

UCTE



Statistical Yearbook 2003

union for the co-ordination of transmission of electricity

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Introduction

What is UCTE ?

The »Union for the Co-ordination of Transmission of Electricity« (UCTE) is an association of transmission system operators in continental Europe, providing a reliable market base by efficient and secure electrical »power highways«. The interconnected system ensures the technical condition for the reliable operation, and provides benefit for all market participants because they guarantee market access.

For more than fifty years UCTE has been co-ordinating by a variety of technical rules and recommendations the international operation of high voltage grids that all work with one »heart beat«: the 50 Hz UCTE frequency. UCTE is committed to the development of the system to meet all new market requirements, but without losses in terms of reliability for the existing system. The UCTE network brings a safe electricity supply for some 450 million people. Therefore UCTE handles one of the biggest electrical synchronous interconnections worldwide. This technical solution provides the possibility of the free market operation.

Keyfigures

33	Transmission System Operators (TSO)
22	European Countries
450 million	People served by the represented power systems
535 GW	Installed capacity
2400 TWh	Electricity consumption in 2003
270 TWh	Sum of electricity exchange between member TSO's under rules of UCTE
220.000 km	Length of high-voltage transmission lines managed by the TSO's

UCTE activities include the preparation of a statistical yearbook. This publication is the result of the ongoing efforts of the Working Group "Statistics", the national correspondents and the UCTE Secretariat on the development, processing and production of appropriate statistics.

Part of the statistical data are used for various graphical representations in other publications such as the Half-yearly Reports, the Memo and the Monthly Statistics, which are amongst others all available on the web site "<http://www.ucte.org>". Figures indicated for the various countries may differ from other national statistics published, since the former will only describe that part of the electricity supply system which is concerned with interconnected system operation. Consequently, these data will not be representative of the entire electricity supply system in any given country. This yearbook is therefore mainly a document, which has been produced to meet the needs of members of the UCTE.

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Terminology index

The Terminology Index contains all terms used in this Statistical Yearbook. The corresponding explanations are available on the UCTE internet site (www.ucte.org) under "Statistics / General Terms" on the mentioned chapters.

Explanations to the UCTE Power Balance (Table 8a and Table 8b) are also available on the UCTE website under "Statistics/Terms of Power Balance".

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- Classification of hydro-electric head installations 4.3
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- Combined cycle systems 4.4.1
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MONTHLY VALUES

1

Monthly values

I

OPERATION AND PHYSICAL EXCHANGE BALANCE (PER COUNTRY FOR THE YEARS 1998, 2002, 2003)

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Slovak Republic (SK)	72
Romania (RO)	75
Bulgaria (BG)	78
West Ukraine (WEST UA ²)	81
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Abbreviations used in tables

Σ	Sum of the 12 monthly values
\emptyset pond.	Weighted mean value
Max.	Maximal value of the year
III	Third countries
AL	Albania
BY	Belarus
DK	Denmark
GB	Great Britain
MA	Morocco
MD	Republic of Moldavia
S	Sweden
TR	Republic of Turkey
WEST UA	West Ukraine
CZ	Czech Republic until 2000
H	Hungary until 2000
PL	Poland until 2000
SK	Slovak Republic until 2000
RO	Romania until 2002
BG	Bulgaria until 2002

Remark: When summing up the values, rounding deviations may occur.

¹ JIEL = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

² WEST UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

The following information for the individual countries is presented on the next pages.

Thermal conventional net production

Thermal nuclear net production

Hydraulic net production

Total net electrical energy production

Total physical import/export balance

Consumption of pumps

National electrical consumption

National electrical consumption as percentage of total values

Energy capability factor (hydro power)

Consumption load at 3:00 a.m. on the 3rd Wednesday

Consumption load at 11:00 a.m. on the 3rd Wednesday

Peak load on the 3rd Wednesday

Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.

BELGIUM

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	34103 31939 34399
Thermal nuclear net production	GWh	1998 Σ 2002 2003	43888 45058 45072
Hydraulic net production	GWh	1998 Σ 2002 2003	1501 1488 1316
Total net electrical energy production	GWh	1998 Σ 2002 2003	79492 78485 80787
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	1387 7605 6309
Consumption of pumps	GWh	1998 Σ 2002 2003	1463 1500 1421
National electrical consumption	GWh	1998 Σ 2002 2003	79416 84590 85675
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 99
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	9250 9980 10500
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	11303 12141 12278
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	12151 13128 12824
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	11340 10905 11195

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation
BELGIUM

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2969	2786	3104	3139	2404	2688	3032	2469	2349	3122	3018	3023
2733	2780	2674	2667	2764	2385	2378	2202	2486	2965	3019	2886
2974	2884	3134	2802	2694	2488	2924	2739	2738	2943	3115	2964
4201	3673	3481	3129	3765	3308	2726	3582	4033	3751	3923	4316
4212	3806	4138	3625	3394	3638	3576	3935	3390	3512	3511	4321
4330	3880	3565	3569	3444	3590	3387	3820	3762	3985	3460	4280
135	94	117	138	127	128	128	106	123	114	137	154
150	132	135	128	125	109	104	116	87	112	146	144
145	132	135	121	130	97	78	102	49	96	102	129
7305	6553	6702	6406	6296	6124	5886	6157	6505	6987	7078	7493
7095	6718	6947	6420	6283	6132	6058	6253	5963	6589	6676	7351
7449	6896	6834	6492	6268	6175	6389	6661	6549	7024	6677	7373
133	143	497	285	122	107	105	-112	7	107	138	-145
869	616	507	529	604	535	459	330	853	926	798	579
816	613	740	579	667	466	159	-96	282	637	865	581
111	94	108	117	128	132	151	133	135	111	118	125
141	122	113	123	126	126	122	135	105	125	131	131
130	118	126	135	137	109	94	130	58	119	127	138
7327	6602	7091	6574	6290	6099	5840	5912	6377	6983	7098	7223
7823	7212	7341	6826	6761	6541	6395	6448	6711	7390	7343	7799
8135	7391	7448	6936	6798	6532	6454	6435	6773	7542	7415	7816
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
99	100	99	99	99	99	99	99	99	99	99	99
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
9250	8835	8298	8483	7432	7514	7100	7246	7784	8249	9164	8673
9759	9371	8738	8775	8024	7883	7470	7857	7849	8238	9033	9980
9868	10500	8980	7985	8095	7893	7758	7832	7943	8586	8828	9597
11296	10878	10632	10878	9861	9969	9396	9850	10474	10767	11303	10947
11773	11652	11170	11215	10585	10646	9812	10902	10694	11173	11433	12141
12278	12265	11220	10676	10912	10730	10063	10507	10744	11330	11543	11873
11920	11231	10924	11235	10246	10366	9750	10233	10741	11100	12151	11805
12435	12087	11397	11391	10905	11049	10329	11234	11071	11479	12473	13128
12824	12413	11321	10902	11137	10954	10294	10727	10965	11455	12359	12780
11340	10735	10115	10499	9742	9761	8863	9983	10725	10523	10962	10958
10796	10905	10493	10178	10148	9610	9391	10793	9295	9792	10120	10832
10700	10414	9679	9717	9427	10035	9915	10283	9866	10322	9831	11195

Physical exchanges in interconnected operation¹

BELGIUM | GWh

MM_YY	B→L	B→NL	B→F	Export (-)	Import (+)	Balance	
						BUCTE_EXP	BUCTE_SLD
I.98	178	400	30	608	0	240	489
II.98	161	310	60	531	0	255	409
III.98	175	204	28	407	0	280	611
IV.98	162	261	116	539	0	346	467
V.98	158	283	84	525	0	277	358
VI.98	154	350	9	513	0	166	443
VII.98	152	341	48	541	0	172	464
VIII.98	81	270	232	583	0	224	237
IX.98	162	150	208	520	0	260	257
X.98	172	172	112	456	0	262	290
XI.98	172	172	150	494	0	348	272
XII.98	144	211	368	723	0	386	178
1998	3124	1445	6440	0	3216	4475	7691
I.02	161	152	148	461	0	269	642
II.02	168	195	111	474	0	208	465
III.02	178	313	66	557	0	46	331
IV.02	147	583	70	800	0	143	177
V.02	139	695	13	847	0	185	213
VI.02	136	813	13	962	0	217	145
VII.02	140	837	46	1023	0	230	123
VIII.02	109	989	14	1112	0	127	60
IX.02	133	649	2	784	0	140	138
X.02	150	395	9	554	0	161	273
XI.02	144	596	8	748	0	203	181
XII.02	120	601	26	747	0	103	289
2002	1725	6818	526	9069	0	2032	3037
I.03	135	448	50	633	0	176	406
II.03	123	496	63	682	0	202	249
III.03	167	462	41	670	0	88	301
IV.03	142	408	63	613	0	162	269
V.03	128	443	56	627	0	213	239
VI.03	124	742	85	951	0	193	167
VII.03	154	685	52	891	0	73	133
VIII.03	100	702	52	854	0	33	104
IX.03	120	508	126	754	0	188	198
X.03	139	226	135	500	0	218	435
XI.03	148	358	37	543	0	232	302
XII.03	122	301	112	535	0	181	409
2003	1602	5779	872	8253	0	1959	3212

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".

Physical exchanges in interconnected operation¹

GERMANY | GWh

MM_YY	Germany												
	D_UCTE_EXP			D_UCTE_SLD			D_UCTE_IMP			D_III_SLD			
Export (-)		Import (+)		S→D		A→D		PL→D		Balance			
	D→S	D→PL	D→A	D→NL	D→L	D→F	D→DK	D→CZ	D→CH	D→CZ	D→DK	D→L	
I.98	1105	63	0	386	1044	727	369	70	3262	562	418	230	
II.98	932	51	32	0	351	978	692	387	3	2953	473	411	253
III.98	1153	33	37	0	371	1165	676	378	0	3365	448	411	384
IV.98	1056	15	34	0	355	1145	730	293	1	3286	343	324	308
V.98	643	28	9	0	369	1121	454	287	0	2577	324	520	289
VI.98	474	11	0	9	365	1226	293	178	0	2367	189	602	323
VII.98	676	38	1	21	376	1145	335	233	0	2553	272	483	342
VIII.98	871	41	0	11	362	1121	438	268	0	2903	309	490	381
IX.98	749	5	1	155	389	1186	404	174	0	2883	180	415	668
X.98	756	5	0	30	397	1223	387	191	0	2793	196	417	589
XI.98	775	10	1	45	369	1140	436	146	18	2755	175	408	547
XII.98	1124	39	32	33	380	1127	593	115	1	3257	187	360	488
1998	10314	336	210	404	4450	13621	6165	3019	93	34954	3658	5259	4802
1.02	2016	140	13	430	1539	1275	133	72	5510	212	133	728	723
II.02	1585	9	167	0	373	1552	1003	94	90	4616	257	104	929
III.02	1188	0	191	0	394	1403	773	184	50	3942	241	192	926
IV.02	1055	0	90	0	379	805	185	185	0	3234	90	270	731
V.02	592	1	143	0	394	1088	539	162	58	2776	201	497	687
VI.02	540	1	147	0	400	948	503	135	54	2527	201	416	582
VII.02	760	75	142	0	412	861	556	320	78	2984	220	378	522
VIII.02	497	4	283	1	397	952	476	137	127	2464	410	423	784
IX.02	692	0	180	4	390	1185	689	116	104	3076	284	447	1032
X.02	1176	0	347	27	423	1271	682	140	199	3719	546	257	1133
XI.02	723	0	402	1	404	1210	411	94	263	2843	665	361	1417
XII.02	1035	0	633	1	419	1223	741	172	287	3591	920	358	1086
2002	11839	194	2855	47	4815	14037	8458	1872	1382	41282	4247	3836	10557
I.03	1132	1	385	4	433	1453	832	236	285	4091	670	273	1231
II.03	1110	0	486	0	388	889	706	169	228	3272	714	252	1008
III.03	1426	2	577	0	395	1178	1047	196	251	4244	828	283	1011
IV.03	1322	4	489	2	388	1235	934	286	223	4171	712	324	971
V.03	456	0	687	0	396	1308	466	179	233	2805	920	576	1148
VI.03	787	0	437	1	395	1056	515	238	150	2992	587	247	880
VII.03	758	3	387	86	421	698	560	227	137	2753	524	463	982
VIII.03	1045	20	523	22	401	856	833	246	184	3423	707	191	867
IX.03	1086	0	357	4	408	1048	980	207	88	3733	445	178	1014
X.03	1280	1	358	32	445	1836	914	189	140	4697	498	107	1227
XI.03	1394	0	401	0	444	1652	870	191	165	4551	566	109	1312
XII.03	1552	21	282	1	442	1819	1249	397	157	5481	439	125	1143
2003	13348	52	5389	152	4956	15038	9906	2761	2241	46213	7610	3128	12794

Values as of 15.7.2004 / Edition September 2004

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".

GERMANY

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	312160 325075 348639
Thermal nuclear net production	GWh	1998 Σ 2002 2003	151823 154968 155416
Hydraulic net production	GWh	1998 Σ 2002 2003	18833 23846 20388
Total net electrical energy production	GWh	1998 Σ 2002 2003	482816 503889 524443
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-637 688 -8066
Consumption of pumps	GWh	1998 Σ 2002 2003	5130 5955 7834
National electrical consumption	GWh	1998 Σ 2002 2003	477049 498622 508543
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	92 94 94
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	0,96 1,24 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	52326 54000 57000
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	70732 73900 71300
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	71655 75800 73500
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	80400 81000 78400

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

GERMANY

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
28216	26439	28981	24602	23530	23529	23780	23352	24675	26711	28749	29596
32957	27933	30032	27248	24952	22558	23524	23468	25835	28076	28485	30007
33893	31433	30751	28787	26781	25060	26122	26119	27449	30210	30354	31680
14996	13138	13092	13204	11747	10080	11671	12032	11826	13147	13149	13741
15243	13213	13336	12010	12315	12462	12629	11206	11383	13833	13321	14017
14028	12732	13871	12608	11535	11832	11563	12397	12998	14025	13819	14008
1547	1124	1610	1666	1537	1547	1592	1410	1656	1692	1750	1702
1926	1813	2114	2131	2315	1871	1818	2108	1887	2065	1985	1813
2301	1753	1940	1748	2032	1652	1580	1495	1349	1800	1345	1393
44759	40701	43683	39472	36814	35156	37043	36794	38157	41550	43648	45039
50126	42959	45482	41389	39582	36891	37971	36782	39105	43974	43791	45837
50222	45918	46562	43143	40348	38544	39265	40011	41796	46035	45518	47081
-698	-589	-451	-736	500	1025	382	-295	370	298	88	-531
-2253	-1526	-499	334	1203	1202	737	1447	972	-1131	578	-376
-863	-223	-1247	-1414	580	409	1149	-593	-999	-2010	-984	-1871
448	406	410	423	490	406	405	489	432	425	428	368
534	482	476	479	491	485	406	456	545	516	518	567
591	545	645	580	597	649	783	749	683	670	636	706
43613	39706	42822	38313	36824	35775	37020	36010	38095	41423	43308	44140
47339	40951	44507	41244	40294	37608	38302	37773	39532	42327	43851	44894
48768	45150	44670	41149	40331	38304	39631	38669	40114	43355	43898	44504
92	92	92	92	92	92	92	92	92	92	92	92
94	94	94	94	94	94	94	94	94	94	94	94
94	94	94	94	94	94	94	94	94	94	94	94
1,10	0,73	0,99	0,92	0,72	0,78	0,85	0,72	1,10	1,25	1,38	1,27
1,39	1,31	1,35	1,21	1,19	0,95	1,01	1,23	1,23	1,53	1,54	1,23
-	-	-	-	-	-	-	-	-	-	-	-
51567	48754	46925	45359	37567	37326	36321	37818	40995	44974	52326	47894
49900	53600	50500	45200	40300	40700	40000	38000	40800	47000	54000	52900
49900	57000	50300	42400	41200	42700	44800	41300	42600	46700	44800	51700
70732	67843	66444	65401	60944	62906	60963	61477	66141	67993	69737	68177
69500	70500	68800	69300	64900	66500	61900	62100	64900	68800	72300	73900
70900	71300	68600	66900	68200	66200	66400	64200	67500	68100	70100	70200
70732	68371	67220	66354	62240	64002	62066	62819	66679	68794	71655	70186
71100	72500	71100	69800	66000	67500	63300	62300	65700	68900	73900	75800
72700	71900	69800	66900	69900	67600	67300	65700	69000	69300	72600	73500
80400	76961	75400	73000	66500	68700	67000	67700	72100	75300	78500	76200
76400	77600	75500	76200	71400	74000	68100	63900	69900	73800	80100	81000
77900	78400	75400	73500	74900	72700	73000	70500	74200	74800	77000	77100

SPAIN

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	81879 126585 125239
Thermal nuclear net production	GWh	1998 Σ 2002 2003	56572 60288 59220
Hydraulic net production	GWh	1998 Σ 2002 2003	33697 25966 43092
Total net electrical energy production	GWh	1998 Σ 2002 2003	172148 212839 227551
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	3404 5329 1263
Consumption of pumps	GWh	1998 Σ 2002 2003	2588 6957 4678
National electrical consumption	GWh	1998 Σ 2002 2003	172964 211211 224136
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	94 94 94
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	0,91 - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	18307 22960 24837
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	25825 31636 34991
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	27758 33771 37163
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	26029 30809 34452

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

SPAIN

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
4590	4787	7098	6007	5059	5775	7378	6409	8021	8129	8678	9948
12132	10530	10934	10332	10324	10364	11261	10115	11081	10846	10111	8555
9131	9417	9038	8452	9103	11719	12457	11860	12126	12063	10227	9646
4850	4865	4461	4237	4652	4934	5287	5285	4524	4228	4440	4809
5520	4775	4207	4214	4779	5056	5461	5342	4585	5398	5372	5579
5509	4936	4672	4667	4789	4456	5408	5310	4126	4544	5301	5502
5667	3836	2514	3296	3832	3257	2537	2116	1839	1913	1493	1397
1799	1537	2223	2191	2370	2382	1855	1446	1450	1612	2383	4718
6055	4669	4846	4058	3893	2646	2268	1792	1975	2264	3430	5196
15107	13488	14073	13540	13543	13966	15202	13810	14384	14270	14611	16154
19451	16842	17364	16737	17473	17802	18577	16903	17116	17856	17866	18852
20695	19022	18556	17177	17785	18821	20133	18962	18227	18871	18958	20344
340	346	405	389	355	245	285	320	-25	206	284	254
532	649	722	705	259	187	576	236	428	298	491	246
26	51	247	-37	134	409	237	124	160	55	-24	-119
277	135	111	215	182	115	203	320	193	172	214	451
653	506	466	443	560	629	700	572	598	576	570	684
587	380	369	219	266	416	420	472	437	390	322	400
15170	13699	14367	13714	13716	14096	15284	13810	14166	14304	14681	15957
19330	16985	17620	16999	17172	17360	18453	16567	16946	17578	17787	18414
20134	18693	18434	16921	17653	18814	19950	18614	17950	18536	18612	19825
94	94	94	94	94	94	94	94	94	94	94	94
94	94	94	94	94	94	94	94	94	94	94	94
94	94	94	94	94	94	94	94	94	94	94	94
1,27	0,90	0,52	1,29	1,31	1,16	0,64	0,92	1,31	0,94	0,37	0,33
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
17087	16683	16385	17065	15753	16320	16964	15626	16724	15969	17165	18307
22960	22558	19460	20912	19329	21372	20565	19272	19474	19062	21369	22249
24837	24753	21255	20398	20271	21596	21766	20320	20799	20090	22241	23436
23930	23032	22449	23716	22197	22427	23441	20847	22099	22700	23473	25825
31636	30914	27998	27840	25667	29250	28389	25961	28394	27644	29554	30846
34507	34991	26176	27135	28716	31611	30495	27636	29410	28907	30631	32377
25542	24400	22817	24363	22495	23223	24480	21654	23387	24237	25316	27758
33771	31905	28838	29301	26710	30888	29869	27396	29067	29878	32251	33187
37163	37048	28924	27597	29915	33459	31918	30179	30866	31016	33106	35648
23803	22361	22251	23836	21771	22387	23475	20971	23758	22522	23196	26029
30661	30033	26729	26554	25667	28498	27590	25109	27790	26938	28807	30809
33478	34452	26339	28098	29625	31741	30857	27556	29396	28271	31035	33378

Physical exchanges in interconnected operation¹

SPAIN | GWh

MM_YY	E→F	T→P	E→MA	Export (-)	Import (+)	Balance	
						E_UCTE_EXP	E_UCTE_SLD
I.98	88	275	0	363	0	404	279
II.98	64	212	0	276	0	406	230
III.98	62	242	0	304	0	474	251
IV.98	45	265	0	310	0	448	266
V.98	47	343	15	390	15	402	348
VI.98	60	277	76	337	76	387	284
VII.98	58	365	67	423	67	422	381
VIII.98	52	301	65	353	65	448	313
IX.98	72	425	172	497	172	403	278
X.98	71	359	165	430	165	455	366
XI.98	74	372	81	446	81	444	379
XII.98	64	453	60	517	60	494	344
1998	3889	701	4646	701	5187	3719	1
I.02	92	349	18	441	18	711	328
II.02	38	352	75	390	75	827	338
III.02	33	356	135	389	135	903	388
IV.02	17	362	147	379	147	855	410
V.02	18	462	133	480	133	589	292
VI.02	15	366	132	381	132	424	293
VII.02	1	399	71	400	71	746	314
VIII.02	1	500	165	501	165	752	171
IX.02	0	440	83	440	83	745	218
X.02	2	484	141	486	141	779	191
XI.02	0	525	113	525	113	940	236
XII.02	9	613	116	622	116	791	250
2002	5208	1329	5434	1329	9082	3429	12
I.03	132	443	148	575	148	443	362
II.03	61	388	100	449	100	356	297
III.03	21	383	127	404	127	544	279
IV.03	43	418	184	461	184	393	250
V.03	24	586	212	610	212	651	317
VI.03	22	470	98	492	98	703	308
VII.03	41	590	73	631	73	680	274
VIII.03	14	565	96	579	96	683	151
IX.03	20	544	124	564	124	660	203
X.03	60	523	81	583	81	582	171
XI.03	62	405	112	467	112	378	214
XII.03	102	455	102	557	102	316	281
2003	602	5770	1457	6372	1457	6389	3107
						9496	0
						3107	0
						3124	-1457

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".

Physical exchanges in interconnected operation¹

FRANCE | GWh

MM_YY	F→B	F→CH	F→D	F→E	F→GB	F→I	F_UCTE_EXP	Export (-)		B→F	CH→F	D→F	E→F	GB→F	I→F	F_UCTE_IMP	F_UCTE_SLD	F_III_SLD	Balance
								Import (+)	201										
I.98	489	1098	1520	404	1372	1686	5197	1372	30	51	0	88	0	32	201	0	-4996	-1372	-1328
II.98	409	987	1122	406	1328	1612	4536	1328	60	60	0	64	0	34	218	0	-4318	-4318	-4318
III.98	611	1097	1522	474	1474	1654	5358	1474	28	50	0	62	0	34	174	0	-5784	-5784	-5784
IV.98	467	818	1363	448	1357	1268	4364	1357	116	36	0	45	0	23	220	0	-4144	-4144	-4144
V.98	358	810	1368	402	1418	1522	4460	1418	84	12	0	47	0	37	180	0	-4280	-4280	-4280
VI.98	443	616	1141	387	1152	1452	4039	1152	9	11	9	60	0	41	130	0	-3909	-1152	-1152
VII.98	464	513	853	422	235	1218	3470	235	48	163	21	58	14	40	330	14	-3140	-221	-221
VIII.98	237	415	442	448	23	653	2195	23	232	240	111	52	18	92	727	18	-1468	-5	-5
IX.98	257	536	786	403	707	1193	3175	707	208	142	155	72	0	14	591	0	-2584	-707	-707
X.98	290	804	834	455	1246	1502	3885	1246	36	30	71	0	25	274	0	-3611	-1246	-1246	
XI.98	272	695	910	444	1194	1445	3766	1194	150	83	45	74	0	36	388	0	-3378	-1194	-1194
XII.98	178	783	837	494	1092	1381	3673	1092	368	123	33	64	0	45	633	0	-3040	-1092	-1092
1998	4475	9172	12698	5187	12598	16586	48118	1445	1007	404	757	32	453	4066	32	44052	-12566	-12566	-12566
I.02	410	1121	1371	711	586	1544	5157	586	148	234	13	92	55	56	543	55	-4614	-531	-531
II.02	409	1134	1341	827	658	1452	5163	658	111	103	0	38	75	36	288	75	-4875	-583	-583
III.02	679	1229	1517	903	864	1860	6188	864	66	21	0	33	23	36	156	23	-6032	-841	-841
IV.02	1001	1052	1713	855	733	1746	6367	733	70	20	0	17	40	34	141	40	-6226	-693	-693
V.02	1044	775	1919	589	1317	1615	5942	1317	13	45	0	18	2	42	118	2	-5824	-1315	-1315
VI.02	1127	594	1755	424	799	1529	5429	799	13	46	0	15	15	45	119	15	-5310	-784	-784
VII.02	1126	625	1857	746	309	1402	5750	309	46	237	0	1	262	36	320	262	-5430	-47	-47
VIII.02	1246	618	1734	752	429	1014	5364	429	14	116	1	1	61	60	192	61	-5172	-368	-368
IX.02	1351	769	1597	745	464	1541	6003	464	2	106	4	0	146	23	135	146	-5888	-318	-318
X.02	1035	1019	789	779	826	1779	5401	826	9	44	27	2	57	26	108	57	-5293	-769	-769
XI.02	1154	897	1298	940	1358	1796	6085	1358	8	31	1	0	0	32	72	0	-6013	-1358	-1358
XII.02	925	1114	1927	791	1167	1747	6504	1167	26	91	1	9	5	37	164	5	-6340	-1162	-1162
2002	11501	10947	18818	9062	9510	19025	69353	9510	526	1094	47	226	741	463	2356	741	-66997	-8769	-8769
I.03	868	1154	1660	443	650	1749	5874	650	50	118	4	132	32	37	341	32	-5533	-618	-618
II.03	844	1167	1824	356	246	1701	5892	246	63	120	0	61	285	33	277	285	-5615	-6686	-6686
III.03	1022	1402	1974	544	371	1888	6830	371	41	46	0	21	235	36	144	235	-5293	-119	-119
IV.03	763	1065	1620	393	362	1666	5507	362	63	71	2	43	243	35	214	243	-5572	-367	-367
V.03	843	796	1844	651	561	1600	5734	561	56	49	0	24	194	33	162	194	-5116	166	166
VI.03	1059	605	1812	703	354	1327	5506	354	85	233	1	22	520	49	390	520	-4791	-45	-45
VII.03	845	631	1722	680	292	1334	5212	292	52	187	86	41	247	55	421	247	-4059	-299	-299
VIII.03	619	598	1684	683	411	872	4456	411	52	249	22	14	112	60	397	112	-4821	540	-4821
IX.03	651	776	1396	660	47	1601	5084	47	126	91	4	20	587	22	263	587	-3791	12	-3791
X.03	484	848	903	582	296	1373	4190	296	135	156	32	60	308	16	399	308	-5670	-510	-510
XI.03	875	1293	1877	378	688	1425	5848	688	37	51	0	62	178	28	178	178	-5263	-989	-989
XII.03	527	1357	1911	3116	1023	1489	5600	1023	112	92	1	102	34	30	337	34	-62210	-2326	-2326
2003	9490	11692	20227	6389	5301	18025	65733	5301	872	1463	152	602	2975	434	3523	2975	-62210	-2326	-2326

¹These 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".

FRANCE

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	47391 40850 44389
Thermal nuclear net production	GWh	1998 Σ 2002 2003	368500 415511 419954
Hydraulic net production	GWh	1998 Σ 2002 2003	61882 60244 60357
Total net electrical energy production	GWh	1998 Σ 2002 2003	477773 516605 524700
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-57943 -76904 -66558
Consumption of pumps	GWh	1998 Σ 2002 2003	5565 7352 7328
National electrical consumption	GWh	1998 Σ 2002 2003	414265 432349 450814
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	99 97 97
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	0,91 - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	52793 56625 66137
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	62469 69552 76249
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	66226 72873 76656
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	72028 80886 83343

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation

FRANCE

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
4218	3967	4725	4751	2832	2736	3669	2688	2970	3058	5209	6568
6406	5037	4367	3377	2394	2000	2193	1494	2716	3453	3479	3934
5399	5140	4110	3541	2199	2248	2733	2693	3152	4042	4609	4523
36954	33565	34315	29984	28368	27214	27803	24470	27450	31551	32598	34228
39942	34276	35443	35453	33484	31037	32856	30317	32076	35056	36161	39410
40335	36453	35837	34473	32460	30997	33136	29990	31458	35464	37677	41674
6460	4748	4784	5808	5977	5857	4149	3220	3882	5829	5989	5179
4024	3845	5261	3880	5558	5762	4468	4427	4443	5229	6233	7114
7901	6877	5944	4573	5356	5070	3801	3587	3303	4576	4194	5175
47632	42280	43824	40543	37177	35807	35621	30378	34302	40438	43796	45975
50372	43158	45071	42710	41436	38799	39517	36238	39235	43738	45873	50458
53635	48470	45891	42587	40015	38315	39670	36270	37913	44082	46480	51372
-6548	-5994	-6794	-5576	-5766	-5149	-3444	-1514	-3191	-4945	-4744	-4278
-5244	-5527	-6961	-7027	-7241	-6177	-5595	-5657	-6272	-6160	-7488	-7555
-6377	-5777	-6977	-5553	-6099	-5122	-5018	-4523	-4437	-3958	-6287	-6430
497	321	430	430	457	459	546	391	460	615	493	466
682	648	601	625	661	557	594	515	539	699	636	595
502	449	615	644	679	501	554	600	611	653	808	712
40587	35965	36600	34537	30954	30199	31631	28473	30651	34878	38559	41231
44446	36983	37509	35058	33534	32065	33328	30066	32424	36879	37749	42308
46756	42244	38299	36390	33237	32692	34098	31147	32865	39471	39385	44230
99	99	99	99	99	99	99	99	99	99	99	99
97	97	97	97	97	97	97	97	97	97	97	97
97	97	97	97	97	97	97	97	97	97	97	97
1,23	0,63	0,71	1,06	1,01	0,92	0,68	0,74	1,03	1,17	1,04	0,73
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
51851	47927	45648	48173	36903	37732	34706	33867	38203	43282	52793	48728
56625	54694	43430	49014	41672	40127	40225	36482	39201	42789	48798	53778
61583	66137	50004	44728	41854	41077	41375	36352	39296	43211	49486	59073
62469	57010	55383	60704	48866	49927	50078	44043	51265	56386	59425	60544
69552	67101	56339	59323	53993	54224	54104	48950	53368	57882	62617	68679
74468	76249	59818	56159	55887	55362	55640	47608	53314	58320	63061	70944
66226	58851	56465	60789	49311	50333	50664	44705	51463	57033	64172	63633
72024	68388	57026	60291	54183	54814	54446	49766	53802	57949	66027	72873
76097	76656	61544	56582	55887	55898	56269	48419	54126	58873	66686	74070
72028	65738	64935	67759	56942	56646	54437	46345	56706	63460	66398	67971
77771	74278	67389	70462	65545	63649	62962	57347	62520	66845	74409	80886
81805	83343	70472	66044	63936	63208	60038	53714	60637	65217	73234	79264

GREECE

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	35000 41641 43291
Thermal nuclear net production	GWh	1998 Σ 2002 2003	0 0 0
Hydraulic net production	GWh	1998 Σ 2002 2003	3849 3382 5206
Total net electrical energy production	GWh	1998 Σ 2002 ² 2003 ²	38849 45023 48497
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	1618 2914 2150
Consumption of pumps	GWh	1998 Σ 2002 2003	208 945 813
National electrical consumption	GWh	1998 Σ 2002 2003	40259 46992 49834
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	95 91 93
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	0,89 0,72 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	4528 6513 5356
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	6758 8582 8258
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	7372 8786 8414
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	7145 7657 7718

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation
GREECE

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2862	2447	2906	2649	2700	2916	3371	3286	2877	2980	2869	3137
3730	3171	3392	3224	3189	3619	4123	3695	3246	3283	3347	3622
3227	3219	3514	3354	3538	3755	4156	3976	3598	3535	3499	3920
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
333	567	279	142	171	249	423	364	159	169	393	600
350	190	175	212	197	283	367	223	270	290	300	525
715	715	472	304	333	356	543	416	291	318	343	400
3195	3014	3185	2791	2871	3165	3794	3650	3036	3149	3262	3737
4080	3361	3567	3436	3386	3902	4490	3918	3516	3573	3647	4147
3942	3934	3986	3658	3871	4111	4699	4392	3889	3853	3842	4320
163	0	157	204	195	239	315	203	175	55	1	-89
196	233	267	255	279	329	404	214	187	201	221	128
169	153	190	140	116	247	393	229	116	104	129	164
13	1	28	23	20	23	9	11	26	28	25	1
94	94	94	91	91	80	77	54	81	90	85	14
7	25	53	76	81	81	77	77	81	83	82	90
3345	3013	3314	2972	3046	3381	4100	3842	3185	3176	3238	3647
4182	3500	3740	3600	3574	4151	4817	4078	3622	3684	3783	4261
4104	4062	4123	3722	3906	4277	5015	4544	3924	3874	3889	4394
95	95	95	95	95	95	95	95	95	95	95	95
91	91	91	91	91	91	91	91	91	91	91	91
93	93	93	93	93	93	93	93	93	93	93	93
0,60	1,29	0,38	0,53	0,97	0,69	0,46	0,46	0,94	0,79	1,54	1,35
0,63	0,31	0,48	0,90	0,50	0,39	0,64	0,84	2,53	0,87	0,64	1,27
-	-	-	-	-	-	-	-	-	-	-	-
3768	3566	4043	3217	3052	3516	4528	3996	3319	3199	3601	4043
5152	4580	4543	4268	4244	5088	6513	4452	4286	4185	4451	4504
4539	4894	4490	3872	4062	4916	5333	5356	3828	3852	4152	4496
5706	5297	5674	5100	4887	5685	6758	5894	5292	5188	5285	5975
7050	6311	5992	6003	6096	7593	8582	6471	6089	5972	5999	6882
6602	7642	6645	6024	6701	7705	8258	7870	6247	6269	6215	7550
6204	5969	6009	5552	5574	6705	7372	6975	6128	5610	6078	6720
7102	6624	6411	6225	6658	7679	8786	6687	6610	6428	6915	7480
7100	7668	7147	6428	6812	7868	8414	8145	6806	6627	6832	8084
6052	5609	5932	5311	5181	6076	7145	6244	5637	5491	5538	6248
6762	5817	5571	5569	5568	7077	7657	6009	5617	5584	5621	6610
6264	7266	6160	5658	6490	7227	7718	7263	6173	5982	6048	7046

Physical exchanges in interconnected operation¹

GREECE | GWh

MM_YY	GR→BG	GR→I		GR_FYROM		GR_UCTE_EXP		GR_UCTE_SLD		GR_III_EXP		GR_III_IMP		GR_UCTE_SLD		GR_III_SLD	
		Export (-)	Import (+)	FYROM→GR	I→GR	BG→GR	AL→GR	GR_UCTE_EXP	GR_UCTE_SLD	GR_UCTE_SLD	GR_III_EXP	GR_III_IMP	GR_UCTE_SLD	GR_UCTE_SLD	GR_UCTE_SLD	GR_III_SLD	
I.98	74	0	0	0	0	74	1	135	0	102	136	102	62	60	60	60	
II.98	87	7	0	1	94	1	33	0	61	61	34	60	-60	41	41	41	
III.98	92	1	0	0	0	93	1	133	0	116	134	116	116	150	150	54	
IV.98	65	4	0	1	1	69	1	122	0	151	151	123	123	121	121	74	
V.98	43	1	0	1	1	44	1	117	0	122	122	118	118	121	121	74	
VI.98	53	0	0	0	0	53	2	144	0	146	146	146	146	146	146	93	
VII.98	42	1	0	0	0	43	2	183	0	173	173	185	173	173	173	142	
VIII.98	75	0	0	0	0	75	1	59	0	218	218	60	218	-15	-15	-15	
IX.98	52	4	0	0	0	56	1	50	0	180	180	51	180	-5	-5	-5	
X.98	75	5	0	1	80	0	59	0	77	77	59	76	76	-21	-21	-21	
XI.98	66	4	0	1	70	0	41	0	32	32	41	31	31	-29	-29	-29	
XII.98	24	0	18	115	0	10	0	34	34	10	10	16	16	-105	-105	-105	
1998	815	51	0	23	866	11	1086	0	1412	1097	1412	1389	231				
I.02	128	0	0	4	128	0	269	0	59	59	269	55	55	141	141	141	
II.02	120	0	0	7	7	120	0	312	0	48	48	312	41	41	192	192	192
III.02	113	0	0	1	113	0	273	0	108	108	273	107	107	160	160	160	
IV.02	74	0	1	1	2	74	1	160	18	152	170	161	168	87	87	87	
V.02	109	0	6	2	8	109	0	257	76	63	139	257	131	148	148	148	
VI.02	123	0	0	3	3	123	0	262	95	98	193	262	190	139	139	139	
VII.02	97	0	1	2	3	97	0	281	143	80	223	281	220	184	184	184	
VIII.02	106	0	56	3	59	106	0	285	17	77	94	285	35	179	179	179	
IX.02	98	0	102	15	117	98	3	343	3	53	56	346	-61	248	248	248	
X.02	72	0	129	5	134	72	3	304	0	100	100	307	-34	235	235	235	
XI.02	52	0	99	2	101	52	2	303	0	69	69	305	-32	253	253	253	
XII.02	71	0	101	5	106	71	0	263	0	42	42	263	-64	192	192	192	
2002	1163	0	495	50	1163	9	545	3312	352	949	1301	3321	756	2158			
I.03	33	0	0	9	9	33	15	157	0	39	196	15	187	-18	-18	-18	
II.03	19	0	3	8	11	19	13	129	0	41	170	13	159	-6	-6	-6	
III.03	56	0	56	0	56	56	1	204	0	97	301	1	245	-55	-55	-55	
IV.03	54	0	107	6	113	54	1	166	0	140	306	1	193	-53	-53	-53	
V.03	70	0	223	0	223	70	0	281	0	128	409	0	186	-70	-70	-70	
VI.03	73	0	73	5	78	73	0	289	0	109	398	0	320	-73	-73	-73	
VII.03	72	0	14	4	18	72	0	399	10	75	484	0	466	-72	-72	-72	
VIII.03	109	0	127	2	129	109	0	389	3	77	469	0	340	-109	-109	-109	
IX.03	88	0	192	11	203	88	0	358	0	50	408	0	205	-88	-88	-88	
X.03	60	0	74	43	117	60	11	233	12	26	271	11	154	-49	-49	-49	
XI.03	66	1	139	27	167	66	8	315	3	37	355	8	188	-58	-58	-58	
XII.03	76	0	125	38	163	76	2	382	0	19	401	2	238	-74	-74	-74	
2003	776	1	1133	153	1287	776	51	3302	28	838	4168	51	2881				

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".

ITALY | GWh

Physical exchanges in interconnected operation¹

MM_YY	Export (-)		Import (+)		Balance													
			I→A	I→CH		I→SLO	I→GR	I→F	I→UCTE_EXP	A→I	SLO→I	GR→I	F→I	I→UCTE_IMP	I→III_IMP	IUCTE_SLD	I→III_SLD	
I.98	0	0	32	0	65	97	0	133	1677	1686	0	64	3560	0	3463	0	0	
II.98	0	0	34	0	85	119	0	103	1476	1612	0	24	3215	0	3096	0	0	
III.98	0	0	34	0	99	133	0	123	1932	1654	0	31	3740	0	3607	0	0	
IV.98	0	0	23	0	54	77	0	139	1944	1268	0	75	3426	0	3349	0	0	
V.98	0	0	7	37	0	80	124	0	136	2020	1522	0	45	3723	0	3599	0	0
VI.98	0	1	41	0	12	54	0	146	1843	1452	0	82	3523	0	3469	0	0	
VII.98	0	1	40	0	11	52	0	166	2046	1218	0	184	3614	0	3562	0	0	
VIII.98	0	1	92	0	8	101	0	115	1401	653	0	148	2317	0	2216	0	0	
IX.98	0	0	14	0	5	19	0	130	1950	1193	0	375	3648	0	3629	0	0	
X.98	0	0	25	0	6	31	0	142	1672	1502	0	368	3684	0	3653	0	0	
XI.98	0	0	36	0	2	38	0	147	1652	1445	0	321	3585	0	3527	0	0	
XII.98	0	0	45	0	8	53	0	152	1854	1381	0	224	3611	0	3558	0	0	
1998	0	10	453	0	435	898	0	1632	21467	16586	0	1941	41626	0	40728	0	0	
1.02	0	0	56	0	4	60	0	167	2336	1544	0	467	4514	0	4454	0	0	
II.02	0	1	36	0	2	39	0	138	2128	1452	0	467	4185	0	4146	0	0	
III.02	0	2	36	0	0	38	0	154	2142	1860	0	493	4649	0	4611	0	0	
IV.02	0	0	34	18	0	52	0	159	2127	1746	1	381	4414	0	4362	0	0	
V.02	0	1	42	76	38	157	0	162	2198	1615	6	219	4200	0	4043	0	0	
VI.02	0	0	1	45	95	26	167	0	147	2149	1529	0	252	4077	0	3910	0	0
VII.02	0	2	36	143	8	189	0	159	2382	1402	1	265	4209	0	4020	0	0	
VIII.02	0	1	60	17	2	80	0	70	1622	1014	56	265	3027	0	2947	0	0	
IX.02	0	0	23	3	0	26	0	152	1975	1541	102	377	4147	0	4121	0	0	
X.02	0	2	26	0	0	28	0	171	2082	1779	129	710	4871	0	4843	0	0	
XI.02	0	10	32	0	0	42	0	160	1803	1796	99	706	4564	0	4522	0	0	
XII.02	0	2	37	0	0	39	0	149	2094	1747	101	629	4720	0	4681	0	0	
2002	0	22	463	352	80	917	0	1788	25038	19025	495	5231	51577	0	50660	0	0	
1.03	0	0	37	0	0	37	0	150	2273	1749	0	564	4736	0	4699	0	0	
II.03	0	1	33	0	0	34	0	132	2111	1701	3	438	4385	0	4351	0	0	
III.03	0	9	36	0	1	46	0	141	2328	1888	56	468	4881	0	4835	0	0	
IV.03	0	0	35	0	0	35	0	145	2311	1666	107	494	4723	0	4688	0	0	
V.03	0	1	33	0	0	34	0	151	2046	1600	223	381	4401	0	4367	0	0	
VI.03	0	0	49	0	0	49	0	137	2209	1327	73	402	4148	0	4099	0	0	
VII.03	0	2	55	10	0	67	0	138	2467	1334	14	324	4277	0	4210	0	0	
VIII.03	0	1	60	3	33	97	0	74	1951	872	127	94	3118	0	3021	0	0	
IX.03	0	0	22	0	9	31	0	157	2217	1601	192	178	4345	0	4314	0	0	
X.03	0	0	16	12	0	28	0	157	2202	1373	74	438	4244	0	4216	0	0	
XI.03	0	0	28	3	0	31	0	138	1909	1425	139	369	3980	0	3949	0	0	
XII.03	0	0	30	0	0	30	0	144	1915	1489	125	398	4071	0	4041	0	0	
2003	0	14	434	28	43	519	0	1664	25939	18025	1133	4548	51309	0	50790	0	0	

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".

ITALY

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	Σ	1998 200037 2002 222979 2003 236532
Thermal nuclear net production	GWh	Σ	1998 0 2002 0 2003 0
Hydraulic net production	GWh	Σ	1998 46976 2002 47291 2003 43651
Total net electrical energy production	GWh	Σ	1998 247013 2002 270270 2003 280183
Total physical import / export balance ¹	GWh	Σ	1998 40726 2002 50660 2003 50969
Consumption of pumps	GWh	Σ	1998 8338 2002 10569 2003 10493
National electrical consumption	GWh	Σ	1998 279401 2002 310361 2003 320659
National electrical consumption as percentage of total values	%	Ø pond.	1998 100 2002 100 2003 100
Energy capability factor (hydro power)		Ø pond.	1998 0,94 2002 0,90 2003 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 25213 2002 31343 2003 32993
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 42384 2002 50551 2003 51820
Peak load on the 3 rd Wednesday	MW	max.	1998 45115 2002 50910 2003 51820
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 39775 2002 43939 2003 45148

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation

ITALY

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
17885	17140	18416	15866	14826	15439	17410	14745	16565	16406	17560	17779
21303	19048	19490	18175	17390	18126	19927	16154	18637	18829	18203	17697
19262	18934	19895	18149	18091	19672	21958	19055	20263	21072	20045	20136
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
3397	2855	2843	3722	5189	5407	4865	3585	3955	4591	3541	3026
2800	2500	2776	2746	5272	5425	5105	3805	3837	4002	4425	4598
4350	3546	3347	2939	4700	5100	4433	2986	2584	2775	3444	3447
21282	19995	21259	19588	20015	20846	22275	18330	20520	20997	21101	20805
24103	21548	22266	20921	22662	23551	25032	19959	22474	22831	22628	22295
23612	22480	23242	21088	22791	24772	26391	22041	22847	23847	23489	23583
3464	3095	3608	3349	3601	3468	3563	2215	3628	3652	3526	3557
4454	4146	4611	4362	4043	3910	4020	2947	4121	4843	4522	4681
4699	4343	4874	4702	4390	4113	4227	3040	4316	4230	3968	4067
720	655	712	530	684	668	761	550	810	728	788	732
975	867	869	876	900	899	892	817	816	885	859	914
906	839	913	853	866	902	849	822	808	875	874	986
24026	22435	24155	22407	22932	23646	25077	19995	23338	23921	23839	23630
27582	24827	26008	24407	25805	26562	28160	22089	25779	26789	26291	26062
27405	25984	27203	24937	26315	27983	29769	24259	26355	27202	26583	26664
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
0,98	0,95	0,69	0,94	1,02	0,98	0,82	0,90	1,03	1,31	0,83	0,82
0,54	0,63	0,65	0,63	1,04	0,96	0,84	0,96	0,91	0,80	1,30	1,37
-	-	-	-	-	-	-	-	-	-	-	-
23676	23488	23633	22397	23426	24126	25213	22739	23822	23265	23804	23990
28768	28375	27659	22579	27695	31343	29865	23469	28926	28169	28266	28473
28718	29066	28674	28535	28474	32104	32993	26430	28770	28460	28664	28709
42384	39961	39773	40378	38574	40084	41443	36516	38952	39101	41292	42247
49641	46851	44267	44933	44077	50551	47812	34195	46005	46267	46579	48960
49298	49904	46887	45727	45528	50587	51820	37064	45687	46541	47717	48896
43250	40708	40297	40651	38829	40084	41443	36788	39220	39576	43638	45115
50910	47341	44781	45167	44359	50551	47812	34195	46141	46385	49465	50789
51030	50266	47486	46286	45743	50587	51820	37488	45876	46541	49733	51371
37031	34765	34239	34938	32911	34617	35700	32843	32823	34059	37987	39775
43939	40414	37520	37884	37785	43668	41103	29978	39516	39050	42599	43379
44005	43195	40379	38698	40139	44065	45148	32878	39289	39183	42737	44422

SLOVENIA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	4362 4675 4580
Thermal nuclear net production	GWh	1998 Σ 2002 2003	3539 5303 4957
Hydraulic net production	GWh	1998 Σ 2002 2003	3147 3001 2687
Total net electrical energy production	GWh	1998 Σ 2002 2003	11048 12979 12224
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-648 -1252 170
Consumption of pumps	GWh	1998 Σ 2002 2003	0 0 0
National electrical consumption	GWh	1998 Σ 2002 2003	10400 11727 12394
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 95 95
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	n.a. 1,05 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	1043 1156 1237
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	1570 1811 1826
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	1624 1846 1920
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	1812 2072 1890

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation

SLOVENIA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
429	388	468	390	403	270	270	214	356	375	406	393
510	461	423	433	423	384	296	171	375	408	383	408
443	470	463	378	424	406	346	273	321	400	267	389
231	205	224	156	9	213	238	441	446	464	446	466
492	416	487	449	157	370	485	494	477	502	486	488
488	449	492	468	118	286	423	362	453	488	437	493
195	126	125	225	256	307	372	263	336	418	323	201
110	113	165	178	297	308	256	330	229	293	365	357
238	158	154	190	282	266	225	172	184	234	326	258
855	719	817	771	668	790	880	918	1138	1257	1175	1060
1112	990	1075	1060	877	1062	1037	995	1081	1203	1234	1253
1169	1077	1109	1036	824	958	994	807	958	1122	1030	1140
42	112	118	72	171	32	-56	-128	-290	-357	-271	-93
-64	-68	-213	-87	78	-103	-56	-73	-97	-158	-211	-200
-66	-52	-38	-38	161	52	26	160	-46	-42	46	7
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
897	831	935	843	839	822	824	790	848	900	904	967
1048	922	862	973	955	959	981	922	984	1045	1023	1053
1103	1025	1071	998	985	1010	1020	967	912	1080	1076	1147
100	100	100	100	100	100	100	100	100	100	100	100
95	95	95	95	95	95	95	95	95	95	95	95
95	95	95	95	95	95	95	95	95	95	95	95
1,10	0,85	0,57	0,77	0,66	0,74	0,96	0,78	1,19	1,46	1,06	0,84
1,03	0,95	0,46	1,02	1,02	1,02	0,92	1,09	1,09	0,90	1,49	1,49
-	-	-	-	-	-	-	-	-	-	-	-
956	969	987	994	894	941	896	907	919	945	986	1043
1137	1079	1080	1083	1058	1156	1124	1081	1113	1114	1144	1156
1237	1230	1152	1141	1083	1204	1112	1147	1091	1147	1196	1229
1495	1401	1455	1401	1350	1406	1306	1317	1356	1457	1471	1570
1690	1641	1593	1624	1540	1615	1558	1527	1601	1622	1644	1811
1799	1773	1653	1640	1642	1703	1655	1631	1594	1681	1708	1826
1546	1508	1551	1480	1404	1434	1323	1346	1404	1529	1564	1624
1782	1717	1720	1660	1587	1672	1599	1595	1684	1744	1722	1846
1855	1830	1770	1692	1667	1749	1725	1686	1663	1750	1810	1920
1256	1173	1234	1337	1041	1336	1296	1393	1695	1812	1791	1593
1795	1806	1756	1934	1249	2061	1658	1605	1821	1821	2015	2072
1762	1767	1890	1713	1117	1710	1643	1277	1633	1727	1590	1800

Physical exchanges in interconnected operation¹

SLOVENIA | GWh

MM_YY	SLO→A	SLO→I	SLO→HR	SLO_UCTE_EXP	SLO_III_EXP	A→SLO	I→SLO	HR→SLO	Import (+)		Balance
									Export (-)	Import (+)	
I.98	3	64	49	116	0	93	65	0	158	0	42
II.98	0	24	61	85	0	112	85	0	197	0	112
III.98	0	31	102	133	0	152	99	0	251	0	118
IV.98	0	75	82	157	0	175	54	0	229	0	72
V.98	0	45	106	151	0	242	80	0	322	0	171
VI.98	0	82	114	196	0	216	12	0	228	0	32
VII.98	4	184	147	335	0	268	11	0	279	0	-56
VIII.98	15	148	148	311	0	175	8	0	183	0	-128
IX.98	1	375	91	467	0	172	5	0	177	0	-290
X.98	10	368	72	450	0	87	6	0	93	0	-357
XI.98	13	321	58	392	0	119	2	0	121	0	-271
XII.98	0	224	123	347	0	246	8	0	254	0	-93
1998	46	1941	1153	3140	0	2057	435	0	2492	0	-648
I.02	4	467	208	679	0	285	4	326	615	0	-64
II.02	2	467	208	677	0	278	2	329	609	0	-68
III.02	101	493	274	868	0	295	0	360	655	0	-213
IV.02	14	381	255	650	0	245	0	318	563	0	-87
V.02	2	219	200	421	0	342	38	119	499	0	78
VI.02	0	252	306	558	0	270	26	159	455	0	-103
VII.02	0	265	313	578	0	341	8	173	522	0	-56
VIII.02	0	265	375	640	0	316	2	249	567	0	-73
IX.02	28	377	275	680	0	182	0	401	583	0	-97
X.02	2	710	209	921	0	258	0	503	761	0	-160
XI.02	16	706	194	916	0	212	0	493	705	0	-211
XII.02	16	629	215	860	0	222	0	438	660	0	-200
2002	185	5231	3032	8448	0	3246	80	368	7194	0	-1254
I.03	20	564	152	736	0	231	0	439	670	0	-66
II.03	32	438	133	603	0	197	0	354	551	0	-52
III.03	34	468	144	646	0	240	1	367	608	0	-38
IV.03	5	494	152	651	0	272	0	341	613	0	-38
V.03	0	381	87	468	0	344	0	285	629	0	161
VI.03	0	402	202	604	0	392	0	268	660	0	56
VII.03	9	324	220	553	0	323	0	257	580	0	27
VIII.03	26	94	144	264	0	219	33	173	425	0	161
IX.03	28	178	205	411	0	180	9	174	363	0	-48
X.03	3	438	205	646	0	299	0	306	605	0	-41
XI.03	31	369	99	499	0	184	0	336	520	0	21
XII.03	11	398	133	542	0	185	0	365	550	0	8
2003	199	4548	1876	6623	0	3066	43	365	6774	0	151

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".

