728	521
IV.10	0	71	0	1	0	72	243	17	356	91	0	707	635
V.10	0	0	0	2	0	2	167	0	359	105	0	631	629
VI.10	0	41	0	17	0	58	345	11	507	26	0	889	831
VII.10	0	239	0	105	0	344	458	3	502	0	0	963	619
VIII.10	0	213	0	114	0	327	480	11	481	0	0	972	645
IX.10	0	163	0	112	0	275	353	1	308	0	109	771	496
X.10	0	282	6	59	0	347	220	5	120	14	230	589	242
XI.10	0	241	1	26	0	268	245	6	128	23	212	614	346
XII.10	0	331	1	24	0	356	222	0	141	33	185	581	225
2010	**1**	**2299**	**8**	**493**	**0**	**2801**	**3453**	**72**	**3857**	**405**	**736**	**8523**	**5722**
I.11	0	287	0	63	0	350	230	5	153	3	190	581	231
II.11	0	168	0	150	0	318	250	3	173	0	222	648	330
III.11	0	278	0	154	0	432	240	0	212	0	195	647	215
IV.11	0	96	3	192	0	291	227	0	134	0	201	562	271
V.11	0	103	19	270	0	392	163	2	85	0	219	469	77
VI.11	0	48	3	200	0	251	224	48	123	0	237	632	381
VII.11	0	116	0	154	0	270	302	13	208	0	230	753	483
VIII.11	0	157	0	173	0	330	305	4	232	0	186	727	397
IX.11	0	104	16	145	0	265	233	3	41	0	184	461	196
X.11	0	110	9	164	0	283	186	4	62	0	224	476	193
XI.11	0	135	35	226	0	396	225	85	23	0	268	601	205
XII.11	0	99	22	233	0	354	238	109	43	0	234	624	270
2011	**0**	**1701**	**107**	**2124**	**0**	**3932**	**2823**	**276**	**1489**	**3**	**2590**	**7181**	**3249**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	5264
			2010	4801
			2011	5161
Hydraulic net generation	GWh	Σ	2006	6082
			2010	8313
			2011	4583
Other renewable net generation	GWh	Σ	2006	24
			2010	135
			2011	217
- of which wind	GWh	Σ	2006	17
			2010	117
			2011	182
- of which solar	GWh	Σ	2006	n.a.
			2010	1
			2011	0
Non-identifiable net generation	GWh	Σ	2006	0
			2010	2
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1]	11370
			2010 [1]	13251
			2011 [1]	9961
Sum of physical inside flows	GWh	Σ	2006	13249
			2010	12359
			2011	14004
Sum of physical outside flows	GWh	Σ	2006	7577
			2010	7696
			2011	6318
Total exchange balance	GWh	Σ	2006	5619
			2010	4479
			2011	7710
Consumption of pumps	GWh	Σ	2006	179
			2010	136
			2011	173
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	16810
			2010	17594
			2011	17498
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06	1664
			15.12.10	1919
			19.01.11	1698
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06	2669
			15.12.10	2814
			21.12.11	2570
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06	2817
			15.12.10	3116
			21.12.11	2874
Time of highest load on the 3rd Wednesday		CET	20.12.06	18:00
			15.12.10	19:00
			21.12.11	18:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

MM_YY	HR→BA	HR→CS	HR→HU	HR→RS	HR→SI	Sum_OF	BA→HR	CS→HR	HU→HR	RS→HR	SI→HR	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)						Inside flows (IF)						Balance
I.06	62	0	0		762	824	352	350	551		14	1267	443
II.06	76	0	0		707	783	298	365	549		10	1222	439
III.06	64	7	1		724	796	391	384	510		19	1304	508
IV.06	64	9	0		799	872	395	319	454		17	1185	313
V.06	51	8	0		602	661	352	206	330		103	991	330
VI.06	65	7	0		484	556	320	220	371		181	1092	536
VII.06	25	0	0		493	518	361	182	365		139	1047	529
VIII.06	41	0	0		367	408	259	198	327		209	993	585
IX.06	46	0	0		373	419	206	167	334		132	839	420
X.06	58	0	0		512	570	242	214	486		94	1036	466
XI.06	53	0	0		503	556	234	192	583		79	1088	532
XII.06	69	0	0		545	614	237	208	701		39	1185	571
2006	**674**	**31**	**1**		**6871**	**7577**	**3647**	**3005**	**5561**		**1036**	**13249**	**5672**
I.10	97		0	0	614	711	426		299	145	190	1060	349
II.10	53		0	0	708	761	465		313	146	145	1069	308
III.10	61		0	11	751	823	520		203	149	200	1072	249
IV.10	67		1	2	656	726	448		138	174	179	939	213
V.10	69		15	0	585	669	528		46	153	260	987	318
VI.10	57		17	0	445	519	373		90	170	306	939	420
VII.10	115		0	0	333	448	207		331	159	357	1054	606
VIII.10	206		3	0	104	313	111		342	76	415	944	631
IX.10	121		1	1	340	463	229		339	86	322	976	513
X.10	99		0	0	492	591	400		522	133	48	1103	512
XI.10	86		4	0	693	783	522		308	160	136	1126	343
XII.10	78		52	0	759	889	698		114	189	89	1090	201
2010	**1109**		**93**	**14**	**6480**	**7696**	**4927**		**3045**	**1740**	**2647**	**12359**	**4663**
I.11	76		6	0	611	693	504		288	142	137	1071	378
II.11	100		0	1	464	565	301		490	85	178	1054	489
III.11	74		2	0	568	644	472		406	170	129	1177	533
IV.11	79		2	0	444	525	375		320	180	242	1117	592
V.11	64		0	0	366	430	417		344	189	329	1279	849
VI.11	45		0	0	352	397	335		286	152	294	1067	670
VII.11	90		0	1	313	404	272		467	81	329	1149	745
VIII.11	171		0	5	220	396	175		606	38	329	1148	752
IX.11	151		0	0	319	470	207		568	66	270	1111	641
X.11	112		0	4	382	498	246		565	64	286	1161	663
XI.11	285		0	25	259	569	143		845	8	327	1323	754
XII.11	375		0	60	292	727	92		984	1	270	1347	620
2011	**1622**		**10**	**96**	**4590**	**6318**	**3539**		**6169**	**1176**	**3120**	**14004**	**7686**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	12653 14830 14743
Fossil fuels net generation	GWh	Σ	2006 2010 2011	18745 16503 16755
Hydraulic net generation	GWh	Σ	2006 2010 2011	181 181 215
Other renewable net generation	GWh	Σ	2006 2010 2011	1169 2267 1786
- of which wind	GWh	Σ	2006 2010 2011	41 503 601
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	673 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	33421 33781 33499
Sum of physical inside flows	GWh	Σ	2006 2010 2011	15399 9897 14667
Sum of physical outside flows	GWh	Σ	2006 2010 2011	8185 4706 8018
Total exchange balance	GWh	Σ	2006 2010 2011	7208 5195 6643
Consumption of pumps	GWh	Σ	2006 2010 2011	0 0 0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	40629 38976 40142
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	4767 3969 3939
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	5871 5430 5514
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.11.11	6271 5937 5705
Time of highest load on the 3rd Wednesday		CET	18.01.06 15.12.10 16.11.11	16:00 17:00 18:00

Physical exchanges in interconnected operation [1]

Hungary | GWh

MM_YY	HU→AT	HU→CS	HU→HR	HU→RO	HU→RS	HU→SK	HU→UA-W	Sum_ OF	AT→HU	CS→HU	HR→HU	RO→HU	RS→HU	SK→HU	UA-W→HU	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)								Inside flows (IF)								Balance
I.06	196	141	551	1		0	0	889	2	0	0	155		813	498	1468	579
II.06	138	114	549	0		0	0	801	3	1	0	152		739	447	1342	541
III.06	123	79	510	0		0	0	712	11	2	1	204		699	426	1343	631
IV.06	106	35	454	0		0	2	597	43	12	0	145		615	380	1195	598
V.06	112	68	330	4		0	2	516	25	10	0	164		604	413	1216	700
VI.06	62	86	371	1		0	3	523	49	11	0	135		650	347	1192	669
VII.06	12	69	365	0		0	4	450	37	13	0	137		586	181	954	504
VIII.06	181	133	327	0		0	0	641	26	0	0	138		696	344	1204	563
IX.06	58	127	334	2		0	0	521	51	4	0	94		554	470	1173	652
X.06	39	139	486	11		0	0	675	47	0	0	59		759	475	1340	665
XI.06	6	213	583	6		0	2	810	125	0	0	29		824	425	1403	593
XII.06	29	316	701	4		0	0	1050	46	0	0	25		1053	445	1569	519
2006	**1062**	**1520**	**5561**	**29**		**0**	**13**	**8185**	**465**	**53**	**1**	**1437**		**8592**	**4851**	**15399**	**7214**
I.10	15		299	33	123	0	44	514	31		0	37	3	353	256	680	166
II.10	7		313	31	86	0	42	479	35		0	27	2	373	215	652	173
III.10	5		203	30	61	0	80	379	36		0	32	16	447	107	638	259
IV.10	69		138	12	6	0	11	236	42		1	82	63	517	83	788	552
V.10	60		46	14	0	0	48	168	83		15	90	158	339	89	774	606
VI.10	16		90	3	5	0	47	161	115		17	123	88	393	140	876	715
VII.10	9		331	2	1	0	2	345	201		0	143	70	602	214	1230	885
VIII.10	14		342	9	15	0	11	391	168		3	119	18	539	96	943	552
IX.10	27		339	5	9	0	23	403	140		1	144	35	447	118	885	482
X.10	65		522	0	51	0	14	652	113		0	165	6	558	284	1126	474
XI.10	149		308	4	32	3	33	529	37		4	114	26	280	241	702	173
XII.10	205		114	3	3	53	71	449	13		52	176	59	86	217	603	154
2010	**641**		**3045**	**146**	**392**	**56**	**426**	**4706**	**1014**		**93**	**1252**	**544**	**4934**	**2060**	**9897**	**5191**
I.11	158		288	1	22	4	43	516	28		6	137	33	365	265	834	318
II.11	54		490	4	55	0	8	611	53		0	87	4	569	235	948	337
III.11	75		406	5	16	0	11	513	41		2	108	48	516	241	956	443
IV.11	59		320	5	12	0	0	396	48		2	148	54	573	213	1038	642
V.11	113		344	1	10	0	2	470	68		0	159	50	576	356	1209	739
VI.11	103		286	8	5	1	6	409	67		0	91	51	435	316	960	551
VII.11	14		467	37	21	0	6	545	221		0	32	18	867	349	1487	942
VIII.11	11		606	49	60	0	14	740	228		0	27	3	799	270	1327	587
IX.11	7		568	13	43	0	9	640	321		0	50	4	652	356	1383	743
X.11	41		565	42	60	0	0	708	178		0	20	3	853	396	1450	742
XI.11	23		845	83	167	0	0	1118	191		0	6	0	869	390	1456	338
XII.11	39		984	92	225	0	12	1352	186		0	2	0	1046	385	1619	267
2011	**697**		**6169**	**340**	**696**	**5**	**111**	**8018**	**1630**		**10**	**867**	**268**	**8120**	**3772**	**14667**	**6649**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	n.a.
			2010	23025
			2011	20417
Hydraulic net generation	GWh	Σ	2006	n.a.
			2010	726
			2011	679
Other renewable net generation	GWh	Σ	2006	n.a.
			2010	2820
			2011	4359
- of which wind	GWh	Σ	2006	n.a.
			2010	2820
			2011	4359
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	n.a.
			2010	248
			2011	177
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010 [1]	26819
			2011 [1]	25632
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	744
			2011	733
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	293
			2011	243
Total exchange balance	GWh	Σ	2006	n.a.
			2010	469
			2011	490
Consumption of pumps	GWh	Σ	2006	n.a.
			2010	287
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	27001
			2011	26122
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	2906
			16.03.11	2876
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	3960
			19.01.11	3882
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	4664
			19.01.11	4528
Time of highest load on the 3rd Wednesday		CET		n.a.
			20.12.10	19:00
			19.01.11	19:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

MM_YY	IE→NI	Sum_OF	NI→IE	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)		Inside flows (IF)		Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.10	5	5	135	135	130
II.10	9	9	106 0	106	97
III.10	14	14	72 0	72	58
IV.10	19	19	50 0	50	31
V.10	3	3	102 0	102	99
VI.10	18	18	45 0	45	27
VII.10	41	41	24 0	24	-17
VIII.10	17	17	54 0	54	37
IX.10	73	73	15 0	15	-58
X.10	37	37	23 0	23	-14
XI.10	48	48	26 0	26	-22
XII.10	9	9	92 0	92	83
2010	**293**	**293**	**744**	**744**	**451**
I.11	17	17	71	71	54
II.11	16	16	65	65	49
III.11	11	11	92	92	81
IV.11	3	3	130	130	127
V.11	9	9	108	108	99
VI.11	3	3	103	103	100
VII.11	3	3	70	70	67
VIII.11	18	18	54	54	36
IX.11	20	20	24	24	4
X.11	38	38	10	10	-28
XI.11	48	48	3	3	-45
XII.11	57	57	3	3	-54
2011	**243**	**243**	**733**	**733**	**490**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

			2006	n.a.
Thermal nuclear net generation	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Fossil fuels net generation	GWh	Σ	2010	5202
			2011	4833
			2006	n.a.
Hydraulic net generation	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Other renewable net generation	GWh	Σ	2010	33
			2011	115
			2006	n.a.
- of which wind	GWh	Σ	2010	33
			2011	115
			2006	n.a.
- of which solar	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Non-identifiable net generation	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Total net generation,	GWh	Σ	2010	5235
calculated to represent 100% of the national values			2011	4948
			2006	n.a.
Sum of physical inside flows	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Sum of physical outside flows	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Total exchange balance	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Consumption of pumps	GWh	Σ	2010	0
			2011	0
			2006	n.a.
National electrical consumption,	GWh	Σ	2010	5235
calculated to represent 100% of the national values			2011	4948
				n.a.
Consumption load 3:00 a.m. on the 3rd Wednesday,	MW	max.		n.a.
calculated to represent 100% of the national values				n.a.
				n.a.
Consumption load 11:00 a.m. on the 3rd Wednesday,	MW	max.		n.a.
calculated to represent 100% of the national values				n.a.
				n.a.
Highest load on the 3rd Wednesday,	MW	max.	18.08.11	983
calculated to represent 100% of the national values			16.02.11	780
				n.a.
Time of highest load on the 3rd Wednesday		CET	18.08.10	14:00
			16.02.11	20:00

Thermal nuclear net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	0
			2010	12
			2011	8
Hydraulic net generation	GWh	Σ	2006	7044
			2010	12484
			2011	12743
Other renewable net generation	GWh	Σ	2006	2434
			2010	4183
			2011	4402
- of which wind	GWh	Σ	2006	0
			2010	0
			2011	0
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	4
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	9482
			2010	16679
			2011	17153
Sum of physical inside flows	GWh	Σ	2006	0
			2010	0
			2011	0
Sum of physical outside flows	GWh	Σ	2006	0
			2010	0
			2011	0
Total exchange balance	GWh	Σ	2006	0
			2010	0
			2011	0
Consumption of pumps	GWh	Σ	2006	0
			2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	9482
			2010	16679
			2011	17153
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	1906
			21.12.11	1929
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	2086
			19.01.11	2078
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.12.10	2113
			21.12.11	2101
Time of highest load on the 3rd Wednesday		CET		n.a.
			20.12.10	19:00
			21.12.11	19:00

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	250685 220938 218457
Hydraulic net generation	GWh	Σ	2006 2010 2011	42450 53798 47202
Other renewable net generation	GWh	Σ	2006 2010 2011	8402 15970 25758
- of which wind	GWh	Σ	2006 2010 2011	3153 9047 9776
- of which solar	GWh	Σ	2006 2010 2011	n.a. 1875 10670
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	301537 290706 291417
Sum of physical inside flows	GWh	Σ	2006 2010 2011	46525 45899 47478
Sum of physical outside flows	GWh	Σ	2006 2010 2011	1618 1699 1715
Total exchange balance	GWh	Σ	2006 2010 2011	44907 44200 45763
Consumption of pumps	GWh	Σ	2006 2010 2011	8648 4451 2540
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	337796 330455 334640
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	19.07.06 15.12.10 20.07.11	33930 35755 32905
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	19.07.06 15.12.10 16.02.11	53165 53959 50005
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	53816 54927 51745
Time of highest load on the 3rd Wednesday		CET	18.01.06 15.12.10 21.12.11	18:00 17:00 18:00

Physical exchanges in interconnected operation [1]

MM_YY	IT→AT	IT→CH	IT→FR	IT→GR	IT→SI	Sum_ OF	AT→IT	CH→IT	FR→IT	GR→IT	SI→IT	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)						Inside flows (IF)						Balance
I.06	2	149	122	4	1	278	75	1058	694	169	418	2414	2136
II.06	1	129	103	0	1	234	89	1089	694	50	477	2399	2165
III.06	0	98	100	0	2	200	112	1412	1042	222	566	3354	3154
IV.06	0	0	36	3	0	39	113	2164	1614	173	701	4765	4726
V.06	0	2	42	0	0	44	140	2062	1439	149	591	4381	4337
VI.06	0	5	44	4	0	53	113	2179	1366	19	520	4197	4144
VII.06	0	29	54	14	1	98	131	2118	1249	7	444	3949	3851
VIII.06	0	2	32	75	1	110	137	1756	860	4	289	3046	2936
IX.06	0	1	32	48	4	85	114	2230	1395	34	204	3977	3892
X.06	0	5	36	69	1	111	133	2738	1619	50	415	4955	4844
XI.06	0	1	47	100	1	149	124	2472	1546	40	392	4574	4425
XII.06	0	1	78	138	0	217	134	2607	1373	28	372	4514	4297
2006	**3**	**422**	**726**	**455**	**12**	**1618**	**1415**	**23885**	**14891**	**945**	**5389**	**46525**	**44907**
I.10	0	52	115	2	21	190	106	1686	811	312	727	3642	3452
II.10	0	27	75	1	5	108	102	1903	1057	200	775	4037	3929
III.10	0	45	77	15	7	144	119	2185	1171	206	862	4543	4399
IV.10	0	44	83	17	28	172	112	2126	1020	71	726	4055	3883
V.10	0	60	55	0	4	119	125	2003	861	0	697	3686	3567
VI.10	0	65	35	11	10	121	119	1953	1230	41	580	3923	3802
VII.10	0	27	66	3	6	102	127	2503	1311	239	394	4574	4472
VIII.10	2	9	96	11	12	130	93	1730	839	213	72	2947	2817
IX.10	0	17	48	1	6	72	104	1784	947	163	526	3524	3452
X.10	0	16	111	5	14	146	91	2043	867	282	610	3893	3747
XI.10	0	27	87	6	5	125	118	1817	957	241	880	4013	3888
XII.10	0	104	164	0	2	270	112	1443	512	331	664	3062	2792
2010	**2**	**493**	**1012**	**72**	**120**	**1699**	**1328**	**23176**	**11583**	**2299**	**7513**	**45899**	**44200**
I.11	0	40	138	5	0	183	97	2058	1119	287	523	4084	3901
II.11	0	18	94	3	2	117	78	2328	1206	168	430	4210	4093
III.11	0	92	88	0	3	183	102	2108	1261	278	483	4232	4049
IV.11	0	46	67	0	4	117	82	2053	1339	96	487	4057	3940
V.11	1	33	51	2	3	90	93	1800	1131	103	414	3541	3451
VI.11	0	82	55	48	4	189	109	1897	1094	48	390	3538	3349
VII.11	0	21	56	13	2	92	108	2343	1073	116	401	4041	3949
VIII.11	0	36	86	4	17	143	1	1527	855	157	214	2754	2611
IX.11	8	25	81	3	7	124	68	1690	925	104	315	3102	2978
X.11	0	13	54	4	5	76	112	2686	1485	110	444	4837	4761
XI.11	0	14	61	85	5	165	118	2563	1506	135	351	4673	4508
XII.11	1	11	104	109	11	236	104	2559	1313	99	334	4409	4173
2011	**10**	**431**	**935**	**276**	**63**	**1715**	**1072**	**25612**	**14307**	**1701**	**4786**	**47478**	**45763**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

			2006	n.a.
Thermal nuclear net generation	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Fossil fuels net generation	GWh	Σ	2010	3216
			2011	2752
			2006	n.a.
Hydraulic net generation	GWh	Σ	2010	1196
			2011	1049
			2006	n.a.
Other renewable net generation	GWh	Σ	2010	295
			2011	620
			2006	n.a.
- of which wind	GWh	Σ	2010	193
			2011	472
			2006	n.a.
- of which solar	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Non-identifiable net generation	GWh	Σ	2010	0
			2011	0
			2006	n.a.
Total net generation,	GWh	Σ	2010 [1]	5328
calculated to represent 100% of the national values			2011 [1]	4421
			2006	n.a.
Sum of physical inside flows	GWh	Σ	2010	8177
			2011	8086
			2006	n.a.
Sum of physical outside flows	GWh	Σ	2010	2185
			2011	1345
			2006	n.a.
Total exchange balance	GWh	Σ	2010	5992
			2011	6737
			2006	n.a.
Consumption of pumps	GWh	Σ	2010	1043
			2011	796
			2006	n.a.
National electrical consumption,	GWh	Σ	2010	10276
calculated to represent 100% of the national values			2011	10362
				n.a.
Consumption load 3:00 a.m. on the 3rd Wednesday,	MW	max.	15.12.10	1090
calculated to represent 100% of the national values			16.02.11	1038
				n.a.
Consumption load 11:00 a.m. on the 3rd Wednesday,	MW	max.	15.12.10	1728
calculated to represent 100% of the national values			21.12.11	1594
				n.a.
Highest load on the 3rd Wednesday,	MW	max.	15.12.10	1787
calculated to represent 100% of the national values			21.12.11	1688
				n.a.
Time of highest load on the 3rd Wednesday		CET	15.12.10	17:00
			21.12.11	17:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

