UCTE

Statistical Yearbook 2002

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

31	Transmission System Operators (TSO)
21	European Countries
450 million	People served by the represented power systems
512 GW	Installed capacity
2200 TWh	Electricity consumption in 2002
250 TWh	Sum of electricity exchange between member TSO's under rules of UCTE
200.000 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.

The national correspondents responsible for the production of national data published in this yearbook are listed below. They will be able to provide information on the contents and the interpretation of these statistics.

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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 web site under "Statistics/ Terms of Power Balance".

Terminology index

MONTHLY VALUES

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Monthly values

I

OPERATION AND PHYSICAL EXCHANGE BALANCE (PER COUNTRY FOR THE YEARS 1997, 2001, 2002)

UCTE database from 15 August 2003

Abbreviations used in tables

Σ ..... Sum of the 12 monthly values
∅ pond. ..... Weighted mean value
Max. ..... Maximal value of the year
III ..... Third countries

AL	Albania
BG	Bulgaria
BY	Belarus
DK	Denmark
GB	Great Britain
MA	Morocco
RO	Romania
S	Sweden
UA	Ukraine

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

[1] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

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.

BELGIQUE [3]

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	28704
			2001	30414
			2002	31639
Thermal nuclear net production	GWh	Σ	1997	45097
			2001	44004
			2002	45058
Hydraulic net production	GWh	Σ	1997	1278
			2001	1635
			2002	1488
Total net electrical energy production	GWh	Σ	1997 [2]	75079
			2001 [2]	76053
			2002 [2]	78185
Total physical import / export balance [1]	GWh	Σ	1997	3270
			2001	9105
			2002	7605
Consumption of pumps	GWh	Σ	1997	1281
			2001	1604
			2002	1500
National electrical consumption	GWh	Σ	1997	77068
			2001	83554
			2002	84290
National electrical consumption as percentage of total values	%∅	pond.	1997	100
			2001	100
			2002	100
Energy capability factor (hydro power)	∅	pond.	1997	-
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	10077
			2001	10567
			2002	9980
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	11939
			2001	12092
			2002	12141
Peak load on the 3rd Wednesday	MW	max.	1997	12429
			2001	12953
			2002	13128
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	11526
			2001	10667
			2002	10905

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

[2] Including deliveries from industry

[3] Erratum Belgean values on thermal conventional production updated as of 11 December 2003

BELGIQUE[3]

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2926	2264	2101	2442	1765	2636	2370	2051	2278	2460	2587	2824
2779	2433	2822	2196	2413	2475	2533	2474	2540	2327	2806	2616
2733	2480	2674	2667	2764	2385	2378	2202	2486	2965	3019	2886
4236	3861	4226	3617	4045	2788	2757	3441	3599	4110	4138	4279
4257	3729	3553	3471	3353	3251	3106	3421	3421	4251	3883	4308
4212	3806	4138	3625	3394	3638	3576	3935	3390	3512	3511	4321
102	112	124	90	122	98	106	102	85	101	99	137
150	153	152	150	145	122	121	104	129	131	130	148
150	132	135	128	125	109	104	116	87	112	146	144
7264	6237	6451	6149	5932	5522	5233	5594	5962	6671	6824	7240
7186	6315	6527	5817	5911	5848	5760	5999	6090	6709	6819	7072
7095	6418	6947	6420	6283	6132	6058	6253	5963	6589	6676	7351
382	272	290	273	225	480	515	328	200	171	79	55
851	902	1202	1214	858	641	538	472	662	493	605	667
869	616	507	529	604	535	459	330	853	926	798	579
110	97	107	91	111	96	103	122	103	121	105	115
131	140	127	127	141	138	146	127	132	138	123	134
141	122	113	123	126	126	122	135	105	125	131	131
7536	6412	6634	6331	6046	5906	5645	5800	6059	6721	6798	7180
7906	7077	7602	6904	6628	6351	6152	6344	6620	7064	7301	7605
7823	6912	7341	6826	6761	6541	6395	6448	6711	7390	7343	7799
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
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
9562	8896	8211	8133	7200	7116	6607	7136	7227	7884	8519	**10077**
10567	9657	9477	8765	7947	7807	7114	7284	8017	7875	9016	9761
9759	9371	8738	8775	8024	7883	7470	7857	7849	8238	9033	**9980**
11120	10608	10735	10459	9937	9644	8902	9668	9515	10701	10887	**11939**
12092	11810	12046	11636	10727	10576	9328	7873	10878	10658	11432	11699
11773	11652	11170	11215	10585	10646	9812	10902	10694	11173	11433	**12141**
11599	11206	11043	10805	10330	10075	9311	10094	9821	10925	11655	**12429**
12953	12186	12134	11799	11158	10924	9760	8531	11338	11196	12116	12281
12435	12087	11397	11391	10905	11049	10329	11234	11071	11479	12473	**13128**
10502	10042	10512	9783	9532	8699	8329	9619	9138	10170	10833	**11526**
10602	9992	**10667**	9753	9650	10092	8983	7818	10255	9966	10105	10588
10796	**10905**	10493	10178	10148	9610	9391	10793	9295	9792	10120	10832