CROATIA | GWh

Physical exchanges in interconnected operation¹

MM_YY	HR→BiH	HR→H	HR→SCG	HR_UCTE_EXP	Export (-)	Import (+)	Balance	
							HR_UCTE_SLD	HR_III_SLD
I.98	0	0	0	0	0	7	23	72
II.98	0	0	0	0	0	27	19	97
III.98	49	0	0	49	0	69	14	146
IV.98	10	0	0	10	0	68	22	141
V.98	8	0	0	8	0	105	60	220
VI.98	52	0	2	54	0	84	33	198
VII.98	69	0	0	69	0	62	39	147
VIII.98	41	0	0	41	0	67	36	211
IX.98	56	0	0	56	0	103	32	171
X.98	8	0	0	8	0	90	45	138
XI.98	8	0	0	8	0	51	35	106
XII.98	9	0	0	9	0	60	58	123
1998	310	0	2	312	0	793	416	1153
							2008	416
1.02	157	0	0	326	483	0	26	690
II.02	168	0	0	329	497	0	43	639
III.02	166	0	0	360	526	0	43	533
IV.02	158	0	2	318	478	0	56	441
V.02	113	0	6	119	238	0	44	370
VI.02	144	0	3	159	306	0	37	281
VII.02	169	0	4	173	346	0	35	384
VIII.02	114	1	0	249	364	0	31	259
IX.02	97	0	0	401	498	0	53	366
X.02	109	0	0	503	612	0	77	506
XI.02	90	0	0	493	583	0	93	413
XII.02	98	0	0	438	536	0	96	442
2002	1583	1	15	38688	5467	0	634	5324
							0	3032
1.03	165	0	0	439	604	0	46	533
II.03	126	0	0	354	480	0	59	467
III.03	113	0	0	367	480	0	59	534
IV.03	62	0	0	341	403	0	72	513
V.03	58	0	0	285	343	0	136	463
VI.03	101	1	0	268	370	0	107	435
VII.03	93	0	0	257	350	0	84	414
VIII.03	113	0	0	173	286	0	71	424
IX.03	178	0	0	174	352	0	47	458
X.03	115	0	0	306	421	0	108	533
XI.03	71	0	0	336	407	0	138	502
XII.03	95	0	0	365	460	0	127	566
2003	1290	1	0	3665	4956	0	1054	5842
							86	1876
							8858	8858
							0	3902

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".

CROATIA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	4573 5933 6966
Thermal nuclear net production	GWh	1998 Σ 2002 2003	1251 0 0
Hydraulic net production	GWh	1998 Σ 2002 2003	5437 5374 4895
Total net electrical energy production	GWh	1998 Σ 2002 ² 2003 ²	11261 11307 11861
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	2111 3522 3663
Consumption of pumps	GWh	1998 Σ 2002 2003	13 95 87
National electrical consumption	GWh	1998 Σ 2002 2003	13359 14734 15437
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	0,79 1,05 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	1334 1579 1643
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	2203 2572 2453
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	2354 2623 2618
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	1880 2572 2453

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

² Including deliveries from industry

Monthly values / Operation

CROATIA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
291	412	497	302	271	209	262	452	450	223	504	700
738	458	515	454	295	437	555	510	567	430	414	560
608	575	557	501	501	522	603	704	832	534	413	616
231	205	224	156	4	213	218	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
665	403	348	411	413	343	352	342	366	653	617	524
371	428	431	464	422	330	259	345	343	596	688	697
752	663	545	381	282	263	270	179	166	323	539	532
1187	1020	1069	869	688	765	832	794	816	876	1121	1224
1109	886	946	918	717	767	814	855	910	1026	1102	1257
1360	1238	1102	882	783	785	873	883	998	857	952	1148
94	116	160	163	272	177	181	211	170	199	136	232
441	393	324	275	376	319	386	300	195	179	117	217
127	179	257	333	331	373	377	373	144	447	355	367
1	1	1	1	1	2	1	0	1	3	1	0
3	1	2	8	12	12	11	10	7	11	2	16
7	0	1	5	9	12	18	9	8	13	2	3
1280	1135	1228	1031	959	940	1012	1005	985	1072	1256	1456
1547	1278	1268	1185	1081	1074	1189	1145	1098	1194	1217	1458
1480	1417	1358	1210	1105	1146	1232	1247	1134	1291	1305	1512
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
1,02	0,42	0,30	0,73	0,71	0,72	1,33	1,09	1,16	1,50	0,89	0,65
0,57	1,31	0,67	0,89	0,82	0,84	0,80	1,68	2,03	1,70	1,25	1,00
-	-	-	-	-	-	-	-	-	-	-	-
1232	1120	1197	1091	944	905	961	1042	953	989	1225	1334
1579	1331	1183	1189	1033	1181	1213	1156	1133	1201	1207	1503
1624	1643	1418	1285	1095	1271	1224	1318	1132	1170	1348	1530
1998	1927	2008	1825	1608	1614	1639	1657	1627	1832	2110	2203
2572	2187	1876	1913	1689	1861	1900	1852	1731	1818	1820	2327
2349	2453	2063	1865	1765	1892	1885	1991	1800	1927	2070	2377
2168	2055	2115	1860	1658	1671	1702	1782	1773	1940	2281	2354
2623	2323	2092	2084	1833	1919	1943	1923	1913	1961	2056	2463
2507	2618	2309	2049	1835	1950	1989	2151	2030	2213	2323	2602
1817	1703	1703	1466	1131	1292	1315	1358	1320	1345	1880	1730
2572	2187	1876	1913	1689	1861	1900	1852	1731	1818	1820	2327
2349	2453	2063	2049	1765	1439	880	1483	1507	1855	2096	2450

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003
			30697 28704 n.a.
Thermal nuclear net production	GWh	Σ	1998 2002 2003
			0 0 n.a.
Hydraulic net production	GWh	Σ	1998 2002 2003
			13954 12473 n.a.
Total net electrical energy production	GWh	Σ	1998 2002 2003
			44651 41177 n.a.
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003
			440 4475 n.a.
Consumption of pumps	GWh	Σ	1998 2002 2003
			981 1028 n.a.
National electrical consumption	GWh	Σ	1998 2002 2003
			44110 44624 n.a.
National electrical consumption as percentage of total values	%	Ø pond.	1998 2002 2003
			96 96 n.a.
Energy capability factor (hydro power)	Ø pond.		1998 2002 2003
			0,96 1,24 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			5258 6247 n.a.
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			7240 7705 n.a.
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003
			7874 8020 n.a.
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003
			6819 5716 n.a.

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation² JIEL = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

Monthly values / Operation

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2986	2854	3213	2447	2074	2118	2219	2411	2336	2130	2669	3240
3464	2689	2824	2484	2092	2114	2190	2043	1955	1878	2140	2831
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1308	964	1207	1074	1272	956	950	771	843	1380	1565	1664
846	944	1107	1255	955	866	685	839	803	1483	1291	1399
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4294	3818	4420	3521	3346	3074	3169	3182	3179	3510	4234	4904
4310	3633	3931	3739	3047	2980	2875	2882	2758	3361	3431	4230
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
358	310	65	-82	-223	-194	-254	-256	-92	99	229	480
861	465	237	97	130	62	188	199	405	446	640	745
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33	57	12	130	48	64	80	98	137	144	121	57
90	105	115	136	82	49	52	91	88	95	69	56
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4619	4071	4473	3309	3075	2816	2835	2828	2950	3465	4342	5327
5081	3993	4053	3700	3095	2993	3011	2990	3075	3712	4002	4919
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
96	96	96	96	96	96	96	96	96	96	96	96
96	96	96	96	96	96	96	96	96	96	96	96
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1,04	0,85	0,62	0,85	0,86	0,83	0,94	0,80	1,42	1,74	1,20	1,05
0,66	1,03	0,85	0,94	0,70	0,73	0,67	1,20	1,28	2,20	0,77	1,09
-	-	-	-	-	-	-	-	-	-	-	-
4989	4508	5169	3608	2988	2886	2836	2871	2875	3434	4721	5258
6247	4882	3945	3691	3111	3163	3153	3113	3180	3733	4002	5685
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6932	6065	6993	5332	4827	4404	4395	4214	4591	5515	6855	7240
7705	6302	5594	5256	4667	4749	4669	4499	4710	5344	5616	7318
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7439	6821	7482	6117	5313	4841	4595	4667	5239	6338	7472	7874
8020	6847	6440	6135	5342	5247	4863	5149	5531	6163	6566	7763
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6259	5330	6819	5265	5321	4858	4820	4553	5021	5570	6586	6547
5665	5006	4911	4620	4117	4202	4055	4000	3882	4763	4294	5716
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Physical exchanges in interconnected operation¹

JIEL² | GWh

MM_YY	JIEL → AL	JIEL → BG	JIEL → BIH	JIEL → GR	JIEL → HR	JIEL → RO	JIEL_UCTE_EXP	JIEL_UCTE_IMP	RO→JIEL	HR→JIEL	GR→JIEL	BiH→JIEL	BG→JIEL	AL→JIEL	JIEL_UCTE_SLD	JIEL_III_SLD	Balance				
																	Import (+)				
1.98	13	0	0	102	0	16	6	118	19	64	99	0	0	120	0	75	0	358	-118		
II.98	11	1	0	61	0	9	7	70	19	63	54	0	1	105	0	38	1	260	-69		
III.98	23	2	0	116	0	24	17	140	42	38	45	0	0	32	0	20	0	135	-140		
IV.98	41	18	0	151	0	1	73	152	132	13	13	0	1	9	0	4	1	39	-151		
V.98	13	31	0	122	0	9	120	131	164	35	9	0	1	0	0	1	1	45	-130		
VI.98	19	34	0	146	0	0	84	146	137	60	6	0	0	0	0	7	2	4	-62		
VII.98	21	47	0	173	0	2	117	175	185	53	4	0	0	13	0	1	0	71	-175		
VIII.98	47	14	0	218	0	1	71	219	132	44	37	0	0	25	0	3	0	109	-219		
IX.98	25	18	0	180	0	0	77	180	120	50	33	0	0	69	0	3	0	155	-180		
X.98	19	11	0	77	0	0	39	77	69	61	27	0	1	82	0	18	1	188	-76		
XI.98	20	13	0	32	0	0	64	32	97	87	36	0	1	106	0	2	1	231	-31		
XII.98	9	0	0	34	0	0	10	34	19	115	100	0	0	18	123	0	1	427	-16		
1998	261	189	0	1412	0	62	685	1474	1135	683	463	0	23	691	2	256	27	2093	-1447		
I.02	37	0	91	59	0	0	0	91	37	8	227	250	4	201	0	358	455	593	556		
II.02	109	0	48	48	0	0	1	48	110	0	140	246	7	187	0	90	440	230	392		
III.02	123	10	44	108	0	0	0	22	44	155	0	52	264	1	189	0	37	454	89	410	
IV.02	123	20	55	152	0	0	0	26	55	169	0	38	255	1	134	2	43	392	81	337	
V.02	122	15	78	63	0	0	0	6	78	143	0	23	191	2	141	6	51	340	74	262	
VI.02	139	17	55	98	0	0	8	55	164	0	35	192	3	114	3	33	312	68	257	-96	
VII.02	146	1	54	80	0	0	4	54	151	0	77	165	2	146	4	81	317	158	263	7	
VIII.02	110	2	58	77	0	0	3	58	115	0	61	146	3	153	0	86	302	147	244	32	
IX.02	85	0	56	53	0	0	0	17	56	102	6	238	156	15	143	0	59	314	303	258	201
X.02	52	1	51	100	0	0	6	51	59	13	149	200	15	141	0	148	346	310	295	251	
XI.02	39	0	24	69	0	0	0	24	39	13	147	273	2	193	0	145	468	305	444	266	
XII.02	38	0	74	42	0	0	0	74	38	1	188	316	5	205	0	184	526	373	452	335	
2002	1123	66	688	949	0	0	93	688	1282	41	1375	2654	50	1947	15	2654	50	1947	15	315	4666
I.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
II.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
III.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
IV.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
V.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
VI.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
VII.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
VIII.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
IX.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
X.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
XI.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
XII.03	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							
2003	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.							

¹ These physical energy flows were measured on all cross-frontier transmission lines. These values may differ from the official statistics and the total physical balance in the table "Monthly values: Operation".

² JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Physical exchanges in interconnected operation¹

BOSNIA - HERZEGOVINA | GWh

MM_YY	BiH→HR	BiH→SCG	BiH_UCTE_EXP	SCG→BiH	HR→BiH	Import (t)	Balance	BiH_III_SLD	
								Export (t)	Import (t)
I.98	7	n.a.	7	0	0	n.a.	-7	0	
II.98	27	n.a.	27	0	0	n.a.	-27	0	
III.98	69	n.a.	69	0	49	n.a.	-20	0	
IV.98	68	n.a.	68	0	10	n.a.	-58	0	
V.98	105	n.a.	105	0	8	n.a.	-97	0	
VI.98	84	n.a.	84	0	52	n.a.	-32	0	
VII.98	62	n.a.	62	0	69	n.a.	7	0	
VIII.98	67	n.a.	67	0	41	n.a.	-26	0	
IX.98	103	n.a.	103	0	56	n.a.	-47	0	
X.98	90	n.a.	90	0	8	n.a.	-82	0	
XI.98	51	n.a.	51	0	8	n.a.	-43	0	
XII.98	60	n.a.	60	0	9	n.a.	-51	0	
1998	793	n.a.	793	0	310	n.a.	-483	0	
I.02	26	250	276	0	157	91	248	0	-28
II.02	43	246	289	0	168	48	216	0	-73
III.02	43	264	307	0	166	44	210	0	-97
IV.02	56	255	311	0	158	55	213	0	-98
V.02	44	191	235	0	113	78	191	0	-44
VI.02	37	192	229	0	144	55	199	0	-30
VII.02	35	165	200	0	169	54	223	0	23
VIII.02	31	146	177	0	114	58	172	0	-5
IX.02	53	156	209	0	97	56	153	0	-56
X.02	77	200	277	0	109	51	160	0	-117
XI.02	93	273	366	0	90	24	114	0	-252
XII.02	96	316	412	0	98	74	172	0	-240
2002	634	2654	3288	0	1583	688	2271	0	-1017
I.03	46	303	349	0	165	74	239	0	-110
II.03	59	180	239	0	126	72	198	0	-41
III.03	59	239	298	0	113	69	182	0	-116
IV.03	72	244	316	0	62	97	159	0	-157
V.03	136	125	261	0	58	96	154	0	-107
VI.03	107	136	243	0	101	46	147	0	-96
VII.03	84	98	182	0	93	56	149	0	-33
VIII.03	71	74	145	0	113	63	176	0	31
IX.03	47	72	119	0	178	62	240	0	121
X.03	108	113	221	0	115	73	188	0	-33
XI.03	138	158	296	0	71	19	90	0	-206
XII.03	127	219	346	0	95	65	160	0	-186
2003	1054	3015	1961	0	1290	792	2082	0	-933

¹These physical energy flows were measured on all cross-frontier transmission lines. These values may differ from the official statistics and the total physical balance in the table "Monthly values: Operation".

BOSNIA - HERZEGOVINA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 6653
Thermal nuclear net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 0
Hydraulic net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 4501
Total net electrical energy production	GWh	Σ	1998 2002 2003
			n.a. n.a. 11154
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003
			n.a. n.a. 1355
Consumption of pumps	GWh	Σ	1998 2002 2003
			n.a. n.a. 0
National electrical consumption	GWh	Σ	1998 2002 2003
			n.a. n.a. 12509
National electrical consumption as percentage of total values	%Ø pond.		1998 2002 2003
			n.a. n.a. 99
Energy capability factor (hydro power)	Ø pond.		1998 2002 2003
			n.a. n.a. -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 1113
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 1629
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 1745
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003
			n.a. n.a. 1845

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation
BOSNIA - HERZEGOVINA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
n.a.											
n.a.											
514	481	556	517	444	601	556	563	455	610	608	748
n.a.											
n.a.											
0	0	0	0	0	0	0	0	0	0	0	0
n.a.											
n.a.											
606	506	470	449	406	228	231	192	176	291	488	458
n.a.											
n.a.											
1120	987	1026	966	850	829	787	755	631	901	1096	1206
n.a.											
n.a.											
120	51	125	166	121	106	52	15	113	56	219	211
n.a.											
n.a.											
0	0	0	0	0	0	0	0	0	0	0	0
n.a.											
n.a.											
1240	1038	1151	1132	971	935	839	770	744	957	1315	1417
n.a.											
n.a.											
99	99	99	99	99	99	99	99	99	99	99	99
n.a.											
n.a.											
-	-	-	-	-	-	-	-	-	-	-	-
n.a.											
n.a.											
1113	1092	969	811	742	791	761	794	786	822	928	1007
n.a.											
n.a.											
1595	1629	1382	1220	1175	1123	1146	1159	1152	1313	1352	1477
n.a.											
n.a.											
1739	1745	1542	1396	1251	1202	1252	1233	1348	1477	1567	1681
n.a.											
n.a.											
1845	1570	1643	1521	1525	1136	1252	1053	969	1237	1725	1801

				I-XII
				1998 n.a.
		GWh	Σ	2002 n.a.
				2003 4945
Thermal conventional net production				1998 n.a.
Thermal nuclear net production				1998 n.a.
Hydraulic net production				1998 n.a.
Total net electrical energy production				1998 n.a.
Total physical import / export balance ¹				1998 n.a.
Consumption of pumps				1998 n.a.
National electrical consumption				1998 n.a.
National electrical consumption as percentage of total values			%Ø pond.	1998 n.a.
Energy capability factor (hydro power)			Ø pond.	1998 n.a.
Consumption load at 3:00 a.m. on the 3 rd Wednesday		MW	max.	1998 n.a.
Consumption load at 11:00 a.m. on the 3 rd Wednesday		MW	max.	1998 n.a.
Peak load on the 3 rd Wednesday		MW	max.	1998 n.a.
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.		MW	max.	1998 n.a.
				2002 n.a.
				2003 987

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

FYROM

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
468	407	475	440	303	278	313	381	415	478	488	499
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	0	0	0	0	0	0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
166	207	164	105	133	133	100	76	28	52	51	109
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
634	614	639	545	436	411	413	457	443	530	539	608
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	3	2	1	1	2	2	2	2	3	4	11
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	0	0	0	0	0	0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
637	617	641	546	437	413	415	459	445	533	543	619
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
100	100	100	100	100	100	100	100	100	100	100	100
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
860	868	747	589	493	524	529	519	513	545	744	877
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1130	1172	1034	817	735	772	775	757	757	897	980	1181
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1195	1222	1131	950	801	829	809	839	866	1014	1132	1284
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
925	987	929	797	670	570	655	639	668	811	731	909

Physical exchanges in interconnected operation¹

FYROM | GWh

				FYROM	
				GWh	
				FYROM	
MM_YY		Export (-)		Import (+)	
1.98	102	n.a.	102	0	0
II.98	61	n.a.	61	1	1
III.98	116	n.a.	116	0	0
IV.98	151	n.a.	151	1	1
V.98	122	n.a.	122	0	0
VI.98	146	n.a.	146	0	0
VII.98	173	n.a.	173	0	0
VIII.98	218	n.a.	218	0	0
IX.98	180	n.a.	180	0	0
X.98	77	n.a.	77	1	1
XI.98	32	n.a.	32	0	0
XII.98	34	n.a.	34	0	0
1998	1412	n.a.	1412	0	23
1.02	59	n.a.	59	0	4
II.02	48	n.a.	48	0	7
III.02	108	n.a.	108	1	1
IV.02	152	n.a.	152	0	1
V.02	63	n.a.	63	2	2
VI.02	98	n.a.	98	3	3
VII.02	80	n.a.	80	2	2
VIII.02	77	n.a.	77	3	3
IX.02	53	n.a.	53	0	15
X.02	100	n.a.	100	0	5
XI.02	69	n.a.	69	2	5
XII.02	42	n.a.	42	5	5
2002	949	n.a.	949	0	50
I.03	39	0	39	0	9
II.03	41	0	41	0	8
III.03	97	0	97	0	147
IV.03	140	0	140	0	6
V.03	128	0	128	0	174
VI.03	109	0	109	0	5
VII.03	75	0	75	0	4
VIII.03	77	0	77	2	122
IX.03	50	0	50	0	11
X.03	26	5	31	0	43
XI.03	37	0	37	0	27
XII.03	19	0	19	0	38
2003	838	5	843	0	153
					1624
					1777
					0
					334
					0

¹The 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".

SERBIA and MONTENEGRO

Physical exchanges in interconnected operation¹

Gwh

MM_YY	SCG→AL	SCG→BG	SCG→BiH	SCG→FYROM	SCG→HR	SCG→RO	SCG_UCTE_EXP	SCG_III_EXP	SCG→SCG		FYROM→SCG	BiH→SCG	BG→SCG	AL→SCG	SCG_UCTE_IMP	SCG_III_IMP	SCG_UCTE_SLD	SCG_III_SLD	Balance	
									Export (-)	Import (+)										
I.98	13	0	n.a.	n.a.	0	16	16	19	64	99	n.a.	n.a.	120	0	75	0	358	-16	339	
II.98	11	1	n.a.	n.a.	0	9	7	9	63	54	n.a.	n.a.	105	0	38	0	260	-9	241	
III.98	23	2	n.a.	n.a.	0	24	17	24	38	45	n.a.	n.a.	32	0	20	0	135	-24	93	
IV.98	41	18	n.a.	n.a.	0	1	73	1	132	13	n.a.	n.a.	9	0	4	0	39	-1	-93	
V.98	13	31	n.a.	n.a.	0	9	120	9	164	35	n.a.	n.a.	0	0	0	0	45	-9	-119	
VI.98	19	34	n.a.	n.a.	0	0	84	0	137	60	n.a.	n.a.	7	2	2	2	75	2	-62	
VII.98	21	47	n.a.	n.a.	0	2	117	2	185	53	n.a.	n.a.	13	0	1	0	71	-2	-114	
VIII.98	47	14	n.a.	n.a.	0	1	71	1	132	44	n.a.	n.a.	37	n.a.	25	0	3	-1	-23	
IX.98	25	18	n.a.	n.a.	0	0	77	0	120	50	n.a.	n.a.	69	0	3	0	155	0	35	
X.98	19	11	n.a.	n.a.	0	0	39	0	69	61	n.a.	n.a.	82	0	18	0	188	0	119	
XI.98	20	13	n.a.	n.a.	0	0	64	0	97	87	n.a.	n.a.	106	0	2	0	231	0	134	
XII.98	9	0	n.a.	n.a.	0	0	10	0	19	115	n.a.	n.a.	123	0	89	0	427	0	408	
1998	261	189	n.a.	0	62	685	62	1135	633	463	n.a.	691	2	256	2	2093	-60	958		
I.99	37	0	n.a.	n.a.	0	0	91	0	37	8	227	250	n.a.	201	0	358	451	593	360	
II.99	109	0	48	n.a.	0	1	48	110	0	140	246	n.a.	187	0	90	433	230	385		
III.99	123	10	44	n.a.	0	0	22	44	155	0	52	264	n.a.	189	0	37	453	89	409	
IV.99	123	20	55	n.a.	0	0	26	55	169	0	38	255	n.a.	134	2	43	391	81	336	
V.99	122	15	78	n.a.	0	0	6	78	143	0	23	191	n.a.	141	6	51	338	74	260	
VI.99	139	17	55	n.a.	0	0	8	55	164	0	35	192	n.a.	114	3	33	309	68	254	
VII.99	146	1	54	n.a.	0	0	4	54	151	0	77	165	n.a.	146	4	81	315	158	261	
VIII.99	110	2	58	n.a.	0	0	3	58	115	0	61	146	n.a.	153	0	86	299	147	241	
IX.99	85	0	56	n.a.	0	0	17	56	102	6	238	156	n.a.	143	0	59	299	303	243	
X.99	52	1	51	n.a.	0	0	6	51	59	13	149	200	n.a.	141	0	148	341	310	290	
XI.99	39	0	24	n.a.	0	0	0	24	39	13	147	273	n.a.	193	0	145	466	305	442	
XII.99	38	0	74	n.a.	0	0	0	74	38	1	188	316	n.a.	205	0	184	521	373	447	
2002	1123	66	688	n.a.	0	0	93	688	1282	41	1375	2654	n.a.	1947	15	1315	4616	2731	3928	1449
I.03	13	1	74	118	0	0	2	195	13	88	99	303	0	177	0	156	735	88	540	
II.03	4	1	72	121	0	0	1	195	4	100	64	180	0	183	0	106	533	100	338	
III.03	22	3	69	147	0	0	7	226	22	34	57	239	0	77	0	79	452	34	226	
IV.03	41	16	97	178	0	0	9	300	41	3	45	244	0	12	0	56	357	3	57	
V.03	34	32	96	174	0	0	5	307	34	6	16	125	0	0	0	0	100	241	6	
VI.03	37	36	46	167	0	0	0	249	37	9	13	136	0	0	0	0	214	363	9	
VII.03	52	2	56	162	0	8	0	228	52	2	195	98	0	0	0	0	176	469	2	
VIII.03	83	0	63	122	0	18	0	203	83	0	199	74	0	7	0	228	508	0	305	
IX.03	67	0	62	92	0	16	3	173	67	0	223	72	0	6	0	126	427	0	254	
X.03	31	0	73	43	0	21	2	139	31	2	216	113	5	0	0	0	98	432	2	
XI.03	34	0	19	127	0	23	0	169	34	5	226	158	0	0	0	0	229	613	5	
XII.03	47	0	65	173	0	0	0	238	47	15	283	219	0	60	0	284	846	15	608	
2003	465	91	792	1624	0	86	29	2622	465	264	1636	1961	5	522	0	1852	5976	264	3354	

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".

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003 n.a. n.a. 25819
Thermal nuclear net production	GWh	Σ	1998 2002 2003 n.a. n.a. 0
Hydraulic net production	GWh	Σ	1998 2002 2003 n.a. n.a. 10707
Total net electrical energy production	GWh	Σ	1998 2002 2003 n.a. n.a. 36526
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003 n.a. n.a. 3148
Consumption of pumps	GWh	Σ	1998 2002 2003 n.a. n.a. 521
National electrical consumption	GWh	Σ	1998 2002 2003 n.a. n.a. 39153
National electrical consumption as percentage of total values	%	Ø pond.	1998 2002 2003 n.a. n.a. 96
Energy capability factor (hydro power)		Ø pond.	1998 2002 2003 n.a. n.a. -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 5523
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 6744
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 6979
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003 n.a. n.a. 6075

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation

SERBIA and MONTENEGRO

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2107	2299	2377	2124	1796	1723	1888	1970	2130	2247	2328	2830	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	0	0	0	0	0	0	0
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1545	1327	1213	1068	942	752	549	472	366	780	841	852	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3652	3626	3590	3192	2738	2475	2437	2442	2496	3027	3169	3682	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
615	434	240	23	-95	88	190	223	181	264	409	576	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
69	30	45	19	16	12	34	43	66	41	69	77	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4198	4030	3785	3196	2627	2551	2593	2622	2611	3250	3509	4181	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
96	96	96	96	96	96	96	96	96	96	96	96	96
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-	-	-	-	-	-	-	-	-	-	-	-	-
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5383	5523	4464	3323	2594	2710	2608	2752	2753	3123	4073	4955	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6283	6744	5537	4783	4042	4023	3999	4074	4138	4970	5213	6251	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6707	6979	6013	5123	4365	4450	4363	4497	4842	5549	5836	6699	
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5045	6075	5250	4687	4152	3929	3657	3581	3643	4647	4471	5232	

LUXEMBOURG

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	216 2594 2560
Thermal nuclear net production	GWh	1998 Σ 2002 2003	0 0 0
Hydraulic net production	GWh	1998 Σ 2002 2003	1030 996 953
Total net electrical energy production	GWh	1998 Σ 2002 2003	1246 3590 3513
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	5439 3625 3756
Consumption of pumps	GWh	1998 Σ 2002 2003	1272 1198 1143
National electrical consumption	GWh	1998 Σ 2002 2003	5413 6017 6126
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	99 99 99
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	683 756 780
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	807 815 864
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	823 892 918
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	826 821 864

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation

LUXEMBOURG

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
16	17	20	19	16	17	17	13	15	20	22	24
299	234	75	193	244	275	285	161	190	220	267	151
236	256	132	211	271	245	105	56	247	280	287	234
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
90	71	78	89	92	93	88	93	97	89	67	83
87	81	78	72	85	87	87	89	72	85	83	90
89	71	66	68	74	74	83	83	75	88	89	93
106	88	98	108	108	110	105	106	112	109	89	107
386	315	153	265	329	362	372	250	262	305	350	241
325	327	198	279	345	319	188	139	322	368	376	327
490	448	477	449	440	438	448	358	464	495	476	456
249	268	462	320	272	237	239	293	314	336	276	359
318	253	422	310	245	257	425	390	270	284	279	303
102	89	94	102	111	119	117	124	126	114	78	96
100	88	87	84	103	112	112	118	92	102	96	104
95	78	71	80	89	92	104	105	97	108	113	111
494	447	481	455	437	429	436	340	450	490	487	467
535	495	528	501	498	487	499	425	484	539	530	496
548	502	549	509	501	484	509	424	495	544	542	519
99	99	99	99	99	99	99	99	99	99	99	99
99	99	99	99	99	99	99	99	99	99	99	99
99	99	99	99	99	99	99	99	99	99	99	99
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
671	659	625	650	517	556	515	425	555	683	626	598
756	717	676	687	660	651	645	560	644	603	710	615
622	697	637	633	621	656	706	467	681	739	780	725
735	681	807	750	701	713	654	581	678	759	639	671
800	815	710	667	798	729	701	741	778	732	712	760
864	745	698	801	740	772	812	656	722	860	791	852
770	723	823	750	729	726	684	614	740	786	799	760
892	855	852	808	812	742	761	741	810	819	827	760
918	806	866	830	766	796	826	661	776	894	861	880
765	706	826	772	724	732	681	611	701	781	662	693
800	821	716	627	801	730	701	746	778	736	718	766
864	754	704	801	743	779	823	659	728	860	800	855

Physical exchanges in interconnected operation¹

LUXEMBOURG | GWh

MM_YY	L→B	L→D	Export (-)	Import (+)	Balance	
					L_UCTE_EXP	L_UCTE_SLD
I.98	0	74	74	178	564	490
II.98	0	64	64	161	512	448
III.98	0	68	68	175	371	478
IV.98	0	75	75	162	355	442
V.98	0	83	83	158	359	434
VI.98	0	87	87	154	365	432
VII.98	0	85	85	152	376	443
VIII.98	0	90	90	81	362	353
IX.98	0	92	92	162	389	459
X.98	0	81	81	172	397	488
XI.98	0	55	55	172	359	476
XII.98	0	69	69	144	380	455
1998	0	923	923	1871	4450	5398
I.02	269	73	342	0	161	430
II.02	208	65	273	0	168	373
III.02	46	64	110	0	178	394
IV.02	143	63	206	0	147	379
V.02	185	76	261	0	139	394
VI.02	217	82	299	0	136	400
VII.02	230	83	313	0	140	412
VIII.02	127	86	213	0	109	397
IX.02	140	69	209	0	133	390
X.02	161	76	237	0	150	423
XI.02	203	69	272	0	144	404
XII.02	103	77	180	0	120	419
2002	2032	883	2915	0	1725	4815
I.03	176	71	247	0	135	433
II.03	202	55	257	0	123	388
III.03	88	52	140	0	167	395
IV.03	162	59	221	0	142	388
V.03	213	65	278	0	128	396
VI.03	193	67	260	0	124	395
VII.03	73	77	150	0	154	575
VIII.03	33	78	111	0	100	401
IX.03	188	70	258	0	120	408
X.03	218	79	297	0	139	445
XI.03	232	81	313	0	148	444
XII.03	181	80	261	0	122	442
2003	1959	834	2793	0	1602	4956
						6558
						0
						3755

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".

Physical exchanges in interconnected operation¹

THE NETHERLANDS | GWh

MM_YY	NL → B	NL → D	Export (-)	B → NL		Import (+)	NL_UCTE_IMP	NL_UCTE_SLD	NL_III_SLD	Balance
				D → NL	Import (+)					
1.02	642	18	660	0	152	1539	1691	0	1031	0
II.02	465	0	465	0	195	1552	1747	0	1282	0
III.02	331	3	334	0	313	1403	1716	0	1382	0
IV.02	177	25	202	0	202	583	805	0	1186	0
V.02	213	77	290	0	695	1088	1783	0	1493	0
VI.02	145	130	275	0	813	948	1761	0	1486	0
VII.02	123	79	202	0	837	861	1698	0	1496	0
VIII.02	60	368	428	0	989	952	1941	0	1513	0
IX.02	138	257	395	0	649	1185	1834	0	1439	0
X.02	273	134	407	0	395	1271	1666	0	1259	0
XI.02	181	257	438	0	596	1210	1806	0	1368	0
XII.02	289	102	391	0	601	1223	1824	0	1433	0
2002	3037	1450	4487	68:8	14037	20855	16368	0	16368	0
I.03	406	91	497	0	448	1453	1901	0	1404	0
II.03	249	101	350	0	496	899	1395	0	1045	0
III.03	301	13	314	0	462	1178	1640	0	1326	0
IV.03	269	20	289	0	408	1235	1643	0	1354	0
V.03	239	16	255	0	443	1308	1751	0	1496	0
VI.03	167	63	230	0	742	1056	1798	0	1568	0
VII.03	133	174	307	0	685	698	1383	0	1076	0
VIII.03	104	66	170	0	702	856	1558	0	1388	0
IX.03	198	32	230	0	508	1048	1556	0	1326	0
X.03	435	4	439	0	226	1836	2062	0	1623	0
XI.03	302	3	305	0	358	1652	2010	0	1705	0
XII.03	409	18	427	0	301	1819	2120	0	1693	0
2003	3212	601	3813	0	5779	15038	20817	0	17004	0

Values as of 15.7.2004 / Edition September 2004

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".

THE NETHERLANDS

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	57425 88688 88782
Thermal nuclear net production	GWh	1998 Σ 2002 2003	3592 3687 3787
Hydraulic net production	GWh	1998 Σ 2002 2003	0 0 0
Total net electrical energy production	GWh	1998 Σ 2002 2003	61017 92375 92569
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	12036 16382 16995
Consumption of pumps	GWh	1998 Σ 2002 2003	0 0 0
National electrical consumption	GWh	1998 Σ 2002 2003	73053 108757 109564
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	77 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	6320 7853 7935
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	11434 14129 13439
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	11812 14925 13941
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	9888 11761 11683

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

THE NETHERLANDS

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
5157	4593	4863	4539	4600	4718	4628	4392	4836	4906	5092	5101
8368	7138	7600	7113	6873	6745	6862	7005	7234	7905	7738	8107
8344	7645	7734	7008	6917	6678	7331	7041	7307	7456	7456	7865
315	305	337	323	321	94	238	335	325	338	327	334
335	304	337	325	335	324	333	320	185	225	326	338
338	306	338	326	336	323	332	330	195	334	326	303
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
5472	4898	5200	4862	4921	4812	4866	4727	5161	5244	5419	5435
8703	7442	7937	7438	7208	7069	7195	7325	7419	8130	8064	8445
8682	7951	8072	7334	7253	7001	7663	7371	7502	7790	7782	8168
1068	917	990	953	934	1103	1114	1093	1014	1066	916	868
1031	1281	1382	1186	1492	1486	1496	1512	1439	1276	1369	1432
1404	1045	1326	1355	1497	1568	1067	1388	1326	1621	1705	1693
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
6540	5815	6190	5815	5855	5915	5980	5820	6175	6310	6335	6303
9734	8723	9319	8624	8700	8555	8691	8837	8858	9406	9433	9877
10086	8996	9398	8689	8750	8569	8730	8759	8828	9411	9487	9861
78	77	75	76	77	79	78	78	79	74	75	73
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
5640	5585	5905	5822	6047	5892	6019	6113	6320	5780	5971	5899
7236	6979	7257	7085	7050	7530	7427	7812	7398	7002	7622	7853
7935	7498	7335	7399	7146	7829	7732	7584	7754	7404	7501	7380
11306	10670	11055	11301	10727	10791	10933	10570	10983	11232	11434	11287
13138	12563	12396	12542	12274	12530	12176	12538	12456	12414	12854	14129
13439	13018	12601	12669	12195	12574	12444	12627	12813	12373	13043	12840
11389	10769	11083	11322	10736	10920	11032	10648	11041	11232	11812	11811
13622	12806	12545	12696	12443	12587	12285	12589	12478	12478	13847	14925
13766	13246	12713	12800	12269	12708	12541	12782	12990	12384	13580	13941
8972	8290	8366	9296	8524	8273	8831	8326	9212	8829	9787	9888
10999	9781	9543	10370	9305	10408	10041	10309	10147	10316	10475	11761
11037	11683	10283	9816	9657	10018	10906	9655	10555	9331	10461	9709

AUSTRIA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	12411 16074 17832
Thermal nuclear net production	GWh	1998 Σ 2002 2003	0 0 0
Hydraulic net production	GWh	1998 Σ 2002 2003	35967 35134 30708
Total net electrical energy production	GWh	1998 Σ 2002 2003	48378 51208 48540
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-289 452 5647
Consumption of pumps	GWh	1998 Σ 2002 2003	1574 981 2913
National electrical consumption	GWh	1998 Σ 2002 2003	46515 50679 51274
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	83 90 90
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	1,02 - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	5121 6417 6481
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	7292 8219 8316
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	7427 8589 8546
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	8442 7824 9131

¹ Terminology 2.15, see also note Physical energy exchange in interconnected operation

Monthly values / Operation
AUSTRIA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1873	1866	1632	771	389	299	342	535	664	888	1344	1808
2641	1876	1803	1262	505	421	483	421	1182	1505	2117	1858
1966	2241	1917	1298	467	468	942	1132	1321	1880	2085	2115
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2265	1757	2325	2789	3296	3709	3918	3284	3431	3304	3157	2732
2491	2491	2719	2786	3313	3163	2965	3058	2654	3192	3112	3190
3106	2316	2411	2447	3505	3353	2868	2303	2144	2552	1906	1797
4138	3623	3957	3560	3685	4008	4260	3819	4095	4192	4501	4540
5132	4367	4522	4048	3818	3584	3448	3479	3836	4697	5229	5048
5072	4557	4328	3745	3972	3821	3810	3435	3465	4432	3991	3912
321	369	331	247	-41	-387	-486	-227	-199	-122	-191	96
237	-102	-190	81	-58	236	517	263	240	-162	-369	-241
53	228	518	549	71	160	419	774	750	264	704	1157
49	32	51	96	147	214	286	192	249	135	64	59
84	49	31	100	115	122	77	103	104	93	40	63
174	139	226	210	306	276	283	361	232	215	244	247
4410	3960	4237	3711	3497	3407	3488	3400	3647	3935	4246	4577
5285	4216	4301	4029	3645	3698	3888	3639	3972	4442	4820	4744
4951	4646	4620	4084	3737	3705	3946	3848	3983	4481	4451	4822
85	85	84	83	82	82	82	82	84	83	84	85
90	90	90	90	90	90	90	90	90	90	90	90
90	90	90	90	90	90	90	90	90	90	90	90
0,92	0,76	0,95	0,94	0,86	0,92	1,02	0,88	1,24	1,38	1,41	1,16
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
5121	4535	4532	4307	3730	3527	3467	3557	3816	4283	4918	5047
6417	5433	5095	5104	4424	4686	4510	4281	4698	4962	6015	6283
6481	6414	5562	5086	4637	4809	4754	4468	4619	5094	5455	6156
7292	6785	6921	6749	6117	6184	6083	6304	6483	7000	7081	7279
8219	7676	7414	7137	6652	7101	6824	6793	6916	7358	7769	7918
8301	8316	7538	7174	7004	7256	6956	6870	6828	7331	7757	8263
7427	6842	6939	6837	6203	6247	6184	6399	6517	7000	7396	7388
8290	7965	7714	7601	7122	7244	7126	7227	7553	7744	8584	8589
8337	8415	7606	7299	7179	7406	7133	7069	6942	7434	8030	8546
7684	6739	7657	8121	6910	8371	8442	7850	7906	7506	8173	7427
7188	6384	7824	6690	6831	6955	5959	6180	6735	6924	6640	6426
7260	9131	8515	6403	6199	7130	7923	7233	7402	8675	7467	8503

Physical exchanges in interconnected operation¹

AUSTRIA | **GWh**

MM_YY	A→CH	A→CZ	A→D	A→H	A↓	A→SLO	Export (-)		Import (+)	Balance					
							A_UCTE_EXP	A_UCTE_SLD							
I.98 II.98 III.98 IV.98 V.98 VI.98 VII.98 VIII.98 IX.98 X.98 XI.98 XII.98 1998	232 151 164 282 216 161 195 331 270 252 364 437 3055	1 26 4 219 5 194 0 5 0 9 3 2 67	267 219 244 194 240 421 428 398 410 426 400 307 3954	23 23 5 123 2 139 7 130 11 9 1 106	133 103 123 175 7 136 6 115 2 142 9 152 1 1632	93 112 49 683 9 834 268 175 172 87 119 246 1 2057	725 585 683 790 242 216 1057 1019 982 907 1030 1142 1142 3 10698	24 49 9 4 7 15 9 12 9 14 18 3 1 173	16 28 35 5 17 15 9 12 8 15 3 27 235 77 5 22 172 15 15 18 1 203	727 692 676 730 259 454 188 438 404 263 387 436 121 593 185 0 6165	58 46 98 122 95 95 293 75 220 126 126 13 52 77 0 0 1275	3 0 0 0 0 0 0 15 0 10 10 13 0 0 0 0	746 720 711 735 471 354 336 458 413 412 389 452 307 594 458 4025	21 135 327 333 354 363 240 299 392 412 389 452 307 -691 -561 -569 -569 -495 -578 289 -548 4284	289 208 318 329 347 225 290 344 383 375 289 455 3852
I.02 II.02 III.02 IV.02 V.02 VI.02 VII.02 VIII.02 IX.02 X.02 XI.02 XII.02 2002	509 476 422 454 310 208 142 355 255 394 360 214 432 4176	0 0 0 0 0 0 0 0 0 0 0 0 3	225 291 332 267 356 376 355 421 294 401 526 426 4270	17 25 56 26 73 50 49 36 62 41 37 20 492	167 138 154 245 162 147 159 70 152 171 160 149 1788	285 278 295 159 342 270 341 70 182 258 212 222 3246	1203 1208 1259 1151 1243 1051 1046 1098 1084 1231 1150 1251 13975	0 0 0 0 0 0 0 0 0 0 0 0 0	11 22 1 4 15 15 81 52 17 23 24 18 283	1275 975 508 478 488 503 727 556 476 425 330 368 8458	54 5 18 38 539 60 98 122 67 104 411 741 0 868	0 0 0 0 0 0 0 0 0 0 0 0 0	1949 149 101 1401 101 1092 1462 1166 1286 1236 915 1267 16 185	0 0 0 0 0 0 0 0 0 0 0 0 0	746 0 345 0 142 0 193 0 -179 0 41 0 416 0 68 0 202 0 5 0 -235 0 16 0 1760 0
V.03 VI.03 VII.03 VIII.03 IX.03 X.03 XI.03 XII.03 2003	453 330 376 431 220 0 1 0 4062	1 0 1 0 0 0 0 0 2	431 297 265 191 391 383 352 287 3333	21 132 35 11 23 17 16 21 468	150 132 141 145 151 137 138 74 1664	1287 197 240 272 344 392 323 74 3066	983 983 1058 1050 1129 1155 1000 824 960 1354 854 941 12595	0 0 0 0 0 0 0 0 0 0 0 0 0	8 11 27 5 151 137 138 74 0 0 0 0 371	452 832 489 1047 636 78 90 37 622 515 660 694 833 64 22 723 980 10 21 15 31 7628	79 0 21 25 81 68 67 11 466 515 660 694 833 64 0 11 10 43 870 1249 76 0 638	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1391 32 1161 0 34 1622 0 5 1231 0 1353 0 1468 0 830 0 102 0 178 0 564 0 6112 0	104 0 178 0 564 0 198 0 468 0 830 0 804 0 317 0 760 0 1210 0 6147 0	

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".

PORTUGAL | GWh

Physical exchanges in interconnected operation¹

MM_YY	P→E	Export (-)		Import (+)	Balance
		P_UCTE_EXP	P_III_EXP		
I.98	279	279	0	275	-4
II.98	230	230	0	212	-18
III.98	251	251	0	242	-9
IV.98	266	266	0	265	0
V.98	348	348	0	343	-5
VI.98	284	284	0	277	-7
VII.98	381	381	0	365	-16
VIII.98	313	313	0	301	-12
IX.98	278	278	0	425	147
X.98	366	366	0	359	-7
XI.98	379	379	0	372	-7
XII.98	344	344	0	453	109
1998	3719	3719	0	3889	0
I.02	328	328	0	349	21
II.02	338	338	0	352	0
III.02	388	388	0	356	-32
IV.02	410	410	0	362	-48
V.02	292	292	0	462	170
VI.02	293	293	0	366	0
VII.02	314	314	0	399	73
VIII.02	171	171	0	500	0
IX.02	218	218	0	440	222
X.02	191	191	0	484	0
XI.02	236	236	0	525	293
XII.02	250	250	0	613	0
2002	3429	3429	0	5208	0
I.03	362	362	0	443	81
II.03	297	297	0	388	91
III.03	279	279	0	383	104
IV.03	250	250	0	418	168
V.03	317	317	0	586	269
VI.03	308	308	0	470	0
VII.03	274	274	0	590	316
VIII.03	151	151	0	565	414
IX.03	203	203	0	544	341
X.03	171	171	0	523	0
XI.03	214	214	0	405	352
XII.03	281	281	0	455	191
2003	3107	3107	0	5770	0

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".

PORTUGAL

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	20806 31132 24598
Thermal nuclear net production	GWh	1998 Σ 2002 2003	0 0 0
Hydraulic net production	GWh	1998 Σ 2002 2003	12833 8315 16169
Total net electrical energy production	GWh	1998 Σ 2002 2003	33639 39447 40767
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	276 1901 2797
Consumption of pumps	GWh	1998 Σ 2002 2003	101 671 486
National electrical consumption	GWh	1998 Σ 2002 2003	33814 40677 43078
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	92 91 92
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	1,04 0,75 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	2996 3584 4483
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	5283 6118 7163
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	5713 6485 8046
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	4900 6067 7100

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation
PORTUGAL

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
698	941	1737	1302	1398	1391	2316	2118	1878	2251	2172	2604
3196	2737	2667	2621	2676	2687	3085	2578	2746	2751	2110	1278
1341	1614	1488	1447	1927	2595	2773	2608	2598	2462	2002	1743
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2333	1679	1054	1378	1295	1305	666	556	783	580	690	514
668	532	850	662	445	487	398	252	324	475	1130	2092
2607	1903	1957	1674	1246	668	619	422	588	865	1529	2091
3031	2620	2791	2680	2693	2696	2982	2674	2661	2831	2862	3118
3864	3269	3517	3283	3121	3174	3483	2830	3070	3226	3240	3370
3948	3517	3445	3121	3173	3263	3392	3030	3186	3327	3531	3834
6	-6	-3	1	-9	8	0	0	157	1	3	118
33	24	-21	-39	179	84	96	339	231	302	298	375
95	102	115	178	279	174	329	424	351	362	202	186
13	6	0	4	0	0	3	1	16	2	2	54
86	64	37	29	46	58	78	66	49	57	50	51
12	38	39	29	36	57	65	62	33	51	45	19
3024	2608	2788	2677	2684	2704	2979	2673	2802	2830	2863	3182
3811	3229	3459	3215	3254	3200	3501	3103	3252	3471	3488	3694
4031	3581	3521	3270	3416	3380	3656	3392	3504	3638	3688	4001
92	92	92	92	92	92	92	92	92	92	92	92
91	91	91	91	91	91	91	91	91	91	91	91
92	92	92	92	92	92	92	92	92	92	92	92
1,56	1,07	0,65	1,53	1,30	1,87	1,23	1,10	1,34	0,59	0,51	0,26
0,39	0,40	0,73	0,56	0,43	0,58	0,22	0,36	0,75	1,02	1,31	1,78
-	-	-	-	-	-	-	-	-	-	-	-
2554	2579	2610	2532	2629	2771	2937	2482	2828	2663	2743	2996
3564	3453	3142	3257	3224	3447	3584	3167	3297	3230	3248	3365
4483	4176	3791	3769	3758	3999	3949	3637	3946	3828	4020	4461
4920	4620	4538	4789	4607	4692	4971	3950	4847	4700	4861	5283
6118	5785	5452	5375	5357	5549	5930	4753	5475	5423	5760	5684
7163	6773	5814	5734	5804	6082	5833	4939	5988	5810	6013	6753
5113	4831	4759	4867	4683	4845	5063	4057	4938	4918	5238	5713
6485	6170	5676	5428	5473	5659	6133	4864	5595	5594	6290	6196
8046	7373	6298	5900	6085	6453	6048	5283	6355	6258	6803	7534
4900	4599	4474	4618	4583	4626	4867	3808	4230	4706	4815	4635
6067	5563	5732	5615	5048	5253	5587	4349	5141	5034	5199	5372
7100	6954	5064	4999	5123	6008	5563	4061	5225	5516	5553	6159

SWITZERLAND

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	2285 2585 2890
Thermal nuclear net production	GWh	1998 Σ 2002 2003	24368 25691 25931
Hydraulic net production	GWh	1998 Σ 2002 2003	34295 36589 36445
Total net electrical energy production	GWh	1998 Σ 2002 ² 2003 ²	60948 64865 65266
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-5954 -3965 -3112
Consumption of pumps	GWh	1998 Σ 2002 2003	1620 2447 2893
National electrical consumption	GWh	1998 Σ 2002 2003	53374 58453 59261
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	1,04 1,05 -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	6537 7498 7786
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	8637 9197 9468
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	8793 9464 9494
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	10374 11868 11830

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

² Including deliveries from industry

Monthly values / Operation

SWITZERLAND

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
208	255	267	235	138	131	123	135	161	219	201	212
248	234	235	213	210	200	198	213	164	205	226	239
275	255	262	245	227	226	241	224	228	218	242	247
2285	2062	2269	1978	2035	1613	1779	1312	2165	2269	2261	2340
2384	2143	2377	2232	2256	1658	1809	1439	2277	2394	2309	2413
2390	2167	2392	2313	2269	1647	2190	1193	2251	2400	2327	2392
2383	2240	2343	2344	2995	3851	3672	3376	3110	2458	2867	2656
2360	1915	2250	2355	3500	4240	4285	3886	3136	2490	3190	2982
3195	3028	2388	2376	3682	4312	4079	3986	2632	2605	2080	2082
4876	4557	4879	4557	5168	5595	5574	4823	5436	4946	5329	5208
4992	4292	4862	4800	5966	6098	6292	5538	5577	5089	5725	5634
5860	5450	5042	4934	6178	6185	6510	5403	5111	5223	4649	4721
265	75	-33	-199	-977	-1311	-1408	-617	-1044	-366	-317	-22
860	770	410	90	-1135	-1345	-1640	-915	-745	110	-395	-30
-3	70	394	-1	-1413	-1300	-1760	-607	-300	42	735	1031
35	24	24	69	153	304	299	313	190	108	57	44
104	85	120	128	220	373	310	274	271	180	184	198
135	139	219	204	306	383	317	361	257	159	184	229
5106	4608	4822	4289	4038	3980	3867	3893	4202	4472	4955	5142
5748	4977	5152	4762	4611	4380	4342	4349	4561	5019	5146	5406
5722	5381	5217	4729	4459	4502	4433	4435	4554	5106	5200	5523
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
1,19	0,90	0,94	1,06	1,03	1,11	0,91	1,00	1,09	1,11	1,19	1,05
0,78	1,02	1,11	1,02	1,10	1,15	0,94	0,93	0,92	0,91	1,80	1,39
-	-	-	-	-	-	-	-	-	-	-	-
6499	6128	5890	5937	4638	4768	4421	4607	4824	5613	6537	6429
7498	6715	5643	6014	5169	5257	5067	5125	5081	5147	6192	6676
7228	7786	6478	5521	5277	5496	5155	4974	5203	5662	6174	7344
8637	8185	7790	7935	7033	7404	7157	7520	7498	7915	8410	8306
9197	8844	8312	8285	7759	8052	7982	7994	8079	8162	8642	8848
9209	9468	8290	8190	8278	8195	7780	7994	8105	8296	8803	9025
8793	8332	7976	8126	7238	7682	7297	7634	7701	8139	8650	8461
9464	9038	8420	8504	7942	8200	8050	8122	8289	8360	8741	9173
9369	9494	8290	8190	8278	8195	7780	7994	8105	8296	8803	9179
9434	10164	9594	10101	10125	10257	8491	9475	10144	8722	10374	8545
9491	10095	9661	10324	11135	11116	11868	11267	11679	9178	11328	11802
10992	11830	9557	9991	11740	11280	11495	10280	9933	9770	8807	9087

Physical exchanges in interconnected operation¹

SWITZERLAND | GWh

MM_YY	CH→A	CH→D	CH→F	CH→I	Export (-)	CH_UCTE_EXP		CH_III_EXP		A→CH		F→CH		CH_UCTE_IMP		CH_III_IMP		CH_UCTE_SLD		CH_III_SLD	
						CH_UCTE_EXP	CH_III_EXP	Import (+)	CH_UCTE_IMP	CH_III_IMP	Import (+)	CH_UCTE_SLD	CH_III_SLD	Balance							
I.98	16	418	51	1677	2162	0	232	1105	1098	0	2435	0	273	0							
II.98	28	411	60	1476	1975	0	151	932	987	0	2070	0	95	0							
III.98	35	411	50	1932	2428	0	164	1153	1097	0	2414	0	-14	0							
IV.98	5	324	36	1944	2309	0	282	1056	818	0	2156	0	-153	0							
V.98	17	520	12	2020	2569	0	216	643	810	7	1676	0	-893	0							
VI.98	43	602	11	1843	2499	0	161	474	616	1	1252	0	-1247	0							
VII.98	27	483	163	2046	2719	0	195	676	513	1	1385	0	-1334	0							
VIII.98	5	490	240	1401	2136	0	331	871	415	1	1618	0	-518	0							
IX.98	8	415	142	1950	2515	0	270	749	536	0	1555	0	-960	0							
X.98	15	417	36	1672	2140	0	252	756	804	0	1812	0	-328	0							
XI.98	3	408	83	1652	2146	0	364	775	695	0	1834	0	-312	0							
XII.98	1	360	123	1854	2338	0	437	1124	783	0	2344	0	6	0							
1998	203	5259	1007	21467	27936	0	3055	10314	9172	10	22551	0	-5385	0							
1.02	11	133	234	2336	2714	0	509	2016	1121	0	3646	0	932	0							
II.02	22	104	103	2128	2357	0	476	1585	1134	1	3196	0	839	0							
III.02	1	192	21	2142	2356	0	422	1188	1229	2	2841	0	485	0							
IV.02	4	270	20	2127	2421	0	454	1055	1052	0	2561	0	140	0							
V.02	15	497	45	2198	2755	0	310	592	775	1	1678	0	-1077	0							
VI.02	15	416	46	2149	2626	0	208	540	594	1	1343	0	-1283	0							
VII.02	81	378	237	2382	3078	0	142	760	625	2	1529	0	-1549	0							
VIII.02	52	423	116	1622	2213	0	255	497	618	1	1371	0	-842	0							
IX.02	17	447	106	1975	2545	0	394	692	769	0	1855	0	-690	0							
X.02	23	257	44	2082	2406	0	360	1176	1019	2	2557	0	151	0							
XI.02	24	361	31	1803	2219	0	214	723	897	10	1844	0	-375	0							
XII.02	18	358	91	2094	2561	0	432	1035	1114	2	2583	0	22	0							
2002	283	3836	1094	25038	30251	0	4176	11859	10947	22	27004	0	-3247	0							
I.03	8	273	118	2273	2672	0	453	1132	1154	0	2739	0	67	0							
II.03	11	252	120	2111	2494	0	330	1110	1167	1	2608	0	114	0							
III.03	27	283	46	2328	2684	0	376	1426	1402	9	3213	0	529	0							
IV.03	6	324	71	2311	2712	0	431	1322	1065	0	2818	0	106	0							
V.03	46	576	49	2046	2717	0	220	456	796	1	1473	0	-1244	0							
VI.03	78	247	233	2209	2767	0	226	787	605	0	1618	0	-1149	0							
VII.03	90	463	187	2467	3207	0	171	758	631	2	1562	0	-1645	0							
VIII.03	37	191	249	1951	2428	0	287	1045	598	1	1931	0	-497	0							
IX.03	22	178	91	2217	2508	0	421	1086	776	0	2283	0	-225	0							
X.03	10	107	156	2202	2475	0	469	1280	848	0	2597	0	122	0							
XI.03	21	109	51	1909	2090	0	273	1394	1293	0	2960	0	870	0							
XII.03	15	125	92	1915	2147	0	405	1552	1357	0	3314	0	1167	0							
2003	371	3128	1463	25939	30901	0	4062	13348	11692	14	29116	0	-1785	0							

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".