Lithuania | GWh

MM_YY	LT→LV	LT→BY	LT→RU	Sum_ OF	LV→LT	BY→LT	RU→LT	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.10	58	23	246	327	181	431	52	664	337
II.10	62	36	175	273	139	325	81	545	272
III.10	23	31	124	178	217	308	57	582	404
IV.10	0	73	209	282	539	243	6	788	506
V.10	18	33	106	157	255	391	35	681	524
VI.10	8	16	46	70	230	295	69	594	524
VII.10	8	22	73	103	177	384	83	644	541
VIII.10	20	37	73	130	214	382	78	674	544
IX.10	4	29	129	162	226	453	58	737	575
X.10	29	35	104	168	202	509	36	747	579
XI.10	3	36	109	148	309	342	42	693	545
XII.10	1	31	155	187	366	425	37	828	641
2010	**234**	**402**	**1549**	**2185**	**3055**	**4488**	**634**	**8177**	**5992**
I.11	3	42	40	85	309	256	100	665	580
II.11	3	47	36	86	282	223	91	596	510
III.11	10	58	15	83	243	213	145	601	518
IV.11	0	159	16	175	534	76	112	722	547
V.11	5	78	4	87	383	215	145	743	656
VI.11	45	95	0	140	223	145	310	678	538
VII.11	10	96	0	106	217	148	328	693	587
VIII.11	53	38	2	93	111	279	300	690	597
IX.11	73	37	15	125	69	321	240	630	505
X.11	102	24	20	146	100	457	167	724	578
XI.11	70	32	2	104	132	343	254	729	625
XII.11	69	41	5	115	131	240	244	615	500
2011	**443**	**747**	**155**	**1345**	**2734**	**2916**	**2436**	**8086**	**6741**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Luxembourg

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	3195 2879 2318
Hydraulic net generation	GWh	Σ	2006 2010 2011	892 1458 1127
Other renewable net generation	GWh	Σ	2006 2010 2011	122 178 216
- of which wind	GWh	Σ	2006 2010 2011	60 55 64
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 8
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	4209 4515 3661
Sum of physical inside flows	GWh	Σ	2006 2010 2011	6831 7282 7099
Sum of physical outside flows	GWh	Σ	2006 2010 2011	3286 3208 2657
Total exchange balance	GWh	Σ	2006 2010 2011	3546 4074 4407
Consumption of pumps	GWh	Σ	2006 2010 2011	1139 1899 1510
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	6616 6690 6558
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.03.06 19.01.10 16.02.11	792 779 816
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.10.06 19.01.10 21.12.11	936 1021 1078
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	972 1047 1188
Time of highest load on the 3rd Wednesday		CET	18.01.06 15.12.10 21.12.11	19:00 19:00 18:00

Physical exchanges in interconnected operation [1]

MM_YY	LU→BE	LU→DE	Sum_OF	BE→LU	DE→LU	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)			Inside flows (IF)			Balance
I.06	222	69	291	147	466	613	322
II.06	130	61	191	127	416	543	352
III.06	227	64	291	147	442	589	298
IV.06	201	67	268	139	406	545	277
V.06	223	76	299	162	426	588	289
VI.06	239	72	311	161	416	577	266
VII.06	226	67	293	179	440	619	326
VIII.06	192	60	252	85	392	477	225
IX.06	202	65	267	132	422	554	287
X.06	186	72	258	146	447	593	335
XI.06	208	64	272	143	434	577	305
XII.06	226	67	293	129	427	556	263
2006	**2482**	**804**	**3286**	**1697**	**5134**	**6831**	**3545**
I.10	160	116	276	96	542	638	362
II.10	153	104	257	88	486	574	317
III.10	157	103	260	104	511	615	355
IV.10	142	129	271	108	518	626	355
V.10	102	155	257	133	562	695	438
VI.10	160	111	271	73	507	580	309
VII.10	154	82	236	100	482	582	346
VIII.10	152	77	229	52	435	487	258
IX.10	145	89	234	103	470	573	339
X.10	173	109	282	108	521	629	347
XI.10	154	138	292	99	546	645	353
XII.10	195	148	343	59	579	638	295
2010	**1847**	**1361**	**3208**	**1123**	**6159**	**7282**	**4074**
I.11	169	140	309	112	567	679	370
II.11	157	139	296	101	540	641	345
III.11	166	197	363	100	566	666	303
IV.11	155	123	278	99	515	614	336
V.11	154	49	203	124	440	564	361
VI.11	171	0	171	123	342	465	294
VII.11	144	47	191	138	413	551	360
VIII.11	14	79	93	111	452	563	470
IX.11	0	79	79	157	471	628	549
X.11	36	101	137	107	512	619	482
XI.11	186	80	266	79	482	561	295
XII.11	181	90	271	69	479	548	277
2011	**1533**	**1124**	**2657**	**1320**	**5779**	**7099**	**4442**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	n.a.
			2010	2847
			2011	2885
Hydraulic net generation	GWh	Σ	2006	n.a.
			2010	3496
			2011	2870
Other renewable net generation	GWh	Σ	2006	n.a.
			2010	101
			2011	183
- of which wind	GWh	Σ	2006	n.a.
			2010	47
			2011	72
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	219
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	6444
			2011	6157
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	3973
			2011	4010
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	3101
			2011	2760
Total exchange balance	GWh	Σ	2006	n.a.
			2010	872
			2011	1107
Consumption of pumps	GWh	Σ	2006	n.a.
			2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	7316
			2011	7264
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	731
			16.02.11	742
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	1169
			16.02.11	1130
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			20.01.10	1257
			16.02.11	1226
Time of highest load on the 3rd Wednesday		CET		n.a.
			20.01.10	17:00
			16.02.11	9:00

Physical exchanges in interconnected operation [1]

MM_YY	LV→EE	LV→LT	LV→RU	Sum_ OF	EE→LV	LT→LV	RU→LV	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.10	8	181	3	192	116	58	39	213	21
II.10	1	139	0	140	126	62	48	236	96
III.10	13	217	4	234	126	23	45	194	-40
IV.10	15	539	1	555	90	0	48	138	-417
V.10	1	255	0	256	151	18	42	211	-45
VI.10	0	230	0	230	232	8	91	331	101
VII.10	0	177	0	177	337	8	138	483	306
VIII.10	0	214	0	214	284	20	127	431	217
IX.10	0	226	0	226	314	4	128	446	220
X.10	0	202	0	202	323	29	69	421	219
XI.10	0	309	0	309	251	3	111	365	56
XII.10	0	366	0	366	345	1	158	504	138
2010	**38**	**3055**	**8**	**3101**	**2695**	**234**	**1044**	**3973**	**872**
I.11	0	309	0	309	207	3	95	305	-4
II.11	0	282	0	282	176	3	89	268	-14
III.11	2	243	0	245	142	10	80	232	-13
IV.11	22	534	0	556	74	0	68	142	-414
V.11	0	383	0	383	179	5	96	280	-103
VI.11	0	223	0	223	290	45	110	445	222
VII.11	0	217	0	217	347	10	132	489	272
VIII.11	0	111	0	111	244	53	78	375	264
IX.11	2	69	0	71	265	73	75	413	342
X.11	0	100	0	100	317	102	21	440	340
XI.11	0	132	0	132	239	70	42	351	219
XII.11	0	131	0	131	153	69	48	270	139
2011	**26**	**2734**	**0**	**2760**	**2633**	**443**	**934**	**4010**	**1250**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Montenegro

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2010	1267
			2011	1446
Hydraulic net generation	GWh	Σ	2010	2738
			2011	1186
Other renewable net generation	GWh	Σ	2010	0
			2011	0
- of which wind	GWh	Σ	2010	0
			2011	0
- of which solar	GWh	Σ	2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2010	4005
			2011	2632
Sum of physical inside flows	GWh	Σ	2010	2333
			2011 [1]	3416
Sum of physical outside flows	GWh	Σ	2010	2383
			2011 [1]	900
Total exchange balance	GWh	Σ	2010	39
			2011	1551
Consumption of pumps	GWh	Σ	2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2010	4044
			2011	4183
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.01.10	427
			21.12.11	449
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	16.02.10	532
			21.12.11	575
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.01.10	589
			21.12.11	648
Time of highest load on the 3rd Wednesday		CET	20.01.10	19:00
			21.12.11	19:00

[1] Sum of physical inside and outside flows without ME - AL

Physical exchanges in interconnected operation [1]

Montenegro | GWh

MM_YY	ME→BA	ME→RS	ME→AL	Sum_ OF	BA→ME	RS→ME	AL→ME	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06									
II.06									
III.06									
IV.06									
V.06									
VI.06									
VII.06									
VIII.06									
IX.06									
X.06									
XI.06									
XII.06									
2006									
I.10	46	301	51	398	258	2	0	260	-138
II.10	44	166	24	234	181	12	0	193	-41
III.10	50	196	29	275	178	10	5	193	-82
IV.10	57	112	2	171	61	18	38	117	-54
V.10	55	130	61	246	74	18	6	98	-148
VI.10	89	75	1	165	77	10	37	124	-41
VII.10	33	34	35	102	155	92	0	247	145
VIII.10	10	19	82	111	210	93	0	303	192
IX.10	26	44	0	70	139	106	0	245	175
X.10	42	74	9	125	62	95	62	219	94
XI.10	78	104	2	184	70	46	48	164	-20
XII.10	98	195	9	302	132	9	29	170	-132
2010	**628**	**1450**	**305**	**2383**	**1597**	**511**	**225**	**2333**	**-50**
I.11	61	151	n.a.	n.a.	156	22	n.a.	0	0
II.11	43	79	n.a.	n.a.	149	42	n.a.	0	0
III.11	42	49	n.a.	n.a.	133	87	n.a.	0	0
IV.11	67	18	n.a.	n.a.	66	153	n.a.	0	0
V.11	74	6	n.a.	n.a.	43	244	n.a.	0	0
VI.11	46	17	n.a.	n.a.	54	226	n.a.	0	0
VII.11	29	11	n.a.	n.a.	122	199	n.a.	0	0
VIII.11	9	21	n.a.	n.a.	206	133	n.a.	0	0
IX.11	10	19	n.a.	n.a.	168	129	n.a.	0	0
X.11	18	36	n.a.	n.a.	134	98	n.a.	0	0
XI.11	3	30	n.a.	n.a.	277	131	n.a.	0	0
XII.11	5	56	n.a.	n.a.	313	131	n.a.	0	0
2011	**407**	**493**	**n.a.**	**n.a.**	**1821**	**1595**	**n.a.**	**n.a.**	**n.a.**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	4940 4282 4858
Hydraulic net generation	GWh	Σ	2006 2010 2011	1624 2316 1469
Other renewable net generation	GWh	Σ	2006 2010 2011	0 0 0
- of which wind	GWh	Σ	2006 2010 2011	0 0 0
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	6564 6598 6327
Sum of physical inside flows	GWh	Σ	2006 2010 2011	2998 5270 4169
Sum of physical outside flows	GWh	Σ	2006 2010 2011	1202 3857 1548
Total exchange balance	GWh	Σ	2006 2010 2011	1813 1730 2659
Consumption of pumps	GWh	Σ	2006 2010 2011	0 0 0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	8377 8328 8986
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.02.06 15.12.10 19.01.11	1088 1087 1058
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	1415 1357 1254
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	1520 1535 1486
Time of highest load on the 3rd Wednesday		CET	18.01.06 15.12.10 21.12.11	18:00 18:00 15:00

Physical exchanges in interconnected operation [1]

FYROM | GWh

MM_YY	MK→BG	MK→CS	MK→GR	MK→RS	Sum_ OF	BG→MK	CS→MK	GR→MK	GR→RS	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	0	0	56		56	78	203	1		282	226
II.06	0	0	58		58	73	208	1		282	224
III.06	0	0	117		117	68	210	0		278	161
IV.06	0	0	127		127	65	171	0		236	109
V.06	0	0	119		119	46	198	0		244	125
VI.06	0	0	109		109	92	151	1		244	135
VII.06	0	0	181		181	69	178	0		247	66
VIII.06	0	0	110		110	78	166	0		244	134
IX.06	0	0	80		80	72	175	1		248	168
X.06	0	0	79		79	71	85	8		164	85
XI.06	0	0	101		101	72	191	0		263	162
XII.06	0	0	65		65	76	190	0		266	201
2006	**0**	**0**	**1202**		**1202**	**860**	**2126**	**12**		**2998**	**1796**
I.10	0		286	0	286	183		0	224	407	121
II.10	0		312	0	312	202		0	188	390	78
III.10	0		357	0	357	198		0	291	489	132
IV.10	0		356	0	356	171		0	206	377	21
V.10	0		359	0	359	139		0	191	330	-29
VI.10	0		507	0	507	258		0	203	461	-46
VII.10	0		502	0	502	387		0	163	550	48
VIII.10	0		481	0	481	412		0	222	634	153
IX.10	0		308	0	308	314		0	161	475	167
X.10	0		120	0	120	216		6	139	361	241
XI.10	0		128	0	128	245		1	135	381	253
XII.10	0		141	0	141	228		1	186	415	274
2010	**0**		**3857**	**0**	**3857**	**2953**		**8**	**2309**	**5270**	**1413**
I.11	0		153	0	153	233		0	202	435	282
II.11	0		173	0	173	253		0	133	386	213
III.11	0		212	0	212	244		0	140	384	172
IV.11	0		134	0	134	245		3	8	256	122
V.11	0		85	25	110	219		19	9	247	137
VI.11	0		123	2	125	224		3	73	300	175
VII.11	0		208	0	208	281		0	157	438	230
VIII.11	0		232	1	233	230		0	174	404	171
IX.11	0		41	12	53	254		16	66	336	283
X.11	0		62	1	63	190		9	63	262	199
XI.11	0		23	13	36	267		35	60	362	326
XII.11	0		43	5	48	278		22	59	359	311
2011	**0**		**1489**	**59**	**1548**	**2918**		**107**	**1144**	**4169**	**2621**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	n.a.
			2010	6581
			2011	6636
Hydraulic net generation	GWh	Σ	2006	0
			2010	8
			2011	7
Other renewable net generation	GWh	Σ	2006	n.a.
			2010	724
			2011	1063
- of which wind	GWh	Σ	2006	n.a.
			2010	666
			2011	1005
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	n.a.
			2010	12
			2011	18
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	7325
			2011	7724
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	2592
			2011	2012
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	744
			2011	733
Total exchange balance	GWh	Σ	2006	n.a.
			2010	1855
			2011	1285
Consumption of pumps	GWh	Σ	2006	n.a.
			2010	0
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	n.a.
			2010	9180
			2011	9009
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	938
			19.01.11	903
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	1488
			19.01.11	1457
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	1684
			19.01.11	1681
Time of highest load on the 3rd Wednesday		CET		n.a.
			15.12.10	19:00
			19.01.11	19:00

Physical exchanges in interconnected operation [1]

GB Northern Ireland | GWh

MM_YY	NI→GB	NI→IE	Sum_ OF	GB→NI	IE→NI	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)			Inside flows (IF)			Balance
I.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
II.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
III.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IV.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
V.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
VIII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IX.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
X.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XI.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
XII.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2006	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.10	0	135	135	235	5	240	105
II.10	0	106	106	218	9	227	121
III.10	0	72	72	248	14	262	190
IV.10	0	50	50	190	19	209	159
V.10	0	102	102	223	3	226	124
VI.10	0	45	45	82	18	100	55
VII.10	0	24	24	155	41	196	172
VIII.10	0	54	54	220	17	237	183
IX.10	0	15	15	134	73	207	192
X.10	0	23	23	139	37	176	153
XI.10	0	26	26	165	48	213	187
XII.10	0	92	92	290	9	299	207
2010	**0**	**744**	**744**	**2299**	**293**	**2592**	**1848**
I.11	0	71	71	300	17	317	246
II.11	0	65	65	235	16	251	186
III.11	0	92	92	262	11	273	181
IV.11	0	130	130	232	3	235	105
V.11	0	108	108	242	9	251	143
VI.11	0	103	103	235	3	238	135
VII.11	0	70	70	154	3	157	87
VIII.11	0	54	54	109	18	127	73
IX.11	0	24	24	0	20	20	-4
X.11	0	10	10	0	38	38	28
XI.11	0	3	3	0	48	48	45
XII.11	0	3	3	0	57	57	54
2011	**0**	**733**	**733**	**1769**	**243**	**2012**	**1279**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	3269 3755 3919
Fossil fuels net generation	GWh	Σ	2006 2010 2011	84278 99539 93002
Hydraulic net generation	GWh	Σ	2006 2010 2011	100 0 0
Other renewable net generation	GWh	Σ	2006 2010 2011	7067 10391 12104
- of which wind	GWh	Σ	2006 2010 2011	2697 3995 5096
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	94714 113685 109025
Sum of physical inside flows	GWh	Σ	2006 2010 2011	27355 15589 20665
Sum of physical outside flows	GWh	Σ	2006 2010 2011	5886 12811 11787
Total exchange balance	GWh	Σ	2006 2010 2011	21465 2775 8812
Consumption of pumps	GWh	Σ	2006 2010 2011	0 0 0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	116179 116460 117837
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.11.11	11582 10605 10183
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 21.12.11	17796 17219 16496
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.11.11	17855 18187 17346
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 16.11.11	10:00 18:00 18:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

The Netherlands | GWh

MM_YY	NL→BE	NL→DE	NL→GB	NL→NO	Sum_ OF	BE→NL	DE→NL	GB→NL	NO→NL	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	888	0			888	64	2486			2550	1662
II.06	1118	0			1118	29	2322			2351	1233
III.06	1275	0			1275	27	2759			2786	1511
IV.06	419	0			419	412	2113			2525	2106
V.06	323	1			324	443	2031			2474	2150
VI.06	190	8			198	771	1564			2335	2137
VII.06	137	35			172	801	1178			1979	1807
VIII.06	6	214			220	860	929			1789	1569
IX.06	75	22			97	790	1115			1905	1808
X.06	120	2			122	521	1478			1999	1877
XI.06	303	0			303	222	1986			2208	1905
XII.06	749	1			750	79	2375			2454	1704
2006	**5603**	**283**			**5886**	**5019**	**22336**			**27355**	**21469**
I.10	947	239		242	1428	111	643		115	869	-559
II.10	670	247		0	917	258	410		0	668	-249
III.10	623	555		0	1178	326	362		0	688	-490
IV.10	456	114		58	628	264	881		2	1147	519
V.10	586	209		274	1069	428	1036		114	1578	509
VI.10	326	191		231	748	745	920		153	1818	1070
VII.10	246	138		193	577	841	943		206	1990	1413
VIII.10	183	291		240	714	1168	576		160	1904	1190
IX.10	392	327		207	926	571	584		169	1324	398
X.10	1067	481		200	1748	200	330		240	770	-978
XI.10	828	210		298	1336	282	707		125	1114	-222
XII.10	1068	70		404	1542	124	1550		45	1719	177
2010	**7392**	**3072**		**2347**	**12811**	**5318**	**8942**		**1329**	**15589**	**2778**
I.11	559	11	0	470	1040	292	1578	0	29	1899	859
II.11	425	61	0	405	891	212	1022	0	19	1253	362
III.11	484	86	0	444	1014	401	989	0	23	1413	399
IV.11	235	228	299	182	944	586	730	28	75	1419	475
V.11	118	542	81	0	741	878	279	75	0	1232	491
VI.11	85	250	310	30	675	1011	795	67	321	2194	1519
VII.11	144	309	402	0	855	1109	688	26	490	2313	1458
VIII.11	181	424	397	0	1002	1110	555	51	507	2223	1221
IX.11	243	396	237	0	876	804	588	107	430	1929	1053
X.11	673	321	197	0	1191	240	764	96	500	1600	409
XI.11	639	427	121	0	1187	187	594	219	492	1492	305
XII.11	735	166	450	20	1371	180	1007	37	474	1698	327
2011	**4521**	**3221**	**2494**	**1551**	**11787**	**7010**	**9589**	**706**	**3360**	**20665**	**8878**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2006	1123
			2010	5267
			2011	4776
Hydraulic net generation	GWh	Σ	2006	119919
			2010	117286
			2011	121383
Other renewable net generation	GWh	Σ	2006	673
			2010	892
			2011	1257
- of which wind	GWh	Σ	2006	673
			2010	808
			2011	1257
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1]	121715
			2010 [1]	123445
			2011 [1]	127416
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	14441
			2011	11022
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	6593
			2011	13600
Total exchange balance	GWh	Σ	2006	857
			2010	7537
			2011	-2986
Consumption of pumps	GWh	Σ	2006	540
			2010	1190
			2011	2410
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	122032
			2010	129792
			2011	122020
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	17165
			16.02.11	17235
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	21350
			16.02.11	21189
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	21852
			16.02.11	21512
Time of highest load on the 3rd Wednesday		CET		n.a.
			15.12.10	10:00
			16.02.11	9:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

Norway | GWh

MM_YY	NO→DK_W	NO→DK	NO→FI	NO→NL	NO→SE	NO→RU	Sum_OF	DK_W→NO	DK→NO	FI→NO	NL→NO	SE→NO	RU→NO	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	269		n.a.		n.a.	n.a.	n.a.	84		n.a.		n.a.	n.a.	n.a.	n.a.
II.06	145		n.a.		n.a.	n.a.	n.a.	50		n.a.		n.a.	n.a.	n.a.	n.a.
III.06	78		n.a.		n.a.	n.a.	n.a.	179		n.a.		n.a.	n.a.	n.a.	n.a.
IV.06	30		n.a.		n.a.	n.a.	n.a.	261		n.a.		n.a.	n.a.	n.a.	n.a.
V.06	53		n.a.		n.a.	n.a.	n.a.	203		n.a.		n.a.	n.a.	n.a.	n.a.
VI.06	87		n.a.		n.a.	n.a.	n.a.	180		n.a.		n.a.	n.a.	n.a.	n.a.
VII.06	143		n.a.		n.a.	n.a.	n.a.	138		n.a.		n.a.	n.a.	n.a.	n.a.
VIII.06	29		n.a.		n.a.	n.a.	n.a.	254		n.a.		n.a.	n.a.	n.a.	n.a.
IX.06	32		n.a.		n.a.	n.a.	n.a.	240		n.a.		n.a.	n.a.	n.a.	n.a.
X.06	57		n.a.		n.a.	n.a.	n.a.	236		n.a.		n.a.	n.a.	n.a.	n.a.
XI.06	78		n.a.		n.a.	n.a.	n.a.	196		n.a.		n.a.	n.a.	n.a.	n.a.
XII.06	126		n.a.		n.a.	n.a.	n.a.	303		n.a.		n.a.	n.a.	n.a.	n.a.
2006	**1127**		**150**		**7667**	**0**	**8944**	**2324**		**84**		**7178**	**215**	**9801**	**857**
I.10		130	3	115	508	0	756		384	14	242	294	20	954	198
II.10		49	0	0	323	0	372		479	21	0	400	17	917	545
III.10		2	0	0	120	0	122		629	40	0	721	17	1407	1285
IV.10		34	0	2	69	0	105		420	36	58	1075	15	1604	1499
V.10		124	9	114	30	0	277		337	13	274	1388	21	2033	1756
VI.10		117	4	153	51	0	325		243	5	231	1269	17	1765	1440
VII.10		277	38	206	396	0	917		163	5	193	449	20	830	-87
VIII.10		204	24	160	177	0	565		155	0	240	504	11	910	345
IX.10		214	21	169	378	0	782		159	0	207	350	17	733	-49
X.10		184	11	240	871	0	1306		241	1	200	294	16	752	-554
XI.10		89	2	125	368	0	584		352	17	298	510	18	1195	611
XII.10		34	3	45	400	0	482		493	10	404	414	20	1341	859
2010		**1458**	**115**	**1329**	**3691**	**0**	**6593**		**4055**	**162**	**2347**	**7668**	**209**	**14441**	**7848**
I.11		6	1	29	23	0	59		599	15	470	1277	17	2378	2319
II.11		8	1	19	56	0	84		535	22	405	979	19	1960	1876
III.11		10	0	23	32	0	65		586	35	444	1157	11	2233	2168
IV.11		156	1	75	114	0	346		304	19	182	1042	17	1564	1218
V.11		203	12	0	197	0	412		190	3	0	585	20	798	386
VI.11		173	33	321	739	0	1266		19	0	30	227	29	305	-961
VII.11		531	33	490	1286	0	2340		0	0	0	70	18	88	-2252
VIII.11		632	6	507	1040	0	2185		6	5	0	107	17	135	-2050
IX.11		561	6	430	720	0	1717		0	5	0	337	14	356	-1361
X.11		517	19	500	789	0	1825		9	0	0	190	11	210	-1615
XI.11		506	19	492	1034	0	2051		12	0	0	120	19	151	-1900
XII.11		297	0	474	479	0	1250		154	23	20	627	20	844	-406
2011		**3600**	**131**	**3360**	**6509**	**0**	**13600**		**2414**	**127**	**1551**	**6718**	**212**	**11022**	**-2578**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011 [2]	145736 140270 140894
Hydraulic net generation	GWh	Σ	2006 2010 2011	2794 3405 2647
Other renewable net generation	GWh	Σ	2006 2010 2011 [2]	326 2108 8069
- of which wind	GWh	Σ	2006 2010 2011	234 1843 2745
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	148856 145783 151610
Sum of physical inside flows	GWh	Σ	2006 2010 2011	4771 6314 6779
Sum of physical outside flows	GWh	Σ	2006 2010 2011	15777 7659 12023
Total exchange balance	GWh	Σ	2006 2010 2011	-11001 -1355 -5244
Consumption of pumps	GWh	Σ	2006 2010 2011	1357 837 464
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	136498 143591 145720
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	15648 15742 15406
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 21.12.11	20419 21538 21031
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 21.12.11	22017 23081 22697
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 21.12.11	17:00 17:00 18:00

[1] Including deliveries from industry

[2] Since 2011 other renewable has included energy from biomass co-firing in conventional thermal units, previously classified as fossil fuel generation category.