Physical exchanges in interconnected operation [1]

BELGIQUE | GWh

MM_YY	B→L	B→NL	B→F	B_UCTE_EXP	B_III_EXP	L→B	NL→B	F→B	B_UCTE_IMP	B_III_IMP	B_UCTE_SLD	B_III_SLD
	Export (-)					Import (+)					Balance	
I.97	126	171	202	499	0	0	502	368	870	0	371	0
II.97	119	271	115	505	0	0	320	448	768	0	263	0
III.97	135	338	91	564	0	0	364	479	843	0	279	0
IV.97	128	384	53	565	0	0	284	544	828	0	263	0
V.97	127	479	31	637	0	0	235	618	853	0	216	0
VI.97	129	294	13	436	0	0	304	604	908	0	472	0
VII.97	126	226	11	363	0	0	371	498	869	0	506	0
VIII.97	116	568	12	696	0	0	172	844	1016	0	320	0
IX.97	148	470	28	646	0	0	198	640	838	0	192	0
X.97	175	397	39	611	0	0	204	569	773	0	162	0
XI.97	174	373	64	611	0	0	250	429	679	0	68	0
XII.97	170	254	146	570	0	0	332	280	612	0	42	0
1997	**1673**	**4225**	**805**	**6703**	**0**	**0**	**3536**	**6321**	**9857**	**0**	**3154**	**0**
I.01	175	260	14	449	0	0	428	861	1289	0	840	0
II.01	161	138	10	309	0	0	488	713	1201	0	892	0
III.01	188	85	4	277	0	0	620	848	1468	0	1191	0
IV.01	164	147	0	311	0	0	441	1074	1515	0	1204	0
V.01	177	411	0	588	0	0	369	1069	1438	0	850	0
VI.01	172	419	0	591	0	0	191	1032	1223	0	632	0
VII.01	169	515	4	688	0	0	92	1134	1226	0	538	0
VIII.01	110	764	1	875	0	0	78	1258	1336	0	461	0
IX.01	166	460	2	628	0	60	162	1060	1282	0	654	0
X.01	190	569	5	764	0	36	177	1036	1249	0	485	0
XI.01	173	459	47	679	0	151	248	876	1275	0	596	0
XII.01	162	260	118	540	0	135	508	554	1197	0	657	0
2001	**2007**	**4487**	**205**	**6699**	**0**	**382**	**3802**	**11515**	**15699**	**0**	**9000**	**0**
I.02	161	152	148	461	0	269	642	410	1321	0	860	0
II.02	168	195	111	474	0	208	465	409	1082	0	608	0
III.02	178	313	66	557	0	46	331	679	1056	0	499	0
IV.02	147	583	70	800	0	143	177	1001	1321	0	521	0
V.02	139	695	13	847	0	185	213	1044	1442	0	595	0
VI.02	136	813	13	962	0	217	145	1127	1489	0	527	0
VII.02	140	837	46	1023	0	230	123	1120	1473	0	450	0
VIII.02	109	989	14	1112	0	127	60	1246	1433	0	321	0
IX.02	133	649	2	784	0	140	138	1351	1629	0	845	0
X.02	150	395	9	554	0	161	273	1035	1469	0	915	0
XI.02	144	596	8	748	0	203	181	1154	1538	0	790	0
XII.02	120	601	26	747	0	103	289	925	1317	0	570	0
2002	**1725**	**6818**	**526**	**9069**	**0**	**2032**	**3037**	**11501**	**16570**	**0**	**7501**	**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 operation [1]