Physical exchanges in interconnected operation¹

CZECH REPUBLIC | GWh

MM_YY	CZ→A	CZ→D	CZ→PL	CZ→SK	CZ_III_EXP	CZ_UCTE_EXP	A→CZ	D→CZ	PL→CZ	CZ_UCTE_IMP	CZ_III_IMP	CZ_UCTE_SLD	CZ_III_SLD	Balance		
I.98	255	230	7	345	485	352	1	60	680	75	61	755	-424	403		
II.98	211	253	10	410	464	420	26	51	673	55	77	728	-387	308		
III.98	229	384	21	271	613	292	4	33	549	64	37	613	-576	321		
IV.98	211	308	10	219	519	229	2	15	476	89	17	565	-502	336		
V.98	259	289	10	322	548	332	0	28	557	69	28	626	-520	294		
VI.98	188	323	0	236	511	236	5	11	420	84	16	504	-495	268		
VII.98	222	342	3	329	564	332	3	38	512	72	41	584	-523	252		
VIII.98	281	381	7	221	662	228	5	41	484	69	46	553	-616	325		
IX.98	172	668	3	184	840	187	7	5	598	72	12	670	-828	483		
X.98	263	589	7	138	852	145	3	5	654	93	8	747	-844	602		
XI.98	186	547	18	169	733	187	9	10	695	103	19	793	-714	611		
1998	2750	4802	106	3089	7552	3195	67	336	7078	938	403	8016	-7149	4821	0	
I.02	605	728	1	365	1699	0	0	104	989	69	1162	0	-537	0		
II.02	497	929	4	330	1760	0	0	9	756	28	793	0	-967	0		
III.02	508	926	9	339	1782	0	0	0	741	34	775	0	-1007	0		
IV.02	478	731	8	300	1517	0	0	0	611	35	646	0	-871	0		
V.02	488	687	8	406	1589	0	0	0	570	22	593	0	-996	0		
VI.02	514	582	6	379	1481	0	0	0	562	36	599	0	-882	0		
VII.02	727	522	19	591	1859	0	0	0	75	48	48	671	-1188	0		
VIII.02	516	784	11	467	1778	0	0	4	461	28	493	0	-1285	0		
IX.02	485	1032	5	453	1975	0	0	0	732	40	772	0	-1203	0		
X.02	425	1133	6	307	1871	0	0	0	861	116	977	0	-894	0		
XI.02	330	1417	5	157	1909	0	0	1	0	753	220	974	-935	0		
XII.02	368	1086	5	213	1672	0	0	2	0	858	181	1041	-631	0		
2002	5941	10557	87	4307	20892	0	3	194	8442	857	9496	857	-11396	0	0	
I.03	452	1231	5	308	1996	0	1	1	856	85	943	0	-1053	0		
II.03	391	1008	4	318	1721	0	0	0	812	91	903	0	-818	0		
III.03	489	1011	5	524	2029	0	1	2	803	20	826	0	-1203	0		
IV.03	636	971	2	514	2123	0	0	4	790	41	835	0	-1288	0		
V.03	622	1148	15	353	2138	0	0	0	541	36	577	0	-1561	0		
VI.03	692	880	7	431	2010	0	0	0	535	36	571	0	-1439	0		
VII.03	742	982	2	787	2513	0	0	3	797	42	842	0	-1671	0		
VIII.03	694	867	2	539	2102	0	0	20	594	52	666	0	-1436	0		
IX.03	723	1014	2	574	2313	0	0	0	820	1	821	0	-1492	0		
X.03	738	1227	7	432	2404	0	1	1	960	25	986	0	-1418	0		
XI.03	649	1312	4	489	2454	0	0	0	921	74	995	0	-1459	0		
XII.03	800	1143	2	550	2495	0	0	21	1059	38	1118	0	-1377	0		
2003	7628	12794	57	5819	26288	0	2	52	9488	541	541	10083	0	-16215	0	

¹These 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".

CZECH REPUBLIC

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	45847 49978 50509
Thermal nuclear net production	GWh	1998 Σ 2002 2003	12352 17584 24368
Hydraulic net production	GWh	1998 Σ 2002 2003	2065 2834 1787
Total net electrical energy production	GWh	1998 Σ 2002 2003	60264 70396 76664
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-2461 -11393 -16218
Consumption of pumps	GWh	1998 Σ 2002 2003	654 481 553
National electrical consumption	GWh	1998 Σ 2002 2003	57149 58522 59893
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 8155 8344
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 9103 9412
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 9763 9748
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	9359 10869 11444

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

CZECH REPUBLIC

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
4384	4063	4347	3815	3401	3335	3190	3100	3635	3990	4206	4381
4436	4326	4770	4578	3688	3374	3472	3596	3725	4399	4552	5062
4947	4757	5118	4462	3549	3347	3273	3866	3653	4475	4622	4440
1223	1117	1229	783	928	772	903	1018	910	1089	1133	1247
1857	1436	1248	859	1462	1480	1670	1541	1728	1520	1545	1238
1964	1524	1406	1635	2242	2209	2493	1717	2192	2198	2200	2588
171	137	173	164	132	131	154	146	178	181	296	202
268	297	383	264	193	147	166	288	174	196	242	216
258	196	224	163	156	94	106	116	104	117	115	138
5778	5317	5749	4762	4461	4238	4247	4264	4723	5260	5635	5830
6561	6059	6401	5701	5343	5001	5308	5425	5627	6115	6339	6516
7169	6477	6748	6260	5947	5650	5872	5699	5949	6790	6937	7166
-22	-129	-254	-164	-224	-226	-364	-292	-343	-237	-104	-102
-538	-967	-1007	-871	-996	-878	-1188	-1285	-1203	-894	-935	-631
-1054	-818	-1203	-1287	-1561	-1440	-1672	-1437	-1492	-1417	-1459	-1378
46	23	29	30	49	72	74	80	78	76	45	52
39	25	33	31	35	31	44	63	42	39	46	53
49	42	48	46	37	23	29	52	51	53	56	67
5710	5165	5466	4568	4188	3940	3809	3892	4302	4947	5486	5676
5984	5067	5361	4799	4312	4092	4076	4077	4382	5182	5358	5832
6066	5617	5497	4927	4349	4187	4171	4210	4406	5320	5422	5721
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8155	7040	6642	6715	5581	5400	5188	5127	5591	6339	6642	7751
7941	8344	7152	6585	5698	5483	5417	5345	5623	6529	7091	7653
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9086	8435	7961	7536	6836	6813	6687	6653	7122	8010	8239	9103
9229	9412	7937	7550	7167	6997	7032	6894	7217	7827	8544	8935
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9407	8677	8245	7741	6987	6977	6835	6856	7320	8165	9161	9763
9748	9646	8564	7690	7271	7115	7032	7067	7275	8349	9247	9584
9359	8857	9258	7875	7565	7423	7181	7840	8614	8251	8937	9124
10623	10869	10122	8730	8834	8805	8786	8820	9430	9644	10511	10090
11043	10632	10059	9777	9410	9407	9318	8587	9256	10056	10954	11444

HUNGARY

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	20897 19619 20956
Thermal nuclear net production	GWh	1998 Σ 2002 2003	13122 13124 10362
Hydraulic net production	GWh	1998 Σ 2002 2003	150 189 162
Total net electrical energy production	GWh	1998 Σ 2002 2003	34169 32932 31480
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	741 4258 6938
Consumption of pumps	GWh	1998 Σ 2002 2003	0 0 0
National electrical consumption	GWh	1998 Σ 2002 2003	34910 37190 38418
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 4402 4373
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 5697 5477
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	5585 5875 5887
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	5496 5179 5012

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

HUNGARY

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1827	1674	2059	1855	1551	1524	1641	1519	1540	1667	1973	2067
1882	1639	1767	1695	1516	1549	1507	1346	1482	1597	1760	1879
2024	1904	1665	1653	1627	1698	1797	1809	1580	1815	1609	1775
1262	1150	1016	816	947	910	890	1040	1239	1295	1258	1299
1308	1179	1117	882	925	931	912	1073	1024	1276	1238	1259
1237	928	1201	898	757	747	622	581	725	738	944	984
13	15	16	8	14	15	4	19	20	8	3	15
17	2	5	22	23	20	17	20	14	20	10	19
10	14	14	15	20	11	12	10	8	15	15	18
3102	2839	3091	2679	2512	2449	2535	2578	2799	2970	3234	3381
3207	2820	2889	2599	2464	2500	2436	2439	2520	2893	3008	3157
3271	2846	2880	2566	2404	2456	2431	2400	2313	2568	2568	2777
127	66	61	98	177	136	153	36	-50	20	-8	-75
270	229	311	376	415	390	590	446	467	344	221	199
235	395	466	484	594	597	668	719	698	735	744	603
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
3229	2905	3152	2777	2689	2585	2688	2614	2749	2990	3226	3306
3477	3049	3200	2975	2879	2890	3026	2885	2987	3237	3229	3356
3506	3241	3346	3050	2998	3053	3099	3119	3011	3303	3312	3380
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4402	4024	3853	3757	3508	3694	3725	2900	3634	3801	3759	4162
4357	4373	4042	3815	3553	3699	3623	3615	3676	4011	4142	4253
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5697	5232	5015	4813	4724	5050	5065	4573	4825	5198	5132	5355
5442	5477	5122	4907	4929	5079	5074	4004	4994	5135	5248	5337
5451	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5585
5875	5536	5618	5083	4819	5094	5110	4648	5248	5477	5581	5826
5852	5846	5585	5122	4962	5221	5296	4340	5283	5595	5887	5862
5026	4618	4731	4167	4176	4250	4442	4404	4765	4776	5211	5496
5179	4777	4453	4052	4034	4222	4139	3872	4112	4621	4639	5050
5012	5012	4346	4143	3901	4094	4145	3198	3751	4001	4019	4285

Physical exchanges in interconnected operation¹

HUNGARY | GWh

MM_YY	H→A	H→HR	H→SCG	H→SK	H→WEST_UA	H→RO	H_III_EXP	A→H	HR→H	SCG→H	SK→H	RO→H	WEST_UA→H	H_UCTE_IMP	H_UCTE_SLD	H_III_SLD	Import (+)		Balance		
																	Export (-)	Import (+)	Export (-)	Import (+)	
I.98	58	23	120	1	0	0	201	1	23	0	0	184	0	0	23	184	-178	183			
II.98	46	19	105	3	0	0	170	3	23	0	0	129	0	0	23	129	-147	126			
III.98	98	14	32	42	0	0	144	42	5	0	0	158	0	0	5	158	-139	116			
IV.98	122	22	9	8	0	0	153	8	2	0	0	165	0	0	2	165	-151	157			
V.98	95	60	0	6	0	0	155	6	7	0	0	180	0	0	7	180	-148	174			
VI.98	52	33	7	7	0	0	92	7	10	0	0	166	0	0	10	166	-82	159			
VII.98	77	39	13	3	0	0	129	3	6	0	0	204	0	0	6	204	-123	201			
VIII.98	75	36	25	6	0	0	136	6	7	0	0	117	0	0	7	117	-129	111			
IX.98	220	32	69	2	0	0	321	2	2	0	0	175	0	0	2	175	-319	173			
X.98	126	45	82	4	0	0	253	4	11	0	0	226	0	0	11	226	-242	222			
XI.98	121	35	106	1	0	0	262	1	9	0	0	214	0	0	9	214	-253	213			
XII.98	185	58	123	0	0	0	366	0	1	0	0	225	0	0	1	225	-365	225			
1998	1275	416	691	83	0	0	2382	83	106	0	0	2143	0	0	106	2143	-2276	2060			
I.02	54	690	201	0	0	0	945	0	17	0	0	958	0	0	240	975	240	30	240		
II.02	29	639	187	0	0	0	855	0	25	0	0	860	0	0	199	885	199	30	199		
III.02	18	533	189	0	0	0	18	740	18	56	0	0	772	0	0	241	828	241	88	223	
IV.02	38	441	134	0	0	0	25	613	25	26	0	0	780	0	0	208	806	208	193	183	
V.02	20	370	141	0	0	0	24	531	24	73	0	0	831	0	0	66	904	66	373	42	
VI.02	60	281	114	0	0	0	12	455	12	50	0	0	668	0	0	139	718	139	263	127	
VII.02	98	384	146	0	0	0	24	628	24	49	0	0	851	0	0	342	900	342	272	318	
VIII.02	259	153	0	6	23	23	534	29	36	1	0	740	0	0	232	777	232	243	203		
IX.02	67	366	143	0	0	0	24	576	24	62	0	0	716	0	0	289	778	289	202	265	
X.02	104	506	141	0	4	27	751	31	41	0	0	734	0	0	351	775	351	24	320		
XI.02	134	413	193	0	7	3	740	10	37	0	0	619	0	0	315	656	315	-84	305		
XII.02	124	442	205	0	3	10	771	13	20	0	0	636	0	0	327	656	327	-115	314		
2002	868	5324	1947	0	20	190	8139	210	492	1	0	9165	0	0	2949	9658	2949	1519	2739		
I.03	79	533	177	0	3	31	820	3	21	0	0	697	0	0	340	718	340	-102	337		
II.03	21	467	183	0	1	30	701	1	27	0	0	716	0	0	354	743	354	42	353		
III.03	25	534	77	0	2	29	665	2	35	0	0	745	0	0	353	780	353	115	351		
IV.03	81	513	12	0	1	26	632	1	11	0	0	741	0	0	364	752	364	120	363		
V.03	97	463	0	0	2	0	560	2	23	0	0	766	0	0	367	789	367	229	365		
VI.03	68	435	0	3	0	0	503	3	17	1	0	763	0	0	322	781	322	278	319		
VII.03	67	414	0	0	7	0	481	7	16	0	0	843	0	0	296	859	296	378	289		
VIII.03	64	424	7	0	0	0	495	0	21	0	0	726	0	0	467	747	467	252	467		
IX.03	11	458	6	0	4	0	475	4	55	0	0	772	0	0	350	827	350	352	346		
X.03	6	533	0	0	0	0	539	0	192	0	0	613	0	0	469	805	469	266	469		
XI.03	43	502	0	0	0	0	545	0	38	0	0	804	0	0	449	842	449	297	449		
XII.03	76	566	60	0	0	0	702	0	12	0	0	862	0	0	430	874	430	172	430		
2003	638	5842	522	0	23	116	7118	23	468	1	0	9048	0	0	4561	9517	4561	2399	2399		

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".

Physical exchanges in interconnected operation¹

POLAND | GWh

MM_YY	PL→S	Export (-)	PL_UCTE_EXP		PL_UCTE_SLD	PL_UCTE_IMP	PL_III_IMP	PL_III_SLD	Balance
			Import (+)	Balance					
I.98	57	680	0	0	57	680	369	96	312
II.98	92	673	0	0	92	673	387	92	295
III.98	64	549	0	0	64	549	378	114	314
IV.98	23	476	0	0	23	476	293	65	270
V.98	20	557	0	0	20	557	287	57	287
VI.98	24	420	0	0	24	420	178	0	154
VII.98	12	512	0	0	12	512	233	3	221
VIII.98	5	484	11	0	5	495	268	7	263
IX.98	65	598	119	0	65	717	174	3	174
X.98	22	654	148	0	22	802	191	7	109
XI.98	46	695	106	0	46	801	146	18	688
XII.98	73	780	116	0	73	896	115	10	169
1998	503	7078	500	0	503	7578	3019	2	2516
I.02	49	989	237	0	0	1275	0	133	-1141
II.02	48	756	201	0	0	1005	0	94	327
III.02	29	741	212	0	0	982	0	153	-907
IV.02	23	611	178	0	0	812	0	184	309
V.02	27	570	145	0	0	742	0	185	324
VI.02	67	562	198	0	0	827	0	162	-797
VII.02	4	548	308	0	0	860	0	135	42
VIII.02	70	461	150	0	0	681	0	137	157
IX.02	99	732	135	0	0	966	0	116	-619
X.02	53	861	206	0	0	1120	0	140	157
XI.02	78	753	160	0	0	991	0	94	-572
XII.02	58	858	163	0	0	1079	196	172	146
2002	605	8442	2293	196	0	11340	196	87	2315
I.03	34	856	247	311	0	1137	311	236	-456
II.03	43	812	153	284	0	1008	284	169	324
III.03	47	803	129	255	0	979	255	196	-572
IV.03	17	790	231	240	0	1038	240	286	224
V.03	16	541	175	153	0	732	153	179	-533
VI.03	31	535	195	67	0	761	67	238	135
VII.03	31	797	140	129	0	968	129	227	-845
VIII.03	8	594	259	261	0	861	261	246	134
IX.03	7	820	152	0	0	1079	152	207	-974
X.03	32	960	299	266	0	1291	266	189	147
XI.03	16	921	311	265	0	1248	265	191	-892
XII.03	3	1059	338	259	0	1400	259	397	147
2003	285	9488	2729	2642	0	12502	2642	57	2163

¹These 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".

POLAND

Monthly values / Operation

				I-XII
Thermal conventional net production ³	GWh	1998	138421	
		Σ	2002	139511
			2003	147605
Thermal nuclear net production ³	GWh	1998	0	
		Σ	2002	0
			2003	0
Hydraulic net production ³	GWh	1998	4203	
		Σ	2002	3722
			2003	3145
Total net electrical energy production ³	GWh	1998 ²	142624	
		Σ	2002 ²	143233
			2003 ²	150750
Total physical import / export balance ¹	GWh	1998	-3474	
		Σ	2002	-7072
			2003	-10160
Consumption of pumps	GWh	1998	2806	
		Σ	2002	2247
			2003	2280
National electrical consumption	GWh	1998	136344	
		Σ	2002	133914
			2003	138310
National electrical consumption as percentage of total values	%Ø pond.	1998	100	
		2002	100	
		2003	100	
Energy capability factor (hydro power)	Ø pond.	1998	-	
		2002	-	
		2003	-	
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998	n.a.	
		2002	17628	
		2003	17174	
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998	n.a.	
		2002	20847	
		2003	20456	
Peak load on the 3 rd Wednesday	MW max.	1998	21823	
		2002	22627	
		2003	22139	
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998	22104	
		2002	22828	
		2003	22285	

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

³Gross values

Monthly values / Operation
POLAND

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
13266	11893	12501	10684	10092	9480	9842	9887	10806	12521	13305	14144
13781	11425	12126	10935	10089	9877	10097	10099	11075	12871	12704	14432
14338	12972	13054	11764	10685	10244	11060	11064	11417	13597	13395	14015
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
409	363	400	364	354	341	330	253	296	364	372	357
329	391	416	346	277	305	243	253	254	302	337	269
308	259	342	356	304	236	210	223	193	222	233	259
13675	12256	12901	11048	10446	9821	10172	10140	11102	12885	13677	14501
14110	11816	12542	11281	10366	10182	10340	10352	11329	13173	13041	14701
14646	13231	13396	12120	10989	10480	11270	11287	11610	13819	13628	14274
-215	-235	-72	-77	-165	-157	-174	-116	-518	-505	-545	-695
-814	-599	-466	-463	-426	-447	-296	-301	-710	-841	-746	-963
-998	-915	-843	-823	-512	-428	-698	-739	-850	-1187	-1136	-1031
262	222	230	172	211	235	209	190	262	268	265	280
217	171	195	201	179	172	160	157	197	191	195	212
219	185	195	187	130	181	179	215	185	195	194	215
13198	11799	12599	10799	10070	9429	9789	9834	10322	12112	12867	13526
13079	11046	11881	10617	9761	9563	9884	9894	10422	12141	12100	13526
13429	12131	12358	11110	10347	9871	10393	10333	10575	12437	12298	13028
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17524	15433	15129	14464	13129	13400	13165	12117	13809	15388	15862	17628
16804	17174	15789	14957	13177	13414	13269	13783	13817	15322	16394	16723
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20462	18737	17740	16831	15445	15802	15462	15388	16718	18340	19105	20847
20301	20456	18353	17496	16821	16046	16217	16484	16858	18725	19663	20299
21183	20726	20481	18733	16012	15379	15266	16023	18211	20017	21823	21707
21738	20033	19432	18070	16030	16157	15898	16164	18329	19803	20913	22627
21394	21313	20028	18510	16833	16298	16435	16796	18387	20165	21307	22139
20639	20053	19252	17615	16476	15860	15961	12735	18346	19923	21528	22104
22462	20691	19504	18492	16857	17423	16753	16710	18607	20256	21101	22828
22283	22285	20274	19326	18011	17313	17844	18548	18670	20716	21654	22116

SLOVAK REPUBLIC

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	9157 8730 8898
Thermal nuclear net production	GWh	1998 Σ 2002 2003	10491 16543 16466
Hydraulic net production	GWh	1998 Σ 2002 2003	4561 5300 3536
Total net electrical energy production	GWh	1998 Σ 2002 2003	24209 30573 28900
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	2249 -4158 -2254
Consumption of pumps	GWh	1998 Σ 2002 2003	306 277 262
National electrical consumption	GWh	1998 Σ 2002 2003	26152 26138 26384
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	100 100 100
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 3543 3648
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 4025 4007
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	n.a. 4174 4194
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	3749 4586 4672

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

SLOVAK REPUBLIC

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
857	821	991	716	680	613	574	650	714	697	825	1019
942	745	776	784	664	620	567	483	575	793	831	950
899	879	883	755	614	542	592	649	540	796	843	906
1048	799	860	822	711	726	762	814	762	1022	1038	1127
1667	1356	1354	1303	1198	1044	1222	1238	1359	1597	1525	1680
1545	1604	1341	1148	1267	1248	1099	1278	1271	1404	1616	1645
375	299	389	399	376	355	362	248	337	476	561	384
405	506	523	437	399	414	369	457	331	416	575	468
500	329	389	355	410	330	246	171	178	265	179	184
2280	1919	2240	1937	1767	1694	1698	1712	1813	2195	2424	2530
3014	2607	2653	2524	2261	2078	2158	2178	2265	2806	2931	3098
2944	2812	2613	2258	2291	2120	1937	2098	1989	2465	2638	2735
314	419	282	170	227	177	178	128	101	54	77	122
-410	-337	-308	-417	-306	-162	-195	-245	-247	-455	-568	-508
-323	-437	-199	-138	-358	-222	22	-139	-13	-52	-231	-164
27	22	20	20	17	22	27	27	29	35	37	23
28	31	24	17	13	20	17	26	28	29	26	18
18	8	13	12	17	15	23	31	30	31	30	34
2567	2316	2502	2087	1977	1849	1849	1813	1885	2214	2464	2629
2576	2239	2321	2090	1942	1896	1946	1907	1990	2322	2337	2572
2603	2367	2401	2108	1916	1883	1936	1928	1946	2382	2377	2537
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
1,39	1,73	1,15	0,75	0,85	1,00	1,27	1,57	0,96	1,58	1,69	1,35
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3539	3240	3081	2937	2493	2568	2532	2413	2694	3025	3010	3543
3581	3648	3211	2863	2622	2576	2537	2437	2583	3060	3221	3461
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4025	3829	3526	3307	3000	3137	3080	2980	3257	3693	3641	3984
3925	4007	3681	3270	3234	3090	3059	3075	3178	3609	3726	3928
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4158	4000	3837	3500	3139	3209	3160	3072	3411	3825	3877	4174
3984	4166	3833	3456	3278	3136	3191	3141	3380	3832	3953	4194
3370	2955	3340	3066	2506	2674	2618	2692	3010	3295	3749	3706
4586	4360	3896	3928	3431	3390	3162	3516	3426	4357	4357	4558
4672	4578	3758	3367	3687	3380	3039	3363	3246	3621	3938	4066

Physical exchanges in interconnected operation¹

SLOVAK REPUBLIC | GWh

MM_YY	SK→H	SK→PL	SK→WEST_UA	SK_UCTE_EXP	SK_III_EXP	CZ→SK	H→SK	PL→SK	WEST_UA→SK	SK_UCTE_IMP	SK_III_IMP	SK_UCTE_SLD	SK_III_SLD	Balance		
														Export (-)	Import (+)	
I.98	75	184	0	0	259	345	1	0	227	0	573	0	0	314	0	419
II.98	55	129	0	0	184	410	3	0	190	0	603	0	0	419	0	283
III.98	64	158	0	0	222	271	42	0	192	0	505	0	0	283	0	170
IV.98	89	165	0	0	254	219	8	0	197	0	424	0	0	228	0	178
V.98	69	180	0	0	249	322	6	0	149	0	477	0	0	228	0	128
VI.98	84	166	0	0	250	236	7	0	185	0	428	0	0	178	0	102
VII.98	72	204	0	0	276	329	3	0	122	0	454	0	0	178	0	53
VIII.98	69	117	0	1	187	221	6	11	77	0	315	0	0	128	0	102
IX.98	72	175	1	2	250	184	2	119	47	0	352	0	0	53	0	123
X.98	93	226	0	1	320	138	4	148	83	0	373	0	0	78	0	2254
XI.98	103	214	1	0	318	169	1	106	120	0	396	0	0	123	0	0
XII.98	93	225	0	1	319	245	0	116	81	0	442	0	0	123	0	0
1998	2143	2	5	0	3088	3089	83	500	1670	0	5342	0	0	2254	0	2254
I.02	69	958	0	10	1027	10	365	0	237	25	602	25	-425	15	-357	20
II.02	28	860	0	3	888	3	330	0	201	23	531	23	-357	13	-255	-52
III.02	34	772	0	65	806	65	339	0	212	13	551	13	-337	-80	-302	-3
IV.02	35	780	0	86	815	86	300	0	178	6	478	6	-337	-80	-127	-35
V.02	22	831	0	11	853	11	406	0	145	8	551	8	-195	0	-337	-125
VI.02	36	668	0	41	704	41	379	0	198	6	577	6	-195	0	-513	-51
VII.02	48	851	0	199	899	199	591	0	308	4	899	4	-151	-93	-441	-72
VIII.02	28	740	0	97	768	97	467	0	150	4	617	4	-151	-93	-168	-79
IX.02	40	716	0	83	756	83	453	0	135	4	588	4	-168	-79	-337	-125
X.02	116	734	0	125	850	125	307	0	206	0	513	0	-337	-125	-522	-51
XI.02	220	619	0	52	839	52	157	0	160	1	317	1	-441	-72	-750	-750
XII.02	181	636	0	72	817	72	213	0	163	0	376	0	-3422	-3422	-3422	-3422
2002	857	9165	0	844	10022	844	4307	0	2293	94	6600	94	0	2729	75	8548
I.03	85	697	0	99	782	99	308	0	247	5	555	5	-227	-94	-101	-101
II.03	91	716	0	106	807	106	318	0	153	5	471	5	-336	-101	-112	-87
III.03	20	745	0	91	765	91	524	0	129	4	653	4	-112	-87	-101	-101
IV.03	41	741	0	107	782	107	514	0	231	6	745	6	-37	-101	-274	-83
V.03	36	766	0	87	802	87	353	0	175	4	528	4	-274	-83	-173	-50
VI.03	36	763	0	54	799	54	431	0	195	4	626	4	-173	-50	-21	-21
VII.03	42	843	0	44	885	44	787	0	240	23	927	23	-159	-159	-42	-42
VIII.03	52	726	0	163	778	163	539	0	259	4	798	4	-159	-159	-20	-20
IX.03	1	772	0	69	773	69	574	0	252	4	826	4	-65	-65	-53	-53
X.03	25	613	0	151	638	151	432	0	299	5	731	5	-146	-146	-93	-93
XI.03	74	804	0	160	878	160	489	0	311	5	800	5	-78	-78	-153	-153
XII.03	38	862	0	159	900	159	550	0	338	6	888	6	-12	-12	-153	-153
2003	541	9048	0	1290	9589	9589	5819	0	2729	75	8548	75	0	-1041	-1215	-1215

¹The 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".

Physical exchanges in interconnected operation¹

ROMANIA | GWh

MM_YY	RO→BG	RO→H	RO→MD	RO→SCG	RO→WEST_UA	RO_UCTE_EXP	RO_III_EXP	BG→RO	MD→RO	SCG→RO	WEST_UA→RO	RO_UCTE_IMP	RO_III_IMP	RO_UCTE_SLD	RO_III_SLD	Balance	
I.98	n.a.	0	n.a.	75	n.a.	75	n.a.	n.a.	0	n.a.	6	n.a.	6	n.a.	-69	n.a.	n.a.
II.98	n.a.	0	n.a.	38	n.a.	38	n.a.	n.a.	0	n.a.	7	n.a.	0	n.a.	-38	n.a.	n.a.
III.98	n.a.	0	n.a.	20	n.a.	20	n.a.	n.a.	0	n.a.	17	n.a.	0	n.a.	-20	n.a.	n.a.
IV.98	n.a.	0	n.a.	4	n.a.	4	n.a.	n.a.	0	n.a.	73	n.a.	0	n.a.	-4	n.a.	n.a.
V.98	n.a.	0	n.a.	1	n.a.	1	n.a.	n.a.	0	n.a.	120	n.a.	0	n.a.	-1	n.a.	n.a.
VI.98	n.a.	0	n.a.	2	n.a.	2	n.a.	n.a.	0	n.a.	84	n.a.	0	n.a.	-2	n.a.	n.a.
VII.98	n.a.	0	n.a.	1	n.a.	1	n.a.	n.a.	0	n.a.	117	n.a.	0	n.a.	-1	n.a.	n.a.
VIII.98	n.a.	0	n.a.	3	n.a.	3	n.a.	n.a.	0	n.a.	71	n.a.	0	n.a.	-3	n.a.	n.a.
IX.98	n.a.	0	n.a.	3	n.a.	3	n.a.	n.a.	0	n.a.	77	n.a.	0	n.a.	-3	n.a.	n.a.
X.98	n.a.	0	n.a.	18	n.a.	18	n.a.	n.a.	0	n.a.	39	n.a.	0	n.a.	-18	n.a.	n.a.
XI.98	n.a.	0	n.a.	2	n.a.	2	n.a.	n.a.	0	n.a.	64	n.a.	0	n.a.	-2	n.a.	n.a.
XII.98	n.a.	0	n.a.	89	n.a.	89	n.a.	n.a.	0	n.a.	10	n.a.	0	n.a.	-89	n.a.	n.a.
1998	n.a.	0	n.a.	256	n.a.	256	n.a.	n.a.	0	n.a.	685	n.a.	6	n.a.	-250	n.a.	n.a.
I.02	n.a.	0	n.a.	358	n.a.	358	n.a.	n.a.	0	n.a.	0	n.a.	0	n.a.	-358	n.a.	n.a.
II.02	n.a.	0	n.a.	90	n.a.	90	n.a.	n.a.	0	n.a.	1	n.a.	1	n.a.	-89	n.a.	n.a.
III.02	n.a.	0	n.a.	37	n.a.	37	n.a.	n.a.	18	n.a.	22	n.a.	40	n.a.	3	n.a.	n.a.
IV.02	n.a.	0	n.a.	43	n.a.	43	n.a.	n.a.	25	n.a.	26	n.a.	51	n.a.	8	n.a.	n.a.
V.02	n.a.	0	n.a.	51	n.a.	51	n.a.	n.a.	24	n.a.	24	n.a.	30	n.a.	-21	n.a.	n.a.
VI.02	n.a.	0	n.a.	33	n.a.	33	n.a.	n.a.	12	n.a.	8	n.a.	20	n.a.	-13	n.a.	n.a.
VII.02	n.a.	0	n.a.	81	n.a.	81	n.a.	n.a.	24	n.a.	4	n.a.	28	n.a.	-53	n.a.	n.a.
VIII.02	n.a.	0	n.a.	86	n.a.	86	n.a.	n.a.	23	n.a.	3	n.a.	26	n.a.	-60	n.a.	n.a.
IX.02	n.a.	0	n.a.	59	n.a.	59	n.a.	n.a.	24	n.a.	17	n.a.	41	n.a.	-18	n.a.	n.a.
X.02	n.a.	0	n.a.	148	n.a.	148	n.a.	n.a.	27	n.a.	6	n.a.	33	n.a.	-115	n.a.	n.a.
XI.02	n.a.	0	n.a.	145	n.a.	145	n.a.	n.a.	3	n.a.	0	n.a.	3	n.a.	-142	n.a.	n.a.
XII.02	n.a.	0	n.a.	184	n.a.	184	n.a.	n.a.	10	n.a.	0	n.a.	10	n.a.	-174	n.a.	n.a.
2002	n.a.	0	n.a.	1315	n.a.	1315	n.a.	n.a.	190	n.a.	93	n.a.	283	n.a.	-1032	n.a.	n.a.
I.03	177	0	156	0	333	0	5	31	0	2	0	38	0	0	-295	0	0
II.03	175	0	106	0	281	0	4	30	0	1	0	35	0	0	-246	0	0
III.03	181	0	79	0	260	0	7	29	0	7	0	43	0	0	-217	0	0
IV.03	56	0	56	0	112	0	4	26	0	9	0	39	0	0	-73	0	0
V.03	193	0	100	0	293	0	13	0	0	5	0	18	0	0	-275	0	0
VI.03	28	0	214	0	242	0	55	0	0	0	0	55	0	0	-187	0	0
VII.03	81	0	176	0	257	0	40	0	0	0	0	40	0	0	-217	0	0
VIII.03	47	0	228	0	275	0	97	0	0	0	0	97	0	0	-178	0	0
IX.03	20	0	126	0	146	0	191	0	29	3	0	194	29	48	29	21	0
X.03	5	0	98	0	103	0	122	0	21	2	0	124	21	21	30	30	0
XI.03	77	0	229	0	306	0	102	0	30	0	0	102	30	30	-204	40	0
XII.03	51	0	284	0	335	0	49	0	40	0	0	49	40	40	-286	40	0
2003	1091	0	0	1852	0	2943	0	689	116	120	29	0	834	120	-1099	0	0

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".

ROMANIA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 33952
Thermal nuclear net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 4564
Hydraulic net production	GWh	Σ	1998 2002 2003
			n.a. n.a. 13009
Total net electrical energy production	GWh	Σ	1998 2002 2003 ²
			n.a. n.a. 51525
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003
			n.a. n.a. -2085
Consumption of pumps	GWh	Σ	1998 2002 2003
			n.a. n.a. 0
National electrical consumption	GWh	Σ	1998 2002 2003
			n.a. n.a. 49440
National electrical consumption as percentage of total values	%	Ø pond.	1998 2002 2003
			n.a. n.a. 100
Energy capability factor (hydro power)	Ø pond.		1998 2002 2003
			n.a. n.a. -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 5764
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 7135
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003
			n.a. n.a. 7542
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003
			n.a. n.a. 7135

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

ROMANIA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3025	2926	2897	2199	2252	2898	2921	2786	2803	2811	3127	3307
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
491	445	467	472	249	0	438	347	168	522	475	490
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1330	1152	1335	1560	1599	1145	853	721	576	889	937	912
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4846	4523	4699	4231	4100	4043	4212	3854	3547	4222	4539	4709
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-295	-248	-217	-176	-275	-188	-217	-166	77	42	-174	-248
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	0	0	0	0	0	0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4551	4275	4482	4055	3825	3855	3995	3688	3624	4264	4365	4461
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
100	100	100	100	100	100	100	100	100	100	100	100
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-	-	-	-	-	-	-	-	-	-	-	-
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5746	5764	5583	4859	4805	4898	4742	4336	4539	5006	5306	5692
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7006	7135	6793	5859	5836	6027	5802	5697	5512	6253	6702	7000
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7265	7339	7168	5984	5962	6228	6010	5697	5885	6860	7109	7542
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7006	7135	6793	5859	5836	6027	5802	5679	5512	6253	6702	7000

BULGARIA

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003 n.a. n.a. 22195
Thermal nuclear net production	GWh	Σ	1998 2002 2003 n.a. n.a. 17257
Hydraulic net production	GWh	Σ	1998 2002 2003 n.a. n.a. 3262
Total net electrical energy production	GWh	Σ	1998 2002 2003 ² n.a. n.a. 42714
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003 n.a. n.a. -5538
Consumption of pumps	GWh	Σ	1998 2002 2003 n.a. n.a. 482
National electrical consumption	GWh	Σ	1998 2002 2003 n.a. n.a. 36694
National electrical consumption as percentage of total values	%	Ø pond.	1998 2002 2003 n.a. n.a. 100
Energy capability factor (hydro power)		Ø pond.	1998 2002 2003 n.a. n.a. -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 5325
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 6058
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 6595
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003 n.a. n.a. 6626

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation

BULGARIA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
n.a.											
n.a.											
2063	1957	2021	1647	1043	1107	1604	1612	1988	2207	2442	2504
n.a.											
n.a.											
1891	1732	1860	1379	1098	1223	1293	1382	1135	1188	1203	1873
n.a.											
n.a.											
403	373	271	265	362	326	214	206	177	199	215	251
n.a.											
n.a.											
4357	4062	4152	3291	2503	2656	3111	3200	3300	3594	3860	4628
n.a.											
n.a.											
-402	-258	-470	-252	-87	-295	-557	-643	-756	-575	-575	-668
n.a.											
n.a.											
56	34	39	39	41	19	30	39	45	51	46	43
n.a.											
n.a.											
3899	3770	3643	3000	2375	2342	2524	2518	2499	2968	3239	3917
n.a.											
n.a.											
100	100	100	100	100	100	100	100	100	100	100	100
n.a.											
n.a.											
-	-	-	-	-	-	-	-	-	-	-	-
n.a.											
n.a.											
5325	5321	4608	3740	2876	2893	3019	3006	3106	3248	4046	4678
n.a.											
n.a.											
5789	6058	5024	4170	3354	3492	3522	3613	3620	4041	4572	5327
n.a.											
n.a.											
6226	6595	5817	4718	3851	3972	3927	3943	4375	4944	5285	5999
n.a.											
n.a.											
6491	6626	5782	4634	3573	3879	4275	4600	4633	4685	5442	6268

Physical exchanges in interconnected operation¹

BULGARIA | GWh

MM_YY	BG→GR	BG→SCG	BG→TR	BG_UCTE_EXP	BG_III_EXP	BG_UCTE_IMP	BG_III_IMP	BG_UCTE_SLD	BG_III_SLD	Balance		
										Export (-)	Import (+)	
I.98	135	n.a.	0	n.a.	135	0	n.a.	99	n.a.	-36	n.a.	
II.98	33	n.a.	1	n.a.	34	1	n.a.	54	n.a.	27	n.a.	
III.98	133	n.a.	2	n.a.	135	2	n.a.	45	n.a.	-89	n.a.	
IV.98	122	n.a.	18	n.a.	140	18	n.a.	13	n.a.	-123	n.a.	
V.98	117	n.a.	31	n.a.	148	31	n.a.	9	n.a.	-138	n.a.	
VI.98	144	n.a.	34	n.a.	178	34	0	n.a.	6	n.a.	-172	n.a.
VII.98	183	n.a.	47	n.a.	230	47	1	n.a.	4	n.a.	-225	n.a.
VIII.98	59	n.a.	14	n.a.	73	14	0	n.a.	37	n.a.	-36	n.a.
IX.98	50	n.a.	18	n.a.	68	18	4	n.a.	33	n.a.	-31	n.a.
X.98	59	n.a.	11	n.a.	70	11	5	n.a.	27	n.a.	-38	n.a.
XI.98	41	n.a.	13	n.a.	54	13	4	n.a.	36	n.a.	-14	n.a.
XII.98	10	n.a.	0	n.a.	10	0	24	n.a.	100	n.a.	114	n.a.
1998	1086	n.a.	189	n.a.	1275	189	51	n.a.	463	n.a.	514	n.a.
I.02	269	n.a.	0	n.a.	269	0	365	n.a.	227	n.a.	592	n.a.
II.02	312	n.a.	0	n.a.	312	0	330	n.a.	140	n.a.	470	n.a.
III.02	273	n.a.	10	n.a.	283	10	339	n.a.	52	n.a.	391	n.a.
IV.02	160	n.a.	20	n.a.	180	20	300	n.a.	38	n.a.	338	n.a.
V.02	257	n.a.	15	n.a.	272	15	406	n.a.	23	n.a.	429	n.a.
VI.02	262	n.a.	17	n.a.	279	17	379	n.a.	35	n.a.	414	n.a.
VII.02	281	n.a.	1	n.a.	282	1	591	n.a.	77	n.a.	668	n.a.
VIII.02	285	n.a.	2	n.a.	287	2	467	n.a.	61	n.a.	528	n.a.
IX.02	343	n.a.	0	n.a.	343	0	453	n.a.	238	n.a.	691	n.a.
X.02	304	n.a.	1	n.a.	305	1	307	n.a.	149	n.a.	456	n.a.
XI.02	303	n.a.	0	n.a.	303	0	157	n.a.	147	n.a.	304	n.a.
XII.02	263	n.a.	0	n.a.	263	0	213	n.a.	188	n.a.	401	n.a.
2002	3312	n.a.	66	n.a.	3378	66	4307	n.a.	1375	n.a.	5682	n.a.
I.03	157	5	99	315	261	315	308	177	1	0	486	0
II.03	129	4	64	234	197	234	318	175	1	0	494	0
III.03	204	7	57	380	268	380	524	181	3	0	708	0
IV.03	166	4	45	207	215	207	514	56	16	0	586	0
V.03	281	13	16	0	310	0	353	193	32	0	578	0
VI.03	289	55	13	0	357	0	431	28	36	0	495	0
VII.03	399	40	195	0	634	0	787	81	2	0	870	0
VIII.03	389	97	199	0	685	0	539	47	0	0	586	0
IX.03	358	191	223	0	772	0	574	20	0	0	594	0
X.03	233	122	216	0	571	0	432	5	0	0	437	0
XI.03	315	102	226	0	643	0	489	77	0	0	566	0
XII.03	382	49	283	0	714	0	550	51	0	0	601	0
2003	3302	689	1636	1136	5627	1136	5819	1091	91	0	7001	0

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".

Physical exchanges in interconnected operation¹

WEST UKRAINE | GWh

MM_YY	WEST_UA_III_EXP	Export (-)		Import (+)		Balance
		W_UA_UCTE_EXP	WEST_UA→SK	W_UA_UCTE_IMP	WEST_UA→RO	
I.98	0	89	n.a.	316	0	-316
II.98	0	82	n.a.	227	0	-272
III.98	0	93	n.a.	190	0	-285
IV.98	0	55	n.a.	192	0	-252
V.98	0	57	n.a.	197	0	-206
VI.98	0	53	n.a.	149	0	-238
VII.98	0	55	n.a.	185	0	-177
VIII.98	0	60	n.a.	122	0	-136
IX.98	0	25	n.a.	77	0	-70
X.98	0	63	n.a.	47	0	-145
XI.98	0	81	n.a.	83	0	-201
XII.98	0	89	n.a.	120	0	-169
1998	0	802	n.a.	1670	0	-2467
I.02	240	52	n.a.	25	317	n.a.
II.02	199	45	n.a.	23	267	3
III.02	241	42	n.a.	13	296	65
IV.02	208	39	n.a.	6	253	86
V.02	66	38	n.a.	8	112	11
VI.02	139	41	n.a.	6	186	11
VII.02	342	39	n.a.	4	385	41
VIII.02	232	58	n.a.	4	294	41
IX.02	289	0	n.a.	4	293	41
X.02	351	45	n.a.	0	396	41
XI.02	315	101	n.a.	1	417	41
XII.02	327	89	n.a.	0	416	41
2002	2949	589	n.a.	94	3632	n.a.
I.03	340	113	0	5	458	0
II.03	354	90	0	5	449	0
III.03	353	77	0	4	434	1
IV.03	364	61	0	6	431	2
V.03	367	69	0	4	440	1
VI.03	322	52	0	4	378	2
VII.03	296	91	0	23	410	3
VIII.03	467	50	0	4	521	7
IX.03	350	75	0	4	429	0
X.03	469	76	0	5	550	4
XI.03	449	68	0	5	522	0
XII.03	430	109	0	6	545	0
2003	4561	931	0	75	5567	0
					23	0
					1290	0
					1313	0

¹These 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".