Physical exchanges in interconnected operation [1]

Poland | GWh

MM_YY	PL→CZ	PL→DE	PL→SE	PL→SK	PL→BY	PL→UA	Sum_OF	CZ→PL	DE→PL	SE→PL	SK→PL	BY→PL	UA→PL	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	1174	9	255	361	0	0	1799	0	303	0	0	98	81	482	-1317
II.06	1043	7	199	385	0	0	1634	0	279	0	0	90	78	447	-1187
III.06	1025	13	229	307	0	0	1574	1	231	0	0	102	74	408	-1166
IV.06	831	94	242	281	0	0	1448	1	56	0	0	83	48	188	-1260
V.06	781	44	45	250	0	0	1120	8	120	102	0	86	78	394	-726
VI.06	584	212	51	199	0	0	1046	8	11	96	0	83	69	267	-779
VII.06	558	102	19	159	0	0	838	10	153	51	4	88	74	380	-458
VIII.06	538	133	68	19	0	0	758	12	78	2	0	45	72	209	-549
IX.06	695	77	121	310	0	0	1203	1	88	0	0	73	81	243	-960
X.06	866	30	66	402	0	0	1364	0	287	0	0	102	88	477	-887
XI.06	1043	1	112	315	0	0	1471	1	411	0	0	96	62	570	-901
XII.06	1043	0	93	386	0	0	1522	0	531	13	0	97	65	706	-816
2006	**10181**	**722**	**1500**	**3374**	**0**	**0**	**15777**	**42**	**2548**	**264**	**4**	**1043**	**870**	**4771**	**-11006**
I.10	521	3	74	147	0	0	745	4	548	26	4	0	0	582	-163
II.10	643	0	89	187	0	0	919	2	584	0	0	0	0	586	-333
III.10	511	0	74	220	0	0	805	4	622	21	1	0	0	648	-157
IV.10	451	0	12	168	0	0	631	3	584	93	2	0	0	682	51
V.10	360	10	5	99	0	0	474	18	360	232	10	0	0	620	146
VI.10	260	42	0	63	0	0	365	25	161	66	20	0	0	272	-93
VII.10	442	5	7	179	0	0	633	8	525	160	0	0	0	693	60
VIII.10	322	25	2	87	0	0	436	14	405	78	6	0	0	503	67
IX.10	416	16	44	1	0	0	477	28	254	5	8	0	0	295	-182
X.10	618	1	49	176	0	0	844	11	513	36	0	0	0	560	-284
XI.10	550	16	59	126	0	0	751	5	466	39	1	0	0	511	-240
XII.10	406	49	79	45	0	0	579	14	312	5	31	0	0	362	-217
2010	**5500**	**167**	**494**	**1498**	**0**	**0**	**7659**	**136**	**5334**	**761**	**83**	**0**	**0**	**6314**	**-1345**
I.11	440	71	59	76	0	0	646	10	207	1	13	0	0	231	-415
II.11	582	14	42	202	0	0	840	6	399	15	0	0	0	420	-420
III.11	698	72	56	254	0	0	1080	5	291	8	1	0	0	305	-775
IV.11	580	27	36	170	0	0	813	6	319	87	3	0	0	415	-398
V.11	514	121	52	166	0	0	853	6	160	113	3	0	0	282	-571
VI.11	473	77	9	125	0	0	684	6	219	166	6	0	0	397	-287
VII.11	866	4	2	149	0	0	1021	1	630	252	0	0	0	883	-138
VIII.11	821	16	2	188	0	0	1027	3	413	210	0	0	0	626	-401
IX.11	577	22	2	324	0	0	925	2	319	165	0	0	0	486	-439
X.11	772	6	0	395	0	0	1173	0	636	48	0	0	25	709	-464
XI.11	921	3	7	486	0	0	1417	0	712	163	0	0	34	909	-508
XII.11	1009	0	11	519	0	0	1539	0	833	286	0	0	0	1119	-420
2011	**8253**	**433**	**278**	**3054**	**0**	**0**	**12018**	**45**	**5138**	**1514**	**26**	**0**	**59**	**6782**	**-5236**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	0 0 0
Fossil fuels net generation	GWh	Σ	2006 2010 2011	28423 22315 24732
Hydraulic net generation	GWh	Σ	2006 2010 2011	11198 16247 11825
Other renewable net generation	GWh	Σ	2006 2010 2011	4818 11530 11866
- of which wind	GWh	Σ	2006 2010 2011	2892 9023 9002
- of which solar	GWh	Σ	2006 2010 2011	n.a. 207 262
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	45968 50092 48423
Sum of physical inside flows	GWh	Σ	2006 2010 2011	8481 5667 6685
Sum of physical outside flows	GWh	Σ	2006 2010 2011	3183 3190 3928
Total exchange balance	GWh	Σ	2006 2010 2011	5441 2624 2813
Consumption of pumps	GWh	Σ	2006 2010 2011	704 510 737
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	50705 52206 50499
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	5511 5350 5430
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 17.02.10 16.02.11	7857 7849 7685
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 17.02.10 16.02.11	9048 8800 8575
Time of highest load on the 3rd Wednesday		CET	20.12.06 17.02.10 16.02.11	20:00 21:00 21:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

Portugal | GWh

MM_YY	PT→ES	Sum_OF	ES→PT	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)		Inside flows (IF)		Balance
I.06	223	223	914	914	691
II.06	251	251	806	806	555
III.06	330	330	824	824	494
IV.06	271	271	541	541	270
V.06	196	196	727	727	531
VI.06	151	151	812	812	661
VII.06	254	254	775	775	521
VIII.06	299	299	643	643	344
IX.06	110	110	808	808	698
X.06	258	258	783	783	525
XI.06	357	357	502	502	145
XII.06	483	483	346	346	-137
2006	**3183**	**3183**	**8481**	**8481**	**5298**
I.10	617	617	336	336	-281
II.10	350	350	416	416	66
III.10	358	358	385	385	27
IV.10	287	287	323	323	36
V.10	291	291	345	345	54
VI.10	122	122	534	534	412
VII.10	100	100	671	671	571
VIII.10	80	80	691	691	611
IX.10	87	87	603	603	516
X.10	70	70	689	689	619
XI.10	232	232	456	456	224
XII.10	596	596	218	218	-378
2010	**3190**	**3190**	**5667**	**5667**	**2477**
I.11	465	465	499	499	34
II.11	461	461	289	289	-172
III.11	488	488	498	498	10
IV.11	197	197	697	697	500
V.11	436	436	386	386	-50
VI.11	224	224	542	542	318
VII.11	240	240	674	674	434
VIII.11	301	301	580	580	279
IX.11	231	231	677	677	446
X.11	255	255	597	597	342
XI.11	338	338	526	526	188
XII.11	292	292	720	720	428
2011	**3928**	**3928**	**6685**	**6685**	**2757**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	5204 10686 10796
Fossil fuels net generation	GWh	Σ	2006 2010 2011	34236 25284 30099
Hydraulic net generation	GWh	Σ	2006 2010 2011	17982 20174 14670
Other renewable net generation	GWh	Σ	2006 2010 2011	0 402 1403
- of which wind	GWh	Σ	2006 2010 2011	0 290 1218
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	57422 56546 56968
Sum of physical inside flows	GWh	Σ	2006 2010 2011	1635 1791 2946
Sum of physical outside flows	GWh	Σ	2006 2010 2011	5884 4707 4846
Total exchange balance	GWh	Σ	2006 2010 2011	-4252 -2919 -1899
Consumption of pumps	GWh	Σ	2006 2010 2011	154 265 153
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	53016 53362 54916
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	6226 5856 6043
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	7772 7662 7889
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	7974 8313 8447
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 16.02.11	18:00 18:00 19:00

Physical exchanges in interconnected operation [1]

Romania | GWh

MM_YY	RO→BG	RO→CS	RO→HU	RO→RS	RO→UA-W	RO→MD	Sum_ OF	BG→RO	CS→RO	HU→RO	RS→RO	UA-W→RO	MD→RO	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	74	382	155		0	0	611	32	0	1		72	0	105	-506
II.06	55	381	152		1	0	589	40	0	0		49	0	89	-500
III.06	65	315	204		1	0	585	70	0	0		49	0	119	-466
IV.06	13	233	145		9	0	400	66	0	0		28	0	94	-306
V.06	41	179	164		0	0	384	55	0	4		47	0	106	-278
VI.06	70	181	135		2	0	388	82	0	1		62	0	145	-243
VII.06	85	197	137		0	0	419	84	1	0		106	0	191	-228
VIII.06	141	162	138		11	0	452	102	2	0		43	0	147	-305
IX.06	74	251	94		22	0	441	151	0	2		40	0	193	-248
X.06	85	255	59		1	0	400	26	0	11		84	0	121	-279
XI.06	248	311	29		0	0	588	2	0	6		146	0	154	-434
XII.06	187	415	25		0	0	627	0	0	4		167	0	171	-456
2006	**1138**	**3262**	**1437**		**47**	**0**	**5884**	**710**	**3**	**29**		**893**	**0**	**1635**	**-4249**
I.10	175		37	89	1	0	302	12		33	5	122	35	207	-95
II.10	85		27	85	0	0	197	27		31	3	115	38	214	17
III.10	80		32	51	1	0	164	22		30	7	92	33	184	20
IV.10	73		82	16	5	0	176	25		12	26	62	26	151	-25
V.10	62		90	23	23	0	198	118		14	25	27	23	207	9
VI.10	2		123	179	53	0	357	167		3	0	7	23	200	-157
VII.10	23		143	279	60	0	505	93		2	0	6	29	130	-375
VIII.10	115		119	203	41	0	478	21		9	8	16	23	77	-401
IX.10	134		144	189	55	0	522	31		5	0	6	23	65	-457
X.10	239		165	282	7	0	693	72		0	0	45	32	149	-544
XI.10	76		114	269	38	0	497	36		4	0	26	38	104	-393
XII.10	42		176	303	97	0	618	53		3	0	2	45	103	-515
2010	**1106**		**1252**	**1968**	**381**	**0**	**4707**	**677**		**146**	**74**	**526**	**368**	**1791**	**-2916**
I.11	133		137	240	49	0	559	16		1	0	13	43	73	-486
II.11	158		87	218	6	0	469	14		4	0	50	35	103	-366
III.11	191		108	194	14	0	507	10		5	0	49	40	104	-403
IV.11	83		148	200	34	0	465	23		5	1	17	34	80	-385
V.11	78		159	171	12	0	420	155		1	0	55	29	240	-180
VI.11	10		91	179	9	0	289	108		8	0	38	30	184	-105
VII.11	50		32	192	0	0	274	70		37	1	125	30	263	-11
VIII.11	138		27	121	0	0	286	16		49	12	172	49	298	12
IX.11	99		50	190	0	0	339	44		13	0	153	48	258	-81
X.11	171		20	159	0	0	350	75		42	1	215	48	381	31
XI.11	181		6	283	0	0	470	22		83	0	297	67	469	-1
XII.11	153		2	263	0	0	418	15		92	0	310	76	493	75
2011	**1445**		**867**	**2410**	**124**	**0**	**4846**	**568**		**340**	**15**	**1494**	**529**	**2946**	**-1900**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2010	0
			2011	0
Fossil fuels net generation	GWh	Σ	2010	28508
			2011	32104
Hydraulic net generation	GWh	Σ	2010	12453
			2011	9162
Other renewable net generation	GWh	Σ	2010	0
			2011	0
- of which wind	GWh	Σ	2010	0
			2011	0
- of which solar	GWh	Σ	2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2010	40961
			2011	41266
Sum of physical inside flows	GWh	Σ	2010	7027
			2011	6407
Sum of physical outside flows	GWh	Σ	2010	6704
			2011	5076
Total exchange balance	GWh	Σ	2010	-321
			2011	-227
Consumption of pumps	GWh	Σ	2010	1115
			2011	865
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2010	39525
			2011	40174
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10	5161
			21.12.11	4881
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10	6491
			16.02.11	6234
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	15.12.10	7034
			16.02.11	6803
Time of highest load on the 3rd Wednesday		CET	15.12.10	18:00
			16.02.11	19:00

Physical exchanges in interconnected operation [1]

Serbia | GWh

MM_YY	RS [2]→BA	RS [2]→BG	RS [2]→HR	RS [2]→HU	RS→ME	RS [2]→MK	RS [2]→RO	RS [2]→AL	Sum_ OF	BA→RS [2]	BG→RS [2]	HR→RS [2]	HU→RS [2]	ME→RS	MK→RS [2]	RO→RS [2]	AL→RS [2]	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)									Inside flows (IF)									Balance
I.06	106	0	350	0		203	0	48	707	159	338	0	141		0	382	58	1078	371
II.06	127	0	365	1		208	0	11	712	101	332	0	114		0	381	43	971	259
III.06	80	0	384	2		210	0	2	678	7	302	7	79		0	315	97	807	129
IV.06	87	0	319	12		171	0	3	592	100	231	9	35		0	233	100	708	116
V.06	208	0	206	10		198	0	5	627	105	225	8	68		0	179	94	679	52
VI.06	264	0	220	11		151	0	7	653	60	183	7	86		0	181	58	575	-78
VII.06	230	0	182	13		178	1	38	642	94	158	0	69		0	197	10	528	-114
VIII.06	220	0	198	0		166	2	30	616	170	280	0	133		0	162	29	774	158
IX.06	200	0	167	4		175	0	27	573	163	100	0	127		0	251	28	669	96
X.06	252	0	214	0		85	0	21	572	191	152	0	139		0	255	32	769	197
XI.06	252	0	192	0		191	0	19	654	184	223	0	213		0	311	43	974	320
XII.06	315	0	208	0		190	0	50	763	142	313	0	316		0	415	21	1207	444
2006	**2341**	**0**	**3005**	**53**		**2126**	**3**	**261**	**7789**	**1476**	**2837**	**31**	**1520**		**0**	**3262**	**613**	**9739**	**1950**
I.10	29	5	145	3	2	224	5	0	413	71	87	0	123	301	0	89	135	806	393
II.10	54	0	146	2	12	188	3	0	405	30	124	0	86	166	0	85	94	585	180
III.10	32	3	149	16	10	291	7	0	508	38	71	11	61	196	0	51	145	573	65
IV.10	64	17	174	63	18	206	26	0	568	20	37	2	6	112	0	16	145	338	-230
V.10	22	33	153	158	18	191	25	0	600	54	24	0	0	130	0	23	142	373	-227
VI.10	114	0	170	88	10	203	0	4	589	7	148	0	5	75	0	179	37	451	-138
VII.10	247	0	159	70	92	163	0	35	766	7	226	0	1	34	0	279	1	548	-218
VIII.10	209	0	76	18	93	222	8	41	667	8	233	0	15	19	0	203	1	479	-188
IX.10	211	0	86	35	106	161	0	62	661	12	174	1	9	44	0	189	0	429	-232
X.10	197	0	133	6	95	139	0	7	577	14	193	0	51	74	0	282	86	700	123
XI.10	95	0	160	26	46	135	0	0	462	32	226	0	32	104	0	269	104	767	305
XII.10	45	0	189	59	9	186	0	0	488	69	251	0	3	195	0	303	157	978	490
2010	**1319**	**58**	**1740**	**544**	**511**	**2309**	**74**	**149**	**6704**	**362**	**1794**	**14**	**392**	**1450**	**0**	**1968**	**1047**	**7027**	**323**
I.11	100	0	142	33	22	202	0	0	499	28	189	0	22	151	0	240	146	776	277
II.11	142	0	85	4	42	133	0	9	415	19	222	1	55	79	0	218	20	614	199
III.11	177	0	170	48	87	140	0	14	636	7	192	0	16	49	0	194	12	470	-166
IV.11	243	0	180	54	153	8	1	38	677	7	261	0	12	18	0	200	1	499	-178
V.11	207	0	189	50	244	9	0	38	737	8	244	0	10	6	25	171	2	466	-271
VI.11	193	0	152	51	226	73	0	34	729	11	219	0	5	17	2	179	2	435	-294
VII.11	167	0	81	18	199	157	1	39	662	15	191	1	21	11	0	192	1	432	-230
VIII.11	174	0	38	3	133	174	12	27	561	31	184	5	60	21	1	121	3	426	-135
IX.11	253	0	66	4	129	66	0	28	546	21	225	0	43	19	12	190	4	514	-32
X.11	139	0	64	3	98	63	1	12	380	29	175	4	60	36	1	159	15	479	99
XI.11	182	0	8	0	131	60	0	42	423	49	243	25	167	30	13	283	0	810	387
XII.11	181	0	1	0	131	59	0	34	406	91	276	60	225	56	5	263	3	979	573
2011	**2158**	**0**	**1176**	**268**	**1595**	**1144**	**15**	**315**	**6671**	**316**	**2621**	**96**	**696**	**493**	**59**	**2410**	**209**	**6900**	**229**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation". [2] RS data year 2006 are inside and outside flows of CS.