DEUTSCHLAND | GWh

MM_YY	D→CH	D→CZ	D→DK	D→F	D→L	D→NL	D→A	D→PL	D→S	D_UCTE_EXP	D_III_EXP	CH→D	CZ→D	DK→D	F→D	L→D	NL→D	A→D	PL→D	S→D	D_UCTE_IMP	D_III_IMP	D_UCTE_SLD	D_III_SLD
	Export (-)											Import (+)											Balance	
I.97	783	110	229	12	394	1204	552	258	136	2945	733	367	180	200	1170	65	183	272	114	10	2057	504	-888	-229
II.97	829	109	135	0	332	1128	631	250	68	2920	562	255	171	232	1239	56	108	206	103	5	1864	511	-1056	-51
III.97	842	66	152	0	354	1217	522	304	33	2935	555	313	212	316	1416	63	122	228	104	7	2142	639	-793	84
IV.97	652	23	123	0	349	1118	581	303	3	2700	452	292	271	275	1500	65	136	167	67	86	2160	699	-540	247
V.97	515	95	10	3	341	1166	442	263	3	2467	371	334	216	250	1309	71	156	316	31	113	2186	610	-281	239
VI.97	395	245	20	1	342	1431	136	265	1	2305	531	496	273	216	1318	76	86	482	31	101	2458	621	153	90
VII.97	249	116	33	5	345	1423	179	419	0	2201	568	658	261	109	1323	71	106	640	60	245	2798	675	597	107
VIII.97	353	147	85	8	318	908	214	284	3	1801	519	636	114	135	1515	75	156	578	137	55	2960	441	1159	-78
IX.97	516	76	6	8	344	1028	448	411	5	2344	498	504	304	277	1471	82	167	255	77	86	2479	744	135	246
X.97	1001	121	9	8	373	957	605	430	2	2944	562	395	344	446	1463	81	147	209	69	98	2295	957	-649	395
XI.97	1000	288	79	8	362	1029	699	448	56	3098	871	430	427	385	1451	74	94	130	95	4	2179	911	-919	40
XII.97	1000	0	150	8	356	1103	797	442	103	3264	695	417	401	372	1365	69	111	170	78	5	2132	856	-1132	161
1997	**8135**	**1396**	**1031**	**61**	**4210**	**13712**	**5806**	**4077**	**413**	**31924**	**6917**	**5097**	**3174**	**3213**	**16540**	**848**	**1572**	**3653**	**966**	**815**	**27710**	**8168**	**-4214**	**1251**
I.01	1159	32	8	24	404	1674	1190	162	5	4645	13	449	740	632	1004	63	12	429	51	32	2748	664	-1897	651
II.01	968	12	91	29	355	1611	959	81	28	4015	119	409	776	329	644	49	2	436	92	30	2408	359	-1607	240
III.01	815	1	290	11	402	1692	756	87	128	3764	418	518	958	208	1006	63	23	583	134	12	3285	220	-479	-198
IV.01	654	0	291	25	370	1445	912	84	162	3490	453	373	863	224	812	65	36	430	137	18	2716	242	-774	-211
V.01	340	0	308	24	340	1405	467	108	135	2684	443	796	866	224	905	57	42	757	133	53	3556	277	872	-166
VI.01	309	3	379	7	353	1280	237	104	229	2293	608	854	776	174	1033	60	105	477	120	17	3425	191	1132	-417