WEST UKRAINE

Monthly values / Operation

			I-XII
Thermal conventional net production	GWh	Σ	1998 2002 2003 n.a. n.a. 7308
Thermal nuclear net production	GWh	Σ	1998 2002 2003 n.a. n.a. 0
Hydraulic net production	GWh	Σ	1998 2002 2003 n.a. n.a. 97
Total net electrical energy production	GWh	Σ	1998 2002 2003 ² n.a. n.a. 7405
Total physical import / export balance ¹	GWh	Σ	1998 2002 2003 n.a. n.a. -3271
Consumption of pumps	GWh	Σ	1998 2002 2003 n.a. n.a. 0
National electrical consumption	GWh	Σ	1998 2002 2003 n.a. n.a. 4134
National electrical consumption as percentage of total values	%	Ø pond.	1998 2002 2003 n.a. n.a. 100
Energy capability factor (hydro power)		Ø pond.	1998 2002 2003 n.a. n.a. -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 706
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 841
Peak load on the 3 rd Wednesday	MW	max.	1998 2002 2003 n.a. n.a. 943
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW	max.	1998 2002 2003 n.a. n.a. 1226

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation

²Including deliveries from industry

Monthly values / Operation
WEST UKRAINE

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
n.a.											
n.a.											
711	674	664	580	483	514	531	565	558	671	656	701
n.a.											
n.a.											
0	0	0	0	0	0	0	0	0	0	0	0
n.a.											
n.a.											
5	3	9	17	14	3	6	2	2	15	16	5
n.a.											
n.a.											
716	677	673	597	497	517	537	567	560	686	672	706
n.a.											
n.a.											
-238	-247	-261	-258	-277	-267	-266	-303	-277	-317	-289	-271
n.a.											
n.a.											
0	0	0	0	0	0	0	0	0	0	0	0
n.a.											
n.a.											
478	430	412	339	220	250	271	264	283	369	383	435
n.a.											
n.a.											
100	100	100	100	100	100	100	100	100	100	100	100
n.a.											
n.a.											
-	-	-	-	-	-	-	-	-	-	-	-
n.a.											
n.a.											
706	675	590	522	302	386	390	395	403	523	557	588
n.a.											
n.a.											
841	791	698	593	430	487	502	496	490	599	734	718
n.a.											
n.a.											
943	918	816	731	493	505	546	596	642	775	813	851
n.a.											
n.a.											
1226	1216	1123	975	888	859	912	958	949	1080	1183	1182

			I-XII
Thermal conventional net production	GWh	1998 Σ 2002 2003	1057667 1187292 1302229
Thermal nuclear net production	GWh	1998 Σ 2002 2003	689498 757757 787354
Hydraulic net production	GWh	1998 Σ 2002 2003	284380 276144 307300
Total net electrical energy production	GWh	1998 Σ 2002 ² 2003 ²	2031545 2221193 2396883
Total physical import / export balance ¹	GWh	1998 Σ 2002 2003	-979 -2933 -8795
Consumption of pumps	GWh	1998 Σ 2002 2003	32619 42703 44187
National electrical consumption	GWh	1998 Σ 2002 2003	1997947 2175557 2343901
National electrical consumption as percentage of total values	%Ø pond.	1998 2002 2003	- - -
Energy capability factor (hydro power)	Ø pond.	1998 2002 2003	- - -
Consumption load at 3:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	186580 241218 273901
Consumption load at 11:00 a.m. on the 3 rd Wednesday	MW max.	1998 2002 2003	259832 329492 356987
Peak load on the 3 rd Wednesday	MW max.	1998 2002 2003	265320 341063 360698
Power produced in parallel operation on the 3 rd Wednesday at 11:00 a.m.	MW max.	1998 2002 2003	313933 344439 369182

¹Terminology 2.15, see also note Physical energy exchange in interconnected operation²Including deliveries from industry

Monthly values / Operation
UCTE³

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
92732	87343	97825	84089	76364	77188	84064	78375	84848	90293	98802	105744
119766	102461	106470	97788	90288	87735	93003	85754	95271	102414	101886	104456
117484	112665	112041	101734	95453	98520	106695	103180	107161	116131	114063	117102
67596	61084	61508	55588	53487	50077	52515	50329	53680	59154	60573	63907
72960	62904	64044	61352	60305	58000	60953	56905	58484	65313	65794	70743
74546	67156	67442	63956	60564	58558	62384	58707	60734	67290	69785	76232
27746	21278	20605	24017	27328	27851	24562	20152	21411	24219	23821	21390
19001	17717	21611	20129	25746	26199	23447	21942	20308	22858	26495	30691
36580	30194	28627	25215	29847	27112	23368	19710	17146	21326	22401	25774
188074	169705	179938	163694	157179	155116	161141	148856	159939	173666	183196	191041
211727	183082	192125	179269	176339	171934	177403	164601	174063	190585	194175	205890
228610	210015	208110	190905	185864	184190	192447	181597	185041	204747	206249	219108
-298	-537	-456	-454	-411	-269	538	1007	334	-280	-306	153
710	-52	-432	-294	-832	-135	738	50	578	-540	-1181	-1543
-1701	-808	-1278	-899	-1213	26	-180	-1082	-107	-95	-506	-952
2634	2088	2260	2362	2698	2835	3171	2919	3144	2964	2736	2808
3830	3338	3263	3371	3634	3725	3652	3457	3562	3688	3507	3676
3557	3049	3617	3338	3613	3728	3859	4128	3682	3707	3832	4077
185142	167080	177222	160878	154070	152012	158508	146944	157129	170422	180154	188386
208607	179692	188430	175604	171873	168074	174489	161194	171079	186357	189487	200671
223352	206158	203215	186668	181038	180488	188408	176387	181252	200945	201911	214079
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
184861	175336	171847	169635	146520	148780	146884	143296	153937	163328	186580	180239
241218	233504	211056	206731	191704	198646	195971	178384	192808	204988	225330	238104
260165	273901	236641	214294	204133	212538	215162	197772	205058	217609	230590	255135
259832	244355	241922	246259	222299	228206	229217	214740	232286	242545	253376	257554
327861	315375	292155	293900	276059	291752	282633	258870	283118	295852	309416	329492
351877	356987	312866	300766	300665	307318	306667	277350	298178	310515	325452	343511
261632	244474	241976	246259	222800	229201	230311	216079	232630	242545	263750	265320
334563	320550	292700	293900	277551	294360	284950	260926	284388	295852	321896	341063
360237	360698	317946	300766	302006	310961	309440	282399	300269	311918	339678	359627
313933	294425	294126	291960	265387	270977	267793	251993	279989	289301	308851	311539
336156	323817	304966	306072	290714	304983	292672	267962	294482	303822	327283	344439
361688	369182	328144	313953	313936	319125	318336	288670	309542	320391	338850	356894

³ West Ukraine is not part of UCTE

	Year	IMPORTING COUNTRIES						BiH	FY ROM	SCG
		B	D	E	F	GR	I	SLO	HR	
EXPORTING COUNTRIES										
B	1998					1445				
	2002					526				
	2003					872				
D	1998					404				
	2002					47				
	2003					152				
E	1998					757				
	2002					226				
	2003					602				
F	1998	4475	12698	5187			16586			
	2002	11501	18818	9062			19025			
	2003	9400	20227	6389			18025			
GR	1998					0				23
	2002					495				50
	2003					1133				153
I	1998				453	0	435			
	2002				463	352	80			
	2003				434	28	43			
SLO	1998					1941	1153			
	2002					5231	3032			
	2003					4548	1876			
HR	1998					0	310			2
	2002					3868	1583			15
	2003					3665	1290			0
BiH	1998						793			n.a.
	2002						634			2654
	2003						1054			1961
FYROM	1998				1412					n.a.
	2002				949					n.a.
	2003				838					5
SCG	1998						62			n.a.
	2002						0			n.a.
	2003						86			1624
L	1998	0	923							
	2002	2032	883							
	2003	1959	834							
NL	1998	3216	1493							
	2002	3037	1450							
	2003	3212	601							
A	1998	3954				1632	2057			
	2002	4270				1788	3246			
	2003	3333				1664	3066			
P	1998	3719								
	2002	3429								
	2003	3107								
CH	1998	5259		1007		21467				
	2002	3836		1094		25038				
	2003	3128		1463		25939				
CZ	1998	4802								
	2002	10557								
	2003	12794								
H	1998						416			691
	2002						5324			1947
	2003						5842			522
PL	1998	503								
	2002	605								
	2003	285								
SK	1998									
	2002									
	2003									
RO	1998									256
	2002									1315
	2003									1852
BG	1998				1086					189
	2002				3312					66
	2003				3302					1636
WEST_UA	1998									
	2002									
	2003									
III	1998	12540	1	32	1097		416			2093
	2002	5798	12	741	3321		0			2731
	2003	4556	0	2975	51		0			264
UCTE	1998	7691	24327	8906	4066	1412	41626	2492	2008	310
	2002	16570	40419	12491	2356	1301	51577	7194	8990	2271
	2003	14571	41202	9496	3523	4168	51309	6774	8858	2082
										1777
										5976
Total Import	1998	7691	36867	8907	4098	2509	41626	2492	2424	n.a.
	2002	16570	46217	12503	3097	4622	51577	7194	8990	2271
	2003	14571	45758	9496	6498	4219	51309	6774	8858	2082
										1777
										6240
Balance UCTE	1998	1251	-10627	4260	-44052	1389	40728	-648	1696	n.a.
	2002	7501	-863	7057	-66997	756	50660	-1254	3523	-1017
	2003	6318	-5011	3124	-62210	2881	50790	151	3902	-933
										934
										3354
Balance Total	1998	1251	-1745	3560	-56618	1620	40728	-648	2112	n.a.
	2002	7501	688	5740	-75766	2914	50660	-1254	3523	-1017
	2003	6318	-8065	1667	-64536	2156	50790	151	3902	-933
										934
										3153

Annual physical electricity exchange in interconnected operation (GWh)

UCTE

L	NL	A	P	CH	CZ	H	PL	SK	RO	BG	WEST UA	UCTE	III	Total Export		
1871	3124										6440			6440		
1725	6818										9069			9069		
1602	5779										8253			8253		
4450	13621	6165		10314	336		3019				34954	3658		38612		
4815	14037	8458		11859	194		1872				41282	4247		45529		
4956	15038	9906		13348	52		2761				46213	7610		53823		
			3889								4646	701		5347		
			5208								5434	1329		6763		
			5770								6372	1457		7829		
				9172							48118	12598		60716		
				10947							69353	9510		78863		
				11692							65733	5301		71034		
											51	23		889		
											0	545		1708		
											1	1287		2063		
			0		10							898		898		
			0		22							917		917		
			0		14							519		519		
			46									3140		3140		
			185									8448		8448		
			199									6623		6623		
					0							312		312		
					1							5467		5467		
					1							4956		4956		
												793		793		
												3288		3288		
												3015		3015		
												1412		1412		
												949		949		
												843		843		
					0							62		1197		
					0							688		1970		
					0							2622		3087		
					0							923		923		
												2915		2915		
												2793		2793		
												4709		4709		
												4487		4487		
												3813		3813		
				3055	67	106						10698		10871		
				4176	3	492						13975		13975		
				4062	2	468						12595		12595		
												3719		3719		
												3429		3429		
												3107		3107		
			203									27936		27936		
			283									30251		30251		
			371									30901		30901		
			2750									7552		3195		
			5941									20892		20892		
			7628									26298		26298		
			1275									83		2465		
			868									8139		8349		
			638									7118		7141		
				7078		500						503		8081		
				8442		2293						11340		11536		
				9488		2729						12502		15144		
				938	2143	2						844		10866		
				857	9165	0						10022		10879		
				541	9048	0						9589		1290		
					0							1290				
					0							n.a.		n.a.		
					0							1091		2943		
													1275		1464	
													3378		3444	
													5627		6763	
													0		0	
													3632		5567	
													5567			
			4025		8016	2143	910	5342	n.a.	n.a.	n.a.	20204	n.a.	n.a.		
			0		0	2949	2511	94	n.a.	n.a.	n.a.	18157	n.a.	14765		
			0		0	4561	2163	75	120	0	0	14765	0			
			6321	16745	6414	3889	22551	403	106	3019	0	685	240	0		
			6540	20855	15735	5208	27004	9496	9658	1959	6600	283	66	864	14765	
			6558	20817	18742	5770	29116	10083	9517	2818	8548	834	1183	1313	16078	
			6321	16745	10439	3889	22551	8419	2249	3929	5342	685	n.a.	n.a.	168987	
			6540	20855	15735	5208	27004	9496	12607	4470	6694	283	n.a.	n.a.	269047	
			6558	20817	18742	5770	29116	10083	14078	4981	8623	954	1183	1313	278487	
			5398	12036	-4284	170	-5385	-7149	9658	2516	0	n.a.	n.a.	n.a.		
			3625	16368	1760	1779	-3247	-11396	1519	-9381	-3422	n.a.	n.a.	n.a.		
			3765	17004	18742	2663	-1785	-16215	2399	-9684	-1041	-2109	-4444	-4254		
			5398	12036	-432	170	-5385	-2328	-216	-4152	2254	n.a.	n.a.	n.a.		
			3625	16368	1760	1779	-3247	-11396	4258	-7066	-4172	n.a.	n.a.	n.a.		
			3765	17004	6147	2663	-1785	-16215	6937	-10163	-2256	-1989	-5580			

LOAD VALUES

2

HOURLY LOAD VALUES PER COUNTRY

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NOTICE:

A grafical presentation of the load curves of all the countries is available in an electronic format on UCTE's web site (<http://www.ucte.org>) in the section „Publications“ together with the Statistical Yearbook 2003.

¹ FYROM = Former Yugoslav Republic of Macedonia

² West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

Hourly load values on the 3rd Wednesday in MW

Belgium

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	10714	10138	9868	9669	9618	9925	10820	11776	12326	12266	12278
19 / 2 / 2003	11289	10877	10500	10252	10141	10346	11114	12040	12118	12374	12265
19 / 3 / 2003	10139	9400	8980	8823	8869	9326	10173	10764	11086	11235	11220
16 / 4 / 2003	8873	8379	7985	7817	7874	8276	8939	9559	10161	10572	10676
21 / 5 / 2003	9055	8598	8095	7954	7943	8248	8890	9759	10386	10722	10912
18 / 6 / 2003	8507	8230	7893	7767	7858	7996	8621	9647	10422	10672	10730
16 / 7 / 2003	8548	8087	7758	7561	7643	7711	8107	8870	9534	9944	10063
20 / 8 / 2003	8464	8064	7832	7653	7684	7818	8402	9227	9866	10234	10507
17 / 9 / 2003	8608	8196	7943	7818	7844	8207	9246	10039	10415	10627	10744
15/ 10 / 2003	9480	8897	8586	8402	8568	8915	9915	11259	11280	11331	11330
19/ 11 / 2003	9871	9331	8828	8653	8665	8981	10070	11170	11404	11572	11543
17/ 12 / 2003	10408	9954	9597	9302	9278	9469	10568	11648	12100	11997	11873

Germany ¹

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	52600	50800	49900	50400	51300	54500	60600	67800	70700	70400	70900
19 / 2 / 2003	60100	58100	57000	56700	57200	58200	63400	68300	70000	70100	71300
19 / 3 / 2003	53000	50800	50300	51200	52500	54400	59300	64600	67700	68000	68600
16 / 4 / 2003	45100	43300	42400	42600	44700	48200	54000	60100	64700	65900	66900
21 / 5 / 2003	44300	42200	41200	42000	44100	46400	53300	60500	66000	66500	68200
18 / 6 / 2003	45100	43800	42700	42700	43800	46600	54800	61500	65100	65100	66200
16 / 7 / 2003	47400	45700	44800	44700	45500	47800	55000	61800	64800	65700	66400
20 / 8 / 2003	44100	42300	41300	41100	42100	45600	51800	57800	61700	62900	64200
17 / 9 / 2003	45200	43300	42600	43000	44500	48000	57000	62500	65400	66100	67500
15/ 10 / 2003	49200	47200	46700	47500	49100	52300	59800	65900	67100	67200	68100
19/ 11 / 2003	48200	45700	44800	45200	47600	51000	58700	66400	69200	69300	70100
17/ 12 / 2003	55800	53000	51700	51600	52200	54100	60000	68300	70800	69600	70200

¹ Values estimated on the basis of the vertical load. The vertical load is the total amount of the power flows out of the transmission network into distribution and large consumer networks.

Spain

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	29483	26698	24837	23984	23871	23721	26077	29061	32208	33186	34507
19 / 2 / 2003	29214	26544	24753	24217	23407	24059	25647	28028	31645	33446	34991
19 / 3 / 2003	24465	22716	21255	20445	20160	19686	20564	21560	23318	24919	26176
16 / 4 / 2003	23911	21749	20398	19452	19187	19302	20579	22989	24577	25909	27135
21 / 5 / 2003	23231	21061	20271	19664	19568	19960	21578	23390	26582	28022	28716
18 / 6 / 2003	24959	22651	21596	21164	20923	21190	22748	24827	27935	30332	31611
16 / 7 / 2003	25561	23240	21766	20879	20822	20836	22397	24392	26722	28672	30495
20 / 8 / 2003	24628	22231	20320	19952	19877	19821	21291	21809	24067	25797	27636
17 / 9 / 2003	23240	21658	20799	20362	20091	20302	22096	24918	26795	28245	29410
15/ 10 / 2003	22806	21245	20090	19842	19765	19944	21806	25549	27709	28142	28907
19/ 11 / 2003	25450	23553	22241	21307	21194	21383	23062	26534	28849	29823	30631
17/ 12 / 2003	28129	25360	23436	22655	21962	22028	24316	27480	30834	31899	32377

Hourly load values on the 3rd Wednesday in MW

Belgium

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
12400	12319	12324	12163	12091	12083	12611	12824	12415	11876	11334	11395	11461
12339	12131	12024	11864	11731	11521	11418	12235	12413	11926	11451	11593	11700
11321	11157	11051	10919	10824	10574	10525	10641	11318	11212	10586	10780	10727
10902	10780	10668	10564	10430	10245	10147	9935	9562	9405	9786	9845	9482
11137	10953	10848	10708	10694	10483	10399	10162	9845	9603	9652	10135	9975
10954	10817	10905	10860	10701	10540	10471	10214	9786	9498	9239	9770	9474
10294	10194	10004	9955	9936	9925	9818	9678	9201	8987	8763	9294	9137
10727	10595	10475	10430	10268	10152	10015	9782	9445	9174	9534	9636	9218
10965	10750	10712	10692	10622	10537	10481	10171	9887	10417	10191	9941	9469
11455	11251	11169	11034	10940	10716	10610	10705	11287	11114	10572	10576	10410
11701	11537	11567	11468	11513	11548	12192	12359	11736	11262	10694	10821	10681
11938	11779	11796	11627	11610	11702	12553	12780	12433	11829	11244	11310	11475

Germany¹

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
71800	71000	70700	69600	69100	69000	72700	72100	69800	65400	63700	62800	58200
71900	71400	70300	68700	67400	65400	67200	71600	70800	67700	66300	65800	62400
69500	68600	67200	66000	63800	62000	62200	66200	69800	65600	62100	60300	55500
66900	65200	63900	62400	60400	57800	56600	57100	57600	58700	57800	54000	48400
69900	69000	67400	66100	65100	63200	63000	62800	61900	59600	59200	56700	51000
67600	67100	66000	64200	62900	61000	60500	60300	59100	56600	54200	53000	48400
67300	66100	65300	64100	62700	61100	61500	60500	59400	57500	56100	54000	50000
65700	64500	62900	61400	60300	58700	58400	58300	57200	56300	56200	52200	47300
69000	67600	66400	64900	63500	61800	61400	61500	62600	63500	58800	54200	48800
69300	67900	67200	65800	63900	61800	61600	64600	68300	63900	60200	57700	53400
71200	70200	68900	68000	67800	69300	72600	72000	70400	66600	63600	62400	57500
70600	70200	69700	69100	68900	70800	73500	72700	70700	67600	64900	64100	59600

Spain

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
34735	34632	33691	31699	31996	32835	34574	36658	37163	36644	35654	33532	32571
35410	35281	34143	32893	33359	33680	34194	35620	37048	36632	35344	32733	31744
26665	26638	26220	25276	24801	24866	24738	24692	27046	28924	28722	27119	26370
27597	27509	26447	24997	25327	25668	25971	25258	24732	25792	27322	25907	23588
29555	29915	29398	27332	28188	28863	29191	28564	27869	27190	28232	27792	24719
32951	33354	33459	32341	32032	32631	33366	33080	31984	30256	29917	29909	27879
31356	31918	31769	30397	30153	30697	31139	30936	29584	28532	28331	28615	27158
28826	29722	30179	29360	28581	28695	29151	28906	27899	27328	29033	28070	25914
30266	30866	30096	28840	28695	29473	29922	29550	29148	30449	30834	27903	24926
29250	29420	28955	27179	27302	27882	28267	28255	29245	31016	29660	26520	24382
31058	30686	29936	28126	28400	29098	30335	32725	33106	32713	31306	28702	28066
32816	32072	31707	29519	29983	31108	32714	35648	35415	34316	33090	30948	30627

Hourly load values on the 3rd Wednesday in MW

France

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	59674	63234	61583	59291	58722	61442	67208	72828	74443	74765	74468
19 / 2 / 2003	63890	67422	66137	63854	63205	65682	70318	74126	76151	76656	76249
19 / 3 / 2003	51007	51802	50004	48321	48304	51563	56661	60164	61544	60830	59818
16 / 4 / 2003	46593	46563	44728	42555	42190	45102	49280	53001	55670	56582	56159
21 / 5 / 2003	43723	43678	41854	39755	39999	42034	46577	51260	54355	55622	55887
18 / 6 / 2003	43263	43050	41077	39366	39528	41051	45213	49870	53069	54756	55362
16 / 7 / 2003	43699	43411	41375	40059	40165	41880	44890	49053	52378	54725	55640
20 / 8 / 2003	38747	38441	36352	34951	34943	36789	38791	41778	44604	46587	47608
17 / 9 / 2003	41271	40987	39296	37556	37497	40229	45948	48864	51418	52793	53314
15 / 10 / 2003	45024	45270	43211	41749	42025	45248	51667	56897	58166	58873	58320
19 / 11 / 2003	51332	51474	49486	47671	47670	50821	57031	61521	63194	63493	63061
17 / 12 / 2003	60164	60840	59073	57204	57143	60518	66536	71704	72145	72034	70944

Greece

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	4645	4675	4539	4349	4342	4795	5592	6076	6584	6610	6602
19 / 2 / 2003	5004	5054	4894	4737	4737	5153	5802	6597	7362	7590	7642
19 / 3 / 2003	4633	4656	4490	4361	4395	4819	5690	6272	6741	6656	6645
16 / 4 / 2003	4146	4003	3872	3816	3897	4258	4970	5553	5861	5956	6024
21 / 5 / 2003	4343	4127	4062	4018	4096	4333	5104	5839	6274	6428	6701
18 / 6 / 2003	5363	5115	4916	4871	4814	5013	5736	6631	7256	7492	7705
16 / 7 / 2003	5877	5543	5333	5286	5285	5490	6330	7204	7853	8056	8258
20 / 8 / 2003	5811	5531	5356	5227	5189	5287	5715	6486	7194	7589	7870
17 / 9 / 2003	4077	3913	3828	3853	3931	4335	4970	5616	6012	6153	6247
15 / 10 / 2003	4074	3895	3852	3873	3960	4366	5081	5613	6099	6218	6269
19 / 11 / 2003	4344	4298	4152	4063	4173	4646	5317	5870	6228	6212	6215
17 / 12 / 2003	4945	4772	4496	4375	4455	5048	5978	6650	7292	7482	7550

Italy

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	30490	29217	28718	28629	29285	32113	38723	45966	48864	49594	49298
19 / 2 / 2003	30615	29479	29066	29147	29768	32564	38686	45920	49212	50256	49904
19 / 3 / 2003	30411	29056	28674	28524	29157	31807	36290	43834	46417	46906	46887
16 / 4 / 2003	29987	28928	28535	28385	29096	31614	35931	43041	45908	46286	45727
21 / 5 / 2003	30091	29033	28474	28328	28847	29802	34657	41682	44660	45743	45528
18 / 6 / 2003	34215	32688	32104	31784	32112	32863	37751	44721	48275	50289	50587
16 / 7 / 2003	35276	33711	32993	32825	33071	34136	38623	45712	49071	51219	51820
20 / 8 / 2003	28509	27093	26430	26037	26247	27264	28377	31965	35150	36630	37064
17 / 9 / 2003	30491	29562	28770	28956	29192	31685	35864	42020	44797	45876	45687
15 / 10 / 2003	29953	28820	28460	28355	28848	31112	36589	42909	45017	46528	46541
19 / 11 / 2003	30096	29230	28664	28716	29407	32253	37854	44459	46636	47831	47717
17 / 12 / 2003	30573	29218	28709	28675	29494	32370	39345	45929	48164	49045	48896

Hourly load values on the 3rd Wednesday in MW

France												
12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
74031	72780	72427	70504	68914	68541	73086	76097	72858	69404	64962	66448	64471
76068	75281	74811	72109	70446	69542	70101	76437	73812	70390	66432	68136	66458
59090	58143	57308	55027	53104	51490	51350	56515	60520	57339	53726	55359	53419
55962	55765	55369	54154	52370	50512	49637	50712	49910	51225	50199	51100	49332
55531	55188	55455	53982	52417	51142	50231	51613	50402	49168	48588	49853	47977
55898	55745	55352	54923	53604	52267	51281	51824	49860	47462	47116	50666	47897
56269	55558	55333	54929	53715	52528	51400	51815	50073	47895	47568	50695	47827
48308	48419	47521	46763	45773	44636	44182	44809	43566	43038	43434	44398	41827
53979	54126	53843	53021	51833	50877	49813	50830	50438	51632	47705	48356	45988
58158	57245	56254	54825	53242	52008	51619	55266	58502	54867	50873	51871	50132
63006	62598	61924	60647	59264	60071	64339	66686	63364	59381	55154	56518	54725
70513	69425	68543	66463	65167	66602	72361	74070	71362	67869	63888	65241	63087

Greece												
12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
6606	6526	6164	5902	6048	6368	6937	7100	6926	6545	5869	5624	5038
7622	7455	7000	6701	6837	6830	7307	7668	7469	7045	6313	6022	5390
6606	6582	6452	6201	6284	6151	6297	7147	7085	6745	6087	5789	5204
6031	5930	5744	5471	5353	5230	5129	5482	6345	6428	5688	5189	4603
6812	6760	6485	6030	5839	5818	5872	6013	6261	6485	5926	5361	4885
7850	7868	7244	6924	6665	6687	6702	6739	6809	7081	6743	6236	5681
8414	8405	8231	7842	7555	7483	7496	7470	7526	7848	7523	7006	6483
8094	8145	7927	7505	7256	7073	6962	6873	7185	7338	6850	6452	6022
6334	6297	6077	5657	5503	5530	5625	6066	6806	6342	5656	5118	4550
6306	6268	6089	5723	5503	5553	5780	6598	6627	6243	5477	5944	4433
6227	6166	5978	5783	5842	6413	6832	6821	6637	6217	5559	5244	4746
7533	7447	7150	7031	7291	7833	8084	8077	7858	7258	6562	6242	5653

Italy												
12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
47231	44235	45593	46553	47198	48524	51030	49400	46256	43426	39663	36079	32524
47947	45024	46206	47192	47431	47447	49755	50266	47004	44057	40430	36865	33200
45239	42341	43474	44637	44723	44179	44007	47486	45295	42490	39058	35970	32545
44496	41673	42957	44101	44283	43498	41721	40888	42242	42034	38974	35579	32320
44188	41795	43303	44391	44550	44033	42471	41057	39804	40441	38065	35242	32197
49923	47668	48656	49736	50128	49879	47705	45851	43772	42986	41685	39478	36427
51160	49094	50329	50995	51199	50961	49131	47524	45505	45143	43967	41673	38693
37488	36824	36482	36304	36524	36711	36296	36083	36242	37482	35249	32890	30344
44711	42299	43862	44670	45111	44553	42818	42243	44673	41981	38430	35410	32662
44416	41726	42811	43802	43997	43058	42421	45382	43870	40976	37595	34675	31738
46005	43204	44703	45881	46901	49543	49733	48160	45111	42205	38668	35516	32369
47115	43986	45409	46992	47956	51371	51239	49699	46879	44314	40690	36843	33052

Hourly load values on the 3rd Wednesday in MW

Slovenia

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	1314	1242	1237	1261	1262	1345	1656	1855	1850	1817	1799
19 / 2 / 2003	1289	1264	1230	1207	1267	1341	1606	1759	1830	1799	1773
19 / 3 / 2003	1250	1200	1152	1161	1208	1255	1531	1670	1705	1691	1653
16 / 4 / 2003	1251	1158	1141	1173	1144	1234	1500	1634	1692	1667	1640
21 / 5 / 2003	1154	1107	1083	1098	1105	1151	1427	1589	1649	1636	1642
18 / 6 / 2003	1249	1178	1204	1174	1169	1229	1509	1665	1686	1692	1703
16 / 7 / 2003	1218	1157	1112	1147	1181	1189	1439	1594	1687	1660	1655
20 / 8 / 2003	1222	1175	1147	1140	1113	1182	1422	1563	1634	1636	1631
17 / 9 / 2003	1191	1127	1091	1091	1109	1171	1501	1632	1624	1587	1594
15/ 10 / 2003	1222	1201	1147	1174	1143	1272	1579	1717	1739	1683	1681
19/ 11 / 2003	1249	1211	1196	1186	1204	1284	1584	1741	1765	1724	1708
17/ 12 / 2003	1311	1251	1229	1238	1277	1306	1697	1853	1901	1852	1826

Croatia

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	1900	1733	1624	1582	1593	1720	2033	2274	2398	2399	2349
19 / 2 / 2003	1923	1723	1643	1617	1641	1718	2038	2342	2489	2485	2453
19 / 3 / 2003	1638	1503	1418	1381	1415	1527	1813	2027	2127	2124	2063
16 / 4 / 2003	1516	1379	1285	1247	1255	1386	1675	1883	1955	1927	1865
21 / 5 / 2003	1237	1138	1095	1073	1092	1123	1322	1620	1741	1756	1765
18 / 6 / 2003	1477	1349	1271	1238	1248	1288	1515	1744	1888	1889	1892
16 / 7 / 2003	1466	1302	1224	1184	1207	1213	1407	1648	1801	1851	1885
20 / 8 / 2003	1536	1402	1318	1304	1305	1326	1489	1693	1872	1951	1991
17 / 9 / 2003	1297	1186	1132	1126	1137	1245	1451	1699	1796	1796	1800
15/ 10 / 2003	1344	1252	1170	1178	1189	1326	1664	1910	1973	1964	1927
19/ 11 / 2003	1601	1435	1348	1308	1326	1463	1798	2019	2097	2080	2070
17/ 12 / 2003	1807	1638	1530	1505	1539	1697	2090	2309	2430	2413	2377

Bosnia - Herzegovina

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	1243	1165	1113	1109	1099	1144	1241	1409	1572	1601	1595
19 / 2 / 2003	1226	1146	1092	1095	1099	1163	1330	1523	1616	1631	1629
19 / 3 / 2003	1077	981	969	966	923	996	1131	1311	1393	1395	1382
16 / 4 / 2003	934	843	811	805	807	865	1022	1187	1285	1272	1220
21 / 5 / 2003	833	770	742	732	748	769	882	1020	1097	1182	1175
18 / 6 / 2003	871	826	791	764	780	808	896	1073	1117	1134	1123
16 / 7 / 2003	855	795	761	755	756	769	851	1020	1109	1142	1146
20 / 8 / 2003	870	823	794	749	747	795	862	1010	1119	1148	1159
17 / 9 / 2003	856	808	786	769	785	838	954	1112	1174	1176	1152
15/ 10 / 2003	900	846	822	824	820	877	1065	1239	1325	1320	1313
19/ 11 / 2003	1029	958	928	946	985	1012	1143	1307	1367	1381	1352
17/ 12 / 2003	1133	1055	1007	1002	1012	1084	1225	1408	1494	1511	1477

Hourly load values on the 3rd Wednesday in MW

Slovenia

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
1759	1773	1808	1725	1723	1699	1831	1847	1800	1734	1628	1510	1393
1805	1794	1810	1745	1701	1626	1718	1810	1789	1747	1599	1494	1397
1660	1709	1703	1636	1592	1540	1526	1664	1770	1673	1521	1408	1316
1622	1665	1647	1595	1574	1539	1454	1483	1560	1645	1570	1392	1303
1660	1657	1667	1635	1596	1540	1510	1492	1540	1554	1531	1377	1269
1735	1749	1709	1712	1689	1640	1590	1560	1562	1554	1561	1455	1360
1705	1725	1698	1693	1674	1621	1564	1542	1562	1513	1541	1468	1373
1676	1686	1659	1685	1637	1631	1563	1516	1573	1604	1554	1420	1328
1608	1663	1608	1593	1586	1557	1467	1536	1652	1663	1517	1370	1230
1681	1673	1693	1637	1629	1587	1561	1702	1750	1720	1560	1400	1339
1702	1694	1751	1698	1675	1729	1810	1764	1737	1690	1549	1416	1327
1827	1831	1864	1814	1785	1873	1920	1875	1866	1769	1630	1529	1403

Croatia

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
2289	2226	2164	2098	2064	2185	2474	2507	2504	2456	2466	2340	2134
2450	2412	2308	2225	2204	2253	2444	2596	2618	2602	2580	2404	2140
2072	2033	1956	1900	1846	1818	1913	2183	2309	2260	2252	2082	1836
1878	1879	1788	1720	1678	1668	1710	1667	1799	2049	2019	1934	1733
1805	1716	1676	1606	1556	1548	1568	1565	1636	1785	1813	1835	1471
1950	1948	1847	1831	1767	1733	1715	1724	1763	1801	1857	1795	1582
1959	1983	1932	1867	1803	1788	1764	1773	1851	1859	1989	1967	1715
2074	2097	2068	1972	1939	1907	1880	1892	1977	2151	2097	1990	1770
1804	1800	1753	1723	1642	1643	1617	1668	1993	2030	1924	1765	1531
1917	1902	1822	1764	1720	1720	1743	2012	2213	2168	1958	1854	1633
2079	2046	1923	1877	1883	2095	2323	2265	2239	2205	2194	1988	1791
2363	2340	2256	2250	2237	2530	2602	2594	2583	2530	2556	2356	2057

Bosnia - Herzegovina

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
1562	1523	1533	1512	1500	1556	1739	1718	1699	1642	1593	1495	1389
1594	1581	1597	1574	1536	1527	1650	1745	1726	1680	1613	1516	1371
1348	1309	1349	1326	1254	1296	1348	1490	1542	1502	1411	1310	1161
1201	1186	1179	1177	1169	1147	1111	1107	1247	1396	1334	1201	1052
1156	1171	1139	1176	1157	1125	1102	1121	1181	1251	1211	1111	981
1162	1160	1145	1158	1165	1125	1103	1084	1129	1190	1202	1086	971
1161	1179	1174	1198	1188	1154	1122	1073	1087	1129	1252	1172	1000
1185	1163	1186	1198	1180	1147	1100	1052	1079	1233	1221	1108	976
1145	1134	1135	1144	1146	1136	1091	1104	1311	1348	1238	1103	960
1296	1270	1247	1277	1274	1257	1243	1393	1477	1419	1333	1194	1052
1351	1287	1313	1315	1345	1454	1567	1555	1506	1481	1408	1283	1167
1454	1441	1472	1460	1466	1586	1681	1666	1643	1618	1568	1418	1315

Hourly load values on the 3rd Wednesday in MW

FYROM²

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	1055	923	860	835	815	832	921	1018	1095	1112	1130
19 / 2 / 2003	1020	932	868	827	831	862	971	1059	1132	1163	1172
19 / 3 / 2003	888	812	747	714	722	749	852	948	1013	1033	1034
16 / 4 / 2003	702	629	589	557	566	616	706	791	847	853	817
21 / 5 / 2003	566	510	493	471	473	477	563	621	697	722	735
18 / 6 / 2003	613	550	524	504	508	495	585	675	715	744	772
16 / 7 / 2003	619	558	529	503	501	520	580	651	704	737	775
20 / 8 / 2003	588	531	519	508	510	515	562	650	703	730	757
17 / 9 / 2003	601	551	513	501	513	543	621	697	734	748	757
15/ 10 / 2003	615	570	545	534	537	588	698	794	857	888	897
19/ 11 / 2003	863	788	744	748	730	728	810	893	948	979	980
17/ 12 / 2003	1031	940	877	737	843	869	983	1088	1152	1176	1181

² FYROM = The Former Yugoslav Republic of Macedonia

Serbia and Montenegro

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	6061	5728	5383	5226	5151	5345	5720	6204	6353	6372	6283
19 / 2 / 2003	6107	5761	5523	5382	5214	5414	5911	6625	6752	6787	6744
19 / 3 / 2003	4996	4640	4464	4328	4203	4455	5105	5613	5683	5632	5537
16 / 4 / 2003	3912	3556	3323	3244	3165	3474	4022	4525	4657	4750	4783
21 / 5 / 2003	3149	2832	2594	2554	2547	2729	3275	3726	3863	3953	4042
18 / 6 / 2003	3250	2930	2710	2592	2615	2819	3213	3713	3853	3974	4023
16 / 7 / 2003	3256	2860	2608	2546	2536	2674	3078	3502	3814	3852	3999
20 / 8 / 2003	3240	2986	2752	2750	2717	2792	3194	3562	3920	4017	4074
17 / 9 / 2003	3295	2930	2753	2666	2711	2854	3425	3957	4158	4218	4138
15/ 10 / 2003	3662	3415	3123	3043	3031	3314	3982	4606	4876	4960	4970
19/ 11 / 2003	4634	4263	4073	3964	4068	4143	4669	5217	5327	5323	5213
17/ 12 / 2003	5535	5237	4955	4754	4637	4963	5570	6183	6325	6332	6251

Luxembourg

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	671	647	622	605	608	621	717	815	879	886	864
19 / 2 / 2003	662	643	697	608	601	606	670	720	732	773	745
19 / 3 / 2003	639	622	637	646	659	701	608	650	680	694	698
16 / 4 / 2003	660	644	633	616	642	640	681	738	789	830	801
21 / 5 / 2003	632	618	621	630	623	595	603	667	709	724	740
18 / 6 / 2003	695	674	656	688	676	689	648	730	774	769	772
16 / 7 / 2003	731	710	706	685	690	688	675	678	751	804	812
20 / 8 / 2003	466	453	467	460	465	515	553	604	656	661	656
17 / 9 / 2003	681	655	681	676	607	590	634	666	713	717	722
15/ 10 / 2003	749	713	739	747	742	667	784	863	885	894	860
19/ 11 / 2003	761	758	780	761	706	709	691	791	810	816	791
17/ 12 / 2003	748	707	725	739	712	727	688	796	849	843	852

Hourly load values on the 3rd Wednesday in MW

FYROM²

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
1109	1093	1108	1107	1105	1167	1195	1180	1188	1180	1158	1156	1107
1150	1162	1183	1170	1134	1138	1179	1214	1220	1222	1194	1206	1136
1024	1012	1023	1039	1025	995	1018	1109	1131	1112	1088	1076	993
798	796	799	816	836	808	780	786	898	950	931	863	788
743	723	724	730	697	700	686	657	700	799	801	722	638
772	770	788	794	794	761	700	701	721	794	829	745	691
779	771	784	781	768	760	728	715	717	773	809	783	723
770	796	812	807	786	767	738	707	770	839	825	743	696
737	731	736	725	699	690	681	721	866	862	845	754	660
878	889	899	936	941	959	950	1014	1002	986	963	892	796
977	967	966	984	1045	1103	1132	1109	1100	1083	1061	1061	982
1180	1200	1213	1243	1248	1282	1284	1266	1280	1252	1225	1257	1161

Serbia and Montenegro

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
6155	5969	5851	5733	5763	6192	6614	6707	6647	6657	6410	6212	6025
6732	6639	6572	6371	6424	6501	6698	6950	6979	6825	6684	6572	6246
5370	5414	5297	5066	5192	5290	5400	5910	6013	5955	5619	5454	5145
4663	4582	4412	4410	4350	4377	4300	4357	4873	5123	4957	4530	4204
4083	4098	4022	3870	3807	3759	3729	3819	4034	4365	4321	3996	3560
4092	4121	4042	3937	3910	3782	3723	3797	3883	4203	4450	4166	3673
4043	4022	4025	3886	3848	3664	3647	3607	3751	4014	4363	4168	3739
4086	4099	3988	3961	3886	3854	3750	3819	4012	4497	4420	3993	3638
4111	4082	4010	3884	3856	3755	3768	3963	3733	4842	4537	4109	3669
4945	4968	4843	4753	4772	4768	4877	5403	5549	5422	5167	4735	4370
5110	4946	4827	4811	4907	5467	5836	5811	5822	5671	5502	5222	4913
6200	6153	6046	6011	6109	6522	6677	6699	6646	6637	6425	6332	6029

Luxembourg

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
869	858	862	878	869	890	918	905	891	872	831	848	830
775	759	753	745	722	701	714	771	806	762	739	741	718
748	755	737	724	733	751	768	775	859	866	831	801	733
819	797	798	792	774	765	744	718	753	766	783	778	749
766	737	724	707	709	683	681	693	679	687	658	685	650
783	796	788	767	713	737	718	726	689	685	670	678	628
817	826	800	796	793	780	753	733	715	683	647	630	607
620	640	644	635	604	606	607	606	618	589	609	564	539
725	730	732	700	716	763	749	646	706	776	712	768	723
831	879	851	818	832	824	815	838	827	821	814	835	779
814	768	774	641	732	783	820	814	861	844	847	855	777
833	833	818	793	802	805	837	858	880	865	839	872	824

Hourly load values on the 3rd Wednesday in MW

The Netherlands

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	8611	8113	7935	7851	7985	8538	9967	12324	13239	13506	13439
19 / 2 / 2003	8191	7652	7498	7435	7593	8119	9891	12015	13059	13246	13018
19 / 3 / 2003	8086	7519	7335	7256	7312	7850	9311	11275	12433	12713	12601
16 / 4 / 2003	8163	7624	7399	7367	7407	7952	9050	11190	12296	12538	12669
21 / 5 / 2003	7791	7387	7146	7033	7157	7406	8672	10649	11843	12188	12195
18 / 6 / 2003	8510	8002	7829	7760	7826	7903	9128	11109	12295	12506	12574
16 / 7 / 2003	8552	7975	7732	7557	7638	7783	8851	10607	11796	12214	12444
20 / 8 / 2003	8409	7823	7584	7532	7576	8002	8902	10726	11969	12444	12627
17 / 9 / 2003	8426	7957	7754	7621	7655	8119	9645	11312	12307	12629	12813
15/ 10 / 2003	8381	7710	7404	7268	7296	7586	8718	10614	11884	12384	12373
19/ 11 / 2003	8195	7714	7501	7454	7523	8084	9805	12154	12881	13034	13043
17/ 12 / 2003	8175	7654	7380	7307	7426	8102	9805	12537	13370	13340	12840

Austria

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	6836	6636	6481	6211	6203	6616	7223	8144	8260	8265	8301
19 / 2 / 2003	6599	6477	6414	6247	6281	6650	7152	7902	8195	8211	8316
19 / 3 / 2003	6004	5753	5562	5427	5519	6035	6587	7207	7433	7408	7538
16 / 4 / 2003	5591	5261	5086	4924	5040	5535	6113	6835	7123	7203	7174
21 / 5 / 2003	5082	4786	4637	4442	4497	4898	5849	6542	6779	6849	7004
18 / 6 / 2003	5154	4965	4809	4593	4629	5039	5759	6612	6950	7048	7256
16 / 7 / 2003	5236	4918	4754	4538	4558	4860	5651	6244	6582	6761	6956
20 / 8 / 2003	4901	4619	4468	4307	4320	4786	5550	6217	6586	6685	6870
17 / 9 / 2003	5063	4754	4619	4454	4552	5088	6163	6793	6902	6902	6828
15/ 10 / 2003	5505	5253	5094	4980	5101	5664	6615	7310	7378	7279	7331
19/ 11 / 2003	5890	5595	5455	5279	5432	6045	6900	7584	7741	7698	7757
17/ 12 / 2003	6603	6317	6156	5973	6062	6573	7349	8231	8195	8303	8263

Portugal

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	5736	4924	4483	4245	4162	4151	4305	4749	5662	6723	7163
19 / 2 / 2003	5173	4558	4176	3959	3875	3893	3986	4423	5114	6297	6773
19 / 3 / 2003	4666	4109	3791	3679	3607	3601	3732	3841	4660	5632	5814
16 / 4 / 2003	4690	4131	3769	3590	3542	3541	3636	3793	4378	5422	5734
21 / 5 / 2003	4538	4081	3758	3647	3582	3555	3566	3610	4460	5468	5804
18 / 6 / 2003	4695	4294	3999	3822	3747	3761	3735	3799	4689	5730	6082
16 / 7 / 2003	4748	4196	3949	3773	3752	3739	3772	3734	4493	5538	5833
20 / 8 / 2003	4297	3895	3637	3501	3426	3392	3460	3444	3884	4577	4939
17 / 9 / 2003	4733	4282	3946	3845	3749	3755	3872	4183	4700	5705	5988
15/ 10 / 2003	4550	4087	3828	3709	3616	3641	3747	4103	4826	5615	5810
19/ 11 / 2003	4908	4346	4020	3877	3764	3786	3946	4307	4984	5885	6013
17/ 12 / 2003	5560	4911	4461	4211	4113	4070	4148	4575	5584	6552	6753

Hourly load values on the 3rd Wednesday in MW

The Netherlands

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
13389	13101	13128	13128	13226	13601	13766	13193	12849	11868	11176	10364	9573
13024	12632	12646	12364	12271	12233	12309	13008	12610	11559	10921	9933	9095
12628	12294	12390	12121	11892	11751	11579	11831	12314	11411	10671	9707	9085
12780	12492	12800	12613	12492	12133	11688	10933	10579	11009	10905	9888	9116
12269	11978	12184	11972	11867	11602	11165	10519	10300	9893	10370	9806	9085
12708	12385	12588	12341	12255	11915	11511	10640	10288	9905	9921	9808	9217
12541	12428	12433	12381	12264	12033	11619	10839	10384	9825	9926	9959	9445
12782	12520	12683	12512	12382	12033	11576	10783	10485	10364	10780	10025	9360
12940	12810	12990	12778	12647	12424	12009	11201	11401	11757	11124	10247	9514
12354	12153	12161	12021	11842	11603	11533	11191	12065	11616	10998	10121	9529
13138	12821	12961	12791	12947	13575	13580	13167	12696	11668	11062	10308	9509
12756	12818	13071	12927	13006	13810	13941	13390	12989	12075	11397	10359	9521

Austria

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
8337	8094	8185	8207	8182	8212	8336	8258	8028	7604	7138	7420	7153
8415	8077	8001	7860	7711	7557	7886	8309	8005	7560	7040	7252	6899
7606	7264	7185	7134	6971	6952	7043	7565	7461	7003	6485	6662	6227
7299	7010	7006	6906	6819	6663	6584	6582	6548	6680	6215	6224	5886
7179	6869	6841	6707	6637	6478	6425	6446	6396	6201	5938	5866	5447
7406	7129	7071	6954	6830	6614	6552	6326	6089	5890	5766	5676	5431
7133	6904	6811	6705	6690	6629	6676	6469	6253	6053	6071	5989	5596
7069	6805	6736	6639	6548	6552	6458	6291	6114	6199	5956	5721	5320
6942	6677	6676	6692	6649	6550	6501	6505	6805	6701	6082	5858	5430
7434	7128	7194	7067	6953	6836	6932	7364	7319	6878	6355	6246	5907
7813	7531	7518	7466	7438	7776	8030	7980	7633	7144	6586	6707	6258
8310	8220	8070	8090	8104	8418	8546	8369	8014	7694	7215	7351	6948

Portugal

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
7298	7308	6780	6927	7051	6989	7026	7610	8033	8046	7794	7514	6755
6933	7044	6504	6765	7016	6974	6911	6746	7328	7373	7119	6843	6183
5881	5892	5455	5711	5858	5814	5746	5532	5934	6298	6012	5795	5263
5827	5834	5384	5642	5900	5803	5706	5391	5263	5412	5783	5590	5230
5921	6028	5571	5862	6065	6085	5998	5724	5524	5366	5426	5615	5278
6258	6367	5928	6224	6453	6434	6450	6147	5915	5729	5634	5869	5507
5963	6048	5550	5865	6025	5979	5955	5662	5483	5323	5235	5652	5348
5128	5283	5074	5101	5183	5173	5128	4910	4856	4859	5263	5200	4856
6180	6285	5861	6154	6355	6341	6230	5923	5695	6016	6143	5804	5355
5898	5981	5499	5795	6125	6049	5939	5737	5868	6258	5962	5643	5150
6094	6147	5718	5992	6156	6093	6193	6803	6800	6567	6279	6126	5639
6819	6837	6412	6768	6981	6939	7057	7534	7465	7286	7025	6890	6400

Hourly load values on the 3rd Wednesday in MW

Switzerland

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	7397	7320	7228	7106	7301	7441	8518	9229	9263	9369	9209
19 / 2 / 2003	8053	7905	7786	7526	7574	8263	8741	9300	9110	9494	9468
19 / 3 / 2003	6589	6417	6478	6520	6769	7131	7348	7986	8046	8091	8290
16 / 4 / 2003	5827	5601	5521	5486	5922	6531	7125	7723	7700	7924	8190
21 / 5 / 2003	5575	5461	5277	5190	5398	6063	7126	7742	7866	7980	8278
18 / 6 / 2003	5532	5362	5496	5312	5225	5904	6937	7699	7675	7979	8195
16 / 7 / 2003	5418	5203	5155	4869	5140	5754	6333	7210	7427	7727	7780
20 / 8 / 2003	5326	5111	4974	4720	4842	5695	6680	7273	7602	7852	7994
17 / 9 / 2003	5529	5308	5203	4962	5269	6159	7102	7509	7554	7907	8105
15/ 10 / 2003	5698	5711	5662	5616	5892	6450	7346	7854	8009	8150	8296
19/ 11 / 2003	6351	6258	6174	6150	6473	6978	8094	8565	8593	8557	8803
17/ 12 / 2003	7393	7273	7344	7020	7161	7717	8680	9084	9050	9179	9025

Czech Republic

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	7985	7970	7941	7822	7826	8223	9200	9151	9282	9249	9229
19 / 2 / 2003	8232	8371	8344	8357	8254	8377	8650	9365	9418	9520	9412
19 / 3 / 2003	7283	7193	7152	7071	7245	7478	8171	8148	8173	8040	7937
16 / 4 / 2003	6686	6610	6585	6462	6646	6984	7690	7589	7618	7446	7550
21 / 5 / 2003	5867	5764	5698	5497	5518	5994	6937	7127	7246	7143	7167
18 / 6 / 2003	5664	5536	5483	5434	5330	5693	6663	6862	6966	7002	6997
16 / 7 / 2003	5491	5445	5417	5232	5162	5526	6342	6432	6623	6891	7032
20 / 8 / 2003	5533	5398	5345	5256	5372	5703	6530	6699	6868	6815	6894
17 / 9 / 2003	5664	5716	5623	5834	6405	7169	7275	7253	7072	7062	7217
15/ 10 / 2003	6664	6583	6529	6379	6615	7262	8200	8053	8115	7913	7827
19/ 11 / 2003	7139	7320	7091	7052	6906	7129	7807	8591	8570	8712	8544
17/ 12 / 2003	7981	7755	7653	7562	7740	8230	9046	8994	9131	8996	8935

Hungary

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	4970	4607	4357	4279	4379	4988	5587	5479	5515	5476	5442
19 / 2 / 2003	4965	4609	4373	4346	4518	5141	5485	5558	5595	5506	5477
19 / 3 / 2003	4531	4239	4042	3970	4141	4584	5052	5125	5168	5153	5122
16 / 4 / 2003	4371	4080	3815	3714	3859	4294	5024	4942	4896	4894	4907
21 / 5 / 2003	4027	3726	3553	3568	3564	4026	4714	4712	4793	4853	4929
18 / 6 / 2003	4152	3884	3699	3715	3643	4048	4746	4808	4908	5021	5079
16 / 7 / 2003	4114	3771	3623	3561	3588	3933	4604	4756	4905	5016	5074
20 / 8 / 2003	4005	3779	3615	3563	3509	3279	3502	3613	3777	3930	4004
17 / 9 / 2003	4144	3883	3676	3624	3862	4385	4904	4932	4922	4908	4994
15/ 10 / 2003	4373	4142	4011	3892	4121	4690	5383	5280	5186	5178	5135
19/ 11 / 2003	4467	4322	4142	4054	4235	4791	5285	5280	5314	5341	5248
17/ 12 / 2003	4557	4451	4253	4124	4275	4929	5472	5422	5383	5323	5337

Hourly load values on the 3rd Wednesday in MW

Switzerland

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
8986	8814	8260	8718	8722	8781	9158	8766	8409	7998	8236	7997	7961
9177	9141	9043	8881	8705	8554	9166	9069	8692	8441	8771	8810	8538
7830	7736	8002	7453	7443	7224	7031	7854	7652	7452	7565	7279	6854
7670	7602	7584	7510	7205	7022	6842	6616	6707	6853	7051	6672	6363
7945	7708	7756	7676	7463	7182	7015	6730	6631	6723	6838	6546	6066
7808	7813	7725	7558	7469	7028	6976	6491	6388	6232	6714	6499	5951
7504	7488	7575	7533	7368	7232	7008	6563	6262	6198	6554	6250	5699
7857	7657	7643	7510	7385	7075	6944	6521	6449	6659	6769	6392	5722
7635	7444	7507	7391	7305	7026	7063	6752	7014	6732	6735	6446	6161
7967	7647	7676	7495	7475	7259	7177	7598	7387	6980	7103	6845	6552
8434	8231	8226	8178	8256	8572	8664	8351	7944	7515	7575	7308	6933
8871	8688	8726	8637	8337	9085	9158	8875	8502	8148	8394	8050	8073

Czech Republic

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
9433	9540	9384	9205	9154	9748	9380	9182	9104	8366	7948	7820	7826
9365	9550	9495	9341	9148	9396	9646	9584	9432	8716	8306	8185	8289
8142	8083	7906	7780	7744	7946	7960	8564	8440	7722	7285	7153	8113
7584	7584	7295	7341	7357	7196	6906	6991	7339	7308	6834	6701	6629
7271	7263	6974	7019	7086	6998	6725	6764	6786	6657	6376	6150	6000
7079	7115	6882	6926	6824	6807	6396	6436	6298	6135	6170	5964	5798
6990	6970	6701	6669	6664	6696	6291	6251	6206	6047	6147	5923	5773
7067	6986	6756	6772	6771	6660	6308	6303	6340	6474	6070	5812	5714
7193	6904	6936	7011	6636	6636	6842	7260	6721	6260	6098	5942	5849
7917	8064	7971	8092	8055	7985	7879	8349	7992	7538	6952	6818	6629
8497	8511	8733	8512	8671	8644	9247	8850	8648	8520	7933	7406	7185
8967	9258	9039	9143	9151	9584	9137	8928	8917	8398	7921	7609	7175

Hungary

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
5353	5382	5490	5471	5584	5852	5732	5709	5682	5581	5558	5504	5115
5439	5295	5655	5632	5636	5467	5782	5846	5725	5596	5634	5613	5201
5106	5107	5298	5333	5243	4921	5108	5585	5466	5353	5358	5298	4845
4858	4834	4699	5053	4963	4929	4551	4598	5122	5006	4731	4816	4716
4891	4806	4694	4962	4830	4859	4575	4561	4690	4763	4479	4518	4375
5073	5075	4899	5221	5076	5100	4764	4625	4665	4808	4678	4637	4504
5064	5070	4948	5296	5153	5119	4794	4721	4708	4957	4958	4815	4623
3949	3893	3817	4145	4162	4122	3941	3897	4096	4153	4236	4340	4135
4903	4894	4740	5138	5032	5018	4740	4940	5283	5075	4674	4711	4618
5063	5030	4831	5244	5220	5277	5136	5595	5470	5098	4797	4899	4774
5175	5151	5326	5548	5583	5887	5635	5687	5552	5559	5270	4870	4534
5289	5199	5558	5745	5753	5862	5759	5719	5581	5700	5433	5098	4733

Hourly load values on the 3rd Wednesday in MW

Poland

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	16795	16795	16804	16831	16870	17091	18986	19730	19986	20100	20301
19 / 2 / 2003	17174	17089	17174	17151	17246	17886	18690	19624	20113	20166	20456
19 / 3 / 2003	15839	15943	15789	15644	15960	15582	16894	18003	18504	18312	18353
16 / 4 / 2003	14931	14884	14957	15042	15142	14752	16001	17286	17470	17458	17496
21 / 5 / 2003	13463	13257	13177	13167	13010	13543	14738	15901	16427	16387	16821
18 / 6 / 2003	13446	13331	13414	13087	12942	13147	14292	15211	15652	15767	16046
16 / 7 / 2003	13403	13233	13269	13053	12802	13064	13830	14856	15534	15826	16217
20 / 8 / 2003	13672	13488	13783	13638	13905	13490	14437	15262	15838	16105	16484
17 / 9 / 2003	14337	13761	13817	13845	13938	14072	15254	16422	16698	16546	16858
15/ 10 / 2003	15640	15471	15322	15391	15672	16311	17402	18237	18646	18619	18725
19/ 11 / 2003	16382	16351	16394	16357	16537	16637	18195	19115	19397	19562	19663
17/ 12 / 2003	17014	16764	16723	16820	16904	17507	19530	19960	20164	20150	20299

Slovak Republic

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	3681	3602	3581	3666	3678	3625	3636	3604	3694	3854	3925
19 / 2 / 2003	3748	3735	3648	3570	3712	3878	4060	3995	4046	4001	4007
19 / 3 / 2003	3388	3318	3211	3255	3249	3395	3626	3636	3591	3638	3681
16 / 4 / 2003	3036	2891	2863	2859	2945	3064	3270	3349	3379	3284	3270
21 / 5 / 2003	2712	2612	2622	2551	2566	2727	3040	3164	3191	3179	3234
18 / 6 / 2003	2687	2585	2576	2553	2561	2687	2964	3007	3076	3106	3090
16 / 7 / 2003	2715	2628	2537	2461	2482	2554	2828	2946	3016	3044	3059
20 / 8 / 2003	2659	2516	2437	2463	2558	2600	2921	2990	3089	3081	3075
17 / 9 / 2003	2754	2593	2583	2595	2665	2910	3226	3171	3162	3183	3178
15/ 10 / 2003	3209	3096	3060	3034	3114	3406	3777	3652	3682	3611	3609
19/ 11 / 2003	3408	3293	3221	3219	3265	3508	3745	3775	3796	3783	3726
17/ 12 / 2003	3618	3527	3461	3481	3537	3782	4080	3946	3966	3997	3928