Thermal nuclear net generation	GWh	Σ	2006	64983
			2010	55626
			2011	58023
Fossil fuels net generation	GWh	Σ	2006	13168
			2010	7803
			2011	5359
Hydraulic net generation	GWh	Σ	2006	61176
			2010	66215
			2011	65783
Other renewable net generation	GWh	Σ	2006	987
			2010	15386
			2011	17256
- of which wind	GWh	Σ	2006	987
			2010	3479
			2011	6070
- of which solar	GWh	Σ	2006	n.a.
			2010	0
			2011	0
Non-identifiable net generation	GWh	Σ	2006	0
			2010	0
			2011	0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1]	140314
			2010 [1]	145030
			2011 [1]	146421
Sum of physical inside flows	GWh	Σ	2006	n.a.
			2010	16988
			2011	14229
Sum of physical outside flows	GWh	Σ	2006	n.a.
			2010	14728
			2011	21356
Total exchange balance	GWh	Σ	2006	6052
			2010	2078
			2011	-7199
Consumption of pumps	GWh	Σ	2006	0
			2010	18
			2011	0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006	146366
			2010	147090
			2011	139222
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	19868
			16.02.11	19392
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	25243
			16.02.11	24031
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.		n.a.
			15.12.10	25807
			16.02.11	24238
Time of highest load on the 3rd Wednesday		CET		n.a.
			15.12.10	18:00
			16.02.11	19:00

[1] Including deliveries from industry

Physical exchanges in interconnected operation [1]

Sweden | GWh

MM_YY	SE→DE	SE→DK_W	SE→DK	SE→FI	SE→NO	SE→PL	Sum_OF	DE→SE	DK_W→SE	DK→SE	FI→SE	NO→SE	PL→SE	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)							Inside flows (IF)							Balance
I.06	233	72		n.a.	n.a.	0	n.a.	23	71		n.a.	n.a.	255	n.a.	n.a.
II.06	272	81		n.a.	n.a.	0	n.a.	25	67		n.a.	n.a.	199	n.a.	n.a.
III.06	131	17		n.a.	n.a.	0	n.a.	147	158		n.a.	n.a.	229	n.a.	n.a.
IV.06	74	37		n.a.	n.a.	0	n.a.	258	105		n.a.	n.a.	242	n.a.	n.a.
V.06	112	83		n.a.	n.a.	102	n.a.	147	107		n.a.	n.a.	45	n.a.	n.a.
VI.06	76	20		n.a.	n.a.	96	n.a.	241	164		n.a.	n.a.	51	n.a.	n.a.
VII.06	187	90		n.a.	n.a.	51	n.a.	136	87		n.a.	n.a.	19	n.a.	n.a.
VIII.06	11	7		n.a.	n.a.	2	n.a.	339	301		n.a.	n.a.	68	n.a.	n.a.
IX.06	20	9		n.a.	n.a.	0	n.a.	216	212		n.a.	n.a.	121	n.a.	n.a.
X.06	51	68		n.a.	n.a.	0	n.a.	186	173		n.a.	n.a.	66	n.a.	n.a.
XI.06	146	30		n.a.	n.a.	0	n.a.	156	193		n.a.	n.a.	112	n.a.	n.a.
XII.06	178	75		n.a.	n.a.	13	n.a.	70	105		n.a.	n.a.	93	n.a.	n.a.
2006	**1491**	**589**		**3676**	**7178**	**264**	**13198**	**1944**	**1743**		**3767**	**7667**	**1500**	**16621**	**3423**
I.10	1		3	100	294	26	424	329		680	329	508	74	n.a.	n.a.
II.10	0		2	157	400	0	559	374		790	557	323	89	n.a.	n.a.
III.10	1		7	1	721	21	751	293		796	946	120	74	n.a.	n.a.
IV.10	32		126	11	1075	93	1337	85		290	881	69	12	n.a.	n.a.
V.10	230		535	191	1388	232	2576	31		44	396	30	5	n.a.	n.a.
VI.10	220		697	189	1269	66	2441	61		38	296	51	0	n.a.	n.a.
VII.10	199		647	698	449	160	2153	139		86	36	396	7	n.a.	n.a.
VIII.10	102		357	570	504	78	1611	127		132	43	177	2	n.a.	n.a.
IX.10	41		62	235	350	5	693	254		467	277	378	44	n.a.	n.a.
X.10	97		98	174	294	36	699	224		461	502	871	49	n.a.	n.a.
XI.10	79		117	234	510	39	979	206		359	472	368	59	n.a.	n.a.
XII.10	5		5	76	414	5	505	232		835	735	400	79	n.a.	n.a.
2010	**1007**		**2656**	**2636**	**7668**	**761**	**14728**	**2355**		**4978**	**5470**	**3691**	**494**	**12010**	**-2718**
I.11	18		31	89	1277	1	1416	191		739	722	23	59	1734	318
II.11	14		19	222	979	15	1249	152		775	373	56	42	1398	149
III.11	29		49	5	1157	8	1248	126		555	865	32	56	1634	386
IV.11	22		388	22	1042	87	1561	43		257	617	114	36	1067	-494
V.11	23		337	63	585	113	1121	13		115	427	197	52	804	-317
VI.11	256		774	263	227	166	1686	42		33	231	739	9	1054	-632
VII.11	303		821	1080	70	252	2526	11		46	13	1286	2	1358	-1168
VIII.11	293		693	1044	107	210	2347	10		27	11	1040	2	1090	-1257
IX.11	227		783	972	337	165	2484	0		8	23	720	2	753	-1731
X.11	165		375	849	190	48	1627	11		46	91	789	0	937	-690
XI.11	330		393	671	120	163	1677	8		86	334	1034	7	1469	-208
XII.11	367		478	656	627	286	2414	21		120	300	479	11	931	-1483
2011	**2047**		**5141**	**5936**	**6718**	**1514**	**21356**	**628**		**2807**	**4007**	**6509**	**278**	**14229**	**-7127**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Slovenia

Yearly values / Operation

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	5281 5377 5900
Fossil fuels net generation	GWh	Σ	2006 2010 2011	4727 4794 4602
Hydraulic net generation	GWh	Σ	2006 2010 2011	3121 4249 3362
Other renewable net generation	GWh	Σ	2006 2010 2011	0 0 0
- of which wind	GWh	Σ	2006 2010 2011	0 0 0
- of which solar	GWh	Σ	2006 2010 2011	n.a. 0 0
Non-identifiable net generation	GWh	Σ	2006 2010 2011	0 0 0
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	13129 14420 13864
Sum of physical inside flows	GWh	Σ	2006 2010 2011	7716 8611 7034
Sum of physical outside flows	GWh	Σ	2006 2010 2011	7487 10744 8308
Total exchange balance	GWh	Σ	2006 2010 2011	202 -2172 -1306
Consumption of pumps	GWh	Σ	2006 2010 2011	0 0 0
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	13331 12248 12558
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	1420 1349 1358
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	2045 1804 1837
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 19.01.11	2166 1919 1907
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 19.01.11	19:00 19:00 15:00

Physical exchanges in interconnected operation [1]

MM_YY	SI→AT	SI→HR	SI→IT	Sum_ OF	AT→SI	HR→SI	IT→SI	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)				Inside flows (IF)				Balance
I.06	222	14	418	654	10	762	1	773	119
II.06	158	10	477	645	14	707	1	722	77
III.06	128	19	566	713	25	724	2	751	38
IV.06	12	17	701	730	139	799	0	938	208
V.06	6	103	591	700	86	602	0	688	-12
VI.06	25	181	520	726	98	484	0	582	-144
VII.06	73	139	444	656	108	493	1	602	-54
VIII.06	56	209	289	554	96	367	1	464	-90
IX.06	85	132	204	421	65	373	4	442	21
X.06	112	94	415	621	90	512	1	603	-18
XI.06	46	79	392	517	52	503	1	556	39
XII.06	139	39	372	550	50	545	0	595	45
2006	**1062**	**1036**	**5389**	**7487**	**833**	**6871**	**12**	**7716**	**229**
I.10	35	190	727	952	127	614	21	762	-190
II.10	36	145	775	956	146	708	5	859	-97
III.10	33	200	862	1095	104	751	7	862	-233
IV.10	55	179	726	960	80	656	28	764	-196
V.10	30	260	697	987	111	585	4	700	-287
VI.10	10	306	580	896	204	445	10	659	-237
VII.10	0	357	394	751	337	333	6	676	-75
VIII.10	6	415	72	493	170	104	12	286	-207
IX.10	1	322	526	849	233	340	6	579	-270
X.10	3	48	610	661	364	492	14	870	209
XI.10	72	136	880	1088	130	693	5	828	-260
XII.10	303	89	664	1056	5	759	2	766	-290
2010	**584**	**2647**	**7513**	**10744**	**2011**	**6480**	**120**	**8611**	**-2133**
I.11	169	137	523	829	28	611	0	639	-190
II.11	27	178	430	635	111	464	2	577	-58
III.11	82	129	483	694	111	568	3	682	-12
IV.11	33	242	487	762	127	444	4	575	-187
V.11	6	329	414	749	274	366	3	643	-106
VI.11	13	294	390	697	220	352	4	576	-121
VII.11	3	329	401	733	344	313	2	659	-74
VIII.11	11	329	214	554	185	220	17	422	-132
IX.11	18	270	315	603	163	319	7	489	-114
X.11	18	286	444	748	242	382	5	629	-119
XI.11	7	327	351	685	327	259	5	591	-94
XII.11	15	270	334	619	249	292	11	552	-67
2011	**402**	**3120**	**4786**	**8308**	**2381**	**4590**	**63**	**7034**	**-1274**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

Thermal nuclear net generation	GWh	Σ	2006 2010 2011	16631 13576 14379
Fossil fuels net generation	GWh	Σ	2006 2010 2011	5409 5620 6331
Hydraulic net generation	GWh	Σ	2006 2010 2011	4401 5523 4007
Other renewable net generation	GWh	Σ	2006 2010 2011	10 474 863
- of which wind	GWh	Σ	2006 2010 2011	3 7 0
- of which solar	GWh	Σ	2006 2010 2011	n.a. 9 307
Non-identifiable net generation	GWh	Σ	2006 2010 2011	2591 931 968
Total net generation, calculated to represent 100% of the national values	GWh	Σ	2006 [1] 2010 [1] 2011 [1]	29042 26124 26548
Sum of physical inside flows	GWh	Σ	2006 2010 2011	9325 7342 11228
Sum of physical outside flows	GWh	Σ	2006 2010 2011	10925 6295 10501
Total exchange balance	GWh	Σ	2006 2010 2011	-1602 1042 727
Consumption of pumps	GWh	Σ	2006 2010 2011	232 530 495
National electrical consumption, calculated to represent 100% of the national values	GWh	Σ	2006 2010 2011	27208 26636 26780
Consumption load 3:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	3573 3390 3144
Consumption load 11:00 a.m. on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	18.01.06 15.12.10 16.02.11	4194 4126 4115
Highest load on the 3rd Wednesday, calculated to represent 100% of the national values	MW	max.	20.12.06 15.12.10 16.02.11	4316 4326 4126
Time of highest load on the 3rd Wednesday		CET	20.12.06 15.12.10 16.02.11	17:00 17:00 10:00

[1]Including deliveries from industry

Physical exchanges in interconnected operation [1]

Slovak Republic | GWh

MM_YY	SK→CZ	SK→HU	SK→PL	SK→UA-W	Sum_ OF	CZ→SK	HU→SK	PL→SK	UA-W→SK	Sum_IF	Sum_IF - Sum_OF
	Outside flows (OF)					Inside flows (IF)					Balance
I.06	107	813	0	225	1145	495	0	361	4	860	-285
II.06	69	739	0	182	990	445	0	385	5	835	-155
III.06	97	699	0	127	923	371	0	307	5	683	-240
IV.06	63	615	0	64	742	287	0	281	6	574	-168
V.06	80	604	0	88	772	316	0	250	8	574	-198
VI.06	49	650	0	63	762	317	0	199	6	522	-240
VII.06	39	586	4	55	684	408	0	159	27	594	-90
VIII.06	34	696	0	58	788	597	0	19	12	628	-160
IX.06	6	554	0	127	687	457	0	310	5	772	85
X.06	29	759	0	212	1000	627	0	402	5	1034	34
XI.06	14	824	0	236	1074	743	0	315	5	1063	-11
XII.06	25	1053	0	280	1358	794	0	386	6	1186	-172
2006	**612**	**8592**	**4**	**1717**	**10925**	**5857**	**0**	**3374**	**94**	**9325**	**-1600**
I.10	24	353	4	64	445	409	0	147	22	578	133
II.10	6	373	0	79	458	475	0	187	10	672	214
III.10	16	447	1	119	583	421	0	220	8	649	66
IV.10	19	517	2	131	669	457	0	168	7	632	-37
V.10	28	339	10	52	429	346	0	99	12	457	28
VI.10	34	393	20	51	498	306	0	63	9	378	-120
VII.10	1	602	0	158	761	861	0	179	5	1045	284
VIII.10	22	539	6	64	631	431	0	87	11	529	-102
IX.10	6	447	8	55	516	591	0	1	15	607	91
X.10	7	558	0	95	660	677	0	176	13	866	206
XI.10	54	280	1	39	374	388	3	126	46	563	189
XII.10	149	86	31	5	271	136	53	45	132	366	95
2010	**366**	**4934**	**83**	**912**	**6295**	**5498**	**56**	**1498**	**290**	**7342**	**1047**
I.11	73	365	13	24	475	197	4	76	75	352	-123
II.11	19	569	0	89	677	442	0	202	12	656	-21
III.11	49	516	1	115	681	466	0	254	11	731	50
IV.11	32	573	3	58	666	434	0	170	16	620	-46
V.11	26	576	3	73	678	451	0	166	19	636	-42
VI.11	21	435	6	71	533	430	1	125	22	578	45
VII.11	6	867	0	186	1059	879	0	149	3	1031	-28
VIII.11	0	799	0	244	1043	984	0	188	3	1175	132
IX.11	1	652	0	269	922	689	0	324	2	1015	93
X.11	1	853	0	274	1128	928	0	395	4	1327	199
XI.11	0	869	0	341	1210	990	0	486	4	1480	270
XII.11	0	1046	0	383	1429	1101	0	519	7	1627	198
2011	**228**	**8120**	**26**	**2127**	**10501**	**7991**	**5**	**3054**	**178**	**11228**	**727**

[1] These physical energy flows were measured on the tie lines (≥110 kV). These values may differ from the official statistics and the total exchange balance in the table "Monthly values / Operation".

European Network of
Transmission System Operators
for Electricity

entsoe

System information

Statistical database as of 31 August 2012

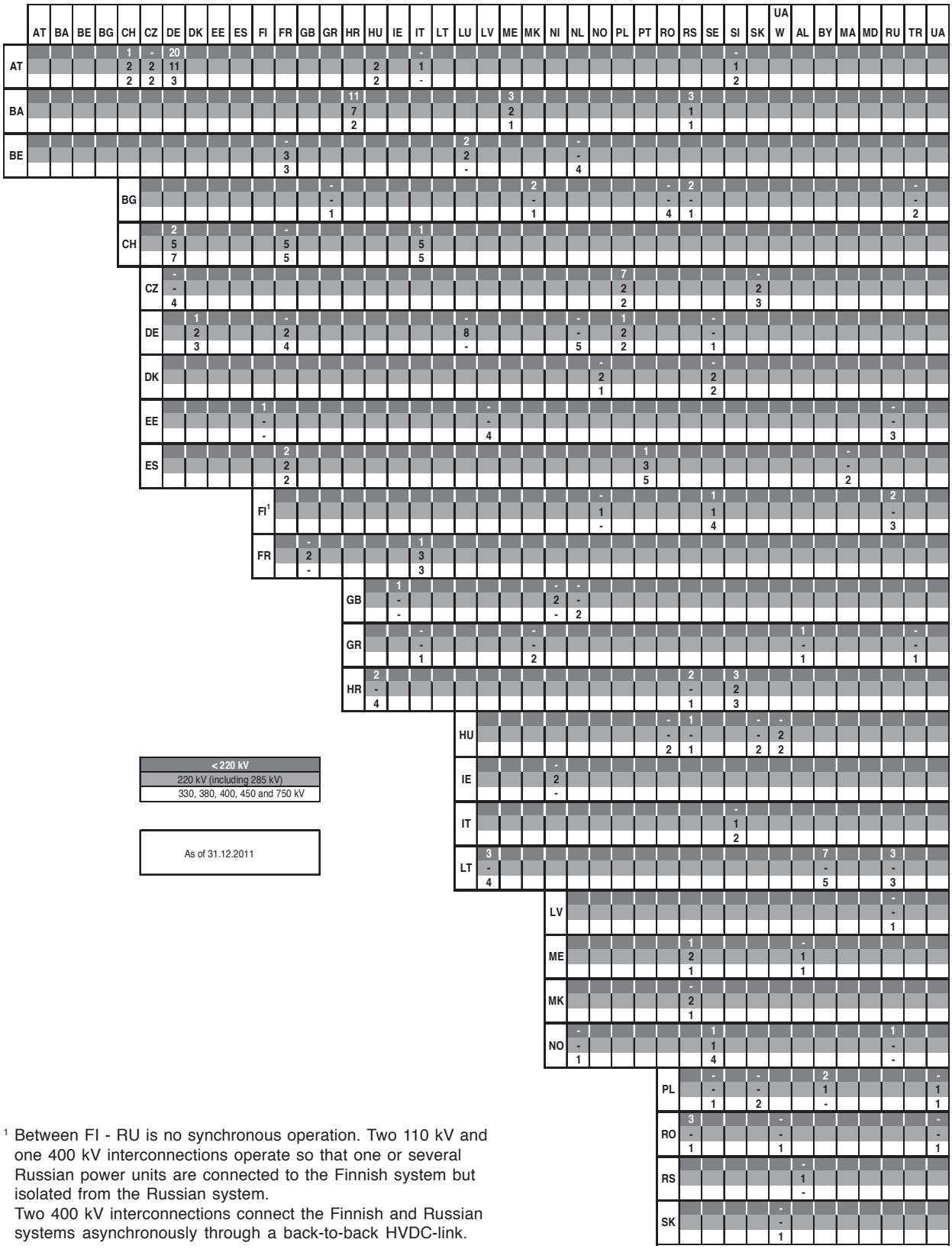
Inventory of transmission network installations as of 31 December 2011

Lenghts of circuits in km															
Country	< 220 kV	of which cable < 220 kV		220 - 285 kV	of which cable 220 - 285 kV		330 kV	of which cable 330 kV		380/400 kV	of which cable 380/400 kV		< 400 kV	of which cable < 400 kV	
		AC	DC		AC	DC		AC	DC		AC	DC		AC	DC
AT				3676	5					2838	55				
BA				1525	0					865	0				
BE				451	5					1335	0				
BG				2815	0					2327	0		85	0	
CH				4918	23					1788	8				
CY [1]	1227	120													
CZ				1909	0					3508	0				
DE				14472	39					20307	70				
DK				702	231					1508	371				
EE	3537	114		184	0		1540	0							
ES				17625	545					19622	55				
FI				2601	0					4331	0				
FR				26546	1019					21364	3				
GB				6126	522					11979	229				
GR				11484	267					4344	5				
HR				1210	0					1248	0				
HU				1433	0					2807	0		268	0	
IE				1862	129					439	0				
IS				851	0										
IT				10254	431					10327	466				
LT	5011	45					1672	0							
LU				259	18										
LV	3946	63		3940	67		1250	0							
ME [1]				400	0					280	0				
MK				103	0					507	0				
NI	1282	85		828	4										
NL				670	9					2091	30				
NO				445	0					8355	442				
PL				7921	1					5352	0		114	0	
PT				3478	42					2236	0				
RO				4755	0					4867	0		159	0	
RS				2284	0					1713	0				
SE				4400	0					10708	8				
SI				328	0					508	0				
SK				758	0					1551	0				
ENTSO-E [2,3]	**15003**	**427**	**365**	**141214**	**3356**	**2142**	**4462**	**0**	**0**	**149105**	**1742**	**1207**	**626**	**0**	**1654**

[1] Values as of 31 December 2010
[2] ENTSO-E calculated sum of the member TSOs´ countries
[3] ENTSO-E calculated sum of DC cable length is equal to 5368 km and includes NorNed Cable (580 km), BritNed (520 km), FR Suvereto - IT Lucciana (430 km), Kontek (170 km), Skagerrak 1 (438 km), Skagerrak 2 (438 km), Skagerrak 3 (219 km), Konti-Skan 1 (176 km), Konti-Skan 2 (149 km), IT Galatina - GR Arachtos (316 km), IFA (140 km), Moyle Interconnector (127 km), East-West Interconnector (260 km), Baltic Cable (269 km), SwePol (254 km), Fenno-Skan 1 (233 km), Fenno-Skan 2 (300 km), Estlink (105 km), ES Balearic System and ES Mainland (488 km).

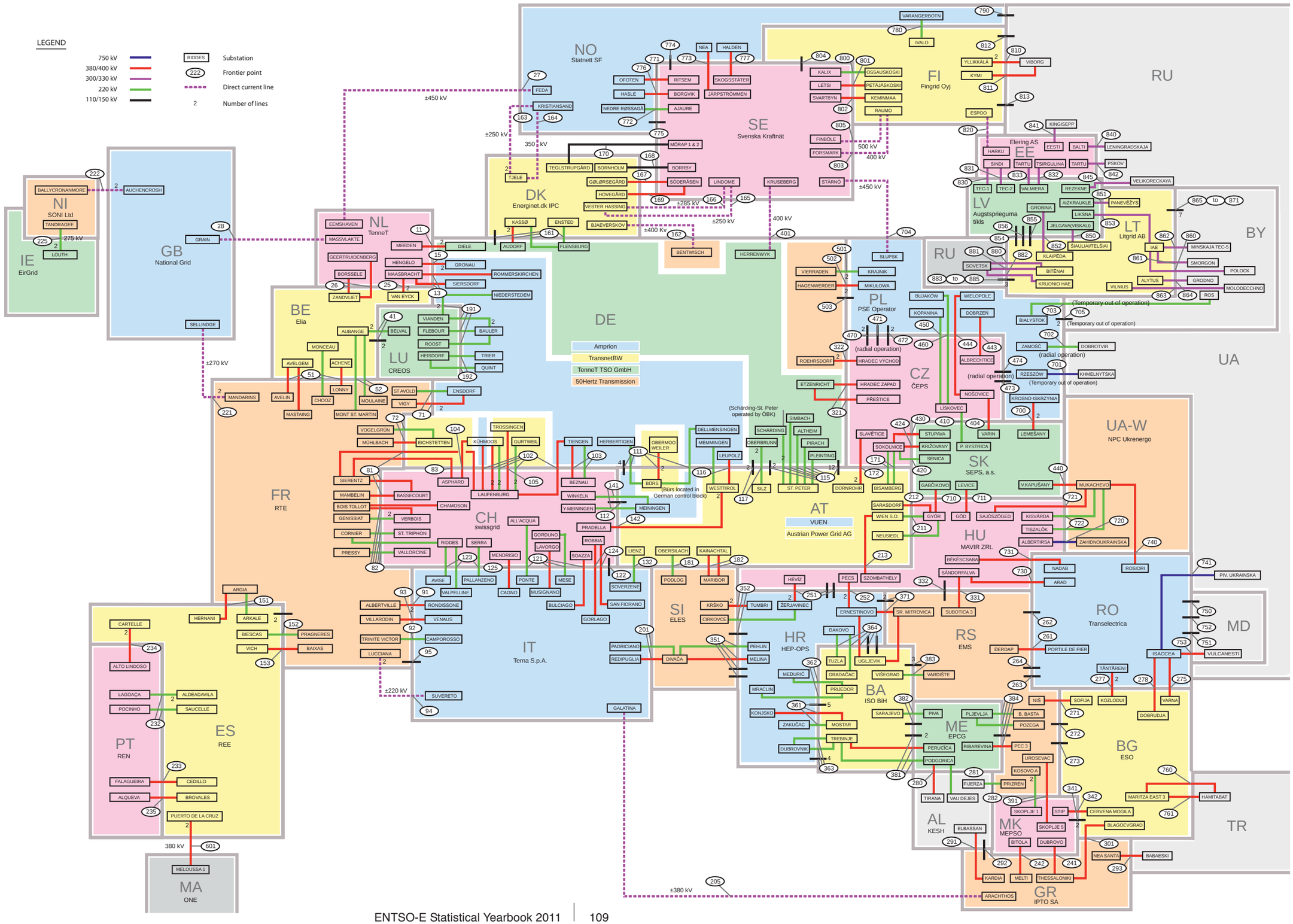
Number of circuits < 220 kV, 220 kV and over 220 kV on tie lines

Number of < 220 kV and ≥ 220 kV circuits on tie lines of all ENTSO-E member TSOs' countries and in synchronous operation with ENTSO-E countries:



[1] Between FI - RU is no synchronous operation. Two 110 kV and one 400 kV interconnections operate so that one or several Russian power units are connected to the Finnish system but isolated from the Russian system.
Two 400 kV interconnections connect the Finnish and Russian systems asynchronously through a back-to-back HVDC-link.