VII.01	354	8	292	32	341	1112	122	112	195	2081	487	918	657	209	1552	36	53	714	104	35	4034	244	1953	-243
VIII.01	367	7	287	32	367	1030	309	167	137	2279	424	882	529	158	1519	70	75	534	53	85	3662	243	1383	-181
IX.01	867	1	133	2	397	1297	496	96	15	3156	148	361	779	441	1476	82	24	387	104	178	3213	619	57	471
X.01	1041	54	58	0	405	1389	521	165	39	3575	97	395	680	500	2098	74	13	240	37	181	3537	681	-38	584
XI.01	1313	29	18	1	396	1360	878	60	8	4037	26	261	832	744	1507	64	8	238	147	226	3057	970	-980	944
XII.01	1908	52	83	42	392	1665	1198	90	89	5347	172	132	805	643	1019	62	13	264	80	125	2375	768	-2972	596
2001	**10095**	**199**	**2238**	**229**	**4522**	**16960**	**8045**	**1316**	**1170**	**41366**	**3408**	**6348**	**9261**	**4486**	**14575**	**745**	**406**	**5489**	**1192**	**992**	**38016**	**5478**	**-3350**	**2070**
I.02	2016	104	140	13	430	1539	1275	133	72	5510	212	133	728	723	1371	73	18	225	49	149	2597	872	-2913	660
II.02	1585	9	167	0	373	1552	1003	94	90	4616	257	104	929	442	1341	65	0	291	48	127	2778	569	-1838	312
III.02	1188	0	191	0	394	1403	773	184	50	3942	241	192	926	556	1517	64	3	332	29	65	3063	621	-879	380
IV.02	1055	0	90	0	379	805	810	185	0	3234	90	270	731	566	1713	63	25	267	23	0	3092	566	-142	476
V.02	592	1	143	0	394	1088	539	162	58	2776	201	497	687	432	1919	76	77	356	27	109	3639	541	863	340
VI.02	540	1	147	0	400	948	503	135	54	2527	201	416	582	417	1755	82	130	376	67	105	3408	522	881	321
VII.02	760	75	142	0	412	861	556	320	78	2984	220	378	522	539	1857	83	79	355	4	124	3278	663	294	443
VIII.02	497	4	283	1	397	952	476	137	127	2464	410	423	784	366	1734	86	368	421	70	69	3886	435	1422	25
IX.02	692	0	180	4	390	1185	689	116	104	3076	284	447	1032	475	1597	69	257	294	99	62	3795	537	719	253
X.02	1176	0	347	27	423	1271	682	140	199	3719	546	257	1133	270	789	76	134	401	53	21	2843	291	-876	-255
XI.02	723	0	402	1	404	1210	411	94	263	2843	665	361	1417	79	1298	69	257	526	78	1	4006	80	1163	-585
XII.02	1035	0	633	1	419	1223	741	172	287	3591	920	358	1086	101	1927	77	102	426	58	0	4034	101	443	-819
2002	**11859**	**194**	**2865**	**47**	**4815**	**14037**	**8458**	**1872**	**1382**	**41282**	**4247**	**3836**	**10557**	**4966**	**18818**	**883**	**1450**	**4270**	**605**	**832**	**40419**	**5798**	**-863**	**1551**

[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".