Romania

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	5840	5701	5746	5840	6078	6843	7200	7220	7066	7259	7006
19 / 2 / 2003	5725	5693	5764	5926	6191	6587	7118	7295	7131	7085	7135
19 / 3 / 2003	5655	5650	5583	5666	5961	6344	6650	6833	6717	6853	6793
16 / 4 / 2003	4863	4894	4859	4901	4886	5127	5797	5829	5984	5976	5859
21 / 5 / 2003	4814	4848	4805	4855	4857	5097	5770	5807	5962	5954	5836
18 / 6 / 2003	5098	5013	4898	5015	5107	5392	5770	6073	6120	5994	6027
16 / 7 / 2003	4977	4814	4742	4885	4763	4971	5651	5882	5949	5835	5802
20 / 8 / 2003	4444	4361	4336	4467	4555	4650	5350	5637	5669	5605	5697
17 / 9 / 2003	4658	4520	4539	4760	4888	5236	5573	5552	5610	5462	5512
15/ 10 / 2003	5099	4959	5006	5026	5355	5926	6315	6287	6184	6233	6253
19/ 11 / 2003	5399	5391	5306	5467	5685	6392	6350	6479	6592	6700	6702
17/ 12 / 2003	5706	5678	5692	5859	6081	6849	7181	7066	6995	6994	7000

Hourly load values on the 3rd Wednesday in MW

Poland

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
20421	20509	20167	20096	20217	21394	20998	21045	20666	19850	18772	17672	16833
20521	20856	20234	20070	19526	20020	21130	21313	20944	20289	19104	18118	17132
18478	18639	18220	18253	17673	17641	18412	20028	19703	18935	17982	17207	15848
17446	17528	17004	16967	16651	16390	16056	16327	17759	18510	16918	16095	14914
16664	16833	16248	16403	16018	15931	15518	15707	15566	16480	15650	15188	13831
16298	16228	15847	16175	16006	15650	15364	15299	15184	15409	15621	14981	13431
16356	16435	15879	15909	15635	15389	15065	14956	14876	15266	15840	15476	13862
16506	16469	15950	16213	15958	15657	15209	15113	15539	16796	15632	14803	13523
16805	16789	16329	16383	16124	16113	15838	16898	18387	17559	15832	15091	13960
18693	18772	18352	18306	17852	17775	18306	20165	19881	19025	17775	16803	15841
19828	19984	19737	19955	20746	21307	20870	20784	20364	19666	18390	17140	15967
20260	20499	20183	20401	21795	22139	21545	21521	21411	20545	19407	18109	16885

Slovak Republic

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
3944	3866	3814	3733	3779	3781	3945	3984	3836	3796	3800	3784	3667
4028	4022	3917	4049	3946	3878	4166	4145	4111	4024	3790	3862	3778
3609	3591	3515	3577	3490	3449	3640	3833	3764	3603	3459	3528	3357
3272	3307	3149	3209	3190	3123	3148	3174	3386	3456	3209	3141	3078
3278	3274	3106	3218	3126	3092	3052	3179	3209	3196	2949	2952	2855
3118	3136	3003	3024	3014	2959	2936	2945	3038	3072	2891	2834	2838
3121	3191	3059	3114	3072	3054	2983	2934	3023	3053	3018	2967	2841
3141	3104	3076	3127	2997	2975	2870	2930	3017	3104	2959	2897	2792
3225	3177	3098	3152	3035	3087	3016	3211	3380	3146	2952	2927	2870
3635	3594	3502	3582	3560	3573	3637	3832	3805	3671	3399	3414	3332
3745	3783	3690	3706	3834	3953	3903	3873	3789	3684	3549	3485	3479
3978	4004	3962	4002	4112	4194	4187	4153	4088	3959	3831	3792	3709

Romania

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
7067	6889	6558	6496	6683	7247	7223	7265	6834	6464	5860	5738	5738
7129	7079	6732	6843	6672	7026	7339	7294	6995	6560	6374	6165	5821
6763	6641	6323	6395	6434	6413	6989	7168	6707	6364	6075	5998	5796
5902	5751	5512	5506	5681	5400	5371	5345	5600	5772	5548	5267	4995
5876	5717	5482	5469	5632	5343	5325	5319	5574	5735	5503	5219	4965
6086	6228	5677	5820	5702	5531	5563	5612	5777	6126	5871	5505	5139
5990	5961	5675	5539	5599	5415	5492	5492	5627	6010	5480	5089	4912
5668	5603	5589	5413	5306	5300	5141	5101	5525	5423	5220	4900	4582
5500	5446	5180	5066	5013	5041	4963	5637	5885	5411	5054	4862	4681
6144	6224	5888	5900	5741	5949	6448	6860	6538	6107	5675	5407	5300
6684	6725	6450	6574	6586	7109	6949	6829	6608	6214	5797	5638	5554
6985	6952	6814	6758	6998	7542	7323	7207	6961	6576	6118	5999	5939

Hourly load values on the 3rd Wednesday in MW

Bulgaria

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	5855	5557	5325	5247	5195	5251	5508	5747	5824	5841	5789
19 / 2 / 2003	5854	5602	5321	5206	5156	5243	5594	5875	6051	6135	6058
19 / 3 / 2003	4983	4669	4608	4496	4425	4490	4844	4948	5135	5109	5024
16 / 4 / 2003	4207	3881	3740	3716	3700	3777	4049	4307	4290	4290	4170
21 / 5 / 2003	3296	3030	2876	2801	2831	2838	3170	3401	3404	3370	3354
18 / 6 / 2003	3335	3031	2893	2770	2778	2846	3095	3264	3357	3475	3492
16 / 7 / 2003	3512	3204	3019	2947	2869	2901	3140	3319	3446	3499	3522
20 / 8 / 2003	3434	3125	3006	2958	2859	2974	3153	3268	3396	3611	3613
17 / 9 / 2003	3511	3257	3106	3024	3036	3115	3447	3622	3709	3673	3620
15/ 10 / 2003	3627	3363	3248	3195	3103	3276	3687	3971	4116	4125	4041
19/ 11 / 2003	4469	4246	4046	3998	3990	4080	4420	4716	4737	4694	4572
17/ 12 / 2003	5098	4778	4678	4593	4601	4658	4886	5317	5437	5414	5327

UCTE

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	273556	267425	260165	256038	257343	270270	301438	332459	347063	350650	351877
19 / 2 / 2003	286053	280636	273901	269366	269511	281145	306860	334391	348871	354721	356987
19 / 3 / 2003	251167	242998	236641	233854	236703	247774	271933	296415	309267	312064	312866
16 / 4 / 2003	229950	220988	214294	210328	213612	226524	251060	277844	293236	298939	300766
21 / 5 / 2003	219479	210624	204133	201028	204121	213768	241760	270328	289984	296381	300665
18 / 6 / 2003	227835	219044	212538	208673	209819	218461	246324	275240	293778	302471	307318
16 / 7 / 2003	232672	222461	215162	211006	212111	219991	244379	272110	289995	300713	306667
20 / 8 / 2003	214861	205145	197772	194236	195819	204275	222943	243276	261163	270585	277350
17 / 9 / 2003	219627	210904	205058	202938	205936	220007	250171	274469	287672	294013	298178
15/ 10 / 2003	231775	223699	217609	215711	219613	234141	265820	294617	305052	309108	310515
19/ 11 / 2003	246038	237835	230590	227430	231538	245853	277276	308488	320430	324500	325452
17/ 12 / 2003	273289	263080	255135	250736	252452	266596	299173	330480	342761	344432	343511

West Ukraine³

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
15 / 1 / 2003	713	704	706	721	743	812	838	854	860	850	841
19 / 2 / 2003	697	689	675	685	722	791	821	840	839	825	791
19 / 3 / 2003	607	595	590	593	639	695	696	721	713	692	698
16 / 4 / 2003	508	491	522	509	520	561	576	575	603	578	593
21 / 5 / 2003	321	308	302	317	334	362	396	413	428	431	430
18 / 6 / 2003	373	397	386	385	384	397	463	476	483	475	487
16 / 7 / 2003	386	381	390	371	386	432	464	507	526	516	502
20 / 8 / 2003	384	414	395	384	411	431	468	485	510	484	496
17 / 9 / 2003	405	396	403	393	421	487	487	510	490	507	490
15/ 10 / 2003	504	495	523	511	532	620	634	652	653	637	599
19/ 11 / 2003	570	551	557	570	588	652	712	721	753	722	734
17/ 12 / 2003	625	578	588	587	629	707	764	752	764	758	718

³ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

Hourly load values on the 3rd Wednesday in MW

Bulgaria

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
5713	5666	5510	5421	5366	5355	5931	6182	6226	6016	5944	6177	5915
6078	5936	5823	5777	5792	5804	5989	6472	6595	6501	6340	6386	6182
5046	5038	4983	4943	4948	4894	5089	5440	5817	5683	5586	5587	5325
4091	4089	4090	4001	3986	3952	4000	4183	4335	4715	4718	4699	4489
3376	3418	3480	3430	3384	3360	3393	3508	3569	3636	3816	3851	3645
3457	3467	3553	3487	3451	3416	3468	3507	3526	3513	3706	3972	3749
3521	3604	3643	3602	3626	3583	3573	3584	3627	3576	3770	3927	3864
3678	3744	3785	3767	3778	3704	3786	3812	3812	3943	3908	3819	3615
3561	3518	3586	3586	3561	3573	3520	3645	4045	4375	4161	4010	3808
4034	4065	4099	4078	4151	4114	4244	4590	4944	4740	4432	4296	4079
4530	4396	4402	4349	4346	4475	4996	5285	5186	4996	4855	4918	4672
5368	5293	5274	5235	5241	5449	5876	5999	5985	5833	5720	5833	5581

UCTE

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
350487	344103	341501	336876	336335	342000	357204	360237	349814	333425	317494	309429	293679
355901	350551	346757	340871	337348	335075	344702	360698	354121	339207	324078	316249	301018
311732	305978	303047	298451	292874	287955	289687	309212	317946	305502	289479	281662	265662
299598	293793	290231	286945	282788	275868	270156	269633	274159	280234	273275	261411	242970
302006	297607	295177	290985	288418	283824	279631	278013	274096	271578	267343	260520	240869
310961	308039	305108	302913	299148	294236	289554	285628	278226	270929	266441	264729	246228
309440	305874	303653	301052	297428	293590	289518	284837	277421	272184	269852	267518	250418
282399	280750	276950	273219	269204	265130	262005	260006	257799	259547	257819	247373	229191
300269	296022	293867	290900	287266	284123	280154	281970	288429	288874	271244	256695	237414
309572	304049	301006	297128	293026	288552	288717	304449	311918	298563	279620	268688	251557
325168	319379	317323	314302	315870	325995	337586	339678	328839	312885	294838	284932	268774
341975	336475	335083	332009	334032	347036	357981	359627	349458	334071	317078	307538	291247

West Ukraine³

12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
839	829	826	830	876	941	941	943	930	908	816	757	707
793	796	800	798	803	864	913	918	885	873	775	712	691
704	700	716	715	689	728	809	816	804	747	682	610	597
559	562	577	561	588	579	570	591	697	731	630	547	503
441	415	430	417	409	447	443	464	491	493	432	364	348
477	489	483	470	427	422	437	434	445	505	486	414	377
503	501	509	508	488	467	489	468	486	538	546	452	439
498	502	513	479	465	464	483	489	540	596	514	451	400
482	481	476	478	446	451	496	588	642	575	507	426	418
607	609	628	608	599	640	710	775	750	687	605	559	537
727	730	711	738	760	791	813	786	767	717	657	578	569
711	717	727	765	798	829	831	851	783	761	699	623	598

TABLES AND GRAPHS

3

Tables and graphs

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Country	Thermal conventional		Thermal nuclear		Hydropower		Total TWh	Represent- tativity ¹ %
	TWh	%	TWh	%	TWh	%		
B	34,4	42,6	45,1	55,8	1,3	1,6	80,8 ²	99
D	348,6	66,5	155,4	29,6	20,4	3,9	524,4 ²	94
E	125,2	55,0	59,2	26,7	43,1	18,9	227,5 ²	94
F	44,4	8,5	420,0	80,0	60,4	11,5	524,7	97
GR	43,3	89,3	-	-	5,2	10,7	48,5 ²	93
I	236,5	84,4	-	-	43,7	15,6	280,2	100
SLO	4,6	37,5	5,0	40,6	2,7	20,0	12,3	95
HR	7,0	58,7	-	-	4,9	41,3	11,9 ²	100
BH	6,7	59,6	-	-	4,5	40,4	11,2	99
FYROM	4,9	78,9	-	-	1,3	21,1	6,2 ²	100
SCG	25,8	70,7	-	-	10,7	29,3	36,5	96
L	2,6	72,9	-	-	1,0	27,1	3,5	98
NL	88,4	95,9	3,8	4,1	-	-	92,6 ²	100
A	17,8	36,7	-	-	30,7	63,3	48,5	84
P	24,6	60,3	-	-	16,2	39,7	40,8 ²	92
CH	2,9	4,4	25,9	39,7	36,4	55,9	65,3 ²	100
CZ	50,5	65,9	24,4	31,8	1,8	2,3	76,7 ²	100
H	20,9	66,6	10,4	32,9	0,2	0,5	31,5 ²	100
PL ³	147,6	97,9	-	-	3,1	2,1	150,8 ²	100
SK	8,9	30,8	16,5	57,0	3,5	12,2	28,9 ²	100
RO	34,0	65,9	4,6	8,9	13,0	25,2	51,5 ²	100
BG	22,2	52,0	17,3	40,4	3,3	7,6	42,8 ²	100
UCTE	1302,2	54,3	787,4	32,9	307,3	12,8	2396,9²	
West UA ⁴	7,3	98,7	-	-	0,1	1,3	7,4 ²	100

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 Including deliveries from industry³ Gross values⁴ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

Year	Thermal conventional	Thermal nuclear	Hydro power	Total
	TWh	TWh	TWh	TWh
1975	585,4	50,0	222,9	858,3
1976	669,1	69,5	191,2	929,8
1977	610,4	82,2	276,2	968,8
1978	659,9	97,4	266,1	1023,4
1979	691,3	110,6	275,4	1077,3
1980	712,1	133,9	263,4	1109,4
1981	678,4	191,0	256,4	1125,8
1982	665,5	211,2	258,0	1134,7
1983	653,3	258,8	255,9	1168,0
1984	617,3	348,5	257,0	1222,8
1985	597,3	426,3	255,2	1278,8
1986	593,6	464,4	253,3	1311,3
1987	607,7	483,0	264,9	1355,6
1988	597,0	514,6	282,9	1394,5
1989	668,2	551,6	216,2	1436,0
1990	690,6	558,5	222,8	1472,0
1991	701,7	579,6	246,2	1527,5
1992	689,5	591,2	240,2	1520,9
1993	656,8	613,2	244,3	1514,3
1994	729,2	601,7	272,5	1603,3
1995 ¹	837,6	623,2	257,1	1717,9
1996	693,4	652,9	274,0	1620,3
1997	784,2	660,4	264,0	1708,7
1998 ²	1057,7	689,5	284,4	2031,5
1999	1053,0	705,5	302,0	2060,5
2000	1093,4	733,8	305,1	2132,3
2001	1129,8	744,4	331,6	2205,8
2002	1187,3	757,8	276,1	2221,2
2003 ³	1302,2	787,4	307,3	2396,9

¹ As of September 1995 total German values

² Included values of former CENTREL countries CZ, H, PL, SK as of 1998

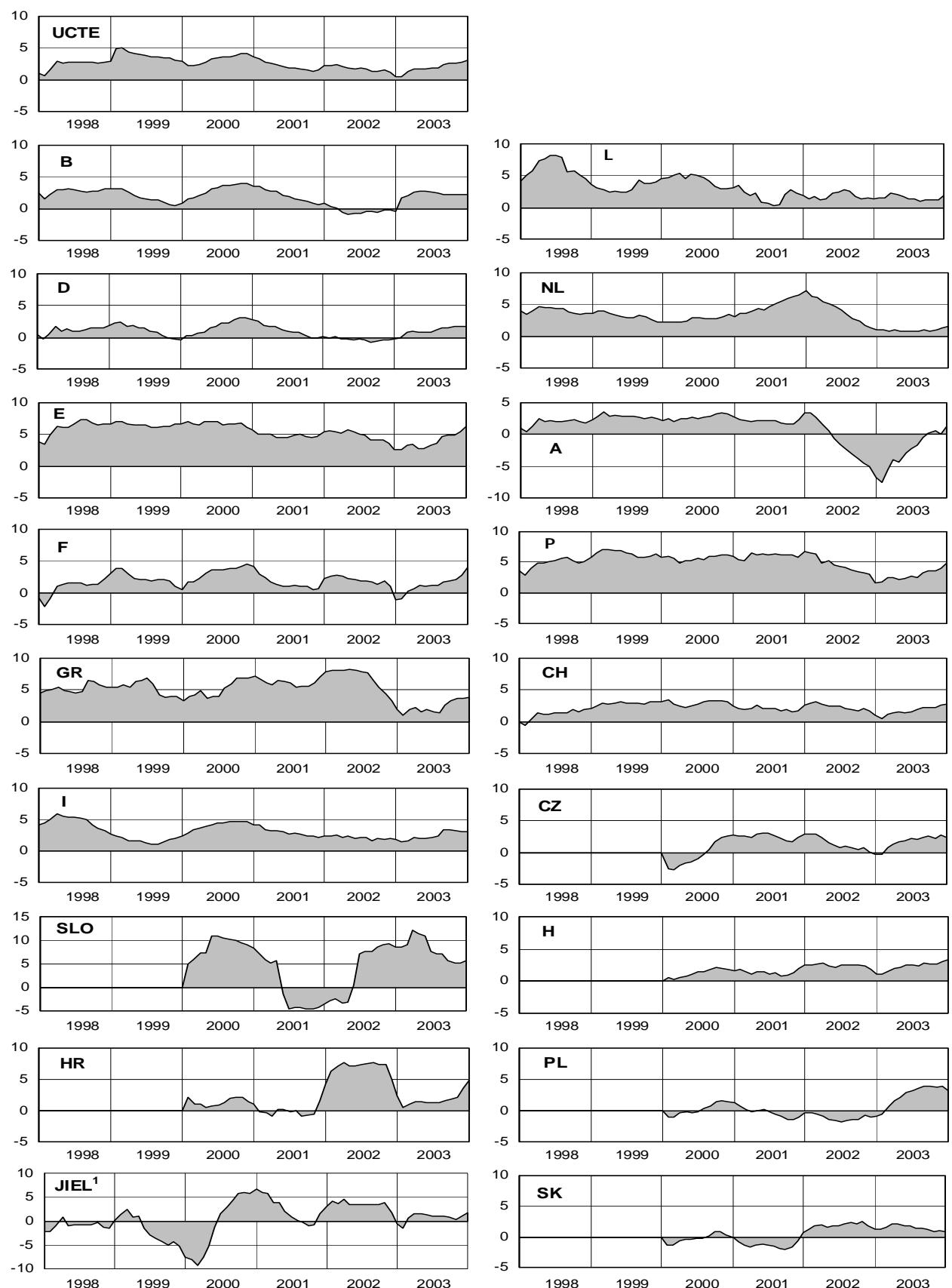
³ Included values of RO, BG

Country	National electricity consumption		Percentage as referred total values ²	Peak load on the 3 rd Wednesday	Date	Time
	TWh	Δ % ¹				
B	85,7	2,3	99	12824	15 January	07:00 p.m.
D	508,5	2,0	94	73500	17 December	06:00 p.m.
E	224,1	6,1	94	37163	15 January	08:00 p.m.
F	450,8	4,3	97	76656	19 February	10:00 a.m.
GR	49,8	3,8	93	8414	16 July	12:00 p.m.
I	320,7	3,3	100	51820	16 July	11:00 a.m.
SLO	12,4	5,7	95	1920	17 December	06:00 p.m.
HR	15,4	4,8	100	2618	19 February	08:00 p.m.
BiH	12,5	n.a.	99	1745	19 February	07:00 p.m.
FYROM	6,3	n.a.	100	1284	17 December	06:00 p.m.
SCG	39,6	n.a.	96	6979	19 February	08:00 p.m.
L	6,1	1,8	99	918	15 January	06:00 p.m.
NL	109,5	0,8	100	13941	17 December	06:00 p.m.
A	51,3	1,2	90	8546	17 December	06:00 p.m.
P	43,1	4,8	92	8046	15 January	09:00 p.m.
CH	59,3	2,0	100	9494	19 February	10:00 a.m.
CZ	59,9	2,3	100	9748	15 January	05:00 p.m.
H	38,4	3,3	100	5887	19 November	05:00 p.m.
PL ³	138,3	3,3	100	22139	17 December	05:00 p.m.
SK	26,4	0,9	100	4194	17 December	05:00 p.m.
RO	49,4	n.a.	100	7542	17 December	05:00 p.m.
BG	36,7	n.a.	100	6595	19 February	08:00 p.m.
UCTE	2343,9	5,7 ⁴		360698	19 February	07:00 p.m.
West UA ⁵	4,1	n.a.	100	943	15 January	07:00 p.m.

¹ As compared to the last year² 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.)

³ Gross values⁴ As compared to the values without RO and BG⁵ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

G1**Variation of the last 12 months' consumption in %**

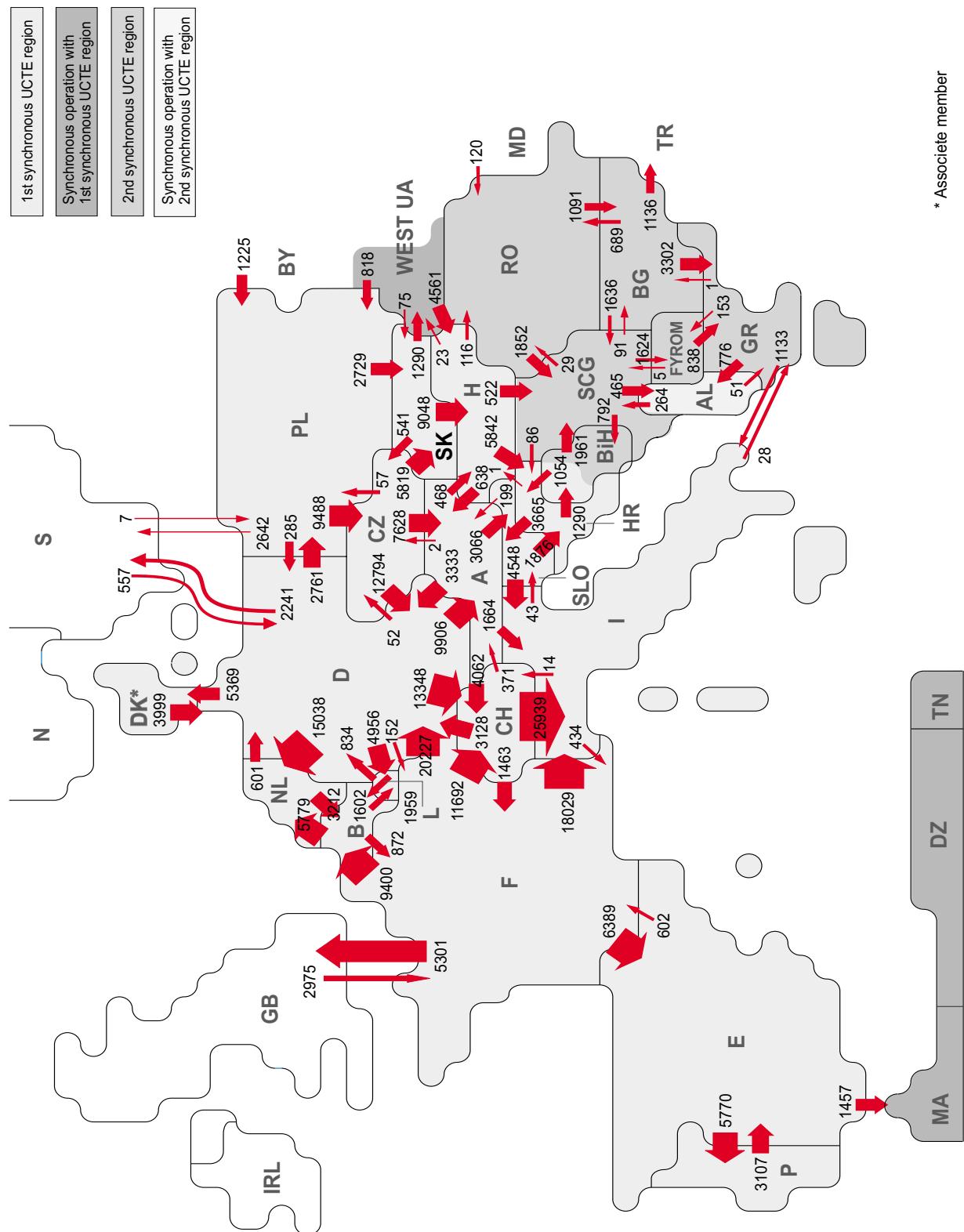
¹ JIEL = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

T4

Development of power produced in parallel operation on the 3rd Wednesday on 11:00 a.m.¹

Month	GW										
01/1980	190,5	01/1984	192,0	01/1988	211,4	01/1992	245,9	01/1996	305,8	01/2000	321,0
02/1980	174,3	02/1984	197,1	02/1988	209,3	02/1992	242,8	02/1995	302,0	02/2000	312,9
03/1980	172,1	03/1984	182,5	03/1988	208,0	03/1992	219,6	03/1995	284,4	03/2000	297,4
04/1980	162,8	04/1984	174,4	04/1988	194,3	04/1992	223,0	04/1995	266,9	04/2000	293,4
05/1980	159,6	05/1984	174,4	05/1988	192,6	05/1992	208,4	05/1995	264,3	05/2000	285,5
06/1980	156,7	06/1984	169,3	06/1988	193,3	06/1992	201,7	06/1995	263,3	06/2000	296,2
07/1980	153,6	07/1984	164,0	07/1988	188,4	07/1992	205,5	07/1995	259,0	07/2000	285,4
08/1980	139,0	08/1984	152,5	08/1988	171,3	08/1992	187,4	08/1995	241,9	08/2000	259,1
09/1980	160,8	09/1984	175,7	09/1988	197,9	09/1992	209,3	09/1995	267,5	09/2000	290,1
10/1980	167,2	10/1984	175,2	10/1988	197,5	10/1992	226,1	10/1995	276,0	10/2000	298,7
11/1980	173,7	11/1984	187,8	11/1988	215,8	11/1992	229,5	11/1995	296,7	11/2000	316,4
12/1980	183,7	12/1984	196,6	12/1988	227,7	12/1992	235,7	12/1995	304,0	12/2000	324,3
01/1981	182,9	01/1985	224,6	01/1989	232,9	01/1993	233,0	01/1997	306,2	01/2001	332,6
02/1981	184,0	02/1985	207,5	02/1989	228,7	02/1993	242,9	02/1997	291,8	02/2001	317,2
03/1981	175,8	03/1985	196,6	03/1989	218,4	03/1993	223,6	03/1997	279,2	03/2001	310,8
04/1981	159,0	04/1985	182,1	04/1989	215,7	04/1993	210,4	04/1997	279,8	04/2001	308,5
05/1981	159,2	05/1985	175,4	05/1989	203,3	05/1993	205,3	05/1997	266,4	05/2001	290,0
06/1981	161,0	06/1985	177,2	06/1989	205,8	06/1993	199,8	06/1997	267,0	06/2001	296,3
07/1981	155,2	07/1985	172,3	07/1989	197,0	07/1993	203,0	07/1997	263,1	07/2001	291,5
08/1981	138,3	08/1985	157,9	08/1989	179,2	08/1993	190,7	08/1997	243,6	08/2001	242,8
09/1981	164,8	09/1985	180,2	09/1989	203,3	09/1993	213,2	09/1997	266,3	09/2001	296,6
10/1981	170,6	10/1985	184,2	10/1989	207,4	10/1993	224,1	10/1997	283,6	10/2001	300,3
11/1981	181,1	11/1985	209,8	11/1989	225,3	11/1993	228,4	11/1997	293,9	11/2001	329,5
12/1981	191,3	12/1985	205,2	12/1989	223,3	12/1993	245,6	12/1997	316,0	12/2001	343,4
01/1982	187,3	01/1986	206,1	01/1990	233,5	01/1994	254,4	01/1998	313,9	01/2002	336,2
02/1982	190,4	02/1986	215,1	02/1990	214,3	02/1994	243,5	02/1998	294,4	02/2002	323,8
03/1982	181,7	03/1986	192,7	03/1990	209,7	03/1994	223,9	03/1998	294,1	03/2002	305,0
04/1982	170,9	04/1986	192,8	04/1990	219,6	04/1994	227,3	04/1998	292,0	04/2002	306,1
05/1982	162,4	05/1986	182,6	05/1990	204,4	05/1994	215,2	05/1998	265,4	05/2002	290,7
06/1982	164,6	06/1986	182,3	06/1990	207,5	06/1994	213,6	06/1998	271,0	06/2002	305,0
07/1982	151,6	07/1986	176,7	07/1990	204,8	07/1994	212,8	07/1998	267,8	07/2002	292,7
08/1982	138,5	08/1986	161,7	08/1990	164,0	08/1994	193,8	08/1998	252,0	08/2002	268,0
09/1982	164,3	09/1986	190,8	09/1990	209,8	09/1994	221,1	09/1998	280,0	09/2002	294,5
10/1982	168,5	10/1986	185,3	10/1990	210,8	10/1994	223,8	10/1998	289,3	10/2002	303,8
11/1982	178,8	11/1986	199,2	11/1990	226,6	11/1994	227,9	11/1998	308,9	11/2002	327,3
12/1982	190,8	12/1986	207,6	12/1990	249,4	12/1994	243,9	12/1998	311,5	12/2002	344,4
01/1983	187,7	01/1987	231,7	01/1991	244,3	01/1995	254,6	01/1999	307,3	01/2003	361,7
02/1983	197,6	02/1987	215,6	02/1991	242,5	02/1995	235,4	02/1999	313,8	02/2003	369,2
03/1983	180,8	03/1987	208,1	03/1991	214,9	03/1995	237,6	03/1999	291,4	03/2003	328,1
04/1983	172,1	04/1987	195,9	04/1991	216,6	04/1995	227,1	04/1999	285,7	04/2003	314,0
05/1983	167,4	05/1987	193,1	05/1991	214,0	05/1995	223,6	05/1999	273,0	05/2003	313,9
06/1983	165,2	06/1987	189,8	06/1991	211,5	06/1995	220,3	06/1999	280,1	06/2003	319,1
07/1983	158,3	07/1987	188,2	07/1991	208,4	07/1995	220,2	07/1999	277,2	07/2003	318,3
08/1983	141,0	08/1987	167,0	08/1991	189,7	08/1995	189,6	08/1999	255,1	08/2003	288,7
09/1983	168,3	09/1987	193,4	09/1991	208,9	09/1995	232,7	09/1999	278,0	09/2003	309,5
10/1983	170,5	10/1987	196,5	10/1991	214,5	10/1995	265,4	10/1999	296,2	10/2003	320,4
11/1983	184,3	11/1987	204,7	11/1991	237,5	11/1995	285,4	11/1999	308,5	11/2003	338,1
12/1983	188,7	12/1987	216,1	12/1991	245,3	12/1995	300,4	12/1999	319,1	12/2003	356,9

¹ Including Denmark from 01/1990, German total values from 09/1995 on, the former CENTREL countries CZ, H, PL, SK from 10/1995 and RO, BG from 01/2003 on.



Year	Sum of electricity exchanges within the UCTE		Sum of electricity exchanges with CENTREL		Volume of exchanges with third countries ¹		Total exchanges		Part of total exchanges in the consumption of the UCTE
	TWh	%	TWh	%	TWh	%	TWh	%	
1975	48,4	5,7			3,2	0,4	51,6	6,0	
1976	48,6	5,3			2,9	0,3	51,5	5,6	
1977	56,4	5,9			2,6	0,3	59,0	6,1	
1978	62,9	6,2			3,3	0,3	66,2	6,5	
1979	66,4	6,2			4,3	0,4	70,8	6,6	
1980	70,5	6,4			5,9	0,5	76,4	6,9	
1981	72,2	6,5			6,0	0,5	78,3	7,0	
1982	67,9	6,0			6,2	0,6	74,2	6,6	
1983	77,5	6,7			8,3	0,7	85,7	7,4	
1984	87,0	7,2			7,1	0,6	94,1	7,8	
1985	90,5	7,2			7,4	0,6	97,9	7,8	
1986	85,0	6,6			14,7	1,1	99,7	7,7	
1987	90,7	6,8			18,9	1,4	109,5	8,2	
1988	102,6	7,5			20,9	1,5	123,5	9,0	
1989	103,8	7,5			21,9	1,4	125,7	8,9	
1990	115,8	8,0			23,9	1,7	139,7	9,7	
1991	117,7	7,8			26,9	1,9	144,6	9,7	
1992	117,6	7,8			27,8	1,9	145,4	9,7	
1993	124,4	8,3			26,2	1,7	150,6	10,0	
1994	129,5	8,1			26,2	1,6	155,7	10,1	
1995 ²	137,4	8,4	11,9	0,7	23,1	1,5	172,3	10,8	
1996	145,0	8,7	14,1	0,8	26,8	1,6	185,9	11,1	
1997	144,7	8,5	13,9	0,8	27,1	1,7	185,7	11,0	
1998	148,9	8,4	14,0	0,8	25,4	1,5	204,5	10,7	
1999	161,6	8,0	16,5	0,8	29,7	1,7	225,4	11,5	
2000	177,5	8,5	22,1	1,1	29,6	1,6	229,2	12,4	
2001 ³	235,5	9,8			33,7	1,8	269,2	12,4	
2002	250,9	11,5			36,9	1,7	287,8	13,2	
2003 ⁴	263,7	11,3			35,4	1,5	299,1	12,8	

¹ import + export² As of September 1995 total German values³ From year 2001 sum of exchanges include CENTREL countries CZ, H, PL SK ⁴ From year 2003 sum of exchanges include RO and BG

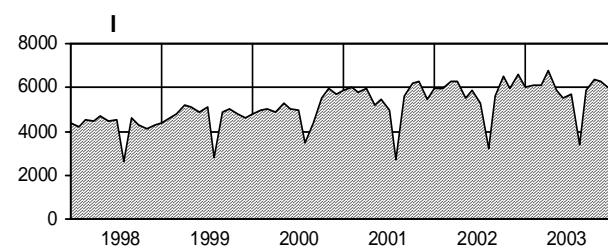
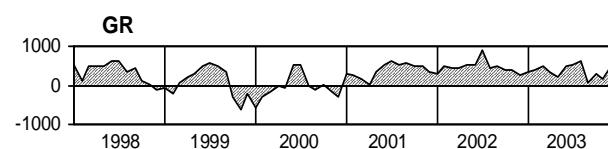
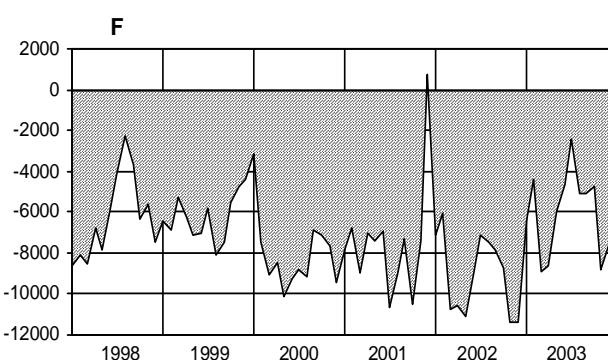
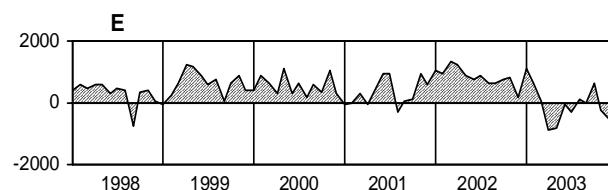
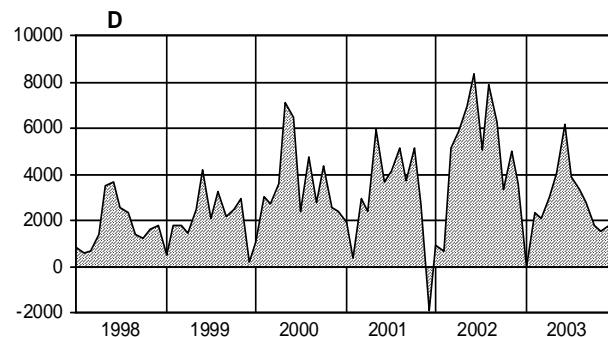
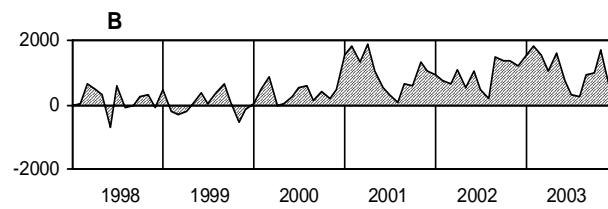
Control area	Export Programs	Import Programs	Export Programs at 03:00	Import Programs at 03:00	Export Programs at 11:00	Import Programs at 11:00
B	5676225	11693966	6307	12137	6208	16751
D	33506977	33357742	45159	36936	42311	59193
E	6125265	6897400	7726	11844	9857	9508
F	88956502	24270942	112242	26757	119819	48063
GR	1320589	3482981	1662	4252	1175	5618
I	519719	51305088	0	67726	123	70302
SLO	5575468	5969070	7642	8244	7802	8693
HR	2097362	5899886	3758	6704	2963	6491
BiH	1163000	1487000	2880	1814	3242	1680
FYROM ¹	70758	619565	421	811	182	1222
SCG	4133271	7306193	5018	7855	5456	10847
NL	4684721	20426902	9937	22011	5732	35322
A	10657165	5065586	11929	9241	11242	10534
P	1632755	4432514	1676	5652	6818	7938
CH	28418349	26707966	31008	45837	46359	26537
CZ	23184400	6574420	31840	6958	32209	12622
H	4500391	11436526	6921	14369	6328	17463
PL	12229689	1776397	12162	2385	24432	1940
SK	7306124	4437040	8895	5038	11212	8015
RO	3007024	681920	2956	583	5490	698
BG	5510	70	7057	78	8293	41
West UA ²	3272812	0	4253	0	5072	0

¹ Values only as of January, May, August, October, November and December 2003

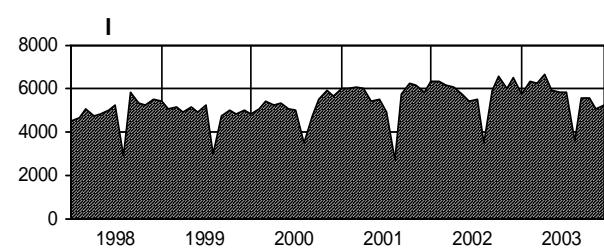
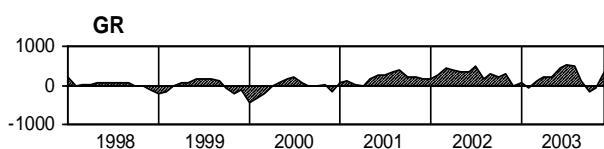
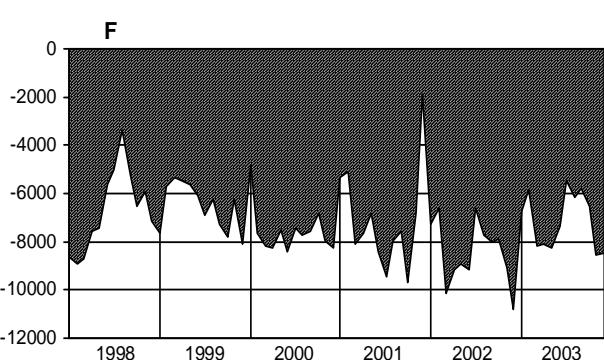
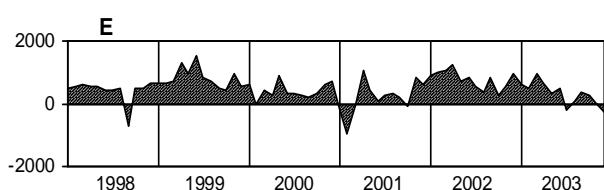
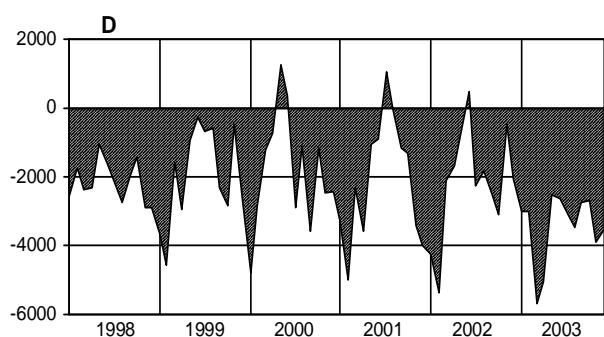
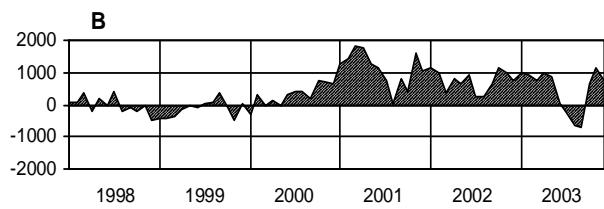
² West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

- Control areas can differ from national borders (i.e. German block which includes parts of A, L and DK).
- Values are calculated on an hourly base (MWh).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the actual date.
- Export Programs: Sum of all positive values of every hour of every border
- Import Programs: Sum of all negative values of every hour of every border
- Export Programs at 03:00: Sum of all positive values the third Wednesday from 02:00 to 03:00 a.m.
- Import Programs at 03:00: Sum of all negative values the third Wednesday from 02:00 to 03:00 a.m.
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.
- Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m

11:00

Day load in MW¹

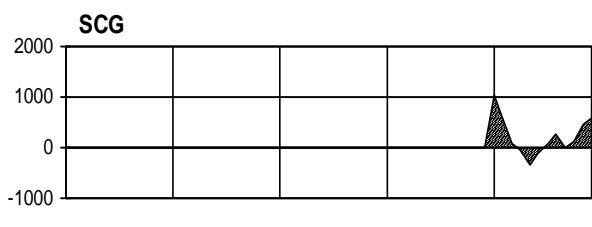
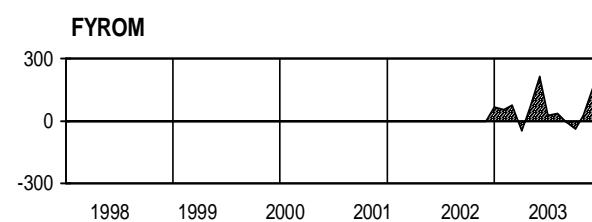
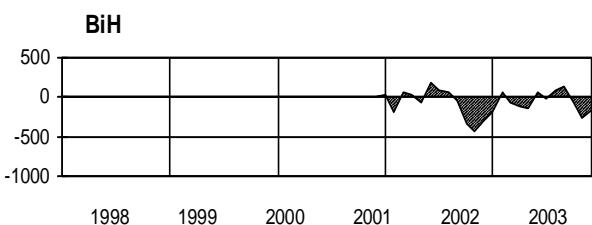
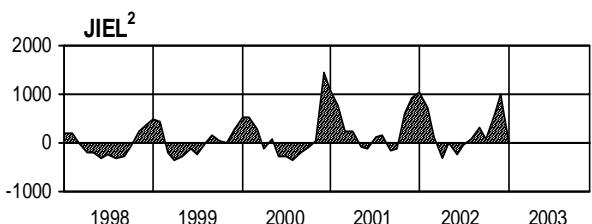
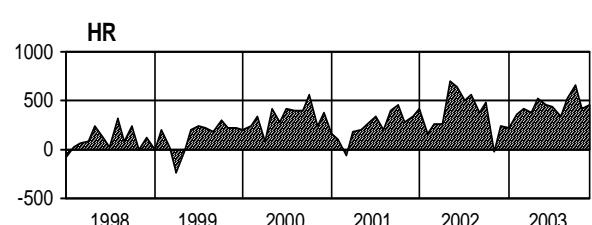
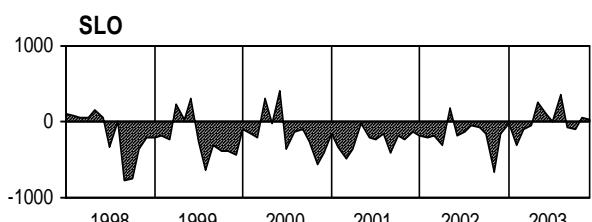
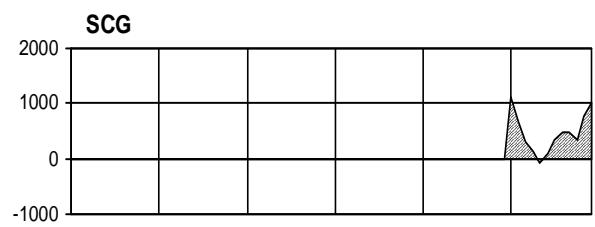
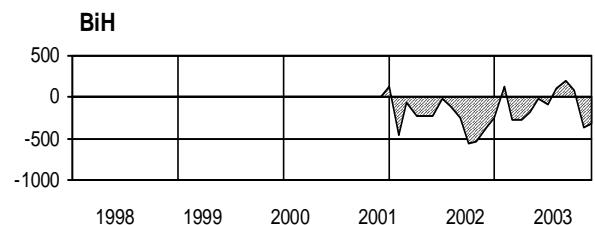
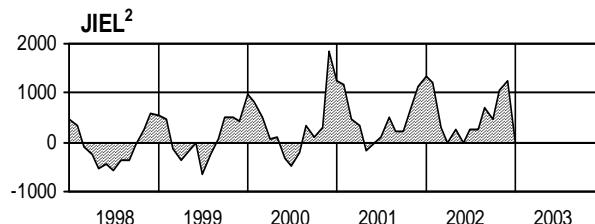
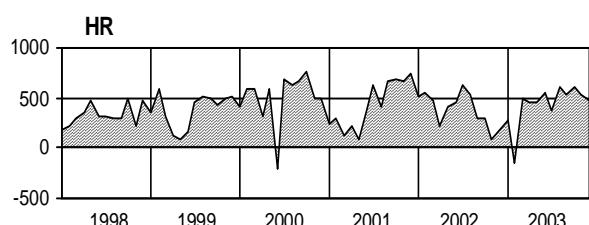
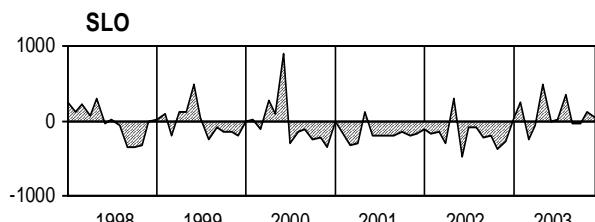
03:00

Night load in MW¹¹ On the third Wednesday of each month

11:00

Day load in MW¹

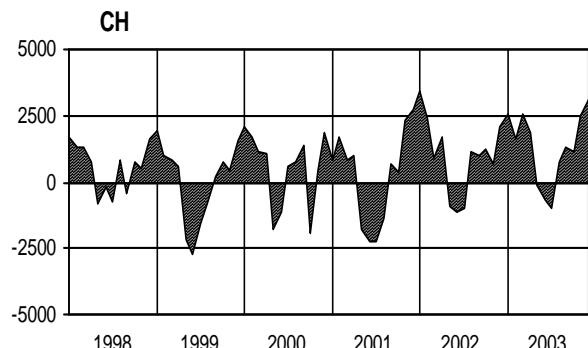
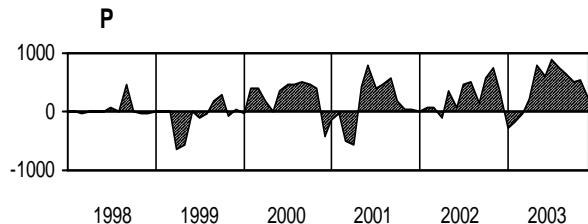
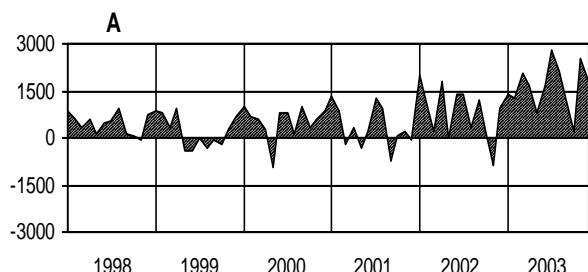
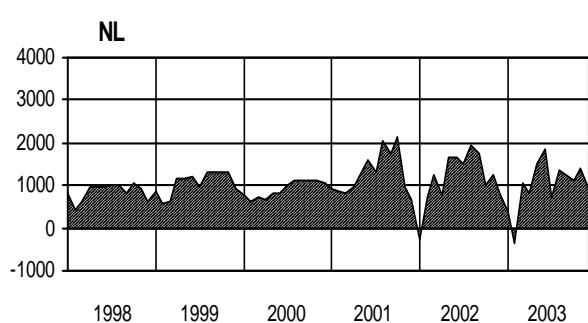
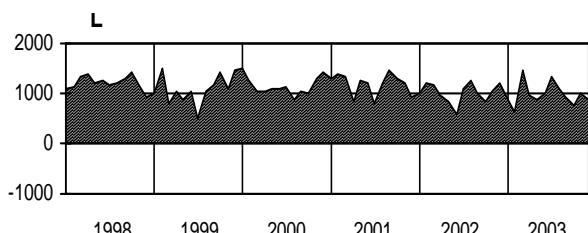
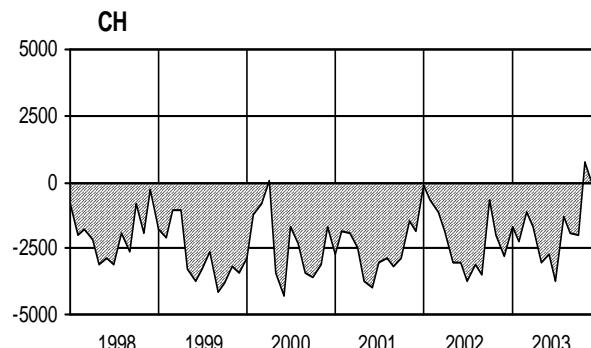
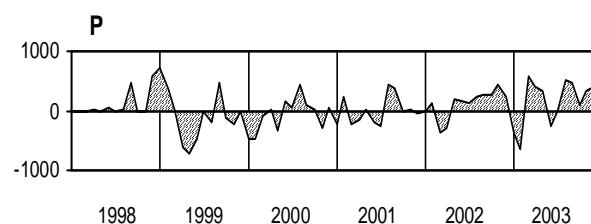
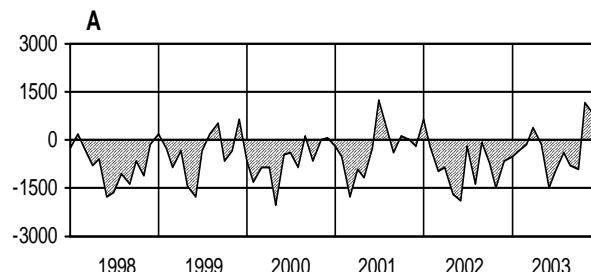
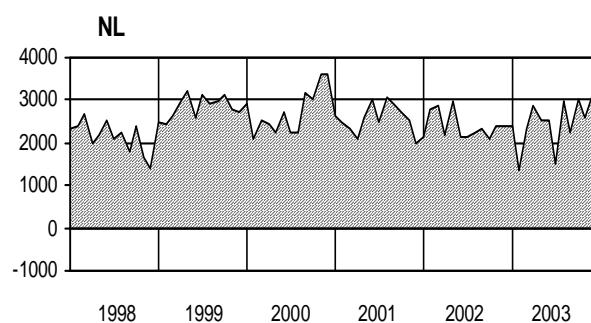
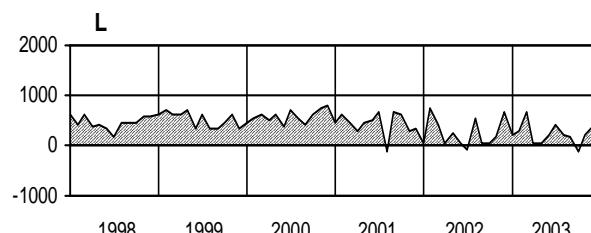
03:00

Night load in MW¹¹ On the third Wednesday of each month² JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

11:00

Day load in MW¹

03:00

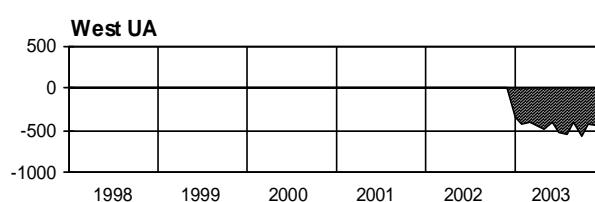
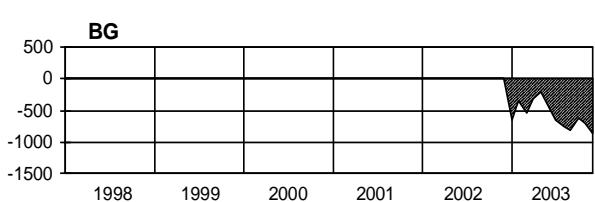
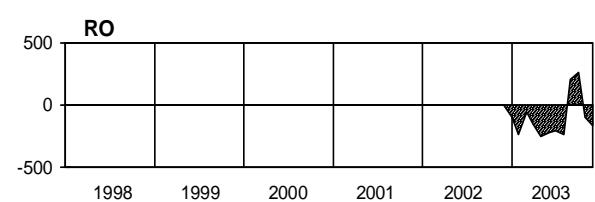
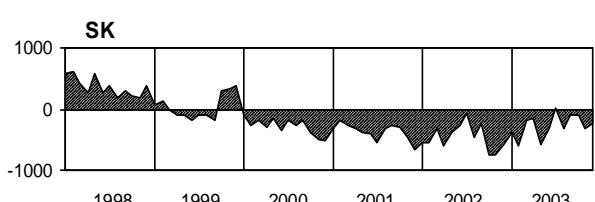
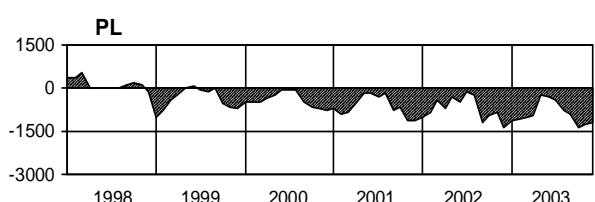
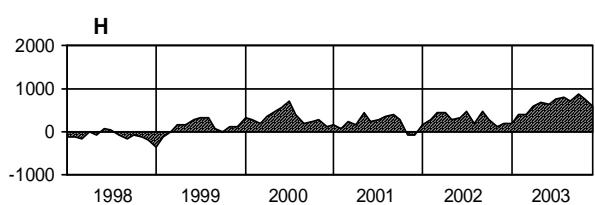
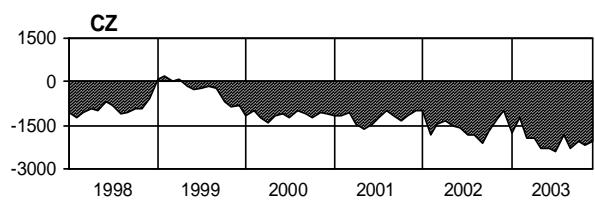
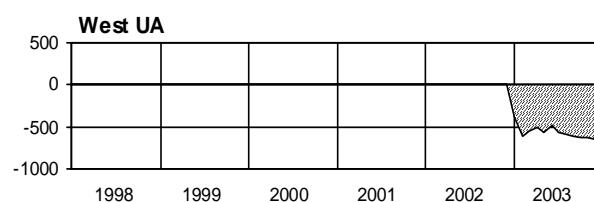
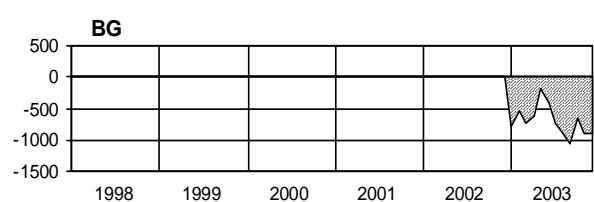
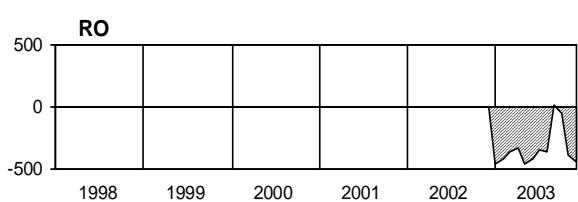
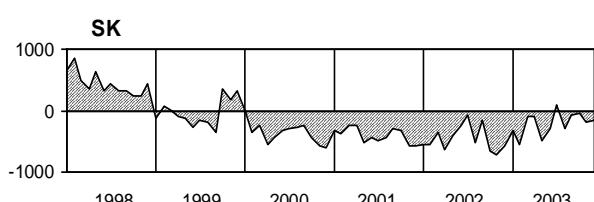
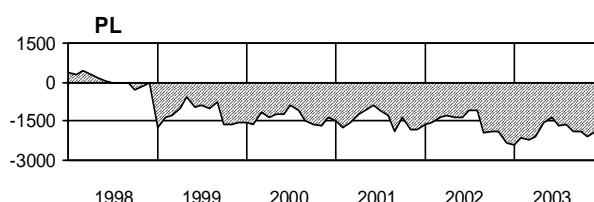
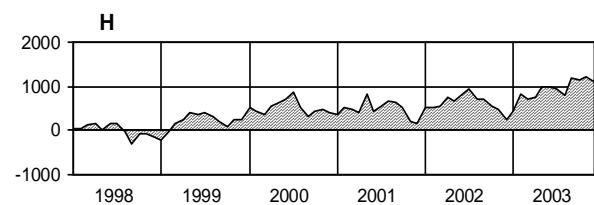
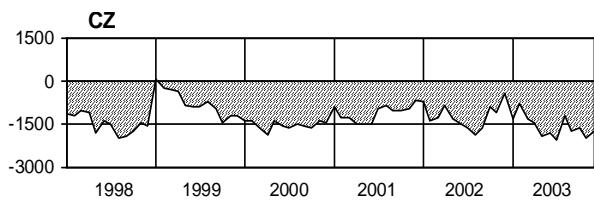
Night load in MW¹

¹ On the third Wednesday of each month

11:00

Day load in MW¹

03:00

Night load in MW¹

¹ On the third Wednesday of each month

**Development of the balance of the simultaneous
power flows across the frontiers of the UCTE countries¹**

MW

Date	Night	Day	Date	Night	Day
I.1998	14498	12665	I.2001	19241	15530
II.1998	14077	12457	II.2001	20576	16165
III.1998	15127	14003	III.2001	19726	17651
IV.1998	15060	11820	IV.2001	19632	15559
V.1998	12988	14568	V.2001	15655	17735
VI.1998	13487	14015	VI.2001 ²	21017	24715
VII.1998	13226	12632	VII.2001	19222	25324
VIII.1998	10930	10229	VIII.2001	17476	22151
IX.1998	13813	11983	IX.2001	24340	23573
X.1998	13956	11240	X.2001	24983	25279
XI.1998	14013	11074	XI.2001	28571	24405
XII.1998	15789	11750	XII.2001	27423	21122
I.1999	17246	12177	I.2002	28647	23600
II.1999	16764	12562	II.2002	28364	24882
III.1999	14455	12929	III.2002	23176	25924
IV.1999	16866	15351	IV.2002	25500	24720
V.1999	12400	15475	V.2002	22660	26484
VI.1999	12526	15400	VI.2002	21746	24905
VII.1999	12755	15345	VII.2002	23635	24549
VIII.1999	9854	13951	VIII.2002	21967	23121
IX.1999	14241	16205	IX.2002	26098	22894
X.1999	14959	14752	X.2002	24076	24634
XI.1999	13756	13180	XI.2002	22212	25754
XII.1999	15628	10459	XII.2002	27435	25747
I.2000	17024	11724	I.2003 ³	28921	24641
II.2000	17664	14630	II.2003	24316	22212
III.2000	17267	15400	III.2003	29221	26150
IV.2000	16786	15903	IV.2003	28527	26909
V.2000	12996	18659	V.2003	25320	24900
VI.2000	14341	18620	VI.2003	25915	25054
VII.2000	16139	15145	VII.2003	24493	20980
VIII.2000	13993	16018	VIII.2003	24256	22918
IX.2000	15786	14995	IX.2003	26076	24320
X.2000	13951	16251	X.2003	23730	23139
XI.2000	17709	16831	XI.2003	29334	29503
XII.2000	18891	17040	XII.2003	28642	28666

¹ Day load at 11.00 a.m. and night load at 3.00 a.m. on the third Wednesday of each month. The power flows crossing common borders with neighbouring third countries are excluded.