Simplified diagram of the ENTSO-E tie lines of the synchronous area of ENTSO-E as of 31 December 2011



	Observations
[1]	Limited by phase shifting transformer in Meeden
[2]	Limited by phase shifting transformer in Meeden
[3]	DC submarine cable
[4]	Unit is MW instead of MVA
[5]	Transducer
[6]	Line property TransNetBW in Germany partielly on the same tower as line Asphard-Kühmoos or Sierentz-Laufenburg; Line owned and operated by EnBW in Germany
[7]	DC link with three connections
[8]	Transforming station of Lucciana in Corsica
[9]	DC link with three connections
[10]	Transforming station of Lucciana in Corsica
[11]	Partially on the same tower as the Laufenbourg-Engstlatt line (No. 105.1): Alb- Nord
[12]	On the same tower as line No. 81 Laufenburg-Sierentz 380 kVLeitung: Hotzenwald
[13]	From Kühmoos to Laufenbourg on the same tower; Leitung Eggberg
[14]	On the same tower as line Sierentz-Laufenburg
[15]	On CH side: The Trafo 20 in Laufenburg 200 MVA
[16]	Limited by switching devices in Austria
[17]	Disconnected till approx. 2010; afterwards line will be dismantled
[18]	Cable at Braunau
[19]	Cable at Braunau

Circuit ID	Connection between:						Voltage of the circuit		Conventional trans-mission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
	From substation			to substation							of circuits		of lines	
(Frontier point.Line.Circuit)	Country	Name	Operated by	Country	Name	Operated by	Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
Nr.							kV	kV	MVA	MVA	MVA	kV	MVA	kV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11.1.1	DE	Diele	TenneT DE	NL	Meeden	TenneT NL		380		1382	1000 [1]			
11.1.2	DE	Diele	TenneT DE	NL	Meeden	TenneT NL		380		1382	1000 [2]			
13.1.1	DE	Siersdorf	Amprion	NL	Maasbracht	TenneT NL		380		1645				
13.1.2	DE	Rommerskirchen	Amprion	NL	Maasbracht	TenneT NL		380		1698				
15.1.1	DE	Gronau	Amprion	NL	Hengelo	TenneT NL		380		1645				
15.1.2	DE	Gronau	Amprion	NL	Hengelo	TenneT NL		380		1645				
25.1.1	BE	Van Eyck	Elia	NL	Maasbracht	TenneT NL		380		1207				
25.1.2	BE	Van Eyck	Elia	NL	Maasbracht	TenneT NL		380		1270				
26.1.1	BE	Zandvliet	Elia	NL	Geertruidenberg	TenneT NL		380		1476				
26.2.1	BE	Zandvliet	Elia	NL	Borssele	TenneT NL		380		1476	450			
27.1.1	NO	Feda	Statnett	NL	Eemshaven	TenneT NL		450		700 [3,4]				
28.1.1	GB	Isle of Grain	National Grid	NL	Maasvlakte	TenneT NL		450		500				
28.2.1	GB	Isle of Grain	National Grid	NL	Maasvlakte	TenneT NL		450		500				
41.1.1	BE	Aubange	Elia	LU	Belval	SOTEL		220		358				
41.1.2	BE	Aubange	Elia	LU	Belval	SOTEL		220		358				
41.2.1	BE	Aubange	Elia	LU	Belval	SOTEL		150		157	100			
41.3.1	BE	Aubange	Elia	LU	Belval	SOTEL		150		157	100			
51.1.1	BE	Monceau	Elia	FR	Chooz	RTE		220		338				
51.2.1	BE	Avelgem	Elia	FR	Mastaing	RTE		380		1168				
51.2.2	BE	Avelgem	Elia	FR	Avelin	RTE		380		1303				
51.3.1	BE	Achène	Elia	FR	Lonny	RTE		380		1168				
52.1.1	BE	Aubange	Elia	FR	Moulaine	RTE		220		381				
52.2.1	BE	Aubange	Elia	FR	Mont St Martin	RTE		220		381				
71.1.1	DE	Ensdorf	Amprion	FR	Vigy	RTE		380		1790				
71.1.2	DE	Ensdorf	Amprion	FR	Vigy	RTE		380		1790				
71.2.1	DE	Ensdorf	Amprion	FR	St-Avold	RTE		220		261				
72.1.1	DE	Eichstetten	TransnetBW	FR	Vogelgrün	RTE	380	220		338 [5]		220		
72.1.2	DE	Eichstetten	TransnetBW	FR	Muhlbach	RTE		380		1684				
81.1.1	CH	Bassecourt	swissgrid	FR	Sierentz	RTE		380		1172				
81.2.1	CH	Laufenburg	swissgrid	FR	Sierentz	RTE		380		946				
81.3.1	CH	Bassecourt	swissgrid	FR	Mambelin	RTE		380		846				
82.1.1	CH	Verbois	swissgrid	FR	Bois-Tollot	RTE		380		1552				
82.1.2	CH	Chamoson	swissgrid	FR	Bois-Tollot	RTE		380		1552				
82.2.1	CH	Verbois	swissgrid	FR	Génissiat	RTE		220		237				
82.2.2	CH	Verbois	swissgrid	FR	Génissiat	RTE		220		237				
82.4.1	CH	Vallorcine	swissgrid	FR	Pressy	RTE		220		355				
82.5.1	CH	Riddes	swissgrid	FR	Cornier	RTE		220		216				
82.6.1	CH	St.-Triphon	swissgrid	FR	Cornier	RTE		220		222				
83.1.1 [6]	CH/DE	Asphard	swissgrid/EnBW Tr.netze Strom	FR	Sierentz	RTE		380		1168				
91.1.1	FR	Albertville	RTE	IT	Rondissone	Terna		380		1244				
91.1.2	FR	Albertville	RTE	IT	Rondissone	Terna		380		1244				
92.1.1	FR	Trinite Victor	RTE	IT	Camporosso	Terna		220		319				
93.1.1	FR	Villarodin	RTE	IT	Venaus	Terna		380		1237				
94.1.1 [7]	FR	Lucciana	EDF	IT	Suvereto	Terna		220 [8]		300			50	
94.1.2 [9]	FR	Lucciana	EDF	IT	Suvereto	Terna		220 [10]		300			50	
95.1.1	FR	Bonifacio	EDF	IT	Santa Teresa	Terna		150		53				
102.1.1 [11]	CH	Laufenburg	swissgrid	DE	Gurtweil	TransnetBW		220		442		220		
102.1.2	CH	Laufenburg	swissgrid	DE	Gurtweil	TransnetBW		220		457		220		
102.2.1 [12]	CH	Laufenburg	swissgrid	DE	Kühmoos	TransnetBW		220		410				
102.3.1 [13]	CH	Laufenburg	swissgrid	DE	Kühmoos	TransnetBW	380	220		430				
102.3.2	CH	Laufenburg	swissgrid	DE	Kühmoos	TransnetBW		380		1527				
102.4.1	CH	Laufenburg	swissgrid	DE	Kühmoos	TransnetBW		380		1527				
102.4.2	CH	Laufenburg	swissgrid	DE	Kühmoos	Amprion		380		1607				
102.5.1	CH	Laufenburg	swissgrid	DE	Tiengen	Amprion		380		1122				
103.1.1	CH	Beznau	swissgrid	DE	Tiengen	Amprion		380		1158				
103.1.2	CH	Beznau	swissgrid	DE	Tiengen	Amprion	380	220		335				
104.1.1 [14]	CH	Asphard	swissgrid	DE	Kühmoos	TransnetBW		380		1263				
105.1.1	CH	Laufenburg	swissgrid	DE	Trossingen	TransnetBW		380		1607				
107.1.1 [15]	CH	Laufenburg 220kV	swissgrid	DE	Laufenburg 110 kV	ED		110		200				
111.1.1	AT	Bürs	VIW	DE	Obermooweiler	TransnetBW		380		1369				
111.1.2	AT	Bürs	VIW	DE	Obermooweiler	TransnetBW		380		1369				
111.2.1	AT	Bürs	VIW	DE	Herbertingen	Amprion		220		389				
111.3.1	AT	Bürs	VIW	DE	Dellmensingen	Amprion		220		492	457 [16]			
111.4.1	AT	Rieden	Vorarlberg Netz	DE	Lindenberg	Vorarlberg Netz		110		84				
111.4.2	AT	Hörbranz	Vorarlberg Netz	DE	Lindau	Vorarlberg Netz		110		84				
111.4.3	AT	Werben	Vorarlberg Netz	DE	Lindau	Vorarlberg Netz		110		162				
111.5.1	AT	Vorderwald	Vorarlberg Netz	DE	Weiler	Vorarlberg Netz		110		127				
112.1.1	AT	Feldkirch	Vorarlberg Netz	CH	Eschen	swissgrid		110		130				
115.1.1	AT	Braunau	Grenzkraftwerke AG	DE	Neuötting	E.ON Netz GmbH		110		90 [17]			82 [18]	
115.2.1	AT	Braunau	Grenzkraftwerke AG	DE	Stammham	E.ON Netz GmbH		110		102			82 [19]	
115.4.1	AT	Antiesenhofen	APG	DE	Egglfing	E.ON Netz GmbH		110		102				
115.5.1	AT	St. Peter	APG	DE	Altheim	TenneT DE		220		301				

*The conventional transmission capacity of tie lines is based upon parameters standardised within former UCTE for the calculation of the thermal load capability of each line. For arial lines these are : ambient temperature of + 35°C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 10 or 11. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

	Observations
[20]	Transducer at Ering
[21]	Transducer at Ering
[22]	Isolator in St. Peter
[23]	Isolator in St. Peter
[24]	Only temporary line; from December 2005 till summer 2006; afterwards disconnected till approx.2010
[25]	No international interconnector
[26]	CFT blocker at St. Peter
[27]	No international interconnector
[28]	CFT blocker at St. Peter
[29]	Switching device at Oberbrunn
[30]	Switching device at Oberbrunn
[31]	Possible to lay a second circuit=> Not yet managed by swissgrid, so no technical data available.
[32]	Limited by transformer in Enstedt
[33]	Limited by transformer in Kassø
[34]	Transducer at Kassø
[35]	Transducer at Kassø
[36]	DC submarine and underground cable
[37]	DC submarine and underground cable
[38]	DC submarine and underground cable
[39]	Under water cable
[40]	Under water cable
[41]	Under water cable
[42]	Generator line in radial operation - interconnected operation impossible; Installed at Vianden
[43]	Generator line in radial operation - interconnected operation impossible; Installed at Vianden
[44]	Generator line in radial operation - interconnected operation impossible; Installed at Vianden

Circuit ID	Connection between:						Voltage of the circuit		Conventional trans-mission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
	From substation			to substation							of circuits		of lines	
(Frontier point.Line.Circuit)	Country	Name	Operated by	Country	Name	Operated by	Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
Nr.							kV	kV	MVA	MVA	MVA	kV	MVA	kV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
115.6.1	AT	St. Peter	APG	DE	Simbach	TenneT DE		220		301				
115.7.1	AT	St. Peter	APG	DE	Ering	E.ON Netz GmbH		110		152	137		114 [20]	
115.7.2	AT	St. Peter	APG	DE	Ering	E.ON Netz GmbH		110		152	137		114 [21]	
115.8.1	AT	St. Peter	APG	DE	Egglfing	E.ON Netz GmbH		110		105				
115.9.1	AT	St. Peter	APG	DE	Pirach	TenneT DE		220		518	457 [22]			
115.10.1	AT	St. Peter	APG	DE	Pleinting	TenneT DE		220		449	457 [23]			
115.11.1	AT	Ranna	EAGOÖ-Netz	DE	Passau/Hauzenberg	E.ON Netz GmbH		110		90 [24]				
115.12.1	AT	Oberaudorf	ÖBK	DE	Rosenheim	E.ON Netz GmbH		110		93				
115.13.1	AT	Oberaudorf	ÖBK	DE	Kiefersfelden	E.ON Netz GmbH		110		102				
115.14.1	AT	Antiesenhofen	EAGOÖ-Netz	DE	Weidach	APG 1		110		130				
115.14.2	AT	Antiesenhofen	EAGOÖ-Netz	DE	Weidach	APG 1		110		130				
115.15.1	AT	Aigerding	APG / EAGOÖ-Netz	DE	Passau	Grenzkraftwerke AG		110		102				
115.16.1 [25]	AT	St. Peter	APG	DE	Schärding	ÖBK		220		301			229 [26]	
115.16.2 [27]	AT	St. Peter	APG	DE	Schärding	ÖBK		220		301			229 [28]	
115.17.1	AT	Kufstein	TIWAG-Netz	DE	Oberaudorf	Grenzkraftwerke AG		110		90				
115.17.2	AT	Ebbs	TIWAG-Netz	DE	Oberaudorf	Grenzkraftwerke AG		110		127				
116.1.1	AT	Westtirol	APG	DE	Leupolz	Amprion		380		1316				
116.2.1	AT	Westtirol	APG	DE	Memmingen	Amprion		220		762				
117.1.1	AT	Silz	APG	DE	Oberbrunn	TenneT DE		220		793	762 [29]			
117.1.2	AT	Silz	APG	DE	Oberbrunn	TenneT DE		220		793	762 [30]			
117.3.1	AT	Reutte	TIWAG-Netz	DE	Füssen	EW Reutte		110		127				
117.3.2	AT	Reutte	TIWAG-Netz	DE	Füssen	EW Reutte		110		127				
121.1.1	CH	All'Acqua	swissgrid	IT	Ponte	Terna		220		278				
121.2.1	CH	Gorduno	swissgrid	IT	Mese	Terna		220		278				
121.3.1	CH	Soazza	swissgrid	IT	Bulciago	Terna		380		1224				
121.4.1	CH	Lavorgo	swissgrid	IT	Musignano	Terna		380		1204				
122.1.1 [31]	CH	Campocologno	RE	IT	Poschiavino	Terna		150		103	42			
123.1.1	CH	Riddes	swissgrid	IT	Avise	Terna		220		309				
123.2.1	CH	Riddes	swissgrid	IT	Valpelline	Terna		220		309				
123.3.1	CH	Serra	swissgrid	IT	Pallanzeno	Terna		220		278				
124.1.1	CH	Robbia	swissgrid	IT	Gorlago	Terna		380		1330				
124.1.2	CH	Robbia	swissgrid	IT	San Fiorano	Terna		380		1330				
125.1.1	CH	M endrisio	swissgrid	IT	Cagno	Terna		380		450			200	
132.1.1	AT	Lienz	APG	IT	Soverzene	Terna		220		257				
141.1.1	AT	M einingen	APG on behalf of VUEN	CH	Y-Meiningen	swissgrid		220		494				
141.2.1	AT	M einingen	APG on behalf of VUEN	CH	Winkeln	swissgrid		220		765				
142.1.1	AT	Westtirol	APG	CH	Pradella	swissgrid		380		1330				
142.2.1	AT	Westtirol	APG	CH	Pradella	swissgrid		380		1330				
151.1.1	ES	Hernani	REE	FR	Argia	RTE		380		1137				
151.2.1	ES	Irún	REE	FR	Errondenia	RTE		132		59				
151.3.1	ES	Arkale	REE	FR	Argia	RTE		220		339				
151.4.1	ES	Biescas	REE	FR	Pragnères	RTE		220		183				
152.1.1	ES	Benós	REE	FR	Lac d'Oo	RTE		110		76				
153.1.1	ES	Vich	REE	FR	Baixas	RTE		380		1348				
161.1.1	DE	Flensburg	TenneT DE	DK	Ensted	Energinet.dk IPC		220		332	305 [32]			
161.2.1	DE	Flensburg	TenneT DE	DK	Kassø	Energinet.dk IPC		220		332	305 [33]			
161.3.1	DE	Audorf	TenneT DE	DK	Kassø	Energinet.dk IPC		380		1078	658 [34]			
161.3.2	DE	Audorf	TenneT DE	DK	Kassø	Energinet.dk IPC		380		1078	658 [35]			
161.4.1	DE	Flensburg UW Nord	Stadtwerke Flensburg	DK	Ensted	Energinet.dk IPC		150		150				
162.1.1 [36]	DE	Bentwisch	50Hertz	DK	Bjæverskov	Energinet.dk IPC		400		600				
163.1.1 [37]	NO	Kristiansand	Statnett SF	DK	Tjele	Energinet.dk IPC		250		250				
163.1.2 [38]	NO	Kristiansand	Statnett SF	DK	Tjele	Energinet.dk IPC		250		250				
164.1.1 [39]	NO	Kristiansand	Statnett SF	DK	Tjele	Energinet.dk IPC		350		350				
165.1.1 [40]	SE	Lindome	Svenska Kraftnät	DK	Vester Hassing	Energinet.dk IPC		282		370				
166.1.1 [41]	SE	Lindome	Svenska Kraftnät	DK	Vester Hassing	Energinet.dk IPC		285		360				
167.1.1	SE	Söderåsen	Svenska Kraftnät	DK	Gørløsegård	Energinet.dk IPC		400		830				
168.1.1	SE	Borrby	E.ON Elnät Sverige AB	DK	Bornholm	Energinet.dk IPC		60		51				
169.1.1	SE	Söderåsen	Svenska Kraftnät	DK	Hovegård	Energinet.dk IPC		400		830				
170.1.1	SE	Mörarp 1and 2	E.ON Elnät Sverige AB	DK	Teglstrupgård	Energinet.dk IPC		130		311				
171.1.1	AT	Bisamberg	APG	CZ	Sokolnice	CEPS		220		250				
171.2.1	AT	Bisamberg	APG	CZ	Sokolnice	CEPS		220		250				
172.1.1	AT	Dürnrohr	APG	CZ	Slavetice	CEPS		380		1559				
172.1.2	AT	Dürnrohr	APG	CZ	Slavetice	CEPS		380		1559				
181.1.1	AT	Obersielach	APG	SI	Podlog	ELES		220		320				
182.1.1	AT	Kainachtal	APG	SI	Maribor	ELES		380		1164				
182.2.1	AT	Kainachtal	APG	SI	Maribor	ELES		380		1164				
191.1.1	DE	Niederstedem	Amprion	LU	Vianden	SEO		220		490	460 [42]			
191.1.2	DE	Niederstedem	Amprion	LU	Vianden	SEO		220		490	230			
191.2.1	DE	Bauler	Amprion	LU	Vianden	SEO		220		730	345 [43]			
191.2.2	DE	Bauler	Amprion	LU	Vianden	SEO		220		730	230 [44]			
191.3.1	DE	Bauler	Amprion	LU	Flebour	Creos Luxembourg		220		490				

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	Observations
[45]	The 400kV link between GR-IT is composed of an overhead line and a submarine cable
[46]	DC submarine cable
[47]	Unit is MW instead of MVA
[48]	DC submarine cable
[49]	Unit is MW instead of MVA
[50]	DC submarine cable
[51]	DC Submarine Cable - 250MW instead 250 MVA
[52]	Due to Existing Constraints the following applies to the 275kV double circuit tie line (both 225.1.1 AND 225.2.1):IE Louth to NI Tandragee = 380MW NI Tandragee to IE Louth
[53]	Due to Existing Constraints the following applies to the 275kV double circuit tie line (both 225.1.1 AND 225.2.1):IE Louth to NI Tandragee = 380MW NI Tandragee to IE Louth
[54]	In May 2007 out of operation 150 kV line Bitola1-Amyndeo; from June 2007 the new 400 kV line Bitola2-Meliti in operation
[55]	Limited by the connected network
[56]	Nominal voltage in Croatia
[57]	Limited by the connected network
[58]	Nominal voltage in Croatia
[59]	Built for 750 kV
[60]	4500 MVA at 750 kV
[61]	Limited by the Albanian network
[62]	Capacity of current transformers at Bistrica
[63]	Disconnected in Serbia