DEUTSCHLAND

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	297822
			2001	317685
			2002	325075
Thermal nuclear net production	GWh	Σ	1997	160124
			2001	161154
			2002	154968
Hydraulic net production	GWh	Σ	1997	18473
			2001	23403
			2002	23846
Total net electrical energy production	GWh	Σ	1997 [2]	476419
			2001 [2]	502242
			2002 [2]	503889
Total physical import / export balance [1]	GWh	Σ	1997	-2427
			2001	-1280
			2002	688
Consumption of pumps	GWh	Σ	1997	5409
			2001	6133
			2002	5955
National electrical consumption	GWh	Σ	1997	468583
			2001	494829
			2002	498622
National electrical consumption as percentage of total values	%	∅ pond.	1997	92
			2001	93
			2002	94
Energy capability factor (hydro power)		∅ pond.	1997	0,94
			2001	1,21
			2002	1,24
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	59211
			2001	53500
			2002	54000
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	72922
			2001	73200
			2002	73900
Peak load on the 3rd Wednesday	MW	max.	1997	73765
			2001	75000
			2002	75800
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	82700
			2001	80200
			2002	81000

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
31027	25808	24975	23942	21812	21673	21548	20951	23131	26287	28180	28488
31936	27899	29699	26413	25056	21941	22277	21956	22966	27226	30185	30131
32957	27933	30032	27248	24952	22558	23524	23468	25835	28076	28485	30007
15283	13334	14388	14375	12597	12198	12144	11573	11972	13783	14001	14476
14911	13287	14411	13057	12399	12240	12811	13780	13752	12722	12702	15082
15243	13213	13336	12010	12315	12462	12629	11206	11383	13833	13321	14017
1376	1294	1686	1525	1849	1764	1998	1620	1291	1378	1156	1536
2054	1811	2072	2348	2435	2056	1944	1857	2069	1647	1454	1656
1926	1813	2114	2131	2315	1871	1818	2108	1887	2065	1985	1813
47686	40436	41049	39842	36258	35635	35690	34144	36394	41448	43337	44500
48901	42997	46182	41818	39890	36237	37032	37593	38787	41595	44341	46869
50126	42959	45482	41389	39582	36891	37971	36782	39105	43974	43791	45837
-985	-811	-964	-191	17	185	722	1138	442	-204	-723	-1053
-1246	-1367	-677	-985	706	715	1710	1202	528	546	-36	-2376
-2253	-1526	-499	334	1203	1202	737	1447	972	-1131	578	-376
426	386	417	359	483	482	497	481	461	482	476	459
539	454	514	487	516	509	521	545	548	480	482	538
534	482	476	479	491	485	406	456	545	516	518	567
46275	39239	39668	39292	35792	35338	35915	34801	36375	40762	42138	42988
47116	41176	44991	40346	40080	36443	38221	38250	38767	41661	43823	43955
47339	40951	44507	41244	40294	37608	38302	37773	39532	42327	43851	44894
92	92	92	92	92	92	92	92	92	92	92	92
93	93	93	93	93	93	93	93	93	93	93	93
94	94	94	94	94	94	94	94	94	94	94	94
0,90	1,01	1,04	0,88	1,00	0,89	1,10	0,86	0,80	0,91	0,75	1,06
1,50	1,33	1,29	1,36	1,25	1,06	1,03	1,01	1,38	1,18	1,06	1,11
1,39	1,31	1,35	1,21	1,19	0,95	1,01	1,23	1,23	1,53	1,54	1,23
59211	48066	44918	46623	38572	37105	37112	35700	37300	42986	49569	57649
49400	53100	50000	44800	39900	40300	39600	37600	40400	46500	**53500**	52400
49900	53600	50500	45200	40300	40700	40000	38000	40800	47000	**54000**	52900
72922	67092	66306	64174	63168	61945	61233	60461	64291	67679	66885	71068
68800	69800	68100	68600	64300	65800	61300	61500	64300	68100	71600	**73200**
69500	70500	68800	69300	64900	66500	61900	62100	64900	68800	72300	**73900**
73765	68127	67356	64759	64249	63363	62806	61512	64291	67831	68921	72781
70400	71800	70400	69100	65300	66800	62700	61700	65000	68200	73200	**75000**
71100	72500	71100	69800	66000	67500	63300	62300	65700	68900	73900	**75800**
82700	77400	74700	73000	69800	71900	67200	64800	70600	76200	76400	81800
75600	76800	74800	75400	70700	73300	67400	63300	69200	73100	79300	**80200**
76400	77600	75500	76200	71400	74000	68100	63900	69900	73800	80100	**81000**