² As of June 2001 the power flows include CENTREL countries CZ, H, PL and SK,

³ From year 2003 the power flows include RO and BG

Country	Thermal conventional		Thermal nuclear		Hydropower		Other sources		Total	Representativity ¹	
	MW	D% ²	MW	D% ²	MW	D% ²	MW	D% ²	MW	D% ²	%
B	8206	-0,2	5801	0,7	1413	0,0	248	11,2	15658	0,3	99
D	67000	-1,8	20100	-2,9	8500	0,0	4500	12,5	100100	-1,3	90
E	27615	1,6	7694	1,6	18209	3,1	5284	7,3	58802	2,8	100
F	23172	-1,2	63363	0,1	24020	-0,4	297	13,4	110852	-0,4	97
GR	7065	4,3	-	-	3059	-0,1	354	101,2	10478	3,5	89
I	56047	2,6	-	-	20660	0,7	1543	6,6	78250	2,2	100
SLO	1262	17,5	670	-2,2	840	8,5	-	-	2772	9,4	100
HR	1670	2,4	-	-	2071	-0,2	-	-	3741	0,9	100
BiH	1957	0,0	-	-	2034	0,0	-	-	3991	0,0	99
FYROM	907	n.a.	-	-	418	n.a.	-	-	1325	n.a.	100
SCG	6400	n.a.	-	-	3497	n.a.	-	-	9897	n.a.	96
L	474	1,7	-	-	1128	0,0	43	115,0	1645	5,1	96
NL	18045	0,5	449	0,0	37	0,0	2028	6,7	20559	1,1	100
A	5900	0,0	-	-	11700	0,0	670	157,7	18270	2,3	100
P	5723	5,6	-	-	4554	2,7	387	28,0	10664	4,2	92
CH	305	0,0	3220	0,0	13295	0,0	515	0,0	17335	0,0	100
CZ	10526	0,2	3537	36,7	2128	0,2	11	83,3	16202	6,5	100
H	5657	0,2	1755	-1,0	48	0,0	538	-2,7	7998	1,9	100
PL	29451	1,0	-	-	2192	2,7	73	23,7	31716	1,1	100
SK	2290	-0,3	2640	0,0	2429	-0,1	700	0,6	8059	-0,1	100
RO	9775	-8,5	655	0,0	5970	0,6	-	-	16400	-5,1	100
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UCTE ³	289447	0,2	109884	0,4	128202	0,8	17191	9,2	544724	0,7	
West UA ⁴	2347	n.a.	-	-	27	n.a.	-	2374	n.a.	100	

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 As compared to the last year

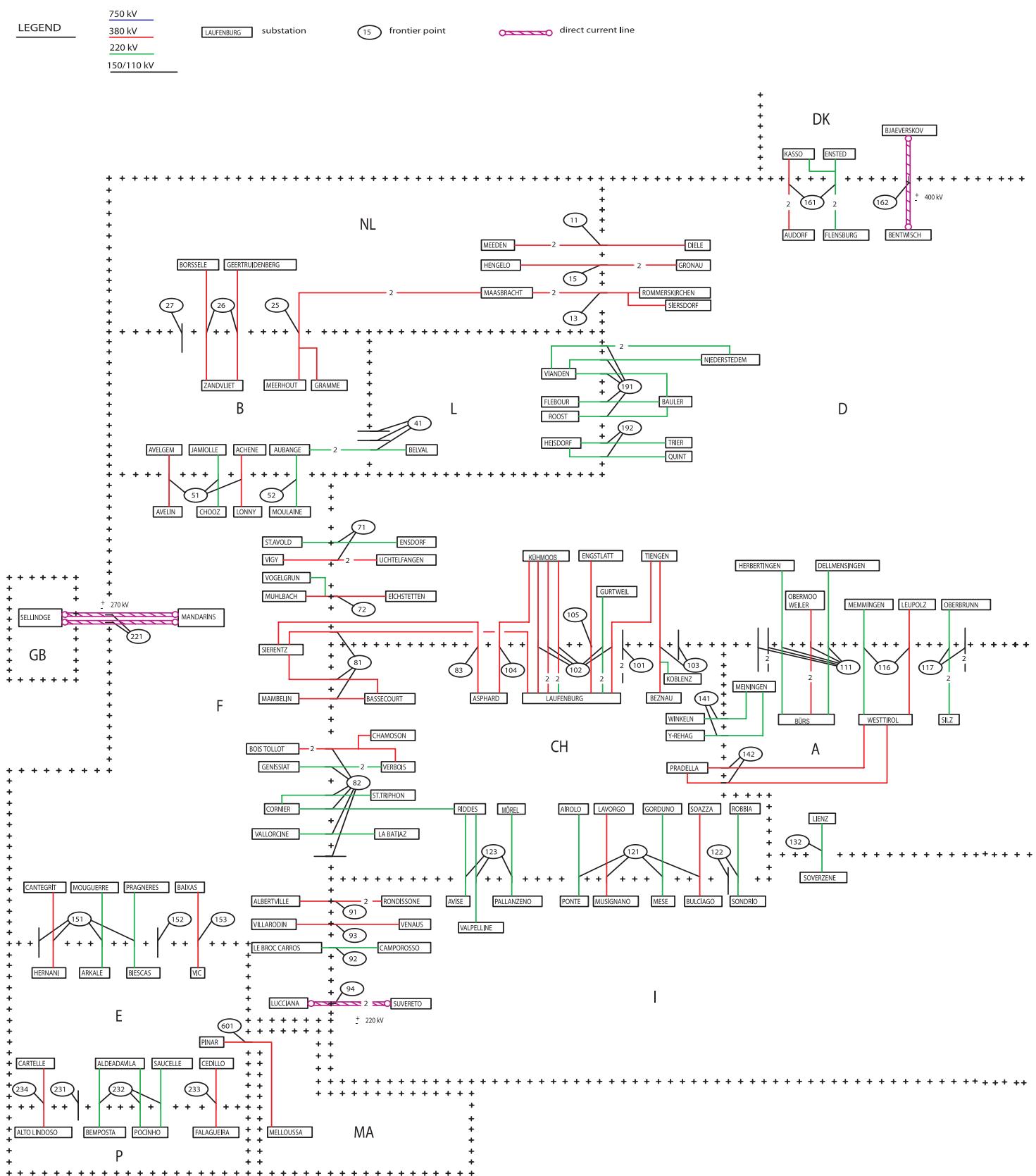
³ Without Bulgarian values

⁴ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

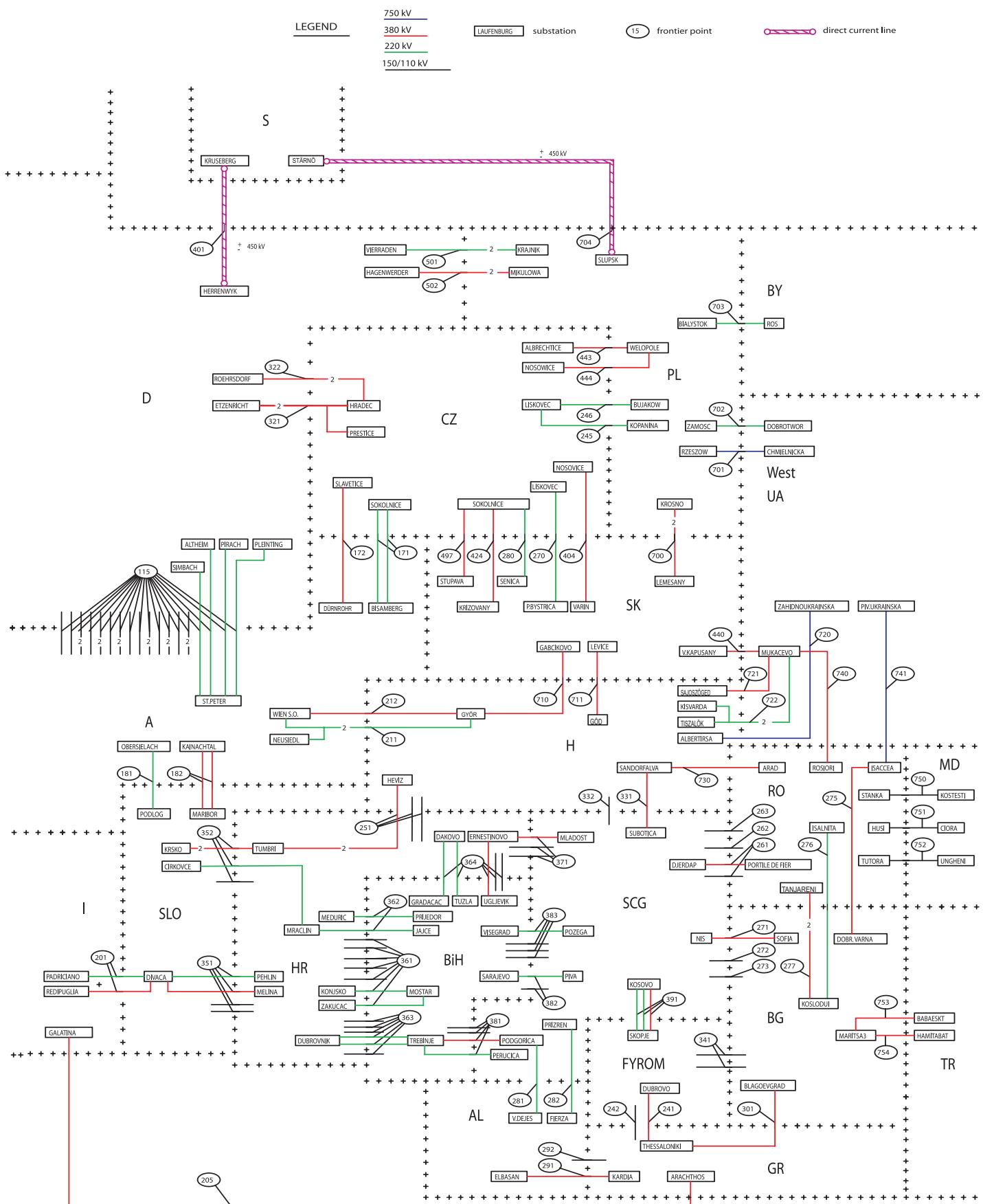
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
National generating capacity												
1. Hydro power stations	129.4	129.4	129.4	129.5	129.5	129.8	129.8	129.8	129.8	129.8	129.8	129.9
2. Nuclear power stations	112.8	112.8	112.8	112.8	113.7	113.7	113.7	113.7	113.7	113.7	113.1	113.1
3. Conventional thermal power stations	294.8	295.2	295.8	295.9	296.8	297.1	297.2	298.0	297.8	298.1	298.4	298.4
4. Renewable energy sources	21.8	22.1	22.4	22.7	22.9	23.3	23.6	23.9	24.2	24.6	25.0	25.7
5. Not clearly identifiable energy sources	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
6. National generating capacity (6 = 1+2+3+4+5)	560.6	561.4	562.6	563.9	565.1	566.1	566.5	567.5	567.7	567.9	569.1	
7. Non-useable capacity	84.8	87.6	98.6	103.5	102.0	106.9	111.4	111.9	108.1	97.5	95.3	92.5
8. Overhauls (thermal power stations)	15.7	20.1	29.6	38.1	48.8	47.6	46.1	44.8	47.6	37.9	23.8	11.8
9. Outages (thermal power stations)	14.3	14.1	19.3	20.7	24.1	21.5	22.2	30.2	18.5	20.0	18.6	18.8
10. System services reserve	32.0	29.0	30.1	29.6	27.6	27.9	26.3	27.5	27.0	29.8	31.5	32.4
11.Guaranteed capacity (11 = 6-(7+8+9+10))	413.8	410.6	385.0	371.4	362.0	362.2	360.8	353.0	367.2	383.2	399.3	414.2
12.Load	353.7	355.5	313.5	300.7	300.0	307.4	307.0	277.7	298.5	310.5	328.8	348.2
13.Margin against monthly peak load	27.1	13.9	29.8	38.0	15.0	20.5	21.2	37.5	23.6	39.7	29.4	29.6
14.Remaining capacity without exchanges (14 = 11-12)	60.2	55.1	71.5	70.7	62.0	54.9	53.8	75.3	68.7	72.7	70.5	66.0
Physical exchanges												
15.Import	35.0	33.2	34.7	35.4	35.4	38.3	31.3	32.0	33.5	36.2	41.2	37.7
16.Export	32.9	30.4	34.9	36.7	30.8	31.5	30.0	28.3	30.6	31.4	39.1	36.1
17.Physical exchange balance (17=15-16)	2.1	2.8	- 0.2	- 1.3	4.6	6.9	1.4	3.7	2.6	5.2	2.1	1.6
18.Remaining capacity with exchange (18=14+17)	62.3	57.9	71.3	69.4	66.6	61.7	55.2	79.0	71.3	77.9	72.6	67.7

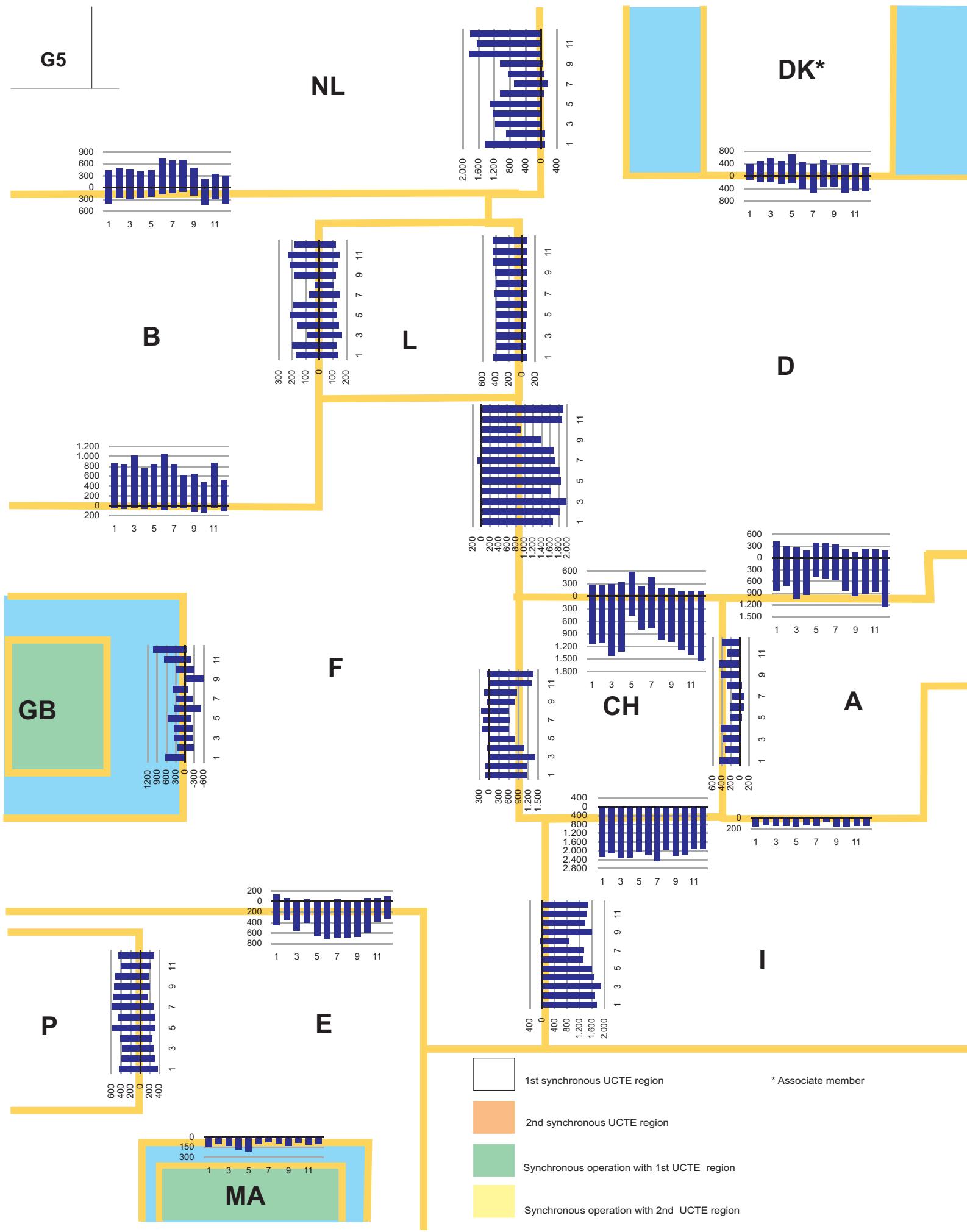
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
National generation												
1. Hydro power stations	36534	30144	28571	25189	29624	26743	23304	19886	17153	21368	22245	25638
2. Nuclear power stations	74429	67049	67316	63867	60459	58455	62274	58596	60622	67174	69693	76107
3. Conventional thermal power stations	112177	108400	107748	97254	91569	95040	103173	100188	103280	111680	109482	111934
4. Renewable energy sources	3384	2748	2747	3006	2740	2470	2657	2475	2392	2845	3012	3190
5. Not clearly identifiable energy sources	854	717	712	734	743	682	663	575	624	822	822	862
6. National generation (6 = 1+2+3+4+5)	227378	209059	207094	190049	185135	183390	192072	181720	184071	203890	205255	217732
Physical exchanges												
413.8	410.6	385.0	371.4	362.0	362.2	360.8	353.0	367.2	383.2	399.3	414.2	
7. Import	23761	21681	23919	22760	21641	22058	22644	20523	22571	23247	23776	24130
8. Export	25721	22747	25497	24050	23129	22254	22938	21702	22536	23581	24705	26717
9. Physical exchange balance (9 = 7 - 8)	- 1960	- 1066	- 1577	- 1291	- 1488	- 196	- 294	- 179	35	- 333	- 929	- 2587
10. National demand (10 = 6+9)	225418	207993	205517	188758	183647	183194	191778	180542	184105	203556	204326	215145
11. Pumped storage	3512	2959	3531	3273	3538	3633	3777	4070	3576	3626	3751	3970
12. Consumption (12 = 10-11)	221907	205034	201986	185486	180109	179561	188001	176472	180530	199930	200574	211175

UCTE Cross-frontier lines as of 31 December 2003

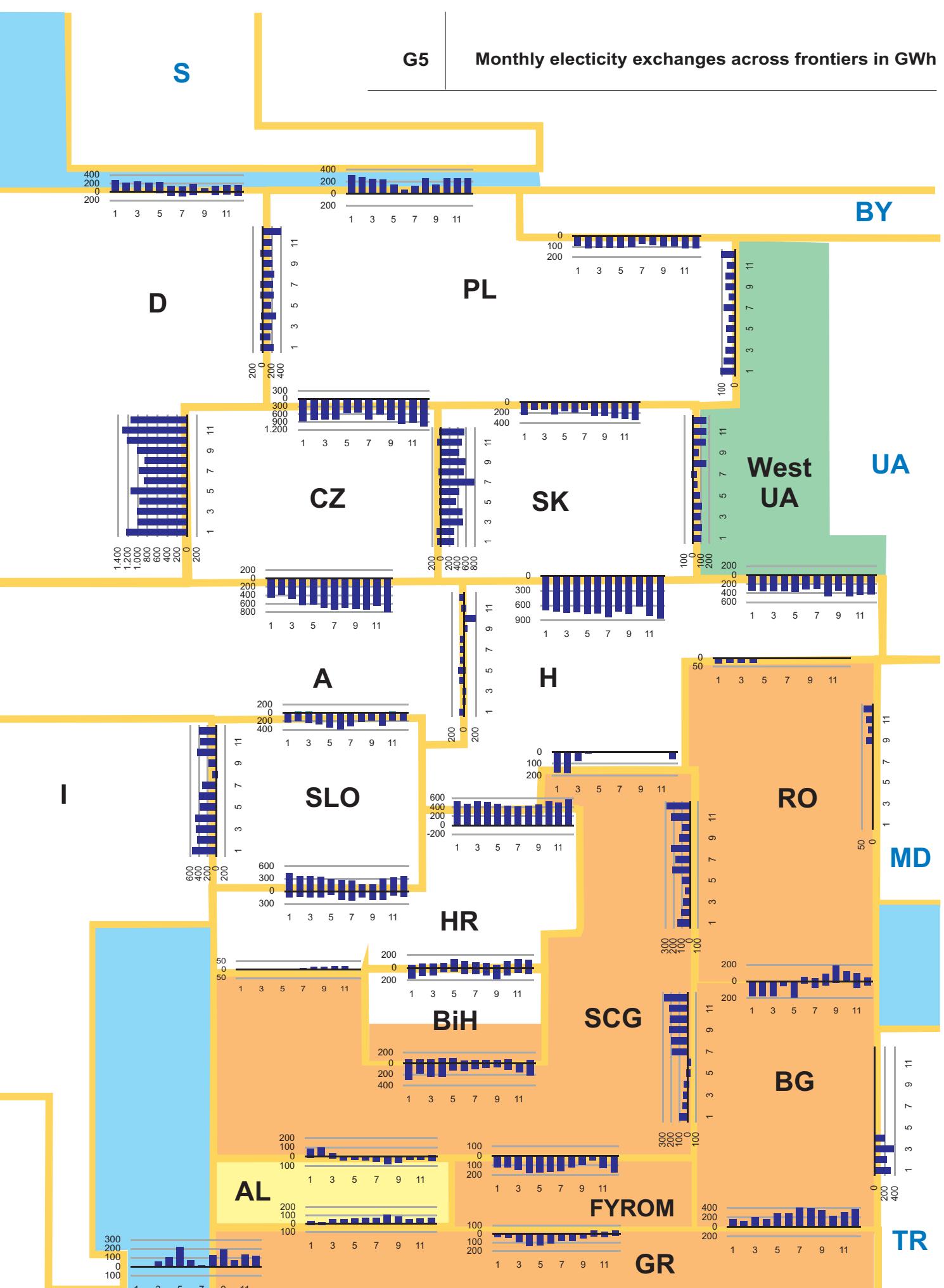


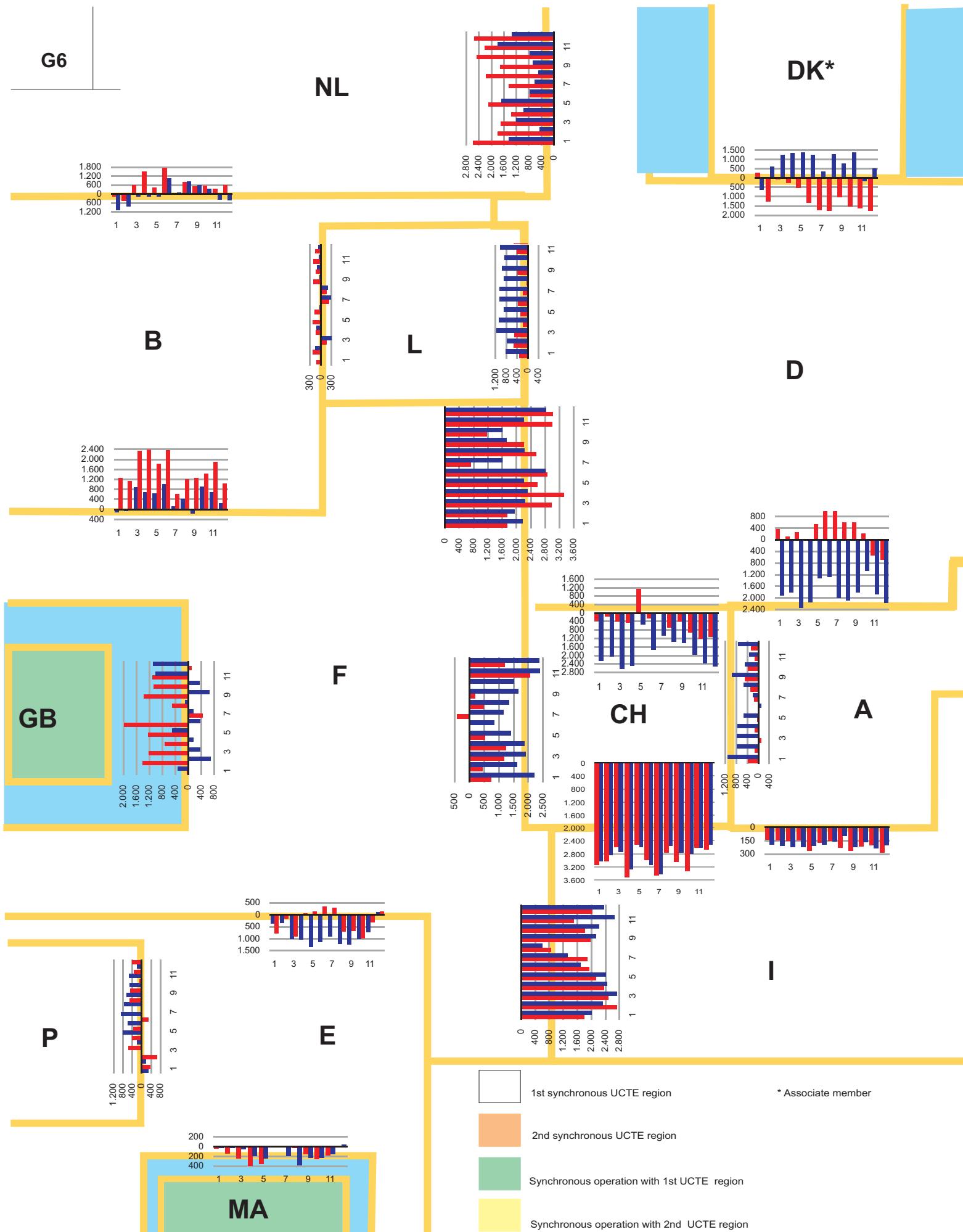
UCTE Cross-frontier lines as of 31 December 2003

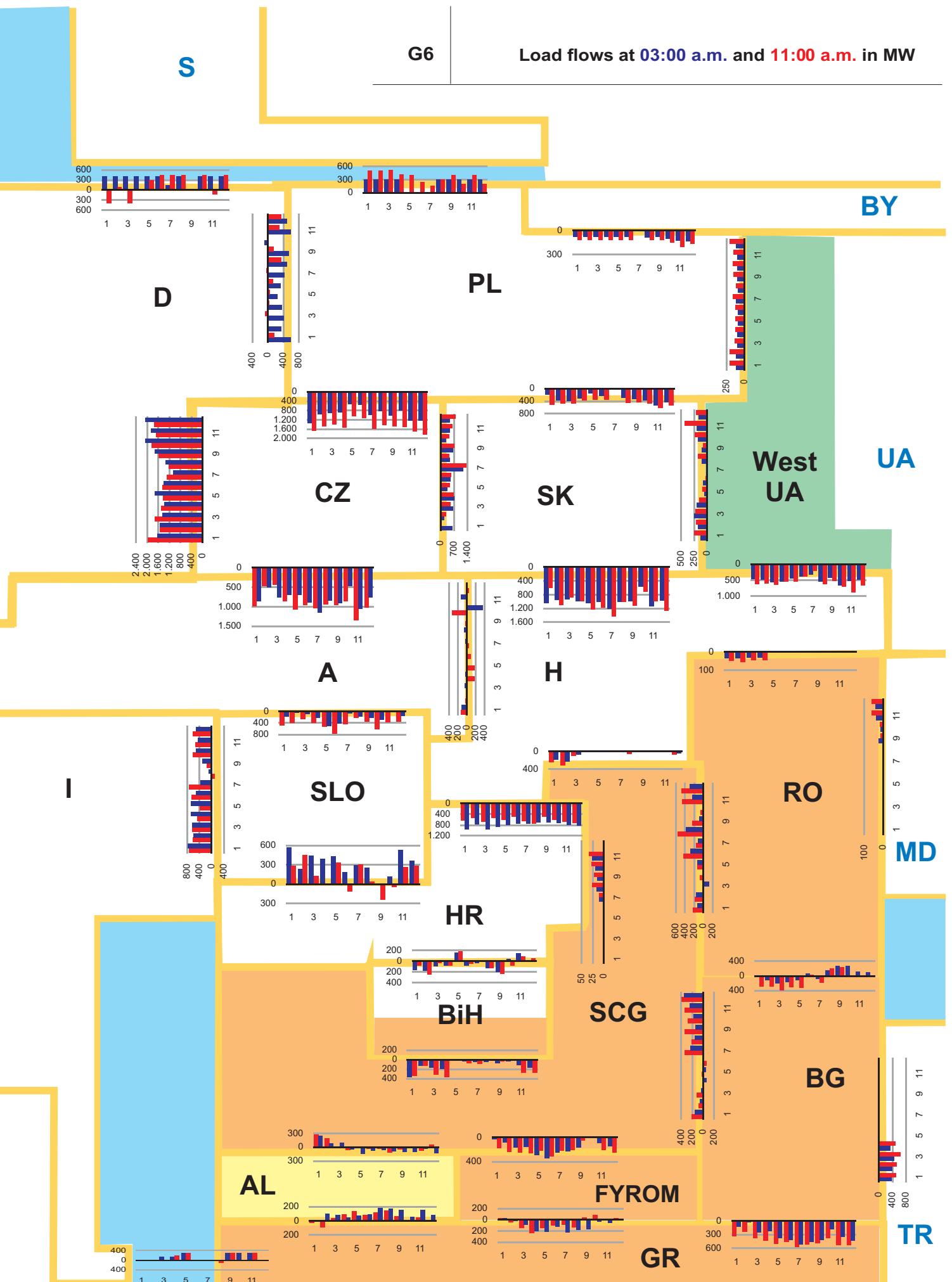




Monthly electricity exchanges across frontiers in GWh







Observations

[1]	Limited by transformer with regulation in Meeden
[2]	Limited by transformer with regulation in Meeden
[3]	Limited by transformer with regulation in Gronau
[4]	Limited by transformer with regulation in Gronau
[5]	Transformer in Borssele
[6]	Transformer in Jamiolle
[7]	Transcuder
[8]	Installed in Verbois
[9]	Cross-border power station (220/130)
[10]	Cross-border power station (220/130)
[11]	Cross-border power station (220/130)
[12]	Line property EnBW Netz in Germany Partially on the same tower as line Asphard-Kühmoos or Sierentz-Laufenburg
[13]	DC link with three connections
[14]	Transforming station of Lucciana in Corsica
[15]	DC link with three connections
[16]	Transforming station of Lucciana in Corsica
[17]	Partially on the same tower as the Laufenbourg-Engstlatt line (No. 105.1)
[18]	Transducer
[19]	Transducer
[20]	On the same tower as line No. 81 Laufenbourg-Sierentz 380 kV
[21]	Sag of conductor taken into consideration
[22]	From Kühmoos to Laufenbourg on the same tower
[23]	Disconnecter
[24]	Limited by measuring transducer at Laufenbourg
[25]	From Kühmoos to Laufenbourg on the same tower
[26]	On the same tower as line Sierentz-Laufenburg
[27]	Limited by switching devices in Austria

T 9

Frontier point	Line	Circuit	Connection between:					
			from substation			to substation		
Nr.	Nr.	Nr.						
1	2	3	4	5	6	7	8	9
11	1	1	D	Diele	E.ON Netz	NL	Meeden	TenneT
11	1	2	D	Diele	E.ON Netz	NL	Meeden	TenneT
13	1	1	D	Siersdorf	RWE Transportnetz Strom	NL	Maasbracht	TenneT
13	1	2	D	Rommerskirchen	RWE Transportnetz Strom	NL	Maasbracht	TenneT
15	1	1	D	Gronau W	RWE Transportnetz Strom	NL	Hengelo	TenneT
15	1	2	D	Gronau Z	RWE Transportnetz Strom	NL	Hengelo	TenneT
25	1	1	B	Gramme	Elia	NL	Maasbracht	TenneT
25	1	2	B	Meerhout	Elia	NL	Maasbracht	TenneT
26	1	1	B	Zandvliet	Elia	NL	Geertruidenberg	TenneT
26	2	1	B	Zandvliet	Elia	NL	Borssele	TenneT
27	1	1	B	Maldegem	ELECTRABEL	NL	Oostburg	TenneT
41	1	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	1	2	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	2	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
41	3	1	B	Aubange	ELECTRABEL	L	Belval	SOTEL
51	1	1	B	Jamiolle	ELECTRABEL	F	Chooz	RTE
51	2	1	B	Avelgem	Elia	F	Avelin	RTE
51	3	1	B	Achène	Elia	F	Lonny	RTE
52	1	1	B	Aubange	ELECTRABEL	F	Moulaine	RTE
71	1	1	D	Uchtelfangen	RWE Transportnetz Strom	F	Vigy	RTE
71	1	2	D	Uchtelfangen	RWE Transportnetz Strom	F	Vigy	RTE
71	2	1	D	Ensford	RWE Transportnetz Strom	F	St-Avold	RTE
72	1	1	D	Eichstetten	EnBW	F	Vogelgrün	RTE
72	1	2	D	Eichstetten	EnBW	F	Mühlbach	RTE
81	1	1	CH	Bassecourt	BKW	F	Sierentz	RTE
81	2	1	CH	Laufenburg	EGL	F	Sierentz	RTE
81	3	1	CH	Bassecourt	BKW	F	Mambelin	RTE
82	1	1	CH	Verbois	EOS	F	Bois-Tollot	RTE
82	1	2	CH	Chamoson	EOS	F	Bois-Tollot	RTE
82	2	1	CH	Verbois	EOS	F	Génissiat	RTE
82	2	2	CH	Verbois	EOS	F	Génissiat	RTE
82	3	1	CH	Verbois	EOS	F	Chancy-Pougny	SFM C-P
82	4	1	CH	La Bâtaiz	Atel	F	Vallorcine	RTE
82	5	1	CH	Riddes	EGL	F	Cornier	RTE
82	6	1	CH	St-Triphon	EOS	F	Cornier	RTE
83	1	1 [12]	CH/D	Asphard	Atel/NOK /EnBW	F	Sierentz	RTE
91	1	1	F	Albertville	RTE	I	Rondissone	GRTN
91	1	2	F	Albertville	RTE	I	Rondissone	GRTN
92	1	1	F	Le Broc Carros	RTE	I	Camporosso	GRTN
93	1	1	F	Villardon	RTE	I	Venaus	GRTN
94	1	1 [13]	F	Lucciana	RTE	I	Souvereto	GRTN
94	1	2 [15]	F	Lucciana	RTE	I	Souvereto	GRTN
102	1 [17]	1	CH	Laufenburg	EGL Grid	D	Gurtweil	EnBW
102	1	2	CH	Laufenburg	EGL Grid	D	Gurtweil	EnBW
102	2	1 [20]	CH	Laufenburg	EGL Grid	D	Kühmoos	EnBW
102	3 [22]	1	CH	Laufenburg	EGL Grid	D	Kühmoos	EnBW
102	3	2	CH	Laufenburg	EGL Grid	D	Kühmoos	EnBW
102	4	1	CH	Laufenburg	EGL Grid	D	Kühmoos	EnBW
102	4	2	CH	Laufenburg	EGL Grid	D	Kühmoos	RWE Transportnetz Strom
102	5 [25]	1	CH	Laufenburg	EGL Grid	D	Tiengen	RWE Transportnetz Strom
103	1	1	CH	Beznau	NOK	D	Tiengen	RWE Transportnetz Strom
103	1	2	CH	Beznau	NOK	D	Tiengen	RWE Transportnetz Strom
103	1	3	CH	Klingnau	AWAG	D	Tiengen	RWE Transportnetz Strom
104	1	1 [26]	CH	Asphard	Atel/NOK	D	Kühmoos	EnBW
105	1	1	CH	Laufenburg	EGL Grid	D	Engstlatt	EnBW
111	1	1	A	Bürs	VIW	D	Obermooeiler	EnBW
111	1	2	A	Bürs	VIW	D	Obermooeiler	EnBW
111	2	1	A	Bürs	VIW	D	Herbertingen	RWE Transportnetz Strom
111	3	1	A	Rieden	VKW -ÜN	D	Dellmensingen	RWE Transportnetz Strom
111	4	1	A	Hörbranz	VKW -ÜN	D	Lindau	VKW -ÜN
111	4	2	A	Hörbranz	VKW -ÜN	D	Lindau	VKW -ÜN
111	5	1	A	Vorderwald	VKW -ÜN	D	Weiler	VKW -ÜN

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial 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 capacity 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 of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results for the system operator.

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations				T 9
				of circuits		of lines		
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage	
kV	kV	MVA	MVA	MVA	kV	MVA	kV	
10	11	12	13	14	15	16	17	
	380		1382	1000 [1]				
	380		1382	1000 [2]				
	380		1645					
	380		1698					
	380		1790			1300 [3]		
	380		1790			1300 [4]		
	380		1207					
	380		1270					
	380		1476					
	380		1476	450 [5]				
	150		139					
	220		358					
	220		358					
	150		157	100				
	150		157	100				
	220		356	290	150 [6]			
	380		1109					
	380		1229					
	220		286					
	380		1167					
	380		1167					
	220		261					
380	220	338 [7]						
	380	1751						
	380	1186						
	380	1167						
	380	789						
	380	1211	800	220 [8]				
	380	1409	600					
	220	280				11 [9]		
	220	280				11 [10]		
	130	52	42			11 [11]		
	220	266						
	220	275						
	220	275						
	380	1167						
	380	1150						
	380	1150						
	220	320						
	380	879						
	220 [14]	300				50		
	220 [16]	300				50		
	220	485	457[18]	220				
	220	485	457[19]	220				
	220	295[21]						
380	220	485	476 [23]	220				
	380	1620						
	380	1620						
	380	1580	984 [24]					
	380	1158						
	380	1158						
380	220	335						
380	110	57	40					
	380	1340						
	380	1675						
	380	1369						
	380	1369						
380	220	389						
380	220	492	457 [27]					
	110	84						
	110	84						
	110	141						

uch line.

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 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. m the point of view of system operation.

Observations

[28]	Cable at Braunau
[29]	Cable at Braunau
[30]	Normally no electricity exchange across this line/ electricity loop at pylon 32 open, circuit grounded
[31]	Transducer at Ering
[32]	Transducer at Ering
[33]	Isolator in St. Peter
[34]	Isolator in St. Peter
[35]	Normally no electricity exchange across this line
[36]	Line section national border-tower 62 owned by E.ON Netz
[37]	Normally no electricity exchange across this line
[38]	Line section national border-tower 62 owned by E.ON Netz
[39]	No international interconnector
[40]	CFT blocker at St. Peter
[41]	No international interconnector
[42]	CFT blocker at St. Peter
[43]	Switching device at Oberbrunn
[44]	Switching device at Oberbrunn
[45]	Possible to lay a second circuit
[46]	(130/150)
[47]	Possible to lay a second circuit
[48]	New substation with 400kV near spanish frontier : replace Cantegrit
[49]	New substation with 225 kV near spanish frontier : replace Mouguerre
[50]	Limited by transformer
[51]	Limited by transformer
[52]	Transducer at Kassø
[53]	Transducer at Kassø
[54]	Monopol
[55]	DC submarine and underground cable
[56]	Limited by high-frequency coil
[57]	Generator line in radial operation - interconnected operation impossible
[58]	Installed at Vianden
[59]	Generator line in radial operation - interconnected operation impossible
[60]	Installed at Vianden
[61]	Generator line in radial operation - interconnected operation impossible
[62]	Installed at Vianden
[63]	Generator line in radial operation - interconnected operation impossible
[64]	Installed at Vianden
[65]	Limited by transformer
[66]	Limited by pumped storage power station at Bauler
[67]	520 MW in total because of the use of pumps in the power station of Vianden
[68]	520 MW in total because of the use of pumps in the power station of Vianden
[69]	The 400kV DC link between GR-I is composed of an overhead line and a submarine cable

T 9

Frontier point	Line	Circuit	Connection between:								
			from substation			to substation					
			Country	Name	Operated by	Country	Name	Operated by			
Nr.	Nr.	Nr.	1	2	3	4	5	6	7	8	9
115	1	1	A	Braunau	GKW	D	Neuötting	E.ON Netz			
115	2	1	A	Braunau	GKW	D	Stammham	E.ON Netz			
115	3	1	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz			
115	3	2 [30]	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz			
115	4	1	A	Antiesenhofen	Verbund - APG	D	Eggling	E.ON Netz			
115	5	1	A	St. Peter	Verbund - APG	D	Altheim	E.ON Netz			
115	6	1	A	St. Peter	Verbund - APG	D	Simbach	E.ON Netz			
115	7	1	A	St. Peter	Verbund - APG	D	Ering	E.ON Netz			
115	7	2	A	St. Peter	Verbund - APG	D	Ering	E.ON Netz			
115	8	1	A	St. Peter	Verbund - APG	D	Eggling	E.ON Netz			
115	9	1	A	St. Peter	Verbund - APG	D	Pirach	E.ON Netz			
115	10	1	A	St. Peter	Verbund - APG	D	Pleinting	E.ON Netz			
115	11	1	A	Ranna	EAGOÖ	D	Passau [35,36]	E.ON Netz			
115	11	2	A	Ranna	EAGOÖ	D	Passau [37,38]	E.ON Netz			
115	12	1	A	Oberaudorf	GKW	D	Rosenheim	E.ON Netz			
115	13	1	A	Oberaudorf	GKW	D	Kieferfelden	E.ON Netz			
115	14	1	A	Antiesenhofen	EAGOÖ	D	Weidach	Thüga			
115	14	2	A	Antiesenhofen	EAGOÖ	D	Weidach	Thüga			
115	15	1	A	Aigerding	Verbund - APG/EAGOÖ	D	Passau	GKW			
115	16 [39]	1	A	St. Peter	Verbund - APG	D	Schärding	GKW			
115	16 [41]	2	A	St. Peter	Verbund - APG	D	Schärding	GKW			
115	17	1	A	Kufstein	TIRAG	D	Oberaudorf	GKW			
115	17	2	A	Ebbs	TIRAG	D	Oberaudorf	GKW			
116	1	1	A	Westtirol	Verbund - APG	D	Leupolz	RWE Transportnetz Strom			
116	2	1	A	Westtirol	Verbund - APG	D	Memmingen	RWE Transportnetz Strom			
117	1	1	A	Sitz	TIRAG	D	Oberbrunn	E.ON Netz			
117	1	2	A	Sitz	TIRAG	D	Oberbrunn	E.ON Netz			
117	3	1	A	Reutte	TIRAG	D	Füssen	EW Reutte			
117	3	2	A	Reutte	TIRAG	D	Füssen	EW Reutte			
121	1	1	CH	Airolo	Atel	I	Ponte	GRTN			
121	2	1	CH	Gorduno	Atel	I	Mese	GRTN			
121	3	1	CH	Sciazza	EGL Grid	I	Bulciago	GRTN			
121	4	1	CH	Lavorgo	Atel	I	Musignano	GRTN			
122	1	1 [45]	CH	Campocologno	RE	I	Poschiavino	GRTN			
122	2	1	CH	Robbia	RE	I	Sondrio	GRTN			
123	1	1	CH	Riddes	EGL Grid	I	Avise	GRTN			
123	2	1	CH	Riddes	EGL Grid	I	Valpelline	GRTN			
123	3	1	CH	Mörel	RHOWAG	I	Pallanzano	GRTN			
132	1	1	A	Lienz	Verbund - APG	I	Soverzene	GRTN			
141	1	1 [47]	A	Meiningen	VKW-ÜN	CH	Y-Rehag	NOK			
141	2	1	A	Meiningen	VKW-UN	CH	Winkel	NOK			
142	1	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL Grid			
142	2	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL Grid			
151	1	1	E	Hernani	REE	F	Argia [48]	RTE			
151	2	1	E	Irún	REE	F	Errondonia	RTE			
151	3	1	E	Arkale	REE	F	Argia [49]	RTE			
151	4	1	E	Biescas	REE	F	Pragnères	RTE			
152	1	1	E	Benós	REE	F	Lac d'Oo	RTE			
153	1	1	E	Vic	REE	F	Baixas	RTE			
161	1	1	D	Flensburg	E.ON Netz	DK	Ensted	ELTRA			
161	2	1	D	Flensburg	E.ON Netz	DK	Kassø	ELTRA			
161	3	1	D	Audorf	E.ON Netz	DK	Kassø	ELTRA			
161	3	2	D	Audorf	E.ON Netz	DK	Kassø	ELTRA			
162	1 [54]	1	D	Bentwisch	VE Transmission	DK	Bjæverskov	ELKRAFT			
171	1	1	A	Bisamberg	Verbund - APG	CZ	Sokolnice	CEPS			
171	2	1	A	Bisamberg	Verbund - APG	CZ	Sokolnice	CEPS			
172	1	1	A	Dürnrohr	Verbund - APG	CZ	Slatovice	CEPS			
181	1	1	A	Obersielach	Verbund - APG	SLO	Podlog	ELES			
182	1	1	A	Kainachtal	Verbund - APG	SLO	Maribor	ELES			
182	2	1	A	Kainachtal	Verbund - APG	SLO	Maribor	ELES			
191	1	1	D	Niederstedem	RWE Transportnetz Strom	L	Vianden	SEO			
191	2	1	D	Niederstedem	RWE Transportnetz Strom	L	Vianden	SEO			
191	2	2	D	Niederstedem	RWE Transportnetz Strom	L	Vianden	SEO			
191	3	1	D	Bauler	RWE Transportnetz Strom	L	Vianden	SEO			
191	4	1	D	Bauler	RWE Transportnetz Strom	L	Flebour	CEGEDEL			
191	4	2	D	Bauler	RWE Transportnetz Strom	L	Roost	CEGEDEL			
192	1	1	D	Trier	RWE Transportnetz Strom	L	Heisdorf	CEGEDEL			
192	2	1	D	Quint	RWE Transportnetz Strom	L	Heisdorf	CEGEDEL			
201	1	1	I	Redipuglia	GRTN	SLO	Divača	ELES			
201	2	1	I	Padriano	GRTN	SLO	Divača	ELES			
205	1 [69]	1	I	Galatina	GRTN	GR	Arachthos	HTSO			

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial 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 capacity 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 of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from a system point of view.