Circuit ID	Connection between:						Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
	From substation			to substation							of circuits		of lines	
(Frontier point.Line.Circuit)	Country	Name	Operated by	Country	Name	Operated by	Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
Nr.							kV	kV	MVA	MVA	MVA	kV	MVA	kV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
191.4.1	DE	Bauler	Amprion	LU	Roost	Creos Luxembourg		220		490				
192.1.1	DE	Trier	Amprion	LU	Heisdorf	Creos Luxembourg		220		490				
192.2.1	DE	Quint	Amprion	LU	Heisdorf	Creos Luxembourg		220		490				
201.1.1	IT	Redipuglia	Terna	SI	Divača	ELES		380		1619			1200	
201.2.1	IT	Padriciano	Terna	SI	Divača	ELES		220		320				
205.1.1 [45]	IT	Galatina	Terna	GR	Arachthos	IPTO SA		380		500				
211.1.1	AT	Wien Süd-Ost	APG	HU	Györ	MAVIR		220		209				
211.1.2	AT	Neusiedl	APG	HU	Györ	MAVIR		220		209				
212.1.1	AT	Sarasdorf	APG	HU	Györ	MAVIR		380		1514				
213.1.1	AT	Wien Süd-Ost	APG	HU	Szombathely	MAVIR		380		1514				
221.1.1	FR	Mandarins	RTE	GB	Sellindge	National Grid		270 [46]		1000 [47]				
221.2.1	FR	Mandarins	RTE	GB	Sellindge	National Grid		270 [48]		1000 [49]				
222.1.1	NI	Ballycronanmore	SONI Ltd	GB	Auchencrosh	National Grid		250 [50]		250				
222.2.1	NI	Ballycronanmore	SONI Ltd	GB	Auchencrosh	National Grid		250		250 [51]				
225.1.1	NI	Tandragee	SONI Ltd	IE	Louth	EirGrid		275		660 [52]				
225.2.1	NI	Tandragee	SONI Ltd	IE	Louth	EirGrid		275		660 [53]				
231.1.1	ES	Las Conchas	REE	PT	Lindoso	REN		132		90				
232.1.1	ES	Aldeadávila	REE	PT	Pocinho	REN		220		374				
232.2.1	ES	Aldeadávila	REE	PT	Pocinho	REN		220		374				
232.2.1	ES	Aldeadávila	REE	PT	Lagoaça	REN		400		1469				
232.3.1	ES	Saucelle	REE	PT	Pocinho	REN		220		346				
233.1.1	ES	Cedillo	REE	PT	Falagueira	REN		380		1300				
234.1.1	ES	Cartelle	REE	PT	Alto Lindoso	REN		380		1330				
234.1.2	ES	Cartelle	REE	PT	Alto Lindoso	REN		380		1330				
235.1.1	ES	Brovales	REE	PT	Alqueva	REN		400		1280				
241.1.1	MK	Dubrovo	MEPSO	GR	Thessaloniki	IPTO SA		400		1300				
242.1.1 [54]	MK	Bitola	MEPSO	GR	Meliti	IPTO SA		400		1300				
251.1.1	HU	Lenti	MAVIR	HR	Nedeljanec	HEP-OPS		120		79	50 [55]	110 [56]		
251.2.1	HU	Siklos	MAVIR	HR	Donji Miholjac	HEP-OPS		110		114	50 [57]	110 [58]		
251.3.1	HU	Héviz	MAVIR	HR	Zerjavinec	HEP-OPS		400		1246				
251.3.2	HU	Héviz	MAVIR	HR	Zerjavinec	HEP-OPS		400		1246				
252.1.1	HU	Pécs	MAVIR	HR	Ernestinovo	HEP-OPS		400		1246				
252.1.2	HU	Pécs	MAVIR	HR	Ernestinovo	HEP-OPS		400		1246				
261.1.1	RS	Djerdap 1	EMS	RO	Portile de Fier	Transelectrica		400		1135			1107	
262.1.1	RS	Kikinda	EMS	RO	Jimbolia	Transelectrica		110		65			57	
263.1.1	RS	Djerdap 2	EMS	RO	Ostrovu Mare	Transelectrica		110		90				
264.1.1	RS	Sip	EMS	RO	Gura Văii	Transelectrica		110		87			19	
271.1.1	BG	Sofija Zapad	ESO	RS	Niš	EMS		380		1309				
272.1.1	BG	Breznik	ESO	RS	HE Vrla 1	EMS		110		97				
273.1.1	BG	Kula	ESO	RS	Zaječar	EMS		110		90				
275.1.1	RO	Isaccea	Transelectrica	BG	Varna	ESO	750	400 [59]		2168 [60]				
277.1.1	RO	Ţânţăreni	Transelectrica	BG	Kozlodui	ESO		400		1300		1000		
277.1.2	RO	Ţânţăreni	Transelectrica	BG	Kozlodui	ESO		400		1300		1000		
278.1.1	RO	Rahman	Transelectrica	BG	Dobrudja	ESO		400		1135			830	
280.1.1	AL	Tirana2	OST	ME	Podgorica 2	CGES AD		380		1264				
281.1.1	AL	Vau i Dejës	KESH	ME	Podgorica 2	CGES AD		220		276				
282.1.1	AL	Fierza	KESH	RS	Prizren	EMS		220		270				
291.1.1	AL	Elbassan	KESH	GR	Kardia	IPTO SA		400		1300	250 [61]			
292.1.1	AL	Bistrica	KESH	GR	Mourtos	IPTO SA		150		120	40 [62]			
293.1.1	TR	Babaeski	TEIAS	GR	Nea Santa	IPTO SA		400		2000				
301.1.1	BG	Blagoevgrad	ESO	GR	Thessaloniki	IPTO SA		400		1300	700			
321.1.1	CZ	Hradec Zapad	CEPS	DE	Etzenricht	TenneT DE		380		1386				
321.1.2	CZ	Prestice	CEPS	DE	Etzenricht	TenneT DE		380		1569				
322.1.1	CZ	Hradec Vychod	CEPS	DE	Röhrsdorf	50Hertz		380		1386				
322.1.2	CZ	Hradec Vychod	CEPS	DE	Röhrsdorf	50Hertz		380		1386				
331.1.1	HU	Sándorfalva	MAVIR	RS	Subotica 3	EMS		400		1295	1050			
332.1.1	HU	Szeged	MAVIR	RS	Subotica	EMS		110		79 [63]	62			
341.1.1	BG	Skakavica	ESO	MK	Kriva Palanka	MEPSO		110		123				
341.2.1	BG	Petric	ESO	MK	Sušica	MEPSO		110		123				
342.1.1	BG	Cervena Mogila	ESO	MK	Stip	MEPSO		400		1309				
351.1.1	HR	Melina	HEP-OPS	SI	Divača	ELES		380		1164				
351.2.1	HR	Pehlin	HEP-OPS	SI	Divača	ELES		220		320				
351.3.1	HR	Buje	HEP-OPS	SI	Koper	ELES		110		76				
351.4.1	HR	Matulji	HEP-OPS	SI	Ilirska Bistrica	ELES		110		53				
352.1.1	HR	Tumbri	HEP-OPS	SI	Krško	ELES		380		1164				
352.1.2	HR	Tumbri	HEP-OPS	SI	Krško	ELES		380		1164				
352.2.1	HR	Zerjavinec	HEP-OPS	SI	Cirkovce	ELES		220		297				
352.3.1	HR	Nedeljanec	HEP-OPS	SI	Formin	ELES		110		101				
361.1.1	BA	Mostar	NOS BiH	HR	Konjsko	HEP-OPS		400		1316				
361.2.1	BA	Mostar	NOS BiH	HR	Zakučac	HEP-OPS		220		311				
361.3.1	BA	Grahovo	NOS BiH	HR	Knin	HEP-OPS		110		90				

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within former UCTE for the calculation of the thermal load capability of each line. For arial lines these are : ambient temperature of + 35°C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 10 or 11. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

	Observations
[64]	Line is destroyed, currently under construction
[65]	Line is destroyed, currently under construction
[66]	DC submarine cable
[67]	Monopol
[68]	Limited by the measuring transformer of current
[69]	Value for 30°C (no data for 35°C)
[70]	Value for 30°C (no data for 35°C)
[71]	Value for 30°C (no data for 35°C)
[72]	Limitation due to current transformer in Kudowa SS
[73]	Value for 30°C (no data for 35°C)
[74]	Limitation due to current part of combined current/voltage transformer in Pogwizdów SS
[75]	Value for 30°C (no data for 35°C)
[76]	Limitation due to current part of combined current/voltage transformer in Pogwizdów SS
[77]	Value for 30°C (no data for 35°C)
[78]	Limitation due to current transformer in Mnisztwo SS
[79]	Value for 30°C (no data for 35°C)
[80]	On Polish side 400 kV line (internal designation between 50Hertz and PSE Operator)
[81]	On Polish side 400 kV line (internal designation between 50Hertz and PSE Operator)
[82]	Value for 30°C (no data for 35°C)
[83]	Submarine cable
[84]	Submarine cable
[85]	Limited by current transformer at Krosno
[86]	Limited by current transformer at Krosno
[87]	Temporary out of operation
[88]	Limeted by HF attenuator at UA side
[89]	Radial operation
[90]	Temporary out of operation
[91]	Value for 30°C (no data for 35°C)
[92]	DC Submarine cable
[93]	Temporary out of operation
[94]	Value for 30°C (no data for 35°C)
[95]	Temporary out of operation
[96]	Value for 30°C (no data for 35°C)

Circuit ID	Connection between:						Voltage of the circuit		Conventional trans-mission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
	From substation			to substation							of circuits		of lines	
(Frontier point.Line.Circuit)	Country	Name	Operated by	Country	Name	Operated by	Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
Nr.							kV	kV	MVA	MVA	MVA	kV	MVA	kV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
361.4.1	BA	Buško Blato	NOS BiH	HR	Kraljevac	HEP-OPS		110		115				
361.5.1	BA	Buško Blato	NOS BiH	HR	Peruca	HEP-OPS		110		90				
361.6.1	BA	Grude	NOS BiH	HR	Imotski	HEP-OPS		110		72				
361.7.1	BA	Kulen Vakuf	NOS BiH	HR	Gracac	HEP-OPS		110		120	101			
362.1.1	BA	Prijedor	NOS BiH	HR	Mraclin	HEP-OPS		220		297				
362.2.1	BA	Prijedor	NOS BiH	HR	Meduric	HEP-OPS		220		297				
363.1.1	BA	Trebinje	NOS BiH	HR	Dubrovnik	HEP-OPS		220		460				
363.2.1	BA	Trebinje	NOS BiH	HR	Dubrovnik	HEP-OPS		220		460				
363.3.1	BA	Capljina	NOS BiH	HR	Opuzen	HEP-OPS		110		84				
363.4.1	BA	Neum	NOS BiH	HR	Opuzen	HEP-OPS		110		84				
363.5.1	BA	Neum	NOS BiH	HR	Ston	HEP-OPS		110		76				
363.6.1	BA	Trebinje	NOS BiH	HR	Komolac	HEP-OPS		110		84				
364.1.1	BA	Ugljevik	NOS BiH	HR	Ernestinovo	HEP-OPS		400		1264				
364.2.1	BA	Gradacac	NOS BiH	HR	Đakovo	HEP-OPS		220		229				
364.3.1	BA	Tuzla	NOS BiH	HR	Đakovo	HEP-OPS		220		229				
364.4.1	BA	Bosanski Brod	NOS BiH	HR	Slavonski Brod 2	HEP-OPS		110		115				
364.5.1	BA	Orasje	NOS BiH	HR	Zupanja	HEP-OPS		110		76				
371.1.1	HR	Ernestinovo	HEP-OPS	RS	Sremska Mitrovica	EMS		400		1264				
371.2.1	HR	Nijemci	HEP-OPS	RS	Šid	EMS		110		76				
371.3.1	HR	Beli Manastir	HEP-OPS	RS	Apatin	EMS		110		78				
381.1.1	BA	Trebinje	NOS BiH	ME	Podgorica 2	CGES AD		380		1264				
381.2.1	BA	Trebinje	NOS BiH	ME	Perucica	CGES AD		220		276				
381.3.1	BA	Trebinje	NOS BiH	ME	Herceg Novi	CGES AD		110		90				
381.4.1	BA	Bileca	NOS BiH	ME	Vilusi	CGES AD		110		84				
382.1.1	BA	Sarajevo 20	NOS BiH	ME	Piva	CGES AD		220		366				
382.2.1	BA	Goražde	NOS BiH	ME	Pljevlja 1	CGES AD		110		90				
383.1.1	BA	Višegrad	NOS BiH	RS	Pozega	EMS		220		311				
383.2.1	BA	Bijeljina	NOS BiH	RS	Lešnica	EMS		110		123				
383.3.1	BA	Zvornik	NOS BiH	RS	HE Zvornik	EMS		110		123				
383.4.1	BA	Višegrad	NOS BiH	RS	Zamrsten	EMS		110		90				
383.5.1	BA	Ugljevik	NOS BiH	RS	Sremska Mitrovica	EMS		380		1264				
384.1.1	ME	Ribarevine	CGES AD	RS	Pec 3	EMS		380		1264				
384.2.1	ME	Pljevlja 2	CGES AD	RS	Bajina Basta	EMS		220		350				
384.3.1	ME	Pljevlja 2	CGES AD	RS	Pozega	EMS		220		365				
384.4.1	ME	Pljevlja 1	CGES AD	RS	Zamrsten	EMS		110		70				
391.1.1 [64]	MK	Skopje 1	MEPSO	RS	Kosovo A	EMS		220		311				
391.2.1 [65]	MK	Skopje 1	MEPSO	RS	Kosovo A	EMS		220		311				
391.3.1	MK	Skopje 5	MEPSO	RS	Urosevac	EMS		380		1218				
401.1.1 [66,67]	DE	Herrenwyk	TenneT DE	SE	Kruseberg	Baltic Cable AB		400		600				
404.1.1	CZ	Nosovice	CEPS	SK	Varin	SEPS		400		1205				
410.1.1	CZ	Liskovec	CEPS	SK	Pov. Bystrica	SEPS		220		221				
420.1.1	CZ	Sokolnice	CEPS	SK	Senica	SEPS		220		213				
424.1.1	CZ	Sokolnice	CEPS	SK	Krizovany	SEPS		400		1205				
430.1.1	CZ	Sokolnice	CEPS	SK	Stupava	SEPS		400		1363				
440.1.1	SK	V.Kapusany	SEPS	UA-W	Mukachevo	NPC Ukrenergo		400		1115	831 [68]			
443.1.1	CZ	Albrechtice	CEPS	PL	Dobrzen	PSE Operator S.A.		400		1088				
444.1.1	CZ	Nošovice	CEPS	PL	Wielopole	PSE Operator S.A.		400		1088				
450.1.1	CZ	Liskovec	CEPS	PL	Kopanina	PSE Operator S.A.		220		399				
460.1.1	CZ	Liskovec	CEPS	PL	Bujaków	PSE Operator S.A.		220		399				
470.1.1	CZ	Porící	CEZ Distribuce	PL	Boguszów	Tauron Dystrybucja S.A.		110		78 [69]				
470.1.2	CZ	Porící	CEZ Distribuce	PL	Boguszów	Tauron Dystrybucja S.A.		110		78 [70]				
471.1.1	CZ	Náchod	CEZ Distribuce	PL	Kudowa	Tauron Dystrybucja S.A.		110		123 [71]	57 [72]			
472.1.1	CZ	Darkov	CEZ Distribuce	PL	Pogwizdów	Tauron Dystrybucja S.A.		110		123 [73]	114 [74]			
472.1.2	CZ	Darkov	CEZ Distribuce	PL	Pogwizdów	Tauron Dystrybucja S.A.		110		123 [75]	114 [76]			
473.1.1	CZ	Trinec	CEZ Distribuce	PL	Mnisztwo	Tauron Dystrybucja S.A.		110		123 [77]	114 [78]			
474.1.1	CZ	Trinec	CEZ Distribuce	PL	Mnisztwo/Ustro n	Tauron Dystrybucja S.A.		110		123 [79]				
501.1.1	DE	Vierraden	50Hertz	PL	Krajnik	PSE Operator S.A.		220		402				
501.1.2	DE	Vierraden	50Hertz	PL	Krajnik	PSE Operator S.A.		220		402				
502.1.1	DE	Hagenwerder	50Hertz	PL	Mikułowa	PSE Operator S.A.		380 [80]		1302				
502.1.2	DE	Hagenwerder	50Hertz	PL	Mikułowa	PSE Operator S.A.		380 [81]		1302				
503.1.1	DE	Neueibau	ENSO Netz GmbH	PL	Turów	Tauron Dystrybucja S.A.		110		39 [82]				
601.1.1 [83]	ES	Puerto de la Cruz	REE	MA	Melloussa 1	ONE		380		715				
601.1.2 [84]	ES	Puerto de la Cruz	REE	MA	Melloussa 2	ONE		380		715				
700.1.1	PL	Krosno Iskrzynia	PSE Operator S.A.	SK	Lemešany	SEPS		400		1252	831 [85]			
700.1.2	PL	Krosno Iskrzynia	PSE Operator S.A.	SK	Lemešany	SEPS		400		1252	831 [86]			
701.1.1 [87]	PL	Rzeszów	PSE Operator S.A.	UA	Khmelnytska NPP	NPC Ukrenergo		750		2676	2595 [88]			
702.1.1 [89]	PL	Zamosc	PSE Operator S.A.	UA	Dobrotvir	NPC Ukrenergo		220		279				
703.1.1 [90]	PL	Bialystok	PSE Operator S.A.	BY	Ros	Grodnoenergo		220		158 [91]				
704.1.1 [92]	PL	Slupsk	PSE Operator S.A.	SE	Stärnö	Svenska Kraftnät		442		600				
705.1.1 [93]	PL	Wólka Dobrynska	PGE Dystrybucja S.A.	BY	Brest	RUB Brestenergo		110		123 [94]				
705.1.2 [95]	PL	Wólka Dobrynska	PGE Dystrybucja S.A.	BY	Brest	RUB Brestenergo		110		123 [96]				

*The conventional transmission capacity of tie lines is based upon parameters standardised within former UCTE for the calculation of the thermal load capability of each line. For arial lines these are : ambient temperature of + 35°C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 10 or 11. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

	Observations
[97]	Limited by the measuring transformer of current
[98]	Out of operation
[99]	Limited by HF attenuator at RO side
[100]	Passive island operation limit
[101]	Passive island operation limit
[102]	Passive island operation limit
[103]	Not in operation
[104]	DC submarine cable
[105]	Used only for import to Finland
[106]	Used only for import to Finland
[107]	Used only for import to Finland
[108]	Used only for import to Finland
[109]	Used only for import to Finland
[110]	DC submarine cable
[111]	Limited by the relay protection circuits
[112]	Limited by the relay protection circuits
[113]	Limited by the current transformers
[114]	limited by the relay protection circuits
[115]	Limited by the relay protection circuits
[116]	Limited by the relay protection circuits
[117]	Limited by the current transformers
[118]	Limited by the relay protection circuits

Circuit ID	Connection between:						Voltage of the circuit		Conventional trans-mission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
	From substation			to substation							of circuits		of lines	
(Frontier point.Line.Circuit)	Country	Name	Operated by	Country	Name	Operated by	Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage
Nr.							kV	kV	MVA	MVA	MVA	kV	MVA	kV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
710.1.1	HU	Györ	MAVIR	SK	Gabcikovo	SEPS		400		1330				
711.1.1	HU	Göd	MAVIR	SK	Levice	SEPS		400		1330				
720.1.1	HU	Albertirsa	MAVIR	UA-W	Zahidno Ukrainska	NPC Ukrenergo		750		4010	1400			
721.1.1	HU	Sajószöged	MAVIR	UA-W	Mukachevo	NPC Ukrenergo		400		1390	693 [97]			
722.1.1	HU	Kisvárda	MAVIR	UA-W	Mukachevo	NPC Ukrenergo		220		209	305			
722.1.2	HU	Tiszalök	MAVIR	UA-W	Mukachevo	NPC Ukrenergo		220		209	305			
730.1.1	HU	Sándorfalva	MAVIR	RO	Arad	Transelectrica		400		1135	1109		1107	
731.1.1	HU	Békéscsaba	MAVIR	RO	Nadab	Transelectrica		400		1300	1385			
740.1.1	RO	Rosiori	Transelectrica	UA-W	Mukachevo	NPC Ukrenergo		400		1135			1107	
741.1.1 [98]	RO	Isaccea	Transelectrica	UA	PivdennoUkrainska AES	NPC Ukrenergo		750		4064	2100		2595 [99]	
750.1.1	RO	Stânca	Transelectrica	MD	Costesti	Moldenergo		110		119			90 [100]	
751.1.1	RO	Husi	Transelectrica	MD	Cioara	Moldenergo		110		87			65 [101]	
752.1.1	RO	Tutora	Transelectrica	MD	Ungheni	Moldenergo		110		87			76 [102]	
753.1.1	RO	Issaccea	Transelectrica	MD	Vulcanesti	Moldenergo		400		1135			830	
760.1.1 [103]	3	Maritsa3	ESO	TR	Babaeski	TEIAS		400		1309				
761.1.1	BG	Maritsa3	ESO	TR	Hamitabat	TEIAS		400		1962				
770.1.1	NO	Sildvik	Statnett SF	SE	Tornehamm	VE Eldistribution AB		130		70				
771.1.1	NO	Ofoten	Statnett SF	SE	Ritsem	Svenska Kraftnät		400		880				
772.1.1	NO	Røssåga	Statnett SF	SE	Ajaure	Svenska Kraftnät		220		250				
773.1.1	NO	Nea	Statnett SF	SE	Järpströmmen	Svenska Kraftnät		400		500				
774.1.1	NO	Lutufallet	Statnett SF	SE	Höljes	Fortum Distribution		130						
775.1.1	NO	Eidskog	Statnett SF	SE	Charlottenberg	Fortum Distribution		130						
776.1.1	NO	Hasle	Statnett SF	SE	Borgvik	Svenska Kraftnät		400		1510				
777.1.1	NO	Halden	Statnett SF	SE	Skogssäter	Svenska Kraftnät		400		2000				
780.1.1	NO	Varangerbotn	Statnett SF	FI	Ivalo	Fingrid		220		100				
790.1.1	NO	Kirkenes	Statnett SF	RU	Boris Gleb	JSC FGC UES		154						
800.1.1	FI	Ossauskoski	Fingrid	SE	Kalix	Svenska Kraftnät		220						
801.1.1	FI	Petäjäskoski	Fingrid	SE	Letsi	Svenska Kraftnät		400						
802.1.1	FI	Keminmaa	Fingrid	SE	Svartbyn	Svenska Kraftnät		400						
803.1.1 [104]	FI	Raumo	Fingrid	SE	Forsmark	Svenska Kraftnät		400		550				
804.1.1	FI	Tingsbacka (Aland)	Kraftnät Åland AB	SE	Senneby	VE Eldistribution AB		110		80				
805.1.1	FI	Raumo	Fingrid	SE	Finnböle	Svenska Kraftnät		500		800				
810.1.1 [105]	FI	Yllikkälä	Fingrid	RU	Viborg	JSC FGC UES		400						
810.1.2 [106]	FI	Yllikkälä	Fingrid	RU	Viborg	JSC FGC UES		400						
811.1.1 [107]	FI	Kymi	Fingrid	RU	Viborg	JSC FGC UES		400						
812.1.1 [108]	FI	Nellimö	Inergia Oy	RU	Kaitakoski	JSC FGC UES		110		60				
813.1.1 [109]	FI	Imatra	Fortum Corporation	RU	GES 10	JSC FGC UES		110		100				
820.1.1 [110]	FI	Espoo	Fingrid	EE	Harku	Elering AS		150		350				
830.1.1	LV	TEC-1	Augstsprieguma tïkls	EE	Sindi	Elering AS		330		1228				
831.1.1	LV	TEC-2	Augstsprieguma tïkls	EE	Sindi	Elering AS		330		1228				
832.1.1	LV	Valmiera	Augstsprieguma tïkls	EE	Tsirguliina	Elering AS		330		350				
833.1.1	LV	Valmiera	Augstsprieguma tïkls	EE	Tartu	Elering AS		330		350				
840.1.1	RU	Leningradskaja	JSC FGC UES	EE	Balti	Elering AS		330		590				
841.1.1	RU	Kingisepp	JSC FGC UES	EE	Eesti	Elering AS		330		393				
842.1.1	RU	Pskov	JSC FGC UES	EE	Taru	Elering AS		330		389				
845.1.1	RU	Velikoreckaya	JSC FGC UES	LV	Rezekne	Augstsprieguma tïkls		330		350				
850.1.1	LT	Šiauliai/Telšiai	LITGRID AB	LV	Jelgava (Viskali)	Augstsprieguma tïkls		330		714	572 [111]			
851.1.1	LT	Panevežys	LITGRID AB	LV	Aizkraukle	Augstsprieguma tïkls		330		714	686 [112]			
852.1.1	LT	Klaipeda	LITGRID AB	LV	Grobina	Augstsprieguma tïkls		330		714	572 [113]			
853.1.1	LT	IAE	LITGRID AB	LV	Liksna	Augstsprieguma tïkls		330		830				
854.1.1	LT	Paroveja	LITGRID AB	LV	Nereta	Augstsprieguma tïkls		110		75				
855.1.1	LT	Zarasai	LITGRID AB	LV	Daugavpils	Augstsprieguma tïkls		110		86				
856.1.1	LT	IAE	LITGRID AB	LV	Daugavpils	Augstsprieguma tïkls		110		102				
860.1.1	LT	IAE	LITGRID AB	BY	Polock	Belenergo		330		966	857 [114]			
861.1.1	LT	IAE	LITGRID AB	BY	Smorgon	Belenergo		330		830				
862.1.1	LT	IAE	LITGRID AB	BY	Minskaja TEC-5	Belenergo		330		1786	857 [115]			
863.1.1	LT	Vilnius	LITGRID AB	BY	Molodechno	Belenergo		330		714				
864.1.1	LT	Alytus	LITGRID AB	BY	Grodno	Belenergo		330		714				
865.1.1	LT	IAE	LITGRID AB	BY	Opsa	Belenergo		110		63				
866.1.1	LT	IAE	LITGRID AB	BY	Vidzi	Belenergo		110		63				
867.1.1	LT	Didžiasalis	LITGRID AB	BY	Kaziani	Belenergo		110		44	29 [116]			
868.1.1	LT	Pabrade	LITGRID AB	BY	Podolci	Belenergo		110		44				
869.1.1	LT	Kalveliai	LITGRID AB	BY	Asmena	Belenergo		110		63	38 [117]			
870.1.1	LT	Šalcininkai	LITGRID AB	BY	Voronovo	Belenergo		110		86	46 [118]			
871.1.1	LT	Leipalingis	LITGRID AB	BY	Grodno	Belenergo		110		75				
880.1.1	LT	Bitenai	LITGRID AB	RU	Sovetsk	UES-SO-CDA		330		714				
881.1.1	LT	Bitenai	LITGRID AB	RU	Sovetsk	UES-SO-CDA		330		714				
882.1.1	LT	Kruonio HAE	LITGRID AB	RU	Sovetsk	UES-SO-CDA		330		714				
883.1.1	LT	Kybartai	LITGRID AB	RU	Nesterovo	UES-SO-CDA		110		75				
884.1.1	LT	Pagegiai	LITGRID AB	RU	Sovetsk	UES-SO-CDA		110		75				
885.1.1	LT	Pagegiai	LITGRID AB	RU	Sovetsk	UES-SO-CDA		110		75				

*The conventional transmission capacity of tie lines is based upon parameters standardised within former UCTE for the calculation of the thermal load capability of each line. For arial lines these are : ambient temperature of + 35°C, wind velocity of 0,56 m/s at a right angle to the line as well as the voltage value stated in column 10 or 11. The conditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of the line depends on many other factors, such as load flow distribution, upholding of voltage, real ambient conditions, limits of stability, n-1 security, etc., the conventional transmission capacity has no relevance from the point of view of system operation or economics but allows just a comparison of order of magnitude of the various lines. Adding together the conventional transmission capacity of several tie lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system operation.