ESPAÑA

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	81086
			2001	101861
			2002	126288
Thermal nuclear net production	GWh	Σ	1997	53049
			2001	60985
			2002	60288
Hydraulic net production	GWh	Σ	1997	32936
			2001	43313
			2002	25962
Total net electrical energy production	GWh	Σ	1997	167071
			2001 [2]	206159
			2002 [2]	212538
Total physical import / export balance [1]	GWh	Σ	1997	-3073
			2001	3459
			2002	5329
Consumption of pumps	GWh	Σ	1997	1759
			2001	4132
			2002	6955
National electrical consumption	GWh	Σ	1997	162239
			2001	205486
			2002	210912
National electrical consumption as percentage of total values	%	∅ pond.	1997	94
			2001	94
			2002	94
Energy capability factor (hydro power)		∅ pond.	1997	1,19
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	17389
			2001	23643
			2002	22960
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	25174
			2001	33500
			2002	31636
Peak load on the 3rd Wednesday	MW	max.	1997	26466
			2001	38170
			2002	33771
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	25454
			2001	33015
			2002	30809

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
5068	5091	7006	7196	6486	6595	7672	7240	8149	8334	6484	5765
6584	5922	6061	6119	7219	8974	9783	9295	10111	10151	10264	11378
12127	10524	10929	10325	10318	10357	11255	10111	11064	10818	10013	8447
5031	4411	3692	4062	4998	4588	4735	4656	4176	4077	4226	4397
5502	4781	4682	4579	5513	5104	5433	5309	4702	4738	5174	5468
5520	4775	4207	4214	4779	5056	5461	5342	4585	5398	5372	5579
5425	3239	2473	2166	2106	2218	1947	1698	1601	1465	3380	5218
6781	6076	6971	4590	3597	2764	2301	2155	1763	2037	2270	2008
1799	1537	2223	2191	2370	2382	1855	1446	1450	1612	2382	4715
15524	12741	13171	13424	13590	13401	14354	13594	13926	13876	14090	15380
18867	16779	17714	15288	16329	16842	17517	16759	16576	16926	17708	18854
19446	16836	17359	16730	17467	17795	18571	16899	17099	17828	17767	18741
-484	-205	-220	-410	-439	-268	-398	-455	-103	13	65	-169
-38	22	-84	447	579	504	431	282	283	140	403	490
532	649	722	705	259	187	576	236	428	298	491	246
253	37	12	21	82	85	118	176	190	145	266	374
539	307	387	201	215	259	303	292	369	364	336	560
653	506	466	443	559	628	700	572	598	576	570	684
14787	12499	12939	12993	13069	13048	13838	12963	13633	13744	13889	14837
18290	16494	17243	15534	16693	17087	17645	16749	16490	16702	17775	18784
19325	16979	17615	16992	17167	17354	18447	16563	16929	17550	17688	18303
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
1,82	0,79	0,53	0,46	0,67	1,08	1,05	1,42	0,97	0,67	2,56	2,31
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
16104	14719	15024	15247	14913	15511	15311	14642	15755	14728	15937	**17389**
21958	20614	19431	18921	18588	20417	19374	19033	19199	18733	22251	**23643**
22960	22558	19460	20912	19329	21372	20565	19272	19474	19062	21369	22249
24144	21181	19531	21027	21155	21455	22308	20868	22723	20773	22602	**25174**
29770	28653	26830	26393	26499	28175	27771	19534	27170	26166	30958	**33500**
31636	30914	27998	27840	25667	29250	28389	25961	28394	27644	29554	30846
25344	22096	20500	21424	21217	21656	22450	21098	22933	22249	23813	**26466**
30984	29749	27930	27164	27128	29725	29019	27972	28540	28770	**38170**	35186
33771	31905	28838	29301	26710	30888	29869	27396	29067	29878	32251	33187
24784	21221	19872	21690	21653	22002	22602	21515	22583	20561	22624	**25454**
29932	28438	26628	26504	26499	27290	26921	26289	27054	26131	30055	**33015**
30661	30033	26729	26554	25667	28498	27590	25109	27790	26938	28807	**30809**