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations				T 9
				of circuits		of lines		
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage	
kV	kV	MVA	MVA	MVA	kV	MVA	kV	
10	11	12	13	14	15	16	17	
	110		102			82 [28]		
	110		102			82 [29]		
	110		90					
	110		90					
	110		102					
	220		301					
	220		301					
	110		152	137		114 [31]		
	110		152	137		114 [32]		
	110		105					
	220		518	457 [33]				
	220		518	457 [34]				
	110		90					
	110		90					
	110		93					
	110		102					
	110		130					
	110		130					
	110		102					
	220		301			229 [40]		
	220		301			229 [42]		
	110		90					
	110		127					
	380		1316					
380	220		762					
	220		793	762 [43]				
	220		793	762 [44]				
	110		127					
	110		127					
	220		257					
	220		257	250				
	380		1142					
	380		1118					
	150		103	55	130 [46]			
	220		257					
	220		290					
	220		290					
	220		257					
	220		257					
	220		501					
	220		776					
	380		1340					
	380		1340					
	380		1136					
	132		56					
	220		340					
	220		257					
	110		63					
	380		1105					
	220		332	305 [50]				
	220		332	305 [51]				
	380		1382	658 [52]				
	380		1382	658 [53]				
	400		600 [55]					
	220		269					
	220		269					
	380		1711	1386 [56]				
	220		351					
	380		1514	450				
	380		1514	450				
	220		730	460	220 [57,58]			
	220		365		220 [59,60]	345		
	220		365		220 [61,62]	345		
	220		730	460	220 [63,64]	345[65]		
	220		490	358[66]		520 [67]		
	220		490			520 [68]		
	220		490					
	380		1712					
	220		305					
	380		305					

uch line.

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 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. m the point of view of system operation.

Observations

[70]	In Hungary 2 systems in parallel operation
[71]	DC submarine cable
[72]	DC submarine cable
[73]	Limited by the connected network
[74]	Nominal voltage in Croatia
[75]	Limited by the connected network
[76]	Nominal voltage in Croatia
[77]	Substation under construction
[78]	Limited by the measuring transformer of current in SK
[79]	Built for 750 kV
[80]	4500 MVA at 750 kV
[81]	Limited by the measuring transformer of current in SK
[82]	Limited by the Albanian network
[83]	Capacity of current transformers at Bistrica
[84]	Limitating installations in CZ
[85]	Limitating installations in Etzenricht
[86]	Limited by disconnector / CEPS
[87]	Limited by disconnector / CEPS
[88]	Disconnected in Yugoslavia
[89]	Limited by lower voltage
[90]	Limitation by measuring transducer
[91]	Destroyed line
[92]	Out of operation

T 9

Frontier point	Line	Circuit	Connection between:								
			from substation			to substation					
			Country	Name	Operated by	Country	Name	Operated by			
Nr.	Nr.	Nr.	1	2	3	4	5	6	7	8	9
211	1	1	A	Wien Süd-Ost	Verbund - APG	H	Györ	MAVIR			
211	1	2	A	Neusiedl	Verbund - APG	H	Györ	MAVIR			
212	1	1 [70]	A	Wien Süd-Ost	Verbund - APG	H	Györ	MAVIR			
221	1	1	F	Mandarins	RTE	GB	Sellindge	National Grid			
221	2	1	F	Mandarins	RTE	GB	Sellindge	National Grid			
231	1	1	E	Las Conchas	REE	P	Lindoso	REN			
232	1	1	E	Aldeadávila	REE	P	Bemposta	REN			
232	2	1	E	Aldeadávila	REE	P	Pocinho	REN			
232	3	1	E	Saucelle	REE	P	Pocinho	REN			
233	1	1	E	Cedillo	REE	P	Falagueira	REN			
234	1	1	E	Cartelle	REE	P	Alto Lindoso	REN			
241	1	1	FYROM	Dubrovo	ESM	GR	Thessaloniki	HTSO			
242	1	1	FYROM	Bitola	ESM	GR	Amyntheo	HTSO			
245	1	1	CZ	Liskovec	CEPS	PL	Kopanina	PSE SA			
246	1	1	CZ	Liskovec	CEPS	PL	Bujaków	PSE SA			
251	1	1	H	Lenti	MAVIR	HR	Nedeljanec	HEP			
251	2	1	H	Siklos	MAVIR	HR	Donji Miholjac	HEP			
251	3	1	H	Héviz	MAVIR	HR	Zerjavinec [77]	HEP			
251	3	2	H	Héviz	MAVIR	HR	Tumbrí	HEP			
261	1	1	SCG	Djerdap	EPS	RO	Portile de Fier	TRANSELECTRICA			
261	2	1	SCG	Sip	EPS	RO	Gura Vaii	TRANSELECTRICA			
262	1	1	SCG	Kikinda 1	EPS	RO	Jimbolia	TRANSELECTRICA			
263	1	1	SCG	Kusjak	EPS	RO	Ostrovu Mare	TRANSELECTRICA			
270	1	1	CZ	Liskovec	CEPS	SK	Pov. Bystrica	SEPS			
271	1	1	BG	Sofija Zapad	NEK	SCG	Niš	EPS			
272	1	1	BG	Breznik	NEK	SCG	HE Vrla 1	EPS			
273	1	1	BG	Kula	NEK	SCG	Zaječar	EPS			
275	1	1	RO	Isaccea	TRANSELECTRICA	BG	Dobrodja Varna	NEK			
276	1	1	RO	Îsainița	TRANSELECTRICA	BG	Kozlodui	NEK			
277	1	1	RO	Tântăreni	TRANSELECTRICA	BG	Kozlodui	NEK			
277	1	2	RO	Tântăreni	TRANSELECTRICA	BG	Kozlodui	NEK			
280	1	1	CZ	Sokolnice	CEPS	SK	Senica	SEPS			
281	1	1	AL	Vau i Dejës	KESH	SCG	Podgorica	EP CG			
282	1	1	AL	Fierza	KESH	SCG	Prizren	EPS			
291	1	1	AL	Elbassan	KESH	GR	Kardia	HTSO			
292	1	1	AL	Bistrica	KESH	GR	Mourtos	HTSO			
301	1	1	BG	Blagoevgrad	NEK	GR	Thessaloniki	HTSO			
321	1	1	CZ	Hradec	CEPS	D	Etzenricht	E.ON Netz			
321	1	2	CZ	Prestice	CEPS	D	Etzenricht	E.ON Netz			
322	1	1	CZ	Hradec	CEPS	D	Röhrsdorf	VE Transmission			
322	1	2	CZ	Hradec	CEPS	D	Röhrsdorf	VE Transmission			
331	1	1	H	Sândorfalva	MAVIR	SCG	Subotica 3	EPS			
332	1	1	H	Szeged	MAVIR	SCG	Subotica	EPS			
341	1	1	BG	Skakavica	NEK	FYROM	Kriva Palanka	ESM			
341	2	1	BG	Petric	NEK	FYROM	Sušica	ESM			
351	1	1	HR	Melina	HEP	SLO	Divača	ELES			
351	2	1	HR	Pehlin	HEP	SLO	Divača	ELES			
351	3	1	HR	Buje	HEP	SLO	Koper	ELES			
351	4	1	HR	Matulji	HEP	SLO	Ilirska Bistrica	ELES			
352	1	1	HR	Tumbrí	HEP	SLO	Krško	ELES			
352	1	2	HR	Tumbrí	HEP	SLO	Krško	ELES			
352	2	1	HR	Mraclin	HEP	SLO	Cirkovce	ELES			
352	3	1	HR	Nedeljanec	HEP	SLO	Formin	ELES			
361	1	1	BiH	Mostar	JPCC	HR	Konjsko	HEP			
361	2	1	BiH	Mostar	JPCC	HR	Zakučac	HEP			
361	3	1	BiH	Graovo	JPCC	HR	Knин	HEP			
361	4	1	BiH	Buško Blato	JPCC	HR	Kraljevac	HEP			
361	5	1	BiH	Buško Blato	JPCC	HR	Peruca	HEP			
361	6	1	BiH	Grude	JPCC	HR	Imotski	HEP			
361	7	1	BiH	Kulen Vakuf	JPCC	HR	Gracac	HEP			
362	1	1	BiH	Jajce	JPCC	HR	Mraclin	HEP			
362	2	1	BiH	Prijedor	JPCC	HR	Medurić	HEP			
363	1	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP			
363	2	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP			
363	3	1	BiH	Čapljina	JPCC	HR	Opuzen	HEP			
363	4	1	BiH	Neum	JPCC	HR	Opuzen	HEP			
363	5	1	BiH	Neum	JPCC	HR	Ston	HEP			
363	6	1	BiH	Trebinje	JPCC	HR	Komolac	HEP			

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial 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 capacity 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 of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from a system point of view.

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations				T 9
				of circuits		of lines		
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage	
kV	kV	MVA	MVA	MVA	kV	MVA	kV	
10	11	12	13	14	15	16	17	
	220		305					
	220		305					
	380		1514					
270[71]								
270[72]								
	132		90					
	220		321					
	220		321					
	220		321					
	380		948					
	380		1036					
	400		1300	700				
	150		120	100				
	220		400					
	220		400					
	110		82	50 [73]	110 [74]			
	110		114	50 [75]	110 [76]			
	400		1246					
	400		1246					
	380		1264					
	110		90					
	110		90					
	110		257					
	220		269		229[78]			
	380		1264					
	110		90					
	110		90					
750	400 [79]		1715 [80]					
	220		360					
	400		1309		1000			
	400		1309					
	220		318		305 [81]			
	220		311					
	220		311					
	400		1300	250 [82]				
	150		120	40 [83]				
	400		1300	700				
	380		1639	1316 [84]				
	380		1645	1579 [85]				
	380		1476	1320 [86]		2630		
	380		1476	1320 [87]		2630		
	380		1246	1050				
	120		86 [88]					
	110		123					
	110		123					
	380		1264					
	220		366					
	110		89					
	110		53					
	400		1316					
	400		1316					
	220		297					
	110		115					
	400		1316	311 [89]	220			
	220		311					
	110		90					
	110		115					
	110		90					
	110		72					
	110		120	101 [90]				
	220		297[91]					
	220		297					
	220		460[92]					
	220		460					
	110		84					
	110		84					
	110		76					
	110		84					

ch line.

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 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. m the point of view of system operation.

Observations

[93]	Destroyed line and substation
[94]	Destroyed line
[95]	Destroyed line
[96]	Destroyed line
[97]	Destroyed line
[98]	Monopol
[99]	Temporarily limited by 380/110 kV transformer at Herrenwyk (456 MW towards south, 372/396 MW towards north)
[100]	Limited by the measuring transformer of current
[101]	Limited by the connections among equipments
[102]	Limited by a measuring transformer of current
[103]	Limited by a measuring transformer of current
[104]	Transformer PSE SA
[105]	Transformer PSE SA
[106]	Submarine cable
[107]	Limited by a metering current transformer
[108]	Limited by current transformer at Lemesany
[109]	Limited by current transformer at Lemesany
[110]	Out of operation/ substation local automatic equipment
[111]	Limited by HF attenuator
[112]	Radial operation
[113]	Limited by HF attenuator
[114]	Isolated operation
[115]	Submarine cable
[116]	Limited by a metering current transformer
[117]	Limited by a disconnector
[118]	Limited by HF attenuator
[119]	Limited by the measuring transformer of current
[120]	Limited by HF attenuator
[121]	Limited by HF attenuator
[122]	Out of operation/ substation local automatic equipment
[123]	Limited by the measuring transformer of current
[124]	Out of operation / substation local automatic equipment
[125]	Limited by HF attenuator

T 9

Frontier point	Line	Circuit	Connection between:					
			from substation			to substation		
Nr.	Nr.	Nr.	Country	Name	Operated by	Country	Name	Operated by
1	2	3	4	5	6	7	8	9
364	1	1	BiH	Ugljevik	JPCC	HR	Ernestinovo	HEP
364	2	1	BiH	Gradačac	JPCC	HR	Dakovo	HEP
364	3	1	BiH	Tuzla	JPCC	HR	Dakovo	HEP
364	4	1	BiH	Bosanski Brod	JPCC	HR	Slavonski Brod 2	HEP
364	5	1	BiH	Orasje	JPCC	HR	Županja	HEP
371	1	1	HR	Ernestinovo	HEP	SCG	Mladost	EPS
371	2	1	HR	Nijemci	HEP	SCG	Šid	EPS
371	3	1	HR	Beli Manastir	HEP	SCG	Apatin	EPS
381	1	1	BiH	Trebinje	JPCC	SCG	Podgorica	EP CG
381	2	1	BiH	Trebinje	JPCC	SCG	Perućica	EP CG
381	3	1	BiH	Trebinje	JPCC	SCG	Herceg Novi	EP CG
381	4	1	BiH	Bileća	JPCC	SCG	Vilusi	EP CG
382	1	1	BiH	Sarajevo 20	JPCC	SCG	Piva	EP CG
382	2	1	BiH	Goražde	JPCC	SCG	Pljevlja	EP CG
383	1	1	BiH	Višegrad	JPCC	SCG	Požega	EPS
383	2	1	BiH	Bijeljina	JPCC	SCG	Lešnica	EPS
383	3	1	BiH	Zvornik	JPCC	SCG	HE Zvornik	EPS
383	4	1	BiH	Višegrad	JPCC	SCG	Potpeć	EPS
391	1	1	FYROM	Skopje 1	ESM	SCG	Kosovo A	EPS
391	2	1	FYROM	Skopje 1	ESM	SCG	Kosovo A	EPS
391	3	1	FYROM	Skopje 4	ESM	SCG	Kosovo B	EPS
401	1 [98]	1	D	Herrenwyk	E.ON Netz	S	Kruseberg	Sydkraft/Vattenfall
404	1	1	CZ	Nosovice	CEPS	SK	Varin	SEPS
424	1	1	CZ	Sokolnice	CEPS	SK	Krizovany	SEPS
440	1	1	SK	V.Kapusany	SEPS	West UA	Mukachevo	NPC Ukrenergo
443	1	1	CZ	Albrechtice	CEPS	PL	Dobrzen	PSE SA
444	1	1	CZ	Nošovice	CEPS	PL	Wielopole	PSE SA
497	1	1	CZ	Sokolnice	CEPS	SK	Stupava	SEPS
501	1	1	D	Vierraden	VE Transmission	PL	Krajinik	PSE SA
501	1	2	D	Vierraden	VE Transmission	PL	Krajinik	PSE SA
502	1	1	D	Hagenwerder	VE Transmission	PL	Mikulowa	PSE SA
502	1	2	D	Hagenwerder	VE Transmission	PL	Mikulowa	PSE SA
601	1 [106]	1	E	Pinar del Rey	REE	MA	Melloussa	ONE
700	1	1	PL	Krosno Iskrzynia	PSE SA	SK	Lemešany	SEPS
700	1	2	PL	Krosno Iskrzynia	PSE SA	SK	Lemešany	SEPS
701	1	1	PL	Rzeszów	PSE SA	West UA	Chmielnicka	NPC Ukrenergo
702	1	1	PL	Zamość	PSE SA	West UA	Dobrotwor	NPC Ukrenergo
703	1	1	PL	Bialystok	PSE SA	BY	Roś	Grodoenergo
704	1	1	PL	Slupsk	PSE SA	S	Stámo	SvK
710	1	1	H	Győr	MAVIR	SK	Gabcikovo	SEPS
711	1	1	H	Göd	MAVIR	SK	Levice	SEPS
720	1	1	H	Albertirska	MAVIR	West UA	Zahidno Ukrainska	NPC Ukrenergo
721	1	1	H	Sajószögéd	MAVIR	West UA	Mukacevo	NPC Ukrenergo
722	1	1	H	Kisvárda	MAVIR	West UA	Mukacevo	NPC Ukrenergo
722	1	2	H	Tiszalök	MAVIR	West UA	Mukacevo	NPC Ukrenergo
730	1	1	H	Sándorfalva	MAVIR	RO	Arad	TRANSELECTRICA
740	1	1	RO	Roșiori	TRANSELECTRICA	West UA	Mukacevo	NPC Ukrenergo
741	1	1	RO	Isaccea	TRANSELECTRICA	West UA	PivdennoUkrainska	NPC Ukrenergo
750	1	1	RO	Stâncă	TRANSELECTRICA	MD	Costești	Moldenergo
751	1	1	RO	Huși	TRANSELECTRICA	MD	Cioara	Moldenergo
752	1	1	RO	Tutora	TRANSELECTRICA	MD	Ungheni	Moldenergo
753	1	1	BG	Maritsa3	NEK	TR	Babaeski	TEIAS
754	1	1	BG	Maritsa3	NEK	TR	Hamitabat	TEIAS

*The conventional transmission capacity of cross-frontier tie-lines is based upon parameters standardised within UCTE for the calculation of the thermal load capability of each line. For aerial 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 capacity 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 of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from a technical point of view.

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations				T 9
				of circuits		of lines		
Forecast	Present	Forecast	Present	at	Voltage	Transmission capacity	Voltage	
kV	kV	MVA	MVA	MVA	kV	MVA	kV	
10	11	12	13	14	15	16	17	
	400		831 [93]					
	220		229 [94]					
	220		229					
	110		115 [95]					
	110		76					
	380		831					
	110		76					
	110		78					
	380		1264					
	220		311					
	110		90					
	110		84					
	220		366					
	110		90					
	220		311					
	110		123					
	110		123					
	110		123					
	220		311 [96]					
	220		311 [97]					
	380		1264					
	450		600	372 [99]				
	400		1465	1386 [100]				
	400		1503	1323 [101]				
	400		1186	693 [102]				
	400		1088					
	400		1088					
	400		1711	831 [103]				
	220	400	173					
	220	400	173					
	380		1302 [104]					
	380		1302 [105]					
	380		730					
	400		1252[107]	831[108]				
	400		1252	831[109]				
	750		2676[110]	1949[111]				
	220		309[112]	381 [113]				
	220		215[114]					
	450		600 [115]					
	400		1246	1108[116]				
	400		1246	1108[117]				
	750		4000	2146[118]				
	400		1635	693[119]				
	220		312	305[120]				
	220		312	305[121]				
	400		1246					
	400		1400[122]	693 [123]				
	750		4000[124]	2598[125]				
	110		90					
	110		90					
	110		90					
	400							
	400							

each line.

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 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. m the point of view of system operation.

Abbreviations used of grid operators

Belgium	Elia	- Elia System Operator SA / NV
Germany	E.ON Netz EnBW Transportnetz RWE Transportnetz Strom VE Transmission	- E.ON Netz GmbH, Bayreuth - EnBW Transportnetze AG, Karlsruhe - RWE Transportnetz Strom GmbH, Dortmund - Vattenfall Europe Transmission GmbH, Berlin
Spain	REE	- Red Eléctrica de España S.A., Madrid
France	RTE	- Gestionnaire du Réseau de Transport d'Electricité, Paris la Défense
Greece	HTSO / DESMIE	- Hellenic Transmission System Operator / Diachristis Elinikou Sistimatos Metaforas Energias
Italy	GRTN	- Gestore della Rete di Trasmissione Nazionale S.p.A., Roma
Slovenia	ELES	- Elektro-Slovenija, Ljubljana
Croatia	HEP	- Hrvatska Elektroprivreda d.d., Zagreb
Serbia - Montenegro	EPCG EPS	- Elektroprivreda Crne Gore, Niksic - Elektroprivreda Srbije, Beograd
FYROM	ESM	- Elektrostopastvo na Makedonija, Skopje
Bosnia - Herzegovina	JPCC	- Joint Power Coordination Center
Luxembourg	CEGEDEL	- Compagnie Grand Ducal d'Electricité du Luxembourg, Luxembourg
The Netherlands	TenneT	- TenneT bV Transmission System Operator
Austria	TIRAG Verbund APG VKW-ÜNG GKW	- Tiroler Regelzone AG - Verbund - Austria Power Grid GmbH, Wien - Vorarlberger Kraftwerke Übertragungsnetz AG, Bregenz - Grenzkraftwerke GmbH, Simbach
Portugal	REN	- Rede Eléctrica Nacional, S.A., Lisboa
Switzerland	ATEL BKW UTN EGL Grid EOS ETRANS NOK	- Aare-Tessin AG für Elektrizität, Olten (Aar et Tessin Société Anonyme d'Electricité) - BKW Übertragungsnetz AG, Bern - Elektrizitäts-Gesellschaft Laufenburg Grid AG, Laufenburg (Electricité de Laufenburg Grid S.A.) - Energie Ouest Suisse S.A., Lausanne - ETRANSAG - Nordostschweizerische Kraftwerke AG, Baden (Forces Motrices du Nord-Est de la Suisse)

Czech Republic	CEPS	- CEPS a.s., Praha
Hungary	MAVIR Rt	- Magyar Villamosenergia - ipari Rendszerirányító Rt., Budapest
Poland	PSE SA	- Polskie Sieci Elektroenergetyczne SA
Slovak Republic	SEPS, a.s.	- Slovenska Elektrizacna Prenosova Sustava, a.s.
Romania	TRANSELECTRICA	- Transelectrica S.A., National Power Grid Company, Bucaresti
Bulgaria	NEK	- Nationalna Elektricheska Kompania EAD, Sofia
Ukraine	NPC Ukrenergo	- NPC Ukrenergo
Albania	KESH	- Albanian Electroenergetic Corporation
Belarus	Grodnoenergo	
Denmark	ELTRA	- ELTRA , Fredericia
Great Britain	National Grid	- The National Grid Company plc, London
Morocco	ONE	- Office National de l'Electricité, Casablanca
Republic of Moldavia	Moldenergo	
Republic of Turkey	TEIAS	- Türkiye Elektrik İletim A.S., Ankara
Sweden	SYDKRAFT VATTENFALL	- Sydkraft AB, Malmö - Vattenfall AB, Stockholm

Circuit ID	From substation	To substation	Voltage [kV]	Thermal conventional transmission capacity [MVA]	Major Reason	Time whole year [min]
11.1.1	D - Diele (E.ON Netz)	NL - Meeden (TenneT)	380	1382	R10	35565
11.1.2	D - Conneforde (E.ON Netz)	NL - Meeden (TenneT)	380	1382	R10	16507
13.1.1	D - Siersdorf (RWE Transportnetz Strom)	NL - Maasbracht (TenneT)	380	1645	R10	13225
13.1.2	D - Rommerskirchen (RWE Tr.netzStrom)	NL - Maasbracht (TenneT)	380	1698	R1	3292
15.1.1	D - Gronau W (RWE Transportnetz Strom)	NL - Hengelo (TenneT)	380	1790	R10, R7	1163
15.1.2	D - Gronau Z (RWE Transportnetz Strom)	NL - Hengelo (TenneT)	380	1790	R1	1317
25.1.1	B - Gramme (CPTE)	NL - Maasbracht (TenneT)	380	1207	R1	900
25.1.2	B - Meerhout (CPTE)	NL - Maasbracht (TenneT)	380	1270	R1	532
26.1.1	B - Zandvliet (CPTE)	NL - Geertruidenberg (TenneT)	380	1476	R1	2297
26.2.1	B - Zandvliet (CPTE)	NL - Borsele (TenneT)	380	1476	R1	2773
27.1.1	B - Maldegem (ELECTRABEL)	NL - Oostburg (TenneT)	150	139	R1	9721
41.1.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	220	358	R1	17999
41.1.2	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	220	358	R1	2502
41.2.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	150	157	R1	16715
41.3.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	150	157	R1	16476
51.1.1	B - Jamoille (ELECTRABEL)	F - Chooz (RTE)	220	356	R1	4145
51.2.1	B - Avelgem (CPTE)	F - Avelin (RTE)	380	1109	R1	671
51.3.1	B - Achene (CPTE)	F - Lonny (RTE)	380	1229	R1	6327
52.1.1	B - Aubange (ELECTRABEL)	F - Moulaine (RTE)	220	286	R1	6312
71.1.1	D - Uchtelefangan (RWE Transportnetz Strom)	F - Vigy (RTE)	380	1167	R1, R10	7813
71.1.2	D - Uchtelefangan (RWE Transportnetz Strom)	F - Vigy (RTE)	380	1167	R1, R10	9477
71.2.1	D - Ensford (RWE Transportnetz Strom)	F - St-Avold (RTE)	220	261	R1	3359
72.1.1	F - Vogelgrün (RTE)	D - Eichstetten (EnBW)	220	338	R1	1120
72.1.2	F - Mühlbach (RTE)	D - Eichstetten (EnBW)	380	1751	R1, R10	4597
81.1.1	F - Sierentz (RTE)	CH - Bassencourt (BKW)	380	1186	R1	14760
81.2.1	F - Sierentz (RTE)	CH - Laufenburg (EGL Grid)	380	1167	R1	39086
81.3.1	F - Mambelin (RTE)	CH - Bassencourt (BKW)	380	789	R1	11740
82.1.1	F - Bois-Tollot (RTE)	CH - Verbois (EOS)	380	1211	R1	5911
82.1.2	F - Bois-Tollot (RTE)	CH - Chamson (EOS)	380	1409	R1	28797
82.2.1	F - Génissiat (RTE)	CH - Verbois (EOS)	220	280	R1	15834
82.2.2	F - Génissiat (RTE)	CH - Verbois (EOS)	220	280	R1	6224
82.4.1	F - Vallorcine (RTE)	CH - La Bâtaiz (Atel)	220	266	R11	2192
82.5.1	F - Cornier (RTE)	CH - Riddes (EGL Grid)	220	275	R1	20654
82.6.1	F - Cornier (RTE)	CH - St.-Triphon (EOS)	220	275	R1	5036
83.1.1	F - Sierentz (RTE)	CH - Asphard (Atel/NOK/EnBW)	380	1167	R1	19799
91.1.1	F - Albertville (RTE)	I - Rondissoone (GRTN)	380	1150	R1, R3	39109
91.1.2	F - Albertville (RTE)	I - Rondissoone (GRTN)	380	1150	R1, R3	29265
92.1.1	F - Le Broc Carros (RTE)	I - Camporosso (GRTN)	220	335	R1, R3	36216
93.1.1	F - Villardon (RTE)	I - Vénau (GRTN)	380	879	R1, R3	703
94.1.1	F - Luciana (RTE)	I - Suvereto (GRTN)	220	300	R1	30959
102.1.1	CH - Laufenburg (EGL Grid)	D - Gurtweil (EnBW)	220	485	R1	1220
102.1.2	CH - Laufenburg (EGL Grid)	D - Gurtweil (EnBW)	220	485	R1	423
102.2.1	CH - Laufenburg (EGL Grid)	D - Kühmoos (EnBW)	220	295	R1	3198
102.3.1	CH - Laufenburg (EGL Grid)	D - Kühmoos (EnBW)	220	485	R1	8276
102.3.2	CH - Laufenburg (EGL Grid)	D - Kühmoos (EnBW)	380	1620	R1	9711
102.4.1	CH - Laufenburg (EGL Grid)	D - Kühmoos (EnBW)	380	1620	R1	2932
102.4.2	CH - Laufenburg (EGL Grid)	D - Kühmoos (EnBW)	380	1580	R1	53862
102.5.1	CH - Laufenburg (EGL Grid)	D - Tiengen (RWE Transportnetz Strom)	380	1158	R1	13772
103.1.1	CH - Bezna (NOK)	D - Tiengen (RWE Transportnetz Strom)	380	1158	R1, R10	8842
103.1.2	D - Tiengen (RWE Transportnetz Strom)	CH - Koblenz (NOK)	220	335	R1	3623
104.1.1	CH - Asphard (Atel/NOK/EnBW)	D - Kühmoos (EnBW)	380	1340	R1	24926
105.1.1	CH - Laufenburg (EGL Grid)	D - Engststatt (EnBW)	380	1675	R1	2590
111.2.1	A - Bürs (VIW)	D - Herbertingen (RWE Transportnetz Strom)	220	389	R1	6729
111.3.1	A - Bürs (VIW)	D - Dillmensingen (RWE Transportnetz Strom)	220	492	R1	5403
115.5.1	A - St. Peter (Verbund-APG)	D - Altheim (E.ON Netz)	220	301	R1	56383
115.6.1	A - St. Peter (Verbund-APG)	D - Simbach (E.ON Netz)	220	301	R1	2090
115.9.1	A - St. Peter (Verbund-APG)	D - Pirach (E.ON Netz)	220	518	R1	1877
115.10.1	A - St. Peter (Verbund-APG)	D - Pleinting (E.ON Netz)	220	518	R1	1145
116.1.1	A - Westtirol (Verbund-APG)	D - Leupolz (RWE Transportnetz Strom)	380	1316	R1	80266
116.2.1	A - Westtirol (Verbund-APG)	D - Memmingen (RWE Transportnetz Strom)	220	762	R1	5344
117.1.1	A - Silz (TIRAG)	D - Oberbrunn (E.ON Netz)	220	793	R1	4384
117.1.2	A - Silz (TIRAG)	D - Oberbrunn (E.ON Netz)	220	793	R1	11996

Reasons: R1, R2 - Planned unavailability

R3 - Overload

R4, R5, R6 - Failed transmission network

January [min]	February [min]	March [min]	April [min]	May [min]	June [min]	July [min]	August [min]	September [min]	October [min]	November [min]	December [min]
34942	623										222
	16285										
				2762	21			13225			509
	115						556	492			
	162		1155								
1				899						532	
							2297		1414	1359	
					4792	4929					
							17999				
							2502				
							7118	7106	2491		
							7139	6987	2350		
		3436								709	
				6312							671
				65				3716	3622	2074	6327
					3359						
1120											
2015		540						2042			
750	371		13639								
	1037			16479	476	418	9618	11058			
		5395		33			37		6275		
	15	536	1453		23117	278					3398
				15834							
				6224							
				279				1913			
		2059		1002	15434					2159	
					625		4411				3239
5100			6300			146			11160		
		773				16473	76			11460	
		2621			5099	2021	559			26437	
			660				38				
							43				
		437			661			9659	21300		
	423								122		
		407		1855	582						354
		359	3082	4835							
		1950	4011				3182		498	70	
		2104		581							247
							29803	23808			251
							10865		2399	508	
	4967						3213		662		
		2760	594		269						
					11076	13850					
		2065			525						
	840		4796		300	369					424
			4908				375				
525	1482		7951	16259	17972	3118	4526			2536	2014
	1500				584				6		
	506								393	978	
180	500									229	236
	57	2259	2643				13	26862		43200	5232
	1127		3726		8		68		157		258
			8		68	157			258	314	663
550			496	1859	502	1479			111	227	

R7, R8, R9 - External impacts

R10, R11 - Other reasons

Circuit ID	From substation	To substation	Voltage [kV]	Thermal conventional transmission capacity [MVA]	Major Reason	Time whole year [min]
121.1.1	I - Ponte (GRTN)	CH - Airolo (Atel)	220	257	R1, R3	301
121.2.1	I - Mese (GRTN)	CH - Gorduno (Atel)	220	257	R3, R6	2885
121.3.1	I - Bulciago (GRTN)	CH - Soazza (EGL Grid)	380	1142	R1, R3	5172
121.4.1	I - Musignano (GRTN)	CH - Lavorgo (Atel)	380	1118	R1,R3,R6	5915
122.2.1	I - Sondrio (GRTN)	CH - Robbia (RE)	220	257	R1, R3	780
123.1.1	I - Avise (GRTN)	CH - Riddes (EGL Grid)	220	290	R1, R3	20542
123.2.1	I - Valpelline (GRTN)	CH - Riddes (EGL Grid)	220	290	R1, R3	16756
132.1.1	I - Sovzene (GRTN)	A - Lienz (Verbund-APG)	220	257	R1, R3	24371
141.1.1	CH - Y-Rehag (NOK)	A - Meiningen (VKW-ÜN)	220	501	R1, R10	13088
142.1.1	CH - Pradella (EGL Grid)	A - Westtirol (Verbund-APG)	380	1340	R1	1560
142.2.1	CH - Pradella (EGL Grid)	A - Westtirol (Verbund-APG)	380	1340	R1	975
151.1.1	E - Hernani (REE)	F - Argia (RTE)	380	1136	R11	6457
151.2.1	E - Irún (REE)	F - Errondonia (RTE)	132	59	R1	6611
151.3.1	E - Arkale (REE)	F - Argia (RTE)	220	340	R1, R7	1109
151.4.1	E - Biescas (REE)	F - Pragnères (RTE)	220	247	R8	138067
152.1.1	E - Benós (REE)	F - Lac d'Oo (RTE)	110	76	R1	32878
153.1.1	E - Vic (REE)	F - Baixas (RTE)	380	1105	R1, R10	2577
161.1.1	D - Flensburg (E.ON Netz)	DK - Ensted (ELSAM)	220	332	R1	2369
161.2.1	D - Flensburg (E.ON Netz)	DK - Kassø (ELSAM)	220	332	R1	331
162.1.1	D - Bentwisch (VE Transmission)	DK - Bjæverskov (ELKRAFT)	400	600	R1, R2	65495
171.1.1	A - Bisamberg (Verbund-APG)	CZ - Sokolnice (CEPS)	220	269	R1, R10	9509
171.2.1	A - Bisamberg (Verbund-APG)	CZ - Sokolnice (CEPS)	220	269	R1, R10	10090
172.1.1	A - Dürnrohr (Verbund-APG)	CZ - Slavetice (CEPS)	380	1711	R1	8061
181.1.1	A - Obersielach (Verbund-APG)	SLO - Podlog (ELES)	220	351	R1	2334
182.1.1	A - Kainachtal (Verbund-APG)	SLO - Maribor (ELES)	380	1514	R1	2189
182.2.1	A - Kainachtal (Verbund-APG)	SLO - Maribor (ELES)	380	1514	R1	7219
191.4.1	D - Bauerl (RWE Transportnetz Strom)	L - Flebour (CEGEDEL)	220	490	R1	661
191.4.2	D - Bauerl (RWE Transportnetz Strom)	L - Roost (CEGEDEL)	220	490	R1	1244
192.1.1	D - Trier (RWE Transportnetz Strom)	L - Heisdorf (CEGEDEL)	220	490	R1, R10	2853
192.2.1	D - Quint (RWE Transportnetz Strom)	L - Heisdorf (CEGEDEL)	220	490	R1	6604
201.1.1	I - Redipuglia (GRTN)	SLO - Divaca (ELES)	380	1712	R1, R3, R10	4540
201.2.1	I - Padriciano (GRTN)	SLO - Divaca (ELES)	220	330	R1, R3, R10	4977
205.1.1	I - Galatina (GRTN)	GR - Arachthos (HTSO)	380	500	R1, R3, R10	84396
211.1.1	A - Wien Süd-Ost (Verbund-APG)	H - Györ (MAVIR)	220	305	R1	19988
211.1.2	A - Neusiedl (Verbund-APG)	H - Györ (MAVIR)	220	305	R1	17239
212.1.1	A - Wien Süd-Ost (Verbund-APG)	H - Györ (MAVIR)	380	1514	R1	8495
221.1.1	F - Mandarins (RTE)	GB - Sellindge (National Grid)	270		R1, R6	5914
221.2.1	F - Mandarins (RTE)	GB - Sellindge (National Grid)	270		R10	866
231.1.1	E - Las Conchas (REE)	P - Lindoso (REN)	132	90	R1	10289
232.1.1	E - Aldeadávila (REE)	P - Bemposta (REN)	220	268	R1	46667
232.2.1	E - Aldeadávila (REE)	P - Pocinho (REN)	220	268	R1	24561
232.3.1	E - Saucelle (REE)	P - Pocinho (REN)	220	268	R1	4961
233.1.1	E - Cedillo (REE)	P - Falagueira (REN)	380	707	R7	1024
234.1.1	E - Cartelle (REE)	P - Alto Lindoso (REN)	380	1036	R1	3357
241.1.1	GR - Thessaloniki (HTSO)	FYROM - Dubrovo (ESM)	380	1300	R1	2515
242.1.1	GR - Amyndeo (HTSO)	FYROM - Bitola (ESM)	150	120	R1	7460
245.1.1	CZ - Lieskovec (CEPS)	PL - Kopanina (PSE SA)	220	400	R1, R10	16403
246.1.1	CZ - Lieskovec (CEPS)	PL - Bujaków (PSE SA)	220	400	R1	12252
251.2.1	HR - Donji Miholjac (HEP)	H - Siklos (MAVIR)	120	114	R1	938
251.3.1	HR - Tumbri (HEP)	H - Héviz (HEP)	380	1246	R2, R7	3221
261.2.1	SCG - Sip (EPS)	RO - Guravai (TRANSELECTRICA)	110	90	R10	525600
262.1.1	SCG - Kikinda 1 (EPS)	RO - Temisvar (TRANSELECTRICA)	110	90	R10	525600
263.1.1	SCG - Kusijak (EPS)	RO - Ostrov Mare (TRANSELECTRICA)	110	257	R10	480960
270.1.1	CZ - Lieskovec (CEPS)	SK - Pov. Bystrica (SEPS)	220	269	R1	17739
271.1.1	SCG - Niš (EPS)	BG - Sofija Zapad (NEK)	380	1264	R1	2553
272.1.1	SCG - HE Vrla 1 (EPS)	BG - Breznik (NEK)	110	90	R10	525600
273.1.1	SCG - Zajecar (EPS)	BG - Kulà (NEK)	110	90	R10	525600
277.1.1	RO - Tântareni (TRANSELECTRICA)	BG - Kozlodui (NEK)	400	1450	R1	15302
277.1.2	RO - Tântareni (TRANSELECTRICA)	BG - Kozlodui (NEK)	400	1450	R1	14656
280.1.1	CZ - Sokolnice (CEPS)	SK - Senica (SEPS)	220	318	R1	55593
281.1.1	SCG - Podgorica (EP CG)	AL - Vau i Dejës (KESH)	220	311	R1, R4	3924
282.1.1	SCG - Prizren (EPS)	AL - Fierza (KESH)	220	311	R2, R4	7372
291.1.1	GR - Kardia (HTSO)	AL - Elbassan (KESH)	400	1300	R1	486
301.1.1	GR - Thessaloniki (HTSO)	BG - Blagoevgrad (NEK)	400	1300	R6, R11	4030

Reasons: R1, R2 - Planned unavailability

R3 - Overload

R4, R5, R6 - Failed transmission network

January [min]	February [min]	March [min]	April [min]	May [min]	June [min]	July [min]	August [min]	September [min]	October [min]	November [min]	December [min]
			168					133			
				710			377	1798			
							5100	72			
		789						111	5015		
262	2721	444			16507			201		579	
					16495			284		324	
								261			
638		118		1568		12	22080	590	3		
		8899		20	594	2639		298			
			128	342		1090					
				343		632					
							6277			180	
				6182						429	
					569					89	451
1381	40320	44640	43200	8266			768		32110		260
		1677	229					671			
								1959		410	
					60			22619	7790		331
34987	39				4982		148	250	3559		344
226					4944		150		2136		
2860						5301	908			1852	
				874						1460	
	1499	400						290			
985		6183								51	
407		9				519				196	49
			1036					1817		687	38
					6100				504		
				1542		703	2160	135			
		3360		1550						67	
41291	39960	2340								805	
	100	64		2018	17223	583					
					17239						
		289				348	1310	6548			
			1646			124			3906	238	
29	60	30		110		405		108	70		54
				62		10227					
									16722	29945	
							72		23916	573	
							1024			4852	
			3333			24					
				2477	10			28			
				7434		26					
1052	1070	11759			1581			850			91
274	428		1195		1580			8684			91
				938							
				1091	48	1950	132				
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
		247			11375	5648	7				462
				2442						111	
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
		1022					14280				
		856					13800				
							12542	37000	6051		
233	428		11	307	225	2720					
662					24	117	21	1003			5545
				486			20		1731	1769	
	28			482							

R7, R8, R9 - External impacts

R10, R11 - Other reasons

T9a

Unavailability of international tie lines - Overview

Circuit ID	From substation	To substation	Voltage [kV]	Thermal conventional transmission capacity [MVA]	Major Reason	Time whole year [min]
321.1.1	CZ - Hradec (CEPS)	D - Etzenricht (E.ON Netz)	400	1639	R1	18705
321.1.2	CZ - Prestice (CEPS)	D - Etzenricht (E.ON Netz)	380	1645	R1	6219
322.1.1	CZ - Hradec (CEPS)	D - Röhrsdorf (VE Transmission)	380	1476	R1, R3, R10	7318
322.1.2	CZ - Hradec (CEPS)	D - Röhrsdorf (VE Transmission)	380	1476	R1, R6, R9	14676
331.1.1	SCG - Subotica 3 (EPS)	H - Sandorfalva (MAVIR)	380	1246	R1	43234
351.1.1	SLO - Divaca (ELES)	HR - Melina (HEP)	380	1264	R6	189
351.2.1	SLO - Divaca (ELES)	HR - Pehlin (HEP)	220	366	R10	2068
351.3.1	SLO - Koper (ELES)	HR - Buje (HEP)	110	89	R1	417
351.4.1	SLO - Ilirska Bistrica (ELES)	HR - Matulji (HEP)	110	53	R10	635
352.1.1	SLO - Krško (ELES)	HR - Tumbri (HEP)	380	1316	R1	414
352.1.2	SLO - Krško (ELES)	HR - Tumbri (HEP)	380	1316	R1	15196
352.2.1	SLO - Cirkovce (ELES)	HR - Mraclin (HEP)	220	297	R1, R10	3207
352.3.1	SLO - Formin (ELES)	HR - Nedeljanec (HEP)	110	115	R2	188
361.1.1	BiH - Mostar (JPCC)	HR - Konjško (HEP)	400	1316	R1	4406
361.2.1	BiH - Mostar (JPCC)	HR - Zakuac (HEP)	220	311	R11	5898
361.3.1	BiH - Grahovo (JPCC)	HR - Knin (HEP)	110	90	R11	3934
361.7.1	BiH - Grude (JPCC)	HR - Gracac (HEP)	110	120	R1	476
362.2.1	BiH - Prijedor (JPCC)	HR - Meduric (HEP)	220	297	R1	292
363.5.1	BiH - Neum (JPCC)	HR - Ston (HEP)	110	76	R1	145
364.5.1	BiH - Orašje (JPCC)	HR - Županja (HEP)	110	76	R10	15860
371.1.1	HR - Ernestinovo (HEP)	SCG - Mladost (EPS)	380	831	R10	525600
371.2.1	HR - Nijemci (HEP)	SCG - Šid (EPS)	110	76	R10	262688
371.3.1	HR - Beli Manastir (HEP)	SCG - Apatin (EPS)	110	78	R10	306676
381.1.1	BiH - Trebinje (JPCC)	SCG - Podgorica (EP CG)	380	1264	R1, R4	35987
381.2.1	BiH - Trebinje (JPCC)	SCG - Perucica (EP CG)	220	311	R1, R4	8451
381.3.1	BiH - Trebinje (JPCC)	SCG - Herceg Novi (EP CG)	110	90	R1, R4	1174
381.4.1	BiH - Bileća (JPCC)	SCG - Vilusi (EP CG)	110	84	R1, R4	1228
382.1.1	BiH - Sarajevo 20 (JPCC)	SCG - Piva (EP CG)	220	366	R1, R4	11807
383.2.1	BiH - Bijeljina (JPCC)	SCG - Lešnica (EPS)	110	123	R1, R3, R5	568
383.3.1	BiH - Zvornik (JPCC)	SCG - HE Zvornik (EPS)	110	123	R1	1827
383.4.1	BiH - Višegrad (JPCC)	SCG - Potpec (EPS)	110	123	R1	1272
391.1.1	FYROM - Skopje 1 (ESM)	SCG - Kosovo A (EPS)	220	311	R10	484514
391.2.1	FYROM - Skopje 1 (ESM)	SCG - Kosovo A (EPS)	220	311	R10	524159
391.3.1	FYROM - Skopje 4 (ESM)	SCG - Kosovo B (EPS)	380	1264	R1	54765
401.1.1	D - Herrnenwyk (E.ON Netz)	S - Kruseberg (Sydkraft/Vattenfall)	450	600	R1, R10	21257
404.1.1	CZ - Nošovice (CEPS)	SK - Varin (SEPS)	400	1465	R10	8640
424.1.1	CZ - Sokolnice (CEPS)	SK - Krizovany (SEPS)	400	1503	R1	51196
440.1.1	SK - V.Kapusany (CEPS)	WEST_UA - Mukacevo (NPC Ukrenergo)	400	1186	R1	8009
443.1.1	CZ - Albrechtice (CEPS)	PL - Dobrzen (PSE SA)	400	1212	R1	42377
444.1.1	CZ - Nošovice (CEPS)	PL - Wielopole ()	400	1212	R1	20184
497.1.1	CZ - Sokolnice (CEPS)	SK - Stupava (SEPS)	400	1711	R1	18880
501.1.1	D - Vierraden (VE Transmission)	PL - Krajinik (PSE SA)	220	392	R1, R10	95976
501.1.2	D - Vierraden (VE Transmission)	PL - Krajinik (PSE SA)	220	392	R1, R10	50974
502.1.1	D - Hagenwerder (VE Transmission)	PL - Mikulowa (PSE SA)	380	1427	R1	1909
502.1.2	D - Hagenwerder (VE Transmission)	PL - Mikulowa (PSE SA)	380	1427	R1	2204
601.1.1	E - Pinar del Rey (REE)	MA - Melloussa (ONE)	380	730	R1	23761
700.1.1	PL - Krośno Iłskrzynia (PSE SA)	SK - Lemešany (SEPS)	400	1434	R2, R9	54600
700.1.2	PL - Krośno Iłskrzynia (PSE SA)	SK - Lemešany (SEPS)	400	1434	R2, R9	54713
702.1.1	PL - Zamosc (PSE SA)	WEST_UA - Dobrotwor (NPC Ukrenergo)	220	168	R1	1755
703.1.1	PL - Białystok (PSE SA)	BY - Ros (Grodnoenergo)	220	154	R1	6160
704.1.1	PL - Słupsk (PSE SA)	S - Stamo (SvK)	450	600	R1	14918
710.1.1	H - Györ (MAVIR)	SK - Gabčíkovo (SEPS)	400	1246	R1, R10	8957
711.1.1	H - Göd (MAVIR)	SK - Levice (SEPS)	400	1246	R1	7603
720.1.1	H - Albertsra (MAVIR)	WEST_UA - Zahidno Ukrainska (NPC Ukrenergo)	750	4000	R1	62839
721.1.1	H - Sajószöged (MAVIR)	WEST_UA - Mukacevo (NPC Ukrenergo)	400	1635	R1	2558
722.1.1	H - Kisvarda (MAVIR)	WEST_UA - Mukacevo (NPC Ukrenergo)	220	275	R1	15128
722.1.2	H - Tiszalök (MAVIR)	WEST_UA - Mukacevo (NPC Ukrenergo)	220	275	R1	40761
730.1.1	H - Sándorfalva (MAVIR)	RO - Arad (TRANSELECTRICA)	400	1246	R1	43739
740.1.1	RO - Rosiori (TRANSELECTRICA)	WEST_UA - Mukacevo (NPC Ukrenergo)	400	1400	R1	4980
741.1.1	RO - Isaccea (TRANSELECTRICA)	WEST_UA - Niwnitschnoi Ukrainska (NPC Ukrenergo)	750	4000	R1	12600
750.1.1	RO - Stáncsa (TRANSELECTRICA)	MD - Costesti (Moldenergo)	110	90	R10	131040
751.1.1	RO - Husi (TRANSELECTRICA)	MD - Cioara (Moldenergo)	110	90	R10	131040
752.1.1	RO - Husi (TRANSELECTRICA)	MD - Ungheni (Moldenergo)	110	90	R10	131040

Reasons: R1, R2 - Planned unavailability

R3 - Overload

R4, R5, R6 - Failed transmission network

January [min]	February [min]	March [min]	April [min]	May [min]	June [min]	July [min]	August [min]	September [min]	October [min]	November [min]	December [min]
					6219		601	18035	69		
	540	421				6357					
470		432	305	1099	5242	6743	385				34
			43200								
			189								
				3	2065			1			416
					480		19		155		
						19	19		395		
									15177		
	15		2441	21	28		210	228	264		
					188			430	3532	444	
										14	5884
					38		47				3934
									391		
										292	
									145		
							2401	13459			
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	1447			601		
44640	40320	44640	43200	44640	43200	44640			1396		
152	35			16	19	28610		6352	693	110	
69				3			2125				6254
31				613		482	5				43
97	332	282	15				311				191
79	290					7	1923	7368	257	1512	371
		99				31		19		419	
				10						1817	
9				7						1256	
44640	40320	44640	43200	44640	3555	43920	44640	43200	44640	42479	44640
44640	40320	44640	43200	44640	42479	43920	44640	43200	44640	43200	44640
144		201	5021			42479	260	101		6472	
									18755	2502	
			8640								
		8652	2227			258	216	28298	9460	2085	
	8009					15879		23569	650		2279
							19623				561
				16632							2248
								32581	44640	18347	408
				987	44640			5234			113
			1909								
			2204								
					738		796	5474	9554	7199	
1016	12506	21826				16754			398		2100
1081	12485	21769				16754			562		2062
	23					12	1365	355			
584					1484	31	2851		314		896
250	851			4318	91	25		9356	27		
229								3266	3483	1979	
	102					597	6329				575
			2341		21276	27960		10835		173	254
	23	2122					413				
							14814		314		
				11	5390	34525	676	159			
					780			960	480		16919
							2880			3540	26040
									9720		
	43200	44640	43200								
	43200	44640	43200								
	43200	44640	43200								

R7, R8, R9 - External impacts

R10, R11 - Other reasons

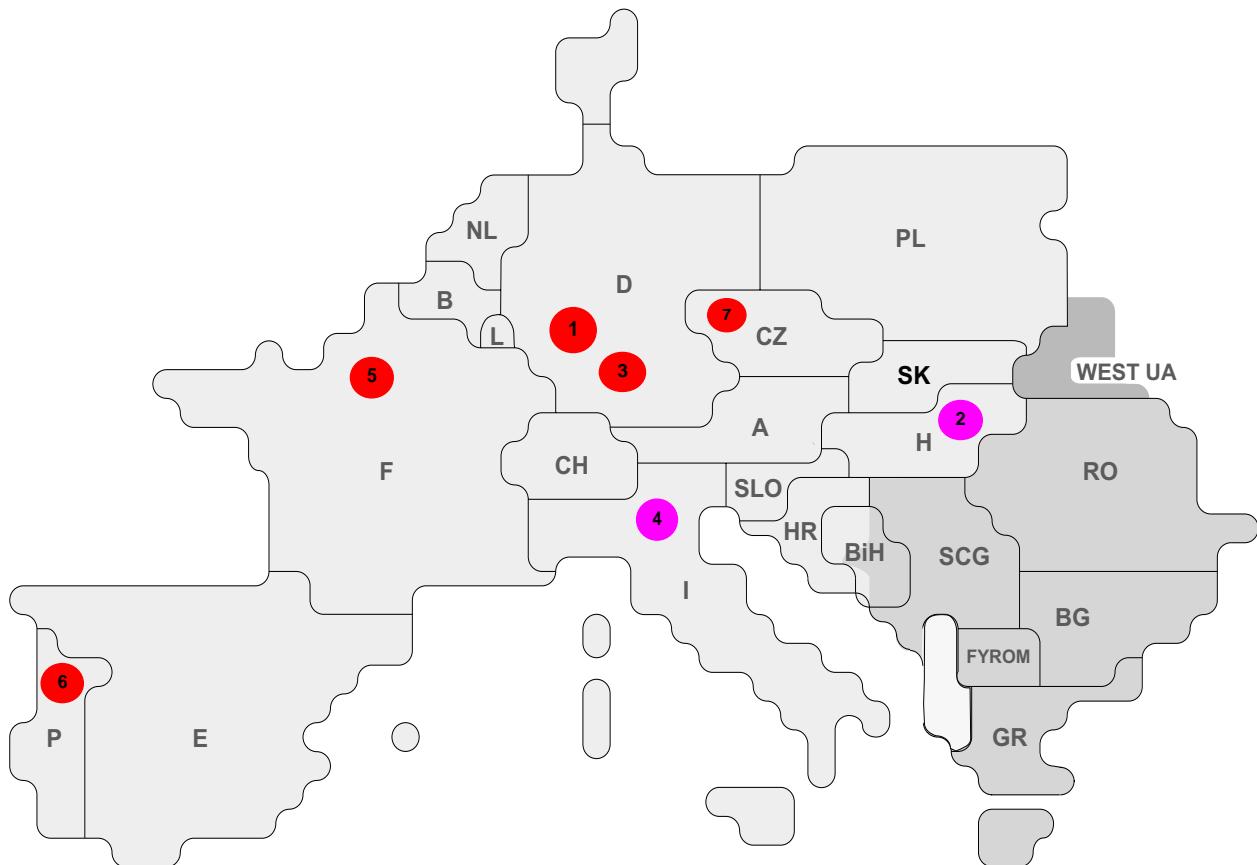
Country	Circuit length (km)				Transformers 400kV → 220kV	
					in the network	
	220 kV	of which cable	400 kV	of which cable	Number	Capacity GVA
B	415	0	1298	0	6	2,1
D ¹	17500	20	18700	60	89	52,8
E	16244	110	16951	15	81	44,0
F	26256	910	20966	2	209	107,0
GR	11078	166	4459	160	39	10,4
I	11705	857	9891	204	51	20,5
SLO ³	328	0	510	0	3	1,2
HR	1248	0	1159	0	4	1,6
BiH	1507	0	766	0	7	3,0
FYROM ³	166	0	371	0	0	0,0
SCG	2589	0	1814	0	12	4,8
L	236	6	0	0	0	0,0
NL	683	6	2003	0,4	4	2,5
A ²	3765	5	2474	56	17	10,8
P	2692	12	1403	0	7	3,2
CH	5031	15	1641	0	19	9,5
CZ	1923	0	3422	0	4	1,9
H	1188	0	2090	0	3	1,5
PL	7887	0	4830	245	15	6,7
SK	962	0	1753	0	3	1,4
RO	4132	0	4630	0	22	8,9
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UCTE	117535	2107	101131	742	595	293,7
West UA ⁴	552	0	142	0	3	1,2