Abbreviations used of TSO operators

AT	**Austria**	APG VUEN	Austria Power Grid AG Vorarlberger Übertragungsnetz GmbH (until January 2012 VKW-Netz GmbH)
BA	**Bosnia - Herzegovina**	NOS BiH	Nezavisni operator sustava u Bosni i Hercegovini
BE	**Belgium**	Elia	Elia System Operator SA
BG	**Bulgaria**	ESO	Electroenergien Sistemen Operator EAD
CH	**Switzerland**	swissgrid	swissgrid ag
CZ	**Czech Republic**	CEPS	CEPS a.s.
DE	**Germany**	Amprion TransnetBW TenneT DE 50Hertz	Amprion GmbH TransnetBW (until February 2012 EnBW Transportnetze AG) TenneT TSO GmbH 50Hertz Transmission GmbH
DK	**Denmark**	Energinet.dk IPC	Energinet.dk Independent Public Enterprice
EE	**Estonia**	Elering AS	Elering AS
ES	**Spain**	REE	Red Eléctrica de España S.A.
FI	**Finland**	Fingrid	Fingrid Oyj
FR	**France**	RTE	Réseau de Transport d'Electricité
GB	**United Kingdom**	National Grid SONI Ltd SHETL SP Transmission	National Grid Electricity Transmission plc System Operator for Northern Ireland Ltd (The connections operated by SONI Ltd are described with the country code NI .) Scottish Hydro Electric Transmission Limited Scottish Power Transmission plc
GR	**Greece**	IPTO SA	Independent Power Transmission Operator S.A. (until January 2012 Hellenic Transmission System Operator S.A.)
HR	**Croatia**	HEP-OPS	HEP-Operator prijenosnog sustava d.o.o.
HU	**Hungary**	MAVIR	MAVIR Magyar Villamosenergia-ipari Átviteli Rends-Átviteli Rendszerirányító zerirányító Zártköruen Muködo Részvénytársaság
IE	**Ireland**	EirGrid	EirGrid plc
IT	**Italy**	Terna	Terna - Rete Elettrica Nazionale SpA
LT	**Lithuania**	LITGRID AB	LITGRID AB
LU	**Luxembourg**	Creos Luxembourg	Creos Luxembourg S.A.
LV	**Latvia**	Augstsprieguma tïkls	AS Augstsprieguma tïkls
ME	**Montenegro**	CGES AD	Crnogorski elektroprenosni sistem AD
MK	**FYROM**	MEPSO	Macedonian Transmission System Operator AD
NL	**The Netherlands**	TenneT NL	TenneT TSO B.V.
NO	**Norway**	Statnett	Statnett SF
PL	**Poland**	PSE Operator	PSE Operator S.A.
PT	**Portugal**	REN	Rede Eléctrica Nacional, S.A.
RO	**Romania**	Transelectrica	C.N. Transelectrica S.A.
RS	**Serbia**	EMS	JP Elektromreža Srbije
SE	**Sweden**	Svenska Kraftnät	Affärsverket Svenska Kraftnät
SI	**Slovenia**	ELES	Elektro Slovenija d.o.o.
SK	**Slovak Republic**	SEPS	Slovenska elektrizacna prenosova sustava, a.s.
AL	**Albania**	KESH	Albanian Electroenergetic Corporation
BY	**Belarus**	Belenergo	Belenergo
MA	**Morocco**	ONE	Office National de l'Electricité
MD	**Republic of Moldavia**	Moldenergo	Moldenergo
RU	**Russia**	JSC FGC UES	Federal Grid Company
TR	**Republic of Turkey**	TEIAS	Türkiye Elektrik Iletim A.S.
UA	**Ukraine**	NPC Ukrenergo	NPC Ukrenergo
UA-W	**Ukraine West**	NPC Ukrenergo	NPC Ukrenergo

Unavailability of international tie lines - yearly overview 2011

Circuit ID	From substation	To substation	Voltage [kV]	Thermal conventional transmission capacity [MVA]	Major Reason	Time whole year [min]	January [min]	February [min]	March [min]	April [min]	May [min]	June [min]	July [min]	August [min]	September [min]	October [min]	November [min]	December [min]
11.1.1	DE - Diele (TenneT DE)	NL - Meeden (TenneT NL)	380	1382	R10	6493			6493									
11.1.2	DE - Diele (TenneT DE)	NL - Meeden (TenneT NL)	380	1382	R1	1266			1266									
13.1.1	DE - Siersdorf (Amprion)	NL - Maasbracht (TenneT NL)	380	1645	R1	606						606						
13.1.2	DE - Rommerskirchen (Amprion)	NL - Maasbracht (TenneT NL)	380	1698	R9	5193		607			640	3946						
25.1.1	BE - Van Eyck (Elia)	NL - Maasbracht (TenneT NL)	380	1207	R1	19										19		
25.1.2	BE - Van Eyck (Elia)	NL - Maasbracht (TenneT NL)	380	1270	R1,R2	6928								6369			457	102
26.1.1	BE - Zandvliet (Elia)	NL - Geertruidenberg (TenneT NL)	380	1476	R1,R2	20560				20560								
26.2.1	BE - Zandvliet (Elia)	NL - Borssele (TenneT NL)	380	1476	R1,R2	20738				20738								
27.1.1	NL - Eemshaven (TenneT NL)	NO - Feda (Statnett SF)	450	700	R2,R6	60855				17655	43200							
28.1.1	GB - Isle of Grain (National Grid)	NL - Maasvlakte (TenneT NL)	450	500	R6	13500					13500							
41.1.1	BE - Aubange (Elia)	LU - Belval (SOTEL)	220	358	R1,R2	22486								3889	18597			
41.1.2	BE - Aubange (Elia)	LU - Belval (SOTEL)	220	358	R1	16363								16003	360			
41.2.1	BE - Aubange (Elia)	LU - Belval (SOTEL)	150	157	R1	1548								1548				
51.1.1	BE - Monceau (Elia)	FR - Chooz (RTE)	220	338	R1	10924									6183	4741		
51.2.1	BE - Avelgem (Elia)	FR - Mastaing (RTE)	380	1168	R1	6616	7						6314			39	256	
51.2.2	BE - Avelgem (Elia)	FR - Avelin (RTE)	380	1303	R1,R7	14972									11	14893	68	
51.3.1	BE - Achene (Elia)	FR - Lonny (RTE)	380	1168	R1	5813	8			5114					645	46		
52.1.1	BE - Aubange (Elia)	FR - Moulaine (RTE)	220	395	R1	1414	540				644				12		218	
52.2.1	BE - Aubange (Elia)	FR - Mont St Martin (RTE)	220	395	R1	6318					6318							
71.1.1	DE - Ensdorf (Amprion)	FR - Vigy (RTE)	380	1790	R1	12405									12405			
71.1.2	DE - Ensdorf (Amprion)	FR - Vigy (RTE)	380	1790	R1	14100							2151		11949			
71.2.1	DE - Ensdorf (Amprion)	FR - St-Avold (RTE)	220	261	R1,R2,R9	108093		550	559			35603	44640	7018		16282	3441	
72.1.1	DE - Eichstetten (TransnetBW)	FR - Vogelgrün (RTE)	220	338	R2	514											514	
72.1.2	DE - Eichstetten (TransnetBW)	FR - Muhlbach (RTE)	380	1684	R1	16608				16113							495	
81.1.1	CH - Bassecourt (swissgrid)	FR - Sierentz (RTE)	380	1172	R1,R9	18076					2517	14043	807			15	694	
81.2.1	CH - Laufenburg (swissgrid)	FR - Sierentz (RTE)	380	1330	R1,R9	6013		4				271		3561		2177		
81.3.1	CH - Bassecourt (swissgrid)	FR - Mambelin (RTE)	380	1330	R1,R9	46732				7431	35284				358	1114	2545	
82.1.1	CH - Verbois (swissgrid)	FR - Bois-Tollot (RTE)	380	1552	R1	6403				14						6389		
82.1.2	CH - Chamoson (swissgrid)	FR - Bois-Tollot (RTE)	380	1552	R1,R9	60301			25409	29789	3320	1775				8		
82.2.1	CH - Verbois (swissgrid)	FR - Génissiat (RTE)	220	237	R1	11											11	
82.2.2	CH - Verbois (swissgrid)	FR - Génissiat (RTE)	220	237	R1	5											5	
82.5.1	CH - Riddes (swissgrid)	FR - Cornier (RTE)	220	216	R1	8302					1365			6442			495	
82.6.1	CH - St.-Triphon (swissgrid)	FR - Cornier (RTE)	220	222	R1,R8	11261					3	6489		4769				
83.1.1	DE - Asphard (swissgrid/EnBW Tr.Netze Strom)	FR - Sierentz (RTE)	380	1168	R1	6085	4812						1273					
91.1.1	FR - Albertville (RTE)	IT - Rondissone (Terna)	380	1244	R1	6274					6274							
91.1.2	FR - Albertville (RTE)	IT - Rondissone (Terna)	380	1244	R1	6125					6125							
92.1.1	FR - Trinite Victor (RTE)	IT - Camporosso (Terna)	220	319	R1	28838									6774	19859	2205	
93.1.1	FR - Villarodin (RTE)	IT - Venaus (Terna)	380	1237	R1	19672							16062	3610				
102.2.1	CH - Laufenburg (swissgrid)	DE - Kühmoos (TransnetBW)	220	410	R1,R9	15794							749	13988	1057			
102.3.1	CH - Laufenburg (swissgrid)	DE - Kühmoos (TransnetBW)	220	430	R1,R9	17916						2110	768	13985	1053			
102.3.2	CH - Laufenburg (swissgrid)	DE - Kühmoos (TransnetBW)	380	1527	R1,R9	6624							3457			2149	573	445
102.4.1	CH - Laufenburg (swissgrid)	DE - Kühmoos (TransnetBW)	380	1527	R1	2750		62					570			2118		
102.4.2	CH - Laufenburg (swissgrid)	DE - Kühmoos (Amprion)	380	1607	R1,R3,R9	65811		142			3226	12971	32347	14007	1065	2053		
102.5.1	CH - Laufenburg (swissgrid)	DE - Tiengen (Amprion)	380	1122	R1	2209		161							2048			
103.1.2	CH - Beznau (swissgrid)	DE - Tiengen (Amprion)	220	335	R1	322			322									
104.1.1	CH - Asphard (swissgrid)	DE - Kühmoos (TransnetBW)	380	1263	R1,R2	6379	6357									22		
105.1.1	CH - Laufenburg (swissgrid)	DE - Trossingen (TransnetBW)	380	1386	R1,R9	2458							274		2184			
107.1.1	CH - Laufenburg 220 kV (swissgrid)	DE - Laufenburg 110 kV (ED)	110	200	R1	2559			35			514			2010			
111.2.1	AT - Bürs (VIW)	DE - Herbertingen (Amprion)	220	389	R1,R2,R9	13510	101	1100			659	4467	560	1679	183	3616	557	588
111.3.1	AT - Bürs (VIW)	DE - Dellmensingen (Amprion)	220	492	R1,R9	7870						6314	1172	88				296
115.5.1	AT - St. Peter (APG)	DE - Altheim (TenneT DE)	220	301	R1,R2	3369						1387	1232		380			370
115.6.1	AT - St. Peter (APG)	DE - Simbach (TenneT DE)	220	301	R1	1779						404			1062			313
115.9.1	AT - St. Peter (APG)	DE - Pirach (TenneT DE)	220	518	R1	28882			5594	5645	6246	3222	6198		1007		970	
115.10.1	AT - St. Peter (APG)	DE - Pleinting (TenneT DE)	220	449	R1	7249					1420	494	4910		229		196	
116.1.1	AT - Westtirol (APG)	DE - Leupolz (Amprion)	380	1316	R1	356									356			
116.2.1	AT - Westtirol (APG)	DE - Memmingen (Amprion)	220	762	R1,R2	6987					6143					431	413	
117.1.1	AT - Silz (APG)	DE - Oberbrunn (TenneT DE)	220	793	R1,R9	831					146	329	356					
117.1.2	AT - Silz (APG)	DE - Oberbrunn (TenneT DE)	220	793	R1	1118			349		255							514
121.2.1	CH - Gorduno (swissgrid)	IT - Mese (Terna)	220	278	R1	6281				6281								
121.3.1	CH - Soazza (swissgrid)	IT - Bulciago (Terna)	380	1224	R1	-6			-6									
121.4.1	CH - Lavorgo (swissgrid)	IT - Musignano (Terna)	380	1204	R1	23251								3822	19429			
123.1.1	CH - Riddes (swissgrid)	IT - Avise (Terna)	220	309	R1,R9	11271		266			4593					6412		
123.2.1	CH - Riddes (swissgrid)	IT - Valpelline (Terna)	220	309	R1,R9	10282					3858					6424		
123.3.1	CH - Serra (swissgrid)	IT - Pallanzeno (Terna)	220	278	R1	6378									6378			
124.1.1	CH - Robbia (swissgrid)	IT - Gorlago (Terna)	380	1330	R1,R2,R9	19808				3155				16328				325

Reasons: R1 - Maintenance, R2 - Repair, R3 - New construction, R4 - Overload (also calculated), R5 - False operation, R6 - Failure in protection device or other element, R7 - Outside impacts (animals, trees, fire, avalance,...), R8 - Very exceptional conditions (weather, natural disaster,...), R9 - Other reasons, R10 - Unknown reasons

Unavailability of international tie lines - yearly overview 2011

Circuit ID	From substation	To substation	Voltage [kV]	Thermal conventional transmission capacity [MVA]	Major Reason	Time whole year [min]	January [min]	February [min]	March [min]	April [min]	May [min]	June [min]	July [min]	August [min]	September [min]	October [min]	November [min]	December [min]
124.1.2	CH - Robbia (swissgrid)	IT - San Fiorano (Terna)	380	1330	R1,R2,R8	18853	2154		371					16328				
141.1.1	AT - Meiningen (Vorarlberg Netz)	CH - Y-Meiningen (swissgrid)	220	494	R1	38189					27406				10783			
141.2.1	AT - Meiningen (Vorarlberg Netz)	CH - Winkeln (swissgrid)	220	765	R1,R9	41039			171		30863			2063	6084		1858	
142.1.1	AT - Westtirol (APG)	CH - Pradella (swissgrid)	380	1330	R1,R2,R9	12226								9443	2001	782		
142.2.1	AT - Westtirol (APG)	CH - Pradella (swissgrid)	380	1330	R1	3433					3433							
151.1.1	ES - Hernani (REE)	FR - Argia (RTE)	380	1137	R1	19279											19279	
151.2.1	ES - Irún (REE)	FR - Errondenia (RTE)	132		R1,R2	6304			6304									
151.3.1	ES - Arkale (REE)	FR - Argia (RTE)	220	339	R1	4871				4871								
151.4.1	ES - Biescas (REE)	FR - Pragnères (RTE)	220	183	R1,R6	445				368			77					
152.1.1	ES - Benós (REE)	FR - Lac d'Oo (RTE)	110		R9	583											583	
153.1.1	ES - Vich (REE)	FR - Baixas (RTE)	380	1348	R2,R9	43566	10977	31170	523								896	
161.1.1	DE - Flensburg (TenneT DE)	DK - Ensted (Energinet.dk IPC)	220	332	R1,R9,R10	34746		232					5113				29401	
161.2.1	DE - Flensburg (TenneT DE)	DK - Kassø (Energinet.dk IPC)	220	332	R9,R10	16159				5191							10968	
161.3.1	DE - Audorf (TenneT DE)	DK - Kassø (Energinet.dk IPC)	380	1078	R1,R2,R3	42475		228					21550		20697			
161.3.2	DE - Audorf (TenneT DE)	DK - Kassø (Energinet.dk IPC)	380	1078	R9,R10	20690	531								16803			3356
171.1.1	AT - Bisamberg (APG)	CZ - Sokolnice (CEPS)	220	250	R1,R9	9641			5930					3711				
171.2.1	AT - Bisamberg (APG)	CZ - Sokolnice (CEPS)	220	250	R1,R9	9931	477		5871					3458				125
172.1.1	AT - Dürnrohr (APG)	CZ - Slavetice (CEPS)	380	1559	R1	419				419								
172.1.2	AT - Dürnrohr (APG)	CZ - Slavetice (CEPS)	380	1559	R1,R9	1141			611								530	
181.1.1	AT - Obersielach (APG)	SI - Podlog (ELES)	220	320	R10	7							7					
191.3.1	DE - Bauler (Amprion)	LU - Flebour (Creos Luxembourg)	220	490	R1	632			632									
192.1.1	DE - Trier (Amprion)	LU - Heisdorf (Creos Luxembourg)	220	490	R1,R9	600			516		84							
192.2.1	DE - Quint (Amprion)	LU - Heisdorf (Creos Luxembourg)	220	490	R1	1644				1644								
201.1.1	IT - Redipuglia (Terna)	SI - Divaca (ELES)	380	1619	R6,R8	87				81			6					
201.2.1	IT - Padriciano (Terna)	SI - Divaca (ELES)	220	320	R6	127				127								
205.1.1	IT - Galatina (Terna)	GR - Arachthos (IPTO SA)	380	500	R1,R6,R9,R10	100798	601	5024	6718	15630	12421	17060			20602	22692	50	
221.1.1	GB - Sellindge (National Grid)	FR - Mandarins (RTE)	270	1000	R1,R2,R3	329049		9203	30180	43200	44637	43197	44640	44640	43200	21255	3872	1025
221.2.1	GB - Sellindge (National Grid)	FR - Mandarins (RTE)	270	1000	R1,R3,R6	61314	30580	4863	671	55	913	578		888	3798	16974	1086	908
222.1.1	GB - Auchencrosh (National Grid)	NI - Ballycronanmore (SONI Ltd)	250	250	R1,R2,R10	231979					50		43140	44640	43200	15330	42479	43140
222.2.1	GB - Auchencrosh (National Grid)	NI - Ballycronanmore (SONI Ltd)	250	250	R2,R10	141713					62			10611		44700	43200	43140
225.1.1	IE - Louth (EirGrid)	NI - Tandragee (SONI Ltd)	275	660	R4	124				124								
231.1.1	ES - Las Conchas (REE)	PT - Lindoso (REN)	132	90	R3	14459					14459							
232.2.1	ES - Aldeadávila (REE)	PT - Lagoaça (REN)	400	1469	R1	296									296			
232.3.1	ES - Saucelle (REE)	PT - Pocinho (REN)	220	346	R1	59661		246	3006	22291				34118				
233.1.1	ES - Cedillo (REE)	PT - Falagueira (REN)	380	1300	R1,R9	2917							2605	293	19			
234.1.1	ES - Cartelle (REE)	PT - Alto Lindoso (REN)	380	1330	R1,R2	4397		283					4114					
234.1.2	ES - Cartelle (REE)	PT - Alto Lindoso (REN)	380	1330	R1	4491							4491					
235.1.1	ES - Brovales (REE)	PT - Alqueva (REN)	400	1280	R1	3314							3314					
241.1.1	MK - Dubrovo (MEPSO)	GR - Thessaloniki (IPTO SA)	400	1300	R1,R6	8665				374	949	6962	380					
242.1.1	MK - Bitola (MEPSO)	GR - Meliti (IPTO SA)	400	1300	R1,R2	3206					1123		331		1752			
261.1.1	RS - Djerdap 1 (EMS)	RO - Portile de Fier (Transelectrica)	400	1135	R1,R2	2568							403	2165				
271.1.1	BG - Sofija Zapad (ESO)	RS - Nis (EMS)	380	1309	R1,R2,R10	3041			55	40				33	2913			
275.1.1	RO - Isaccea (Transelectrica)	BG - Varna (ESO)	400	2168	R1	1164							987		177			
277.1.1	RO - Tântareni (Transelectrica)	BG - Kozlodui (ESO)	400	1300	R1	6958					2381	4024				553		
277.1.2	RO - Tântareni (Transelectrica)	BG - Kozlodui (ESO)	400	1300	R1	7676					2381	3739	304			1252		
278.1.1	RO - Rahman (Transelectrica)	BG - Dobrudja (ESO)	400	1135	R1	107365		324	33358	11087	38		16325		17028	28676		529
282.1.1	AL - Fierza (KESH)	RS - Prizren (EMS)		270	R1,R9	5257						4768					489	
291.1.1	AL - Elbassan (KESH)	GR - Kardia (IPTO SA)		1300	R1	7664									7664			
292.1.1	AL - Bistrica (KESH)	GR - Mourtos (IPTO SA)		120	R2	360										360		
293.1.1	GR - Nea Santa (IPTO SA)	TR - Babaeski (TEIAS)	400	2000	R1,R2,R4,R6,R10	8042	414				3645	244	620	67	2985	11	56	
301.1.1	BG - Blagoevgrad (ESO)	GR - Thessaloniki (IPTO SA)	400	1300	R1,R6,R10	6379					5815		20			535		9
321.1.1	CZ - Hradec Zapad (CEPS)	DE - Etzenricht (TenneT DE)	400	1386	R1	6420					6420							
321.1.2	CZ - Prestice (CEPS)	DE - Etzenricht (TenneT DE)	400	1491	R1	5496					2322	2238				625	311	
322.1.1	CZ - Hradec Vychod (CEPS)	DE - Röhrsdorf (50Hertz)	400	1386	R1,R9	7445		589					6856					
322.1.2	CZ - Hradec Vychod (CEPS)	DE - Röhrsdorf (50Hertz)	400	1386	R2,R9	4292	1011	1400					1881					
331.1.1	HU - Sandorfalva (MAVIR)	RS - Subotica (EMS)	400	1295	R1,R9	2276			2072					204				
351.1.1	HR - Melina (HEP-OPS)	SI - Divaca (ELES)	400	1164	R6,R9	100			7					93				
351.2.1	HR - Pehlin (HEP-OPS)	SI - Divaca (ELES)	220	320	R8	14						2			12			
352.1.2	HR - Tumbri (HEP-OPS)	SI - Krško (ELES)	400	1164	R9	66			66									
371.1.1	HR - Ernestinovo (HEP-OPS)	RS - Sremska Mitrovica (EMS)	400	1264	R1	2522								1562	960			
381.1.1	BA - Trebinje (NOS BiH)	ME - Podgorica 2 (CGES AD)	380	1264	R8	24953										24953		
383.1.1	BA - Visegrad (NOS BiH)	RS - Vardiste (EMS)	220	311	R2,R3	4277						935	2593			592	157	
383.5.1	BA - Sremska Mitrovica (NOS BiH)	RS - Sremska Mitrovica (EMS)	380	1264	R1,R10	2376					2339			37				
384.1.1	RS - Pec 3 (EMS)	ME - Ribarevine (CGES AD)	400	1264	R1,R2,R10	1442			85		1121			17				219
384.2.1	RS - Bajina Basta (EMS)	ME - Pljevlja 2 (CGES AD)	220	350	R1,R3	9999					741	601	2832		5825			

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384.3.1	RS - Pozega (EMS)	ME - Pljevlja 2 (CGES AD)	220	365	R1	6071						6071						
391.1.1	MK - Skopje 1 (MEPSO)	RS - Kosovo A (EMS)	220	311	R9	525600	44640	40320	44580	43200	44640	43200	44640	44640	43200	44700	43200	44640
391.2.1	MK - Skopje 1 (MEPSO)	RS - Kosovo A (EMS)	220	311	R9	524160	44640	40320	44580	43200	44640	43200	43200	44640	43200	44700	43200	44640
391.3.1	MK - Skopje 5 (MEPSO)	RS - Urosevac (EMS)	380	1218	R2,R3	1302									178	1124		
401.1.1	DE - Herrenwyk (TenneT DE)	SE - Kruseberg (Baltic Cable AB)	400	600	R1,R4,R6,R10	34377	17	9		29034			232				5085	
404.1.1	CZ - Nosovice (CEPS)	SK - Varin (SEPS)	400	1205	R1,R9	8951						8070				602	279	
410.1.1	CZ - Liskovec (CEPS)	SK - Pov. Bystrica (SEPS)	220	221	R1,R2,R9	10289				6293		163						3833
420.1.1	CZ - Sokolnice (CEPS)	SK - Senica (SEPS)	220	213	R1,R2	11067		4736					6331					
424.1.1	CZ - Sokolnice (CEPS)	SK - Krizovany (SEPS)	400	1205	R1	13120							9121		3999			
430.1.1	CZ - Sokolnice (CEPS)	SK - Stupava (SEPS)	400	1363	R1,R5	6562					6533		29					
440.1.1	UA-W - Mukachevo (NPC Ukrenergo)	SK - V.Kapusany (SEPS)	400	1115	R1,R2,R6,R9	17813			6170		402		6455		4782		4	
443.1.1	CZ - Albrechtice (CEPS)	PL - Dobrzeń (PSE Operator S.A.)	400	1088	R1,R2,R9	21157		460				431			20266			
444.1.1	CZ - Nosovice (CEPS)	PL - Wielopole (PSE Operator S.A.)	400	1088	R1,R6	17698								20	17678			
450.1.1	CZ - Liskovec (CEPS)	PL - Kopanina (PSE Operator S.A.)	220	399	R1	5102			4828						274			
460.1.1	CZ - Liskovec (CEPS)	PL - Bujaków (PSE Operator S.A.)	220	399	R1,R9	5106			454	497			1848	2307				
501.1.1	DE - Vierraden (50Hertz)	PL - Krajnik (PSE Operator S.A.)	220	402	R1,R2,R8,R9	8236		154	2055		1466	438	1105	2312				706
501.1.2	DE - Vierraden (50Hertz)	PL - Krajnik (PSE Operator S.A.)	220	402	R1,R2,R8	4803			1725		1804			25	389		860	
502.1.1	DE - Hagenwerder (50Hertz)	PL - Mikułowa (PSE Operator S.A.)	380	1302	R1	2046				2046								
502.1.2	DE - Hagenwerder (50Hertz)	PL - Mikułowa (PSE Operator S.A.)	380	1302	R1	1458				1458								
601.1.1	ES - Puerto de la Cruz (REE)	MA - Melloussa 1 (ONE)	380		R1,R2,R6	76804			97	552	23176	43200	9779					
700.1.1	PL - Krosno Iskrzynia (PSE Operator S.A.)	SK - Lemešany (SEPS)	400	1252	R1,R2,R6	44104		2232					22508	19238			126	
700.1.2	PL - Krosno Iskrzynia (PSE Operator S.A.)	SK - Lemešany (SEPS)	400	1252	R1,R2	45550		3339					22498	19363			350	
704.1.1	PL - Słupsk (PSE Operator S.A.)	SE - Stärnö (Svenska Kraftnät)	450	600	R1,R2	26609	480									26129		
710.1.1	HU - Gyoer (MAVIR)	SK - Gabcikovo (SEPS)	400	1330	R1,R2	20157									19405	83	482	187
711.1.1	HU - Göd (MAVIR)	SK - Levice (SEPS)	400	1330	R2,R7,R8	7066			5658	1103			271					34
720.1.1	HU - Albertirsa (MAVIR)	UA-W - Zahidno Ukrainska (NPC Ukrenergo)	750	4010	R1,R6	81232	231	12020	10932	34250	11055			10755	1989			
721.1.1	HU - Sajószöged (MAVIR)	UA-W - Mukachevo (NPC Ukrenergo)	400	1390	R1	15908					7771					6281		1856
722.1.1	HU - Kisvárda (MAVIR)	UA-W - Mukachevo (NPC Ukrenergo)	220	209	R1	23983								1282		17529	5172	
722.1.2	HU - Tiszalök (MAVIR)	UA-W - Mukachevo (NPC Ukrenergo)	220	209	R1	13272					6337		588	6347				
730.1.1	HU - Sandorfalva (MAVIR)	RO - Arad (Transelectrica)	400	1135	R1,R9	2329			706	106				10			1507	
731.1.1	HU - Békéscsaba (MAVIR)	RO - Nadab (Transelectrica)	400	1300	R1	8875			866	17					7992			
740.1.1	RO - Rosiori (Transelectrica)	UA-W - Mukachevo (NPC Ukrenergo)	400	1135	R1	18031			5395	927		6562	1981			3166		
800.1.1	FI - Ossauskoski (Fingrid Oyj)	SE - Kalix (Svenska Kraftnät)	220		R9	12												12
803.1.1	FI - Raumo (Fingrid Oyj)	SE - Forsmark (Svenska Kraftnät)	400	550	R1,R3,R6,R10	31647		441		13231	3772	239		8790	1300		1234	2640
805.1.1	FI - Raumo (Fingrid Oyj)	SE - Finnböle (Svenska Kraftnät)	500	800	R1,R2	2640												2640
810.1.1	FI - Yllikkälä (Fingrid Oyj)	RU - Viborg (JSC FGC UES)	400		R1	32640							30060	2580				
810.1.2	FI - Yllikkälä (Fingrid Oyj)	RU - Viborg (JSC FGC UES)	400		R6	78							78					
811.1.1	FI - Kymi (Fingrid Oyj)	RU - Viborg (JSC FGC UES)	400		R1	32640							30060	2580				
813.1.1	FI - Imatra (Fortum Oyj)	RU - GES 10 (JSC FGC UES)	110		R8	403					403							
820.1.1	FI - Espoo (Fingrid Oyj)	EE - Harku (Elering AS)	150		R1,R6,R9,R10	17563	2096	10676			2601	304	501		1080			305
850.1.1	LT - Šiauliai/Telšiai (LITGRID AB)	LV - Jelgava (Viskali) (AS Augstsprieguma tīkls)	330	714	R1	10739			5070						4915	754		
851.1.1	LT - Panevėžys (LITGRID AB)	LV - Aizkraukle (AS Augstsprieguma tīkls)	330	714	R2,R3	49526				18102	30225		431		768			
852.1.1	LT - Klaipėda (LITGRID AB)	LV - Grobina (AS Augstsprieguma tīkls)	330	714	R1,R2	22755	14737									8018		
853.1.1	LT - IAE (LITGRID AB)	LV - Liksna (AS Augstsprieguma tīkls)	330	830	R1,R2	15230		1048	10813					3369				
854.1.1	LT - Parovėja (LITGRID AB)	LV - Nereta (AS Augstsprieguma tīkls)	110	75	R1	3409		586			2156				667			
855.1.1	LT - Zarasai (LITGRID AB)	LV - Daugavpils (AS Augstsprieguma tīkls)	110	86	R1,R7	319		212			107							
856.1.1	LT - IAE (LITGRID AB)	LV - Daugavpils (AS Augstsprieguma tīkls)	110	102	R1,R9	6579		755	5384							440		
860.1.1	LT - IAE (LITGRID AB)	BY - Polock (Belenergo)	330	966	R1	26289	4945	9465		6424		3399	2056					
861.1.1	LT - IAE (LITGRID AB)	BY - Smorgon (Belenergo)	330	830	R1	23242			4882		6481		6180	952			4747	
862.1.1	LT - IAE (LITGRID AB)	BY - Minskaja TEC-5 (Belenergo)	330	1786	R1,R3,R9	250371	6384			29530	44640	43200	44640	44640	31140			6197
863.1.1	LT - Vilnius (LITGRID AB)	BY - Molodechno (Belenergo)	330	714	R1,R9	12981					6195				3445		2340	1001
864.1.1	LT - Alytus (LITGRID AB)	BY - Grodno (Belenergo)	330	714	R1	5331			2282	1081				1968				
865.1.1	LT - IAE (LITGRID AB)	BY - Opsa (Belenergo)	110	63	R1,R3	10634					6060						4574	
866.1.1	LT - IAE (LITGRID AB)	BY - Vidzi (Belenergo)	110	63	R2,R3	17041		3377	1898		7544			241			740	3241
867.1.1	LT - Didžiasalis (LITGRID AB)	BY - Kaziani (Belenergo)	110	44	R1	6175				3587	2221	367						
868.1.1	LT - Pabradė (LITGRID AB)	BY - Podolci (Belenergo)	110	44	R3	72136	44640	25453			2043							
869.1.1	LT - Kalveliai (LITGRID AB)	BY - Asmena (Belenergo)	110	63	R2	16645							643	712		15290		
870.1.1	LT - Šalčininkai (LITGRID AB)	BY - Voronovo (Belenergo)	110	86	R1	33080						465	5941			26674		
871.1.1	LT - Leipalingis (LITGRID AB)	BY - Grodno (Belenergo)	110	75	R1,R2	8412						4466				1852	2094	
880.1.1	LT - Biteinai (LITGRID AB)	RU - Sovetsk (UES-SO-CDA)	330	714	R1,R3,R7	41370	1685	185					27985	11515				
881.1.1	LT - Biteinai (LITGRID AB)	RU - Sovetsk (UES-SO-CDA)	330	714	R1,R3	97516				18095	44640	32920			1861			
882.1.1	LT - Kruonio HAE (LITGRID AB)	RU - Sovetsk (UES-SO-CDA)	330	714	R1,R9	14377										8285	6092	
883.1.1	LT - Kybartai (LITGRID AB)	RU - Nesterovo (UES-SO-CDA)	110	75	R1,R9	8563			2857			1118				4588		
884.1.1	LT - Pagėgiai (LITGRID AB)	RU - Sovetsk (UES-SO-CDA)	110	75	R1	6045					6045							
885.1.1	LT - Pagėgiai (LITGRID AB)	RU - Sovetsk (UES-SO-CDA)	110	75	R2	4802					4583					131		88

Reasons: R1 - Maintenance, R2 - Repair, R3 - New construction, R4 - Overload (also calculated), R5 - False operation, R6 - Failure in protection device or other element, R7 - Outside impacts (animals, trees, fire, avalance,...), R8 - Very exceptional conditions (weather, natural disaster,...), R9 - Other reasons, R10 - Unknown reasons

European Network of
Transmission System Operators
for Electricity

entsoe

Glossary of statistical terms

The Glossary of statistical terms contains all terms used in this Statistical Yearbook. The corresponding explanations are available on the ENTSO-E internet site **www.entsoe.eu** under "Resources / Data Portal / Statistical Glossary".

Term	Definition
Alternating Current (AC)	An electric current that reverses its direction at regularly intervals.
Circuit Length	The circuit length of an electrical line or cable is the actual length of each of its conductors or the mean of the lengths of the conductors, if there is any appreciable difference in their lengths.
Classification of Power Units	According to the category of Primary Energy and fuel used for electricity generation, the ENTSO-E statistics considers the following classification in its publications: • Hydro • Nuclear • Fossil fuels • Other Renewable (…of which wind, solar) • Not clearly identifiable
Consumption	See Load and relations to consumption in the following document: https:www.entsoe.eu/fileadmin/user_upload/_library/publications/ce/Load_and_Consumption _Data.pdf
Consumption of Pumps	The electrical energy absorbed by the motor pumps in raising the water into the upper reservoir for the generation of electrical energy. It should include the electrical energy consumed by the auxiliary equipment and transformer losses during pumping. See also Pumped Storage.
Control Area	It is a coherent part of the ENTSO-E interconnected system (usually coinciding with the territory of a company, a country or a geographical area, physically demarcated by the position of points for measurement of the interchanged power and energy to the remaining interconnected network), operated by a single TSO, with physical loads and controllable generation units connected within the Control Area. A Control Area may be a coherent part of a control block that has its own subordinate control in the hierarchy of secondary control (see also the Glossary in the Operation Handbook).
Conventional Transmission Capacity	A theoretical value based on parameters standardized within ENTSO-E (Continental Europe) for calculation of the thermal load capacity of each tie line. These are:ambient temperature of + 35ºC, wind velocity of 0,56 m/s at a right angle to the line, as well as the voltage of the line.
Cross Frontier Line	See Tie Line.

Glossary of statistical terms

Term	Definition
Direct Current (DC)	Direct current or DC electricity is the continuous movement of electrons from an area of negative (-) charges to an area of positive (+) charges through a conducting material.
Electricity Balance (Electricity Supply Situation)	Computes the consumption of electricity from the supply side (not metered in final consumer). In the ENTSO-E, it is presented as the sum of Net Production (split by Classification of Power Units) minus the Consumption of Pumps plus Exchange Balance. Due to fact that consumption is computed from the supply side, the electricity balance includes the distribution and Transmission Losses.
Energy Not Supplied (ENS)	An estimation of the energy not supplied to final customers due to incidents in the transmission network.
Equivalent Time of Interruption	The duration of an interruption in minutes multiplied by the energy not supplied divided by the consumption for the last 12 months. This value allows a direct comparison of interruptions that occurred during a year.
Exchange Balance	The difference between the inside and outside physical flows on each interconnection line of a country.
Hydro	Electricity derived from the potential and kinetic energy content of water. It can be classified as: Storage Hydro, Run of River, Pure Pumped Storage and Mixed Pumped Storage.
Load	Load on a power system is referred to as the hourly average active power absorbed by all installations connected to the transmission network or to the distribution network. The load is the value at a given moment of the electrical power supplied or absorbed at any point of a system as determined by an instantaneous measurement or by the integration of power during a given period of time. Load can refer to a consumer, an appliance, a group of consumers or appliances or a network. Load is the power consumed by the network including (+) the network losses but excluding (-) the consumption for pumped storage and excluding (-) the consumption of generating auxiliaries. For the power balance, the load of each country, also called reference load, is represented at 11 a.m. on the 3rd Wednesday of each month without regard to the export power. Concerning the calculation method for the 24 load values, the countries use the average values of the 10, 15 or 60 minutes load preceding the hour.
Net Generating Capacity	Net Generating Capacity (NGC) of a power station is the maximum electrical net active power it can produce continuously throughout a long period of operation in normal conditions, where: • "net" means the difference between, on the one hand, the gross generating capacity of the alternator(s) and, on the other hand, the auxiliary equipments' load and the losses in the main transformers of the power station; • for thermal plants "normal conditions" means average external conditions (weather, climate…) and full availability of fuels; • for hydro and wind units, "normal conditions" refer to the usual maximum availability of primary energies, i.e. optimum water or wind conditions. Net Generating Capacity of a country is the sum of the individual Net Generating Capacity of all power stations connected to either the transmission grid or to the distribution grid.

Glossary of statistical terms

Term	Definition
Net Generation (Net Production)	It is the Gross Generation less the electrical energy absorbed by Generating Auxiliaries and the losses in the main generator transformers.
Network Reliability	Reliability is a general term encompassing all the measures of the ability of the system, generally given as numerical indices, to deliver electricity to all points of utilization within acceptable standards and in the amounts desired. Network reliability (comprising generation and transmission facilities) can be described by two basic and functional attributes: Adequacy and Security.
Not Clearly Identifiable Sources	Not Clearly Identifiable Sources comprise Power Plants or Power Units, which, according to the primary energy used, cannot be categorized.
Nuclear	Electricity generated by the use of thermal energy released from the fission of nuclear fuel in a reactor.
Other Renewable Energy Sources	In the ENTSO-E statistics, this category comprises all Renewable Energy Sources except total Hydro production.
Peak Load	The maximum hourly demand during a period of time: day, month or year. (Maximum Load)
Physical Energy Flow	It represents the real movements of energy between neighboring countries metered in cross-border Tie Lines in both directions, in the system and out of the system.
Physical Inside Flows	See Physical Energy Flow.
Physical Outside Flows	See Physical Energy Flow.
Power Produced in Parallel Operation	It is the sum of the net electrical power produced in power stations participating in synchronous operation. It takes into account the spinning reserve, but excludes units injecting into systems, which are coupled to the interconnected network only by an AC / DC-link, and those, which cannot be operated with 50 Hz. Remark: Since January 2007, these data are no longer collected and published.
Protection Device	Equipment applied to electric power systems to detect abnormal and intolerable conditions and to initiate corrective actions to ensure continuity of electric service, to limit injury to people and to limit damage to equipment. These devices include lightning arresters, surge protectors, fuses and relays with associated circuit breakers, reclosers and so forth.
Reference Points	The dates and times for which power data are collected. Reference points are characteristic enough of the entire period studied to limit the data to be collected to the data at the reference points.

Glossary of statistical terms

Term	Definition
Renewable Energy Sources (Renewables)	It means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases).
Representativity (National Representativity Index)	This is a specific ENTSO-E term, which generally means that certain values might not cover the whole country. It is expressed as a percentage. There might be differences between the approaches of the ENTSO-E statistics and System Adequacy reports.
Scheduled (Program, Declared)Inside Flows	The program Outside Flows (respectively Inside Flows) of electricity in one member state on the basis of an underlying contractual arrangement to the effect that the simultaneous corresponding take-up (program Inside Flows (respectively Outside Flows)) of electricity will take place in another Member State or a third country.
Substation	Facility equipment that steps up or steps down the voltage in utility power lines. Voltage is stepped up where power is sent through long distance transmission lines, and stepped down where the power is to enter local distribution lines. They can be classified as normal outside substation, armoured substation and underground substation.
Thermal Conventional (Fossil Fuels)	Electricity generated by an electric power plant using mainly coal, petroleum (derivates) or gas as its primary source of energy. In ENTSO-E statistics, we use the term “Fossil fuels” for the production of electricity with a thermal process that is not generated using Nuclear or Renewable Energy Sources.
Tie Line	A transmission line connecting two countries.
Transit	An energy flow that occurs in a country, which is neither the source nor the sink of the energy flow. The energy flow arrives in the grid over one border and leaves the country over one or more borders
Transmission Losses	The difference between the fed-in (generation) and the delivery energy to distributors. Own-needs for the operation of the grid are included.
Transmission System Operator (TSO)	A company that is responsible for operating, maintaining and developing the transmission system for a control area and its interconnections.
Vertical Load	The total amount of power flows out of the transmission network into distribution and large customer networks.

Publisher:	Secretariat of ENTSO-E Avenue de Cortenbergh 100, B-1000 Brussels
Internet:	www.entsoe.eu
Executive Editor:	Secretariat of ENTSO-E
Managing Editor:	Edda Asmus
Production Editor:	Vattenfall Europe Information Services
Printed by:	Oswald und Martin Werbeagentur Berlin
Photo:	Energinet.dk

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