¹ Values transformers of power units as of 2000² Values as of December 31, 2000³ Values as of December 31, 2002⁴ West UA represents the so-called Burshtyn Island synchronously with UCTE

Transformers 220kV ➔ < 220kV				Transformers 400kV ➔ < 220kV			
of power units		in the network		of power units		in the network	
Number	Capacity GVA	Number	Capacity GVA	Number	Capacity GVA	Number	Capacity GVA
3	0,8	17	2,7	14	8,4	26	12,5
111	31,0	438	82,1	100	62,0	190	54,7
0	0,0	0	0,0	0	0,0	53	14,0
260	30,0	1164	107,0	211	86,0	55	13,0
71	7,2	367	15,4	16	5,0	0	0,0
112	23,0	151	25,0	116	34,8	212	54,4
0	0,0	10	1,1	0	0,0	4	1,2
8	1,5	22	3,3	2	0,3	4	1,2
15	2,0	15	2,0	3	1,0	7	2,0
0	0,0	4	0,6	0	0,0	6	1,8
23	4,6	51	7,7	11	4,9	13	3,8
11	1,8	19	2,7	0	0,0	0	0,0
9	3,2	25	4,6	6	3,6	35	16,1
64	7,1	67	11,5	3	1,2	13	3,9
62	4,0	62	7,5	16	3,3	16	4,5
101	4,7	149	13,9	8	4,3	2	0,4
5	1,1	20	4,0	33	11,3	41	11,1
0,0	0,0	26	4,2	0,0	0,0	20	4,2
57	12,5	107	17,1	24	8,2	36	9,6
8	1,5	13	2,6	20	4,1	19	5,0
46	9,3	90	17,5	13	5,3	20	10,0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
966	145,3	2817	332,5	596	243,8	772	223,4
7	1,8	14	1,9	0	0,0	0	0,0

	F	I	SLO	HR	BiH	FY	ROM	SCG	L	NL	A	P	CH	CZ	H	PL	SK	RO	BG	West	UA
B	-								2	1											
	2								2	-											
	2								-	4											
D	-								-	-	22		1	-							
	2								8	-	11		5	-		2					
	4								-	6	3		7	4		2					
E	2											1									
	2											3									
	2										2										
F	-												1								
	1												5								
	3											5									
GR	-					1															
	-					-															
	1					1															1
I	-									-		1									
	1									1		6									
	1									-		2									
S	3									-											
L	2									1											
O	3									2											
HR	11					2							2								
	7					-							-								
	2					1							2								
S	6												1			3	3				
C	2												-								
G	1											1				1	1				
A										-	-	-									
	2								2		2										
	2								1		1										
CZ												5									
												2									
												3									
H												-									
												2									
												1									
PL												-									
												1									
												2									
SK												-									
												1									
RO												-									
												1									
												3									
												2									
<220 kV																					
220 kV																					
380 kV																					
As of 31.12.2003																					

Country	Name of line	Designed for	Equipped for	Operated with
Germany	Beerfelden - Großgartach	1 x 220 kV	2 x 220 kV	1 x 220 kV 1 x 110 kV
	Wehrendorf - Hanekenfähr	1 x 380 kV	2 x 380 kV 2 x 220 kV	1 x 380 kV 1 x 220 kV
France	Tavel - Tricastin	2 x 280 kV	2 x 380 kV	2 x 380 kV
	Chevalet - Gavrelle	2 x 380 kV	1 x 380 kV	1 x 380 kV



Reasons:

R3 **Overload**

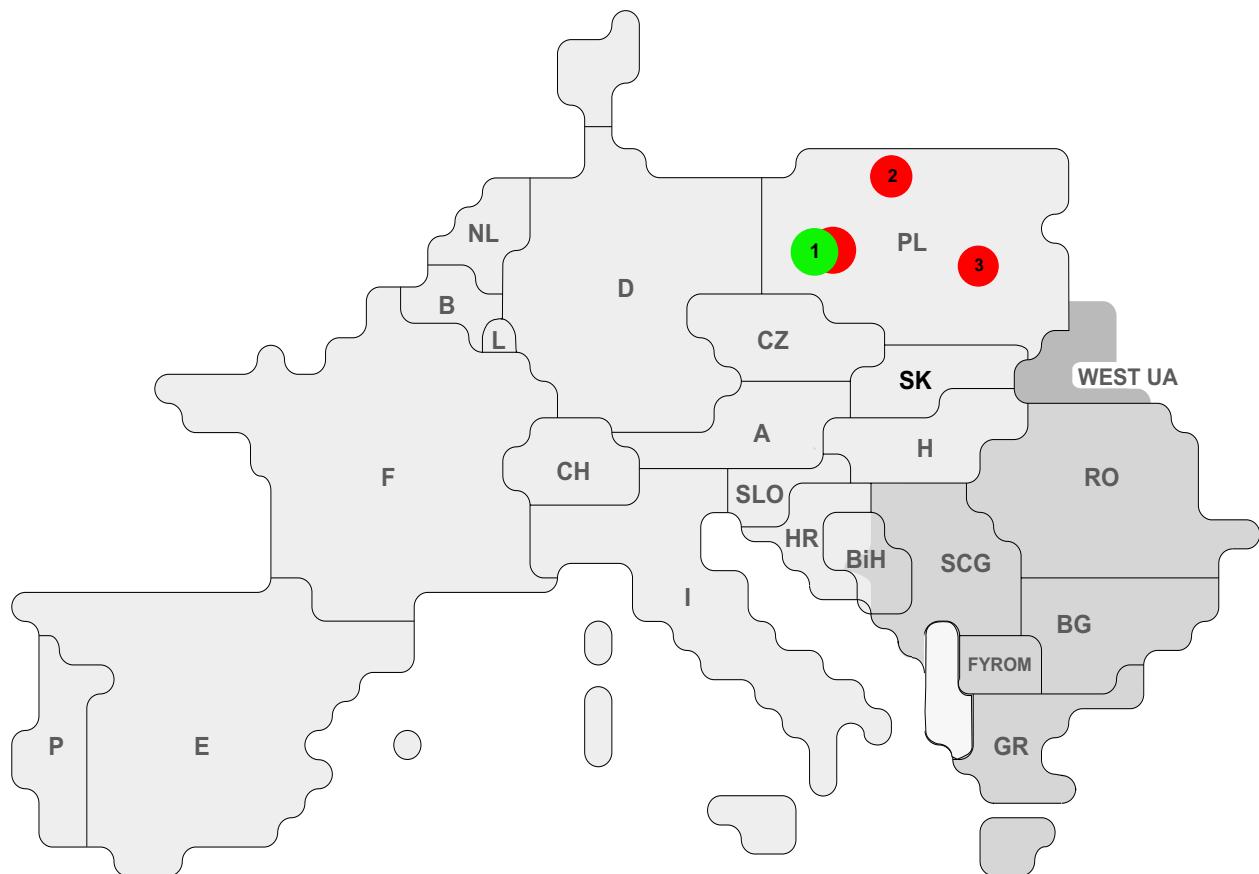
R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)

R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption'
1	D	Weisweiler	R5	1430	600	143	0,63
2	H	Mátra 220 kV	R10	343	311	66	4,39
3	D	Oberzier	R5	95	270	21	0,28
4	I	Villavalle	R10	69	230	18	0,39
5	F	Mezerolles	R6	63	531	10	0,64
6	P	Vila Cha	R5	25	0	10	0,00
7	CZ	Mrovka	R5	10	0	6	0,00

¹ (year [in min] * power loss) / consumption last 12 months



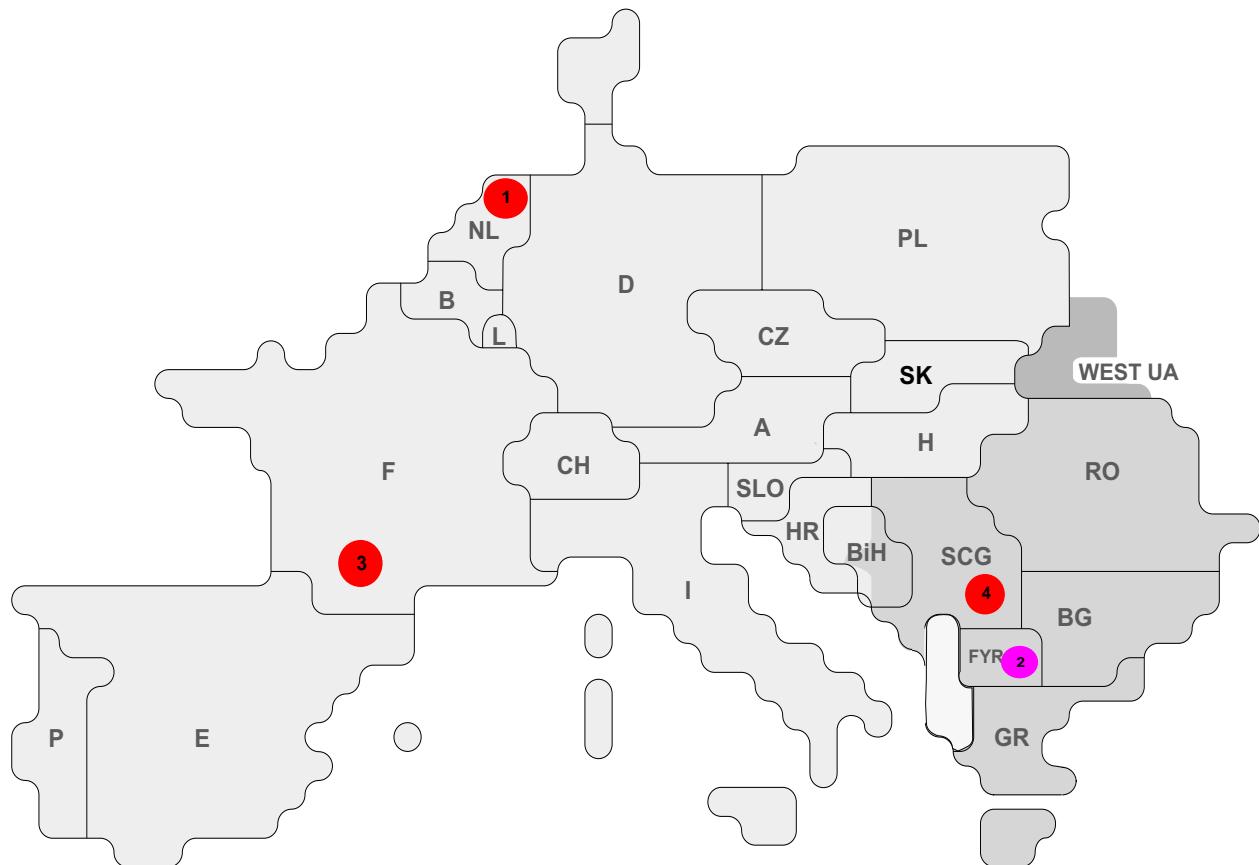
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	PL	Krosno	R6, R8, R9	185	370	12119	1,44
2	PL	Slupsk	R6	76	600	10	2,33
3	PL	Zmosc	R4	38	150	23	0,58

¹ (year [in min] * power loss) / consumption last 12 months



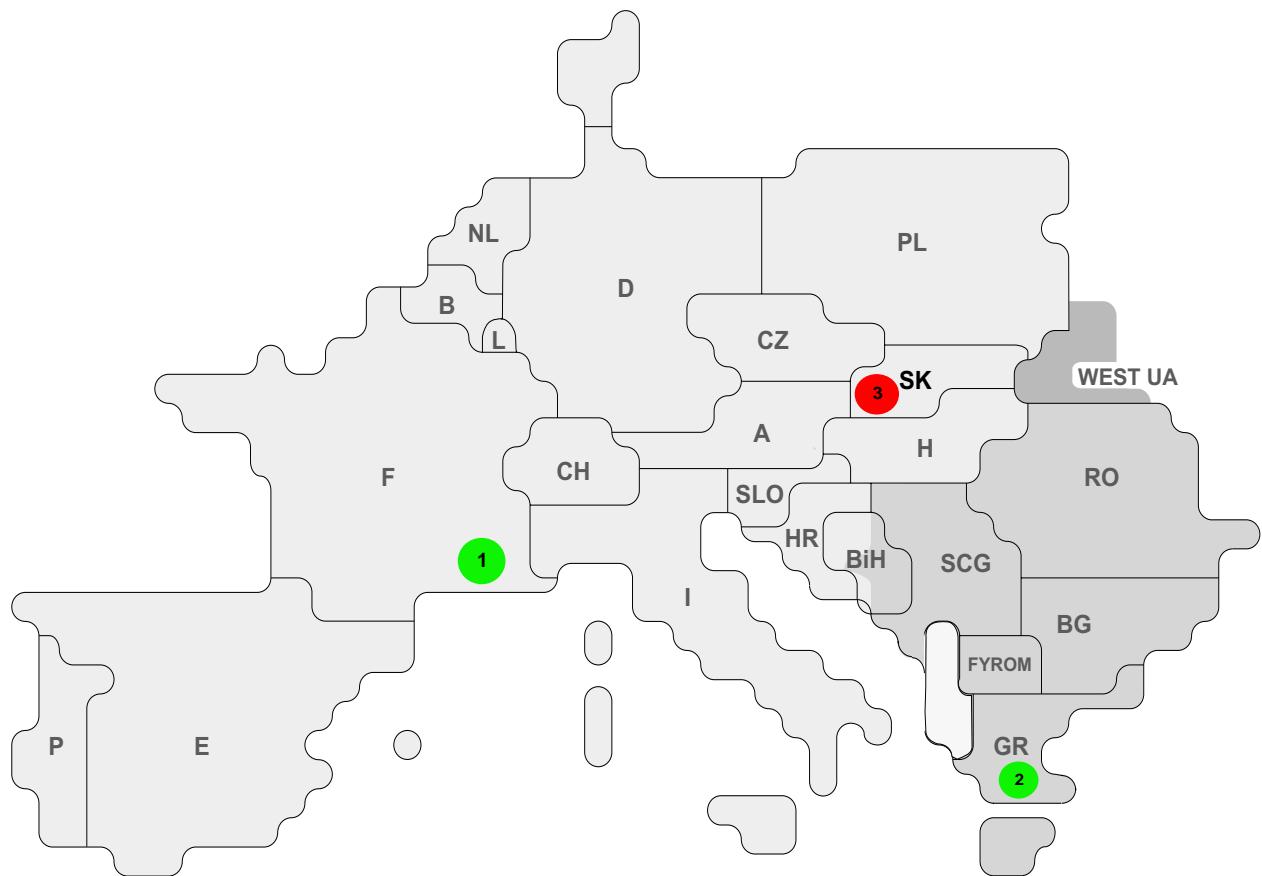
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	NL	Weiererd	R5	750	55	820	0,27
2	FYROM	Bitola2	R10	200	200	74	55,47
3	F	La Mouche	R4	40	82	31	0,10
4	SCG	Krusevac	R4	38	190	12	8,31

¹ (year [in min] * power loss) / consumption last 12 months



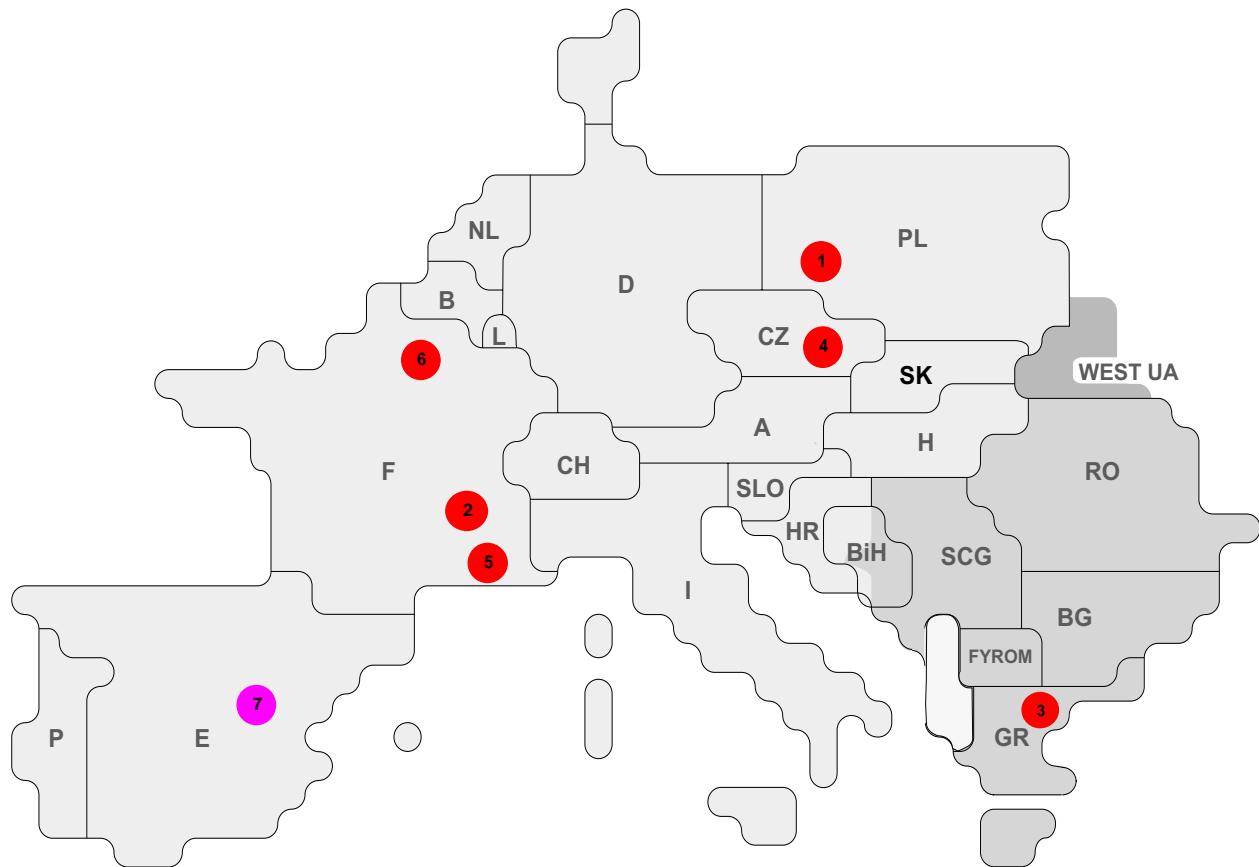
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	F	Avignon (CNR)	R8	925	56	991	0,07
2	GR	Koumoundourou	R7	50	0	10	3,29
3	SK	H. Zdana	R4	18	104	17	2,07

¹ (year [in min] * power loss) / consumption last 12 months



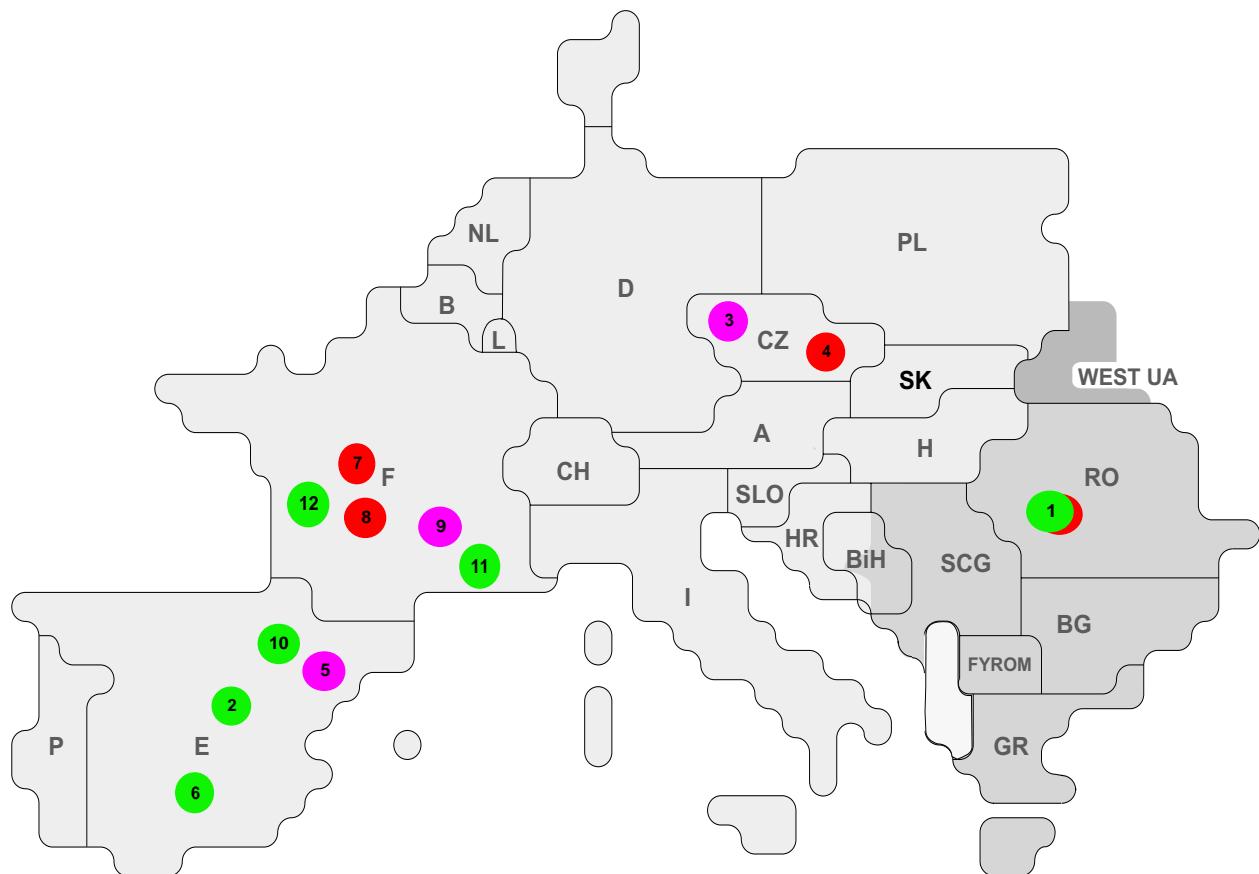
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	PL	Rogowiec	R5	390	678	69	2,60
2	F	Génissiat	R6	188	128	88	0,15
3	GR	Ag. Dimitrios	R6	100	600	10	6,53
4	CZ	Sokolnice	R6	88	24	30	0,21
5	F	La Croix	R4	33	56	35	0,07
6	F	Novion	R6	28	10	170	0,01
7	E	Atarfe	R11	13	0	3	0,00

¹ (year [in min] * power loss) / consumption last 12 months



Reasons:

R3 Overload

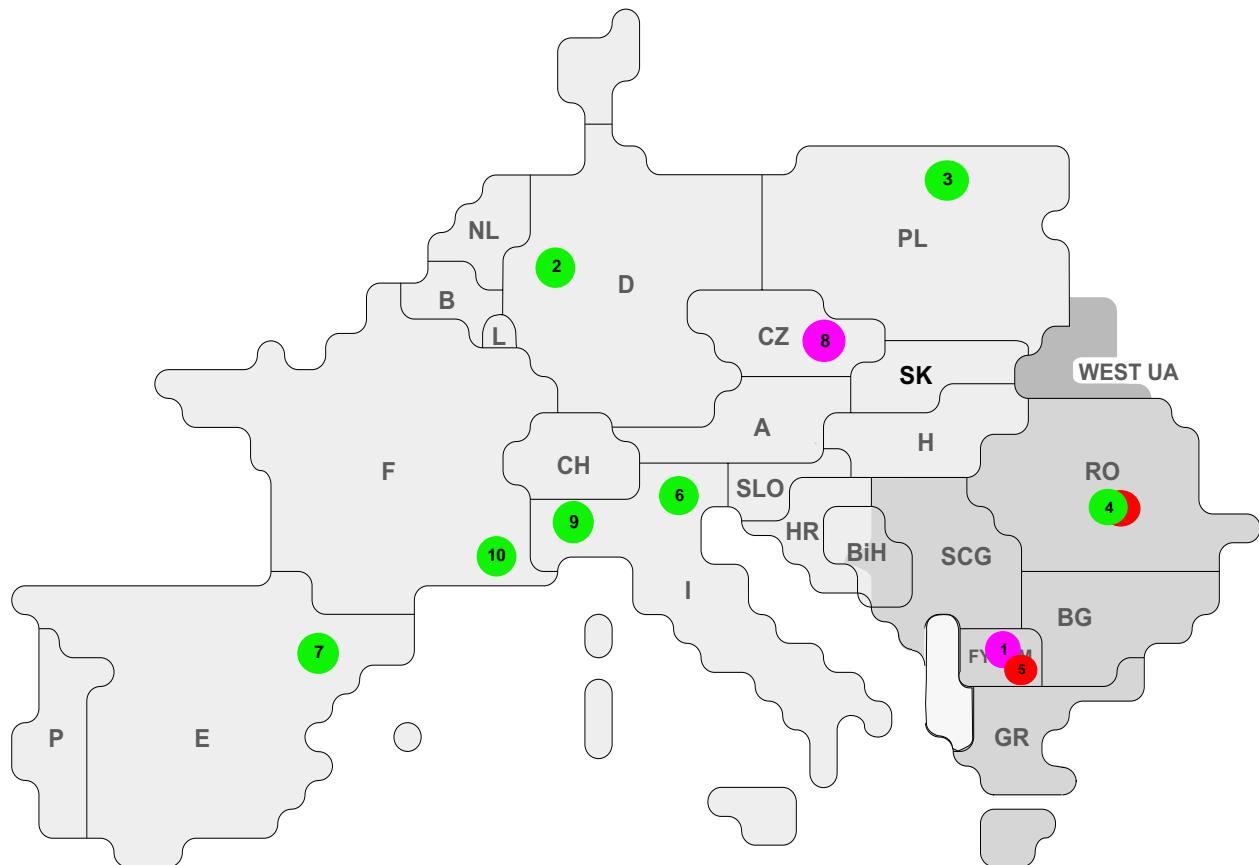
R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)

R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	RO	Tantareni	R5, R8	265	300	53	6,30
2	E	Aluminio	R8	165	0	45	0,00
3	CZ	Sokolnice	R10	88	24	30	0,21
4	CZ	Chrast	R4	84	60	36	0,53
5	E	Canyet	R10	42	1320	9	3,21
6	E	Meson	R8	35	0	21	0,00
7	F	Quatre-écluses	R4	34	17	121	0,02
8	F	Verlhaguet	R4	25	76	31	0,09
9	F	Peyrou	R10	21	63	20	0,08
10	E	San Celoni	R8	20	0	10	0,00
11	F	Boutre	R7	13	2	380	0,00
12	F	Plaud	R8	10	16	40	0,02

¹ (year [in min] * power loss) / consumption last 12 months



Reasons:

R3 Overload

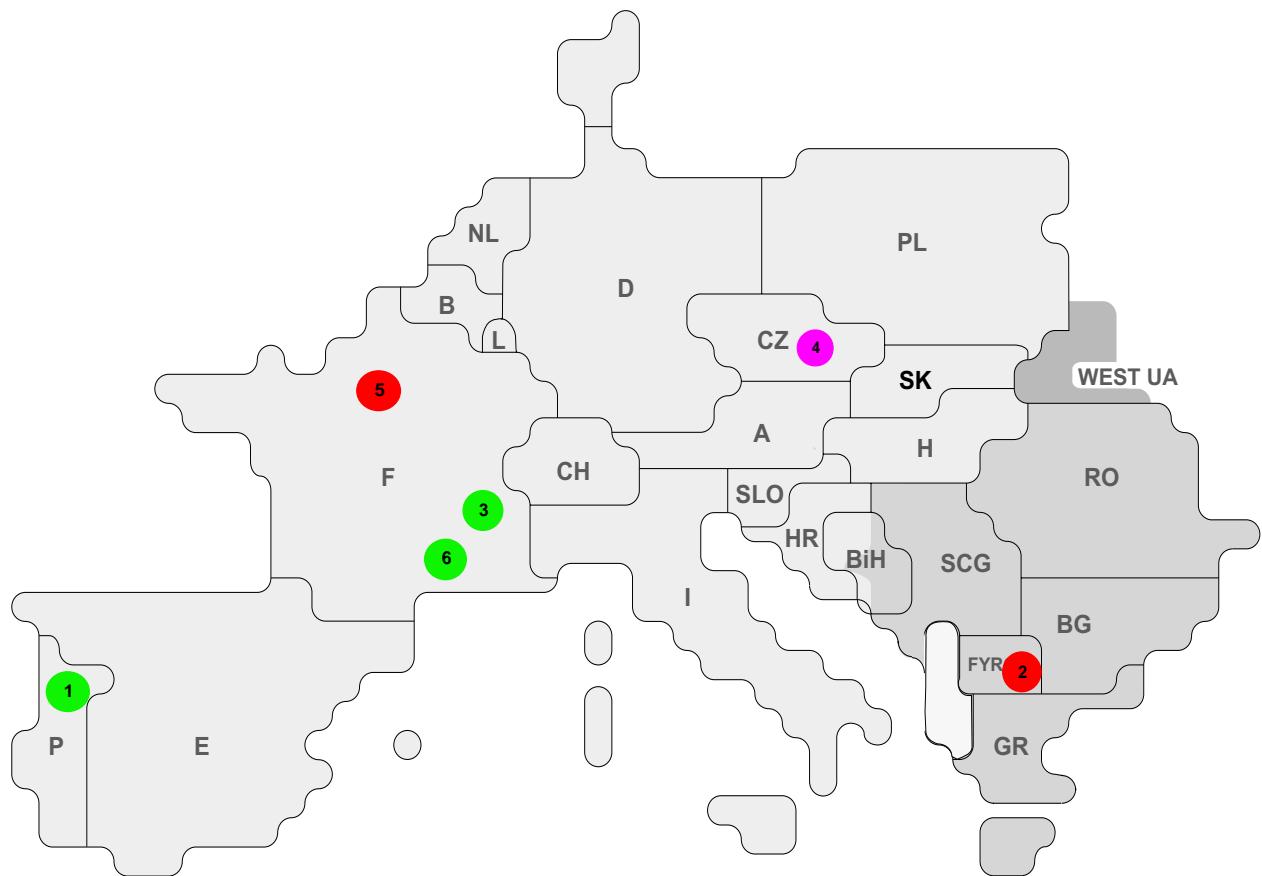
R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)

R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	FYROM	Skopje4	R10	570	280	260	39,71
2	D	Gersteinwerk	R8	376	610	37	0,64
3	PL	Zarnowiec	R7	215	300	600	1,14
4	RO	Urechesti	R4, R8	135	540	15	9,77
5	FYROM	Dubrovo	R5	41	41	26	5,81
6	I	Buia	R4	29	35	1	0,06
7	E	Constanti	R7	29	0	7	0,00
8	CZ	Slavetice	R10	24	0	13	0,00
9	I	Pallanzeno	R8	14	32	0	0,05
10	F	Lingo	R8	12	3	236	0,00

¹ (year [in min] * power loss) / consumption last 12 months



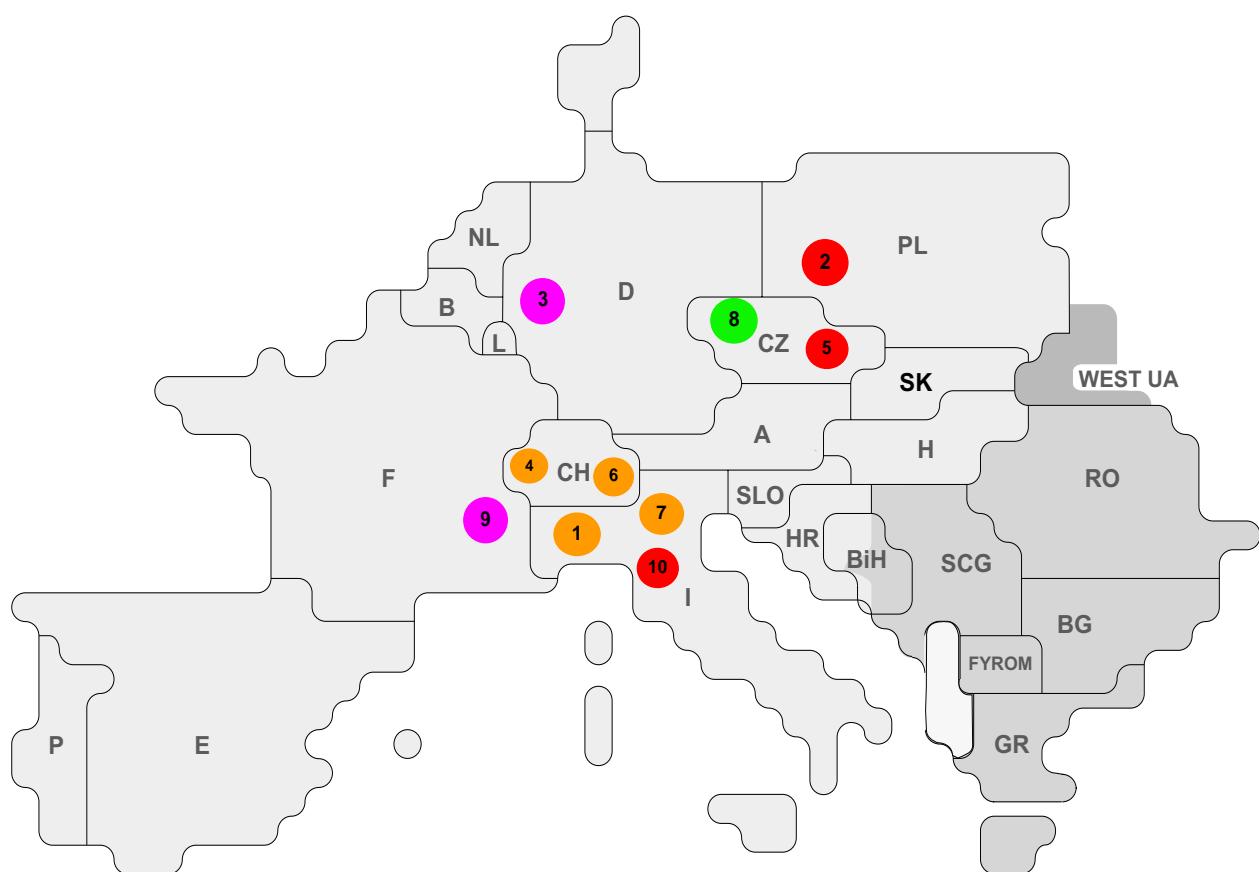
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	P	Palmela	R9	811	1270	120	15,83
2	FYROM	Skopje4	R4	120	120	10	15,14
3	F	Malgovert	R8	62	70	54	0,08
4	CZ	Chodov	R10	48	0	14	0,00
5	F	Pasquier	R4	17	99	11	0,12
6	F	Boutre	R7	12	1	738	0,00

¹ (year [in min] * power loss) / consumption last 12 months



Reasons:

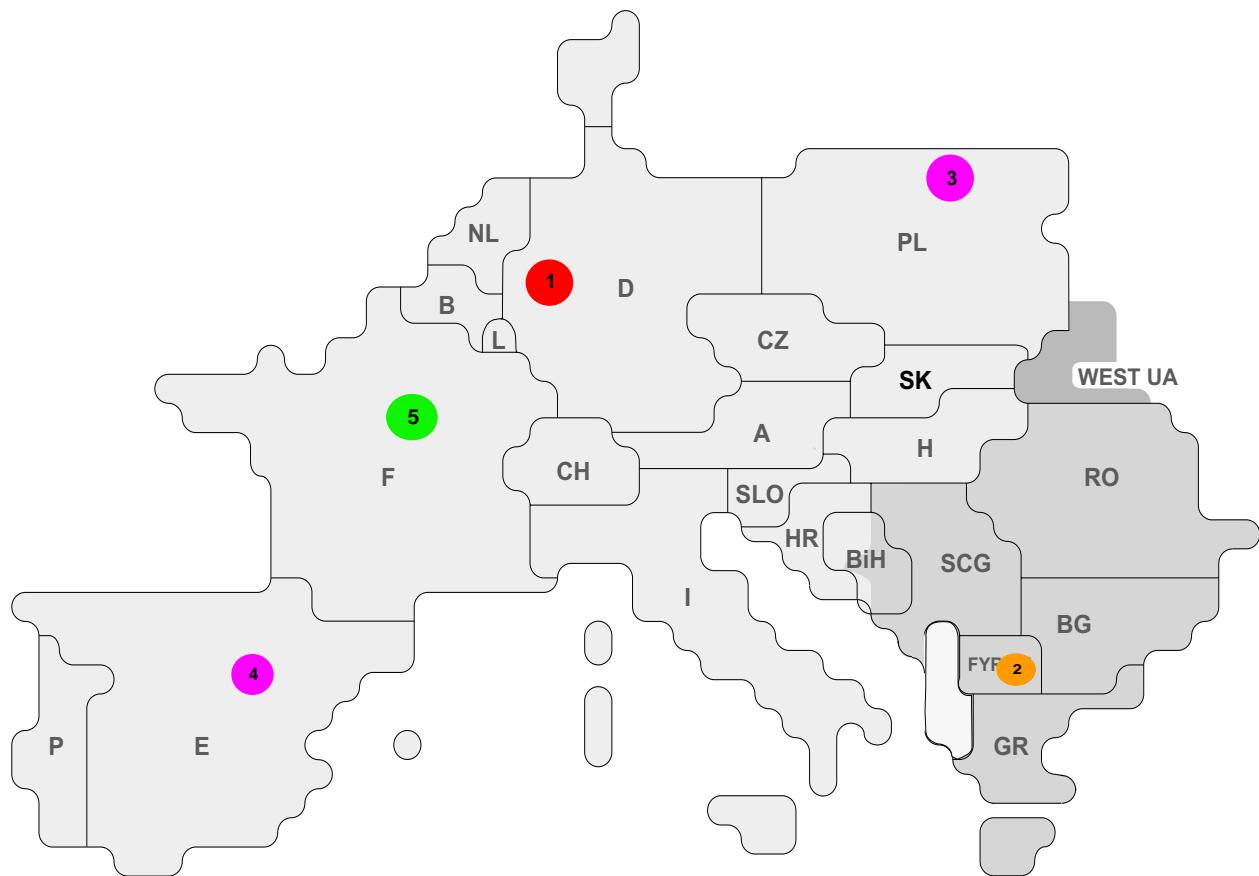
R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	I	All ²	R3	180000	-	1092	-
2	PL	Rogowiec	R6	540	1750	764	6,65
3	D	Brauweiler	R10	477	260	110	0,27
4	CH	Sils	R3	370	1700	17	14,96
5	CZ	Krasikov	R4	111	230	28	2,02
6	CH	Mettlen	R3	70	0	20	0,00
7	I	Montecorvino	R3	15	150	6	0,25
8	CZ	Sokolnice	R7	14	20	37	0,18
9	F	Pontarlier	R11	11	49	16	0,06

¹ (year [in min] * power loss) / consumption last 12 months

² Italian Black-out - complete restoration in 4 stages. More details in the UCTE website (www.ucte.org).



Reasons:

R3 Overload

R4, R5, R6 Failure in the transmission network

R7, R8, R9

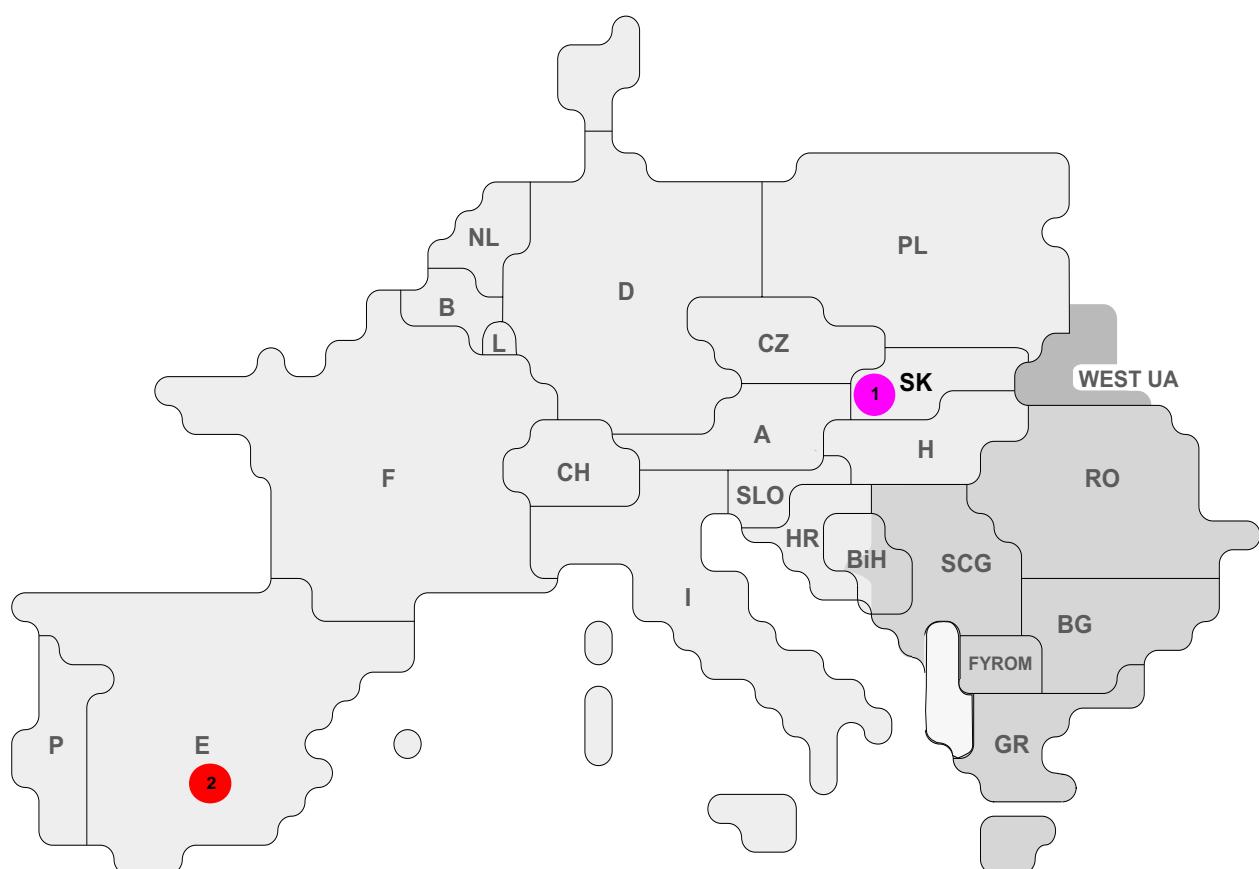
R10, R11

External impacts (animals...)

Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	D	Kusenhorst	R4	469	320	88	0,33
2	FYROM	Skopje4	R3	300	150	6420	15,33
3	PL	Slupsk	R10	180	400	27	1,52
4	E	Puentes Garcia Rodriguez	R11	27	0	2	0,00
5	F	Damery	R8	21	48	30	0,06

¹ (year [in min] * power loss) / consumption last 12 months



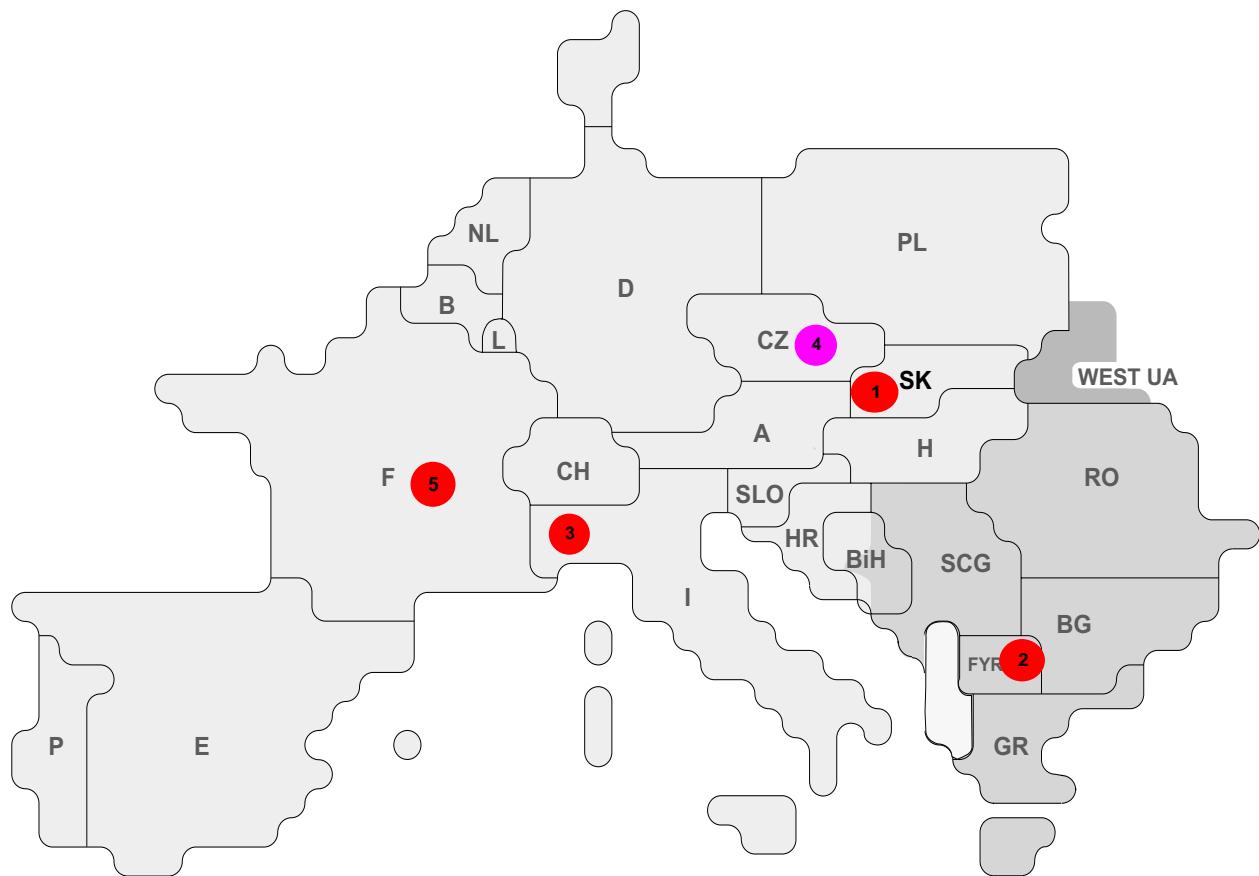
Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	SK	EVO1	R11	943	220	437	4,38
2	E	Sabon 220 kV	R5	13	0	7	0,00

¹ (year [in min] * power loss) / consumption last 12 months



Reasons:

R3 Overload
 R4, R5, R6 Failure in the transmission network

R7, R8, R9 External impacts (animals...)
 R10, R11 Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	SK	EKO	R6	13377	440	1998	8,77
2	FYROM	Skopje5	R5	200	170	87	14,17
3	I	Brugherio	R6	55	46	1	0,08
4	CZ	Liskovec	R10	52	140	12	1,23
5	F	Bayet	R6	10	26	25	0,03

¹ (year [in min] * power loss) / consumption last 12 months

Country	Conventional thermal units						Nuclear thermal units		
	10 MW ≤ x < 200 MW		200 MW ≤ x < 400 MW		≥ 400 MW		Total		MW
	Number	MW	Number	MW	Number	MW	Number	MW	
B	75	3252	11	3335	3	1380	89	7967	7
D ¹	403	23572	66	20178	47	27749	516	71499	20
E	367	10331	41	13318	12	6902	420	30551	9
F	170	5668	29	7168	16	9640	215	22476	59
GR	21	2330	17	4735	0	0	38	7065	0
I	1834	22881	69	21543	20	12214	1923	56638	0
SLO ²	2	267	1	291	1	662	4	1220	1
HR	24	1162	2	508	0	0	26	1670	0
BiH	9	512	6	1445	0	0	15	1957	0
FYROM ²	1	125	4	885	0	0	5	1010	0
SCG	14	1104	15	4056	2	1240	31	6400	0
L	0	0	1	385	0	0	1	385	0
NL ²	95	3887	19	5783	13	7367	127	17037	1
A	57	2941	9	2796	0	0	66	5737	0
P	20	1161	14	4104	0	0	34	5265	0
CH	17	292	0	0	0	0	17	292	5
CZ	169	9594	0	0	1	460	170	10054	6
H	92	3563	14	3027	0	0	106	6590	4
PL	230	11784	72	18458	2	1095	304	31337	0
SK	24	2068	1	214	0	0	25	2282	6
RO	83	6322	11	3039	0	0	94	9361	1
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UCTE	3707	112816	402	115268	117	68709	4226	296793	119
West UA ³	16	2500	0	0	0	0	16	7967	0

¹ Values conventional thermal units as of December 2000² Values conventional thermal units as of December 2002³ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

Country	Commissioning				Decommissioning			
	Tc		Tn		Tc		Tn	
	Number	MW	Number	MW	Number	MW	Number	MW
B	1	18	0	0	0	0	0	0
D	1	200	0	0	3	1000	1	640
E	3	1469	0	0	4	513	0	0
F	4	278	0	0	0	0	0	0
GR	1	292	0	0	0	0	0	0
I	153	1135	0	0	85	121	0	0
SLO	0	0	0	0	0	0	0	0
HR	0	0	0	0	0	0	0	0
BiH	0	0	0	0	0	0	0	0
FYROM	0	0	0	0	0	0	0	0
SCG	0	0	0	0	0	0	0	0
L	0	0	0	0	0	0	0	0
NL	2	111	0	0	0	0	0	0
A	0	0	0	0	0	0	0	0
P	2	421	0	0	6	132	0	0
CH	0	10	0	0	0	0	0	0
CZ	0	0	1	950	0	0	0	0
H	6	396	0	0	0	0	0	0
PL	0	0	0	0	13	367	0	0
SK	0	0	0	0	0	0	0	0
RO	0	0	0	0	3	743	0	0
BG	0	0	0	0	0	0	0	0
UCTE	173	4330	1	950	114	2876	1	640
West UA ¹	0	0	0	0	0	0	0	0

¹ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

Country	Inventory of hydro power units						Number	MW	Number	MW	Number	MW	Number	MW	Total
	1 MW ≤ x < 10 MW	Number	MW	10 MW ≤ x < 50 MW	Number	MW	50 MW ≤ x < 100 MW	Number	Number	MW	≥ 100 MW	Number	MW	Number	MW
B	47	86	5	164	0	0	6	1164	58	1414					
D ¹	234	898	78	1648	14	1026	15	4841	341	8413					
E	435	1397	127	2893	44	3020	40	10779	646	18089					
F	182	869	170	4170	40	2961	58	16012	450	24012					
GR	6	31	3	63	2	120	11	2845	22	3059					
I	583	1924	232	5533	29	1945	39	11179	883	20581					
SLO ²	2	18	8	222	5	296	2	242	17	778					
HR	22	69	21	568	6	453	8	978	57	2068					
BiH	2	10	14	305	12	774	7	945	35	2034					
FYROM ³	7	32	3	73	2	180	1	150	13	435					
SCG	11	30	37	870	8	583	11	2014	67	3497					
L	3	20	1	11	0	0	1	1096	5	1127					
NL ³	0	0	3	35	0	0	0	0	0	35					
A	208	650	101	2526	20	1492	26	6698	355	11366					
P	91	316	32	939	31	2008	7	1275	161	4538					
CH	175	606	103	2467	39	2583	37	7527	354	13183					
CZ	50	145	7	168	0	0	5	1711	62	2024					
H	45	48	0	0	0	0	0	0	0	45	48				
PL	57	163	5	90	3	195	5	1688	70	2136					
SK	29	176	36	700	10	820	6	734	81	2430					
RO	167	944	81	1744	17	1138	8	1416	273	5242					
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.				
UCTE	2356	8432	1067	25189	282	19594	293	73294	3998	126508	27				
West UA ⁴	3	27	0	0	0	0	0	0	0	3					

¹ Values as of December 2000² Values as of December 2001³ Values as of December 2002⁴ West UA represents the so-called Burshyn Island synchronously interconnected with UCTE

Country	Commissioning		Decommissioning	
	Number	MW	Number	MW
B	0	0	0	0
D	1	528	0	0
E	0	0	0	0
F	0	0	2	7
GR	0	0	0	0
I	56	44	32	10
SLO	0	0	0	0
HR	5	97	5	90
BiH	0	0	0	0
FYROM	0	0	0	0
SCG	0	0	0	0
L	0	0	0	0
NL	0	0	0	0
A	0	0	0	0
P	1	120	0	0
CH	2	3	1	2
CZ	0	0	0	0
H	0	0	0	0
PL	4	8	0	0
SK	0	0	0	0
RO	1	1	0	0
BG	0	0	0	0
UCTE	70	802	40	108
West UA ¹	0	0	0	0

¹ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

UCTE-TERMINOLOGY

4

Terminology

All explanations concerning the terms used in the UCTE statistics are available on our online terminology on the UCTE website, www.ucte.org. Please take also a look at the Terminology Index (Statistical Yearbook 2003, page 5) for the corresponding chapters.

All explanations to the UCTE Power Balance (Table 8a and Table 8b) are also available on the UCTE website under "Statistics/ Terms of Power Balance".

Publisher: Secretariat of UCTE
Boulevard Saint Michel 15, B-1040 Brussels
Internet: www.ucte.org

Executive Editor: Secretariat of UCTE

Managing: Olivier Feix

Production Editor: Vattenfall Europe Information Services
Edda Asmus

Printed by: solid earth GbR Berlin

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