Physical exchanges in interconnected operation [1]

ESPAÑA | GWh

MM_YY	E→F	E→P	E→MA	E_UCTE_EXP	E_III_EXP	F→E	P→E	MA→E	E_UCTE_IMP	E_III_IMP	E_UCTE_SLD	E_III_SLD
	Export (-)					Import (+)					Balance	
I.97	483	272	0	755	0	26	272	0	298	0	-457	0
II.97	259	230	0	489	0	100	199	0	299	0	-190	0
III.97	109	488	0	597	0	206	187	0	393	0	-204	0
IV.97	96	627	0	723	0	172	157	0	329	0	-394	0
V.97	120	607	0	727	0	177	120	0	297	0	-430	0
VI.97	139	461	0	600	0	142	201	0	343	0	-257	0
VII.97	132	613	0	745	0	192	169	0	361	0	-384	0
VIII.97	142	609	0	751	0	192	111	0	303	0	-448	0
IX.97	85	434	0	519	0	250	191	0	441	0	-78	0
X.97	73	404	126	477	126	309	334	0	643	0	166	-126
XI.97	149	240	6	389	6	227	243	2	470	2	81	-4
XII.97	281	299	0	580	0	121	296	0	417	0	-163	0
1997	**2068**	**5284**	**132**	**7352**	**132**	**2114**	**2480**	**2**	**4594**	**2**	**-2758**	**-130**
I.01	186	225	160	411	160	284	302	0	586	0	175	-160
II.01	159	200	158	359	158	344	240	0	584	0	225	-158
III.01	220	200	132	420	132	275	227	0	502	0	82	-132
IV.01	118	178	132	296	132	467	436	0	903	0	607	-132
V.01	34	235	120	269	120	696	281	0	977	0	708	-120
VI.01	37	329	122	366	122	678	323	0	1001	0	635	-122
VII.01	44	427	146	471	146	705	353	0	1058	0	587	-146
VIII.01	56	355	150	411	150	713	139	0	852	0	441	-150
IX.01	46	471	114	517	114	671	261	0	932	0	415	-114
X.01	60	362	150	422	150	442	308	0	750	0	328	-150
XI.01	81	318	126	399	126	692	282	0	974	0	575	-126
XII.01	133	329	67	462	67	752	327	0	1079	0	617	-67
2001	**1174**	**3629**	**1577**	**4803**	**1577**	**6719**	**3479**	**0**	**10198**	0	**5395**	**-1577**
I.02	92	349	18	441	18	711	328	12	1039	12	598	-6
II.02	38	352	75	390	75	827	338	0	1165	0	775	-75
III.02	33	356	135	389	135	903	388	0	1291	0	902	-135
IV.02	17	362	147	379	147	855	410	0	1265	0	886	-147
V.02	18	462	133	480	133	589	292	0	881	0	401	-133
VI.02	15	366	132	381	132	423	293	0	716	0	335	-132
VII.02	1	399	71	400	71	746	314	0	1060	0	660	-71
VIII.02	1	500	165	501	165	752	171	0	923	0	422	-165
IX.02	0	440	83	440	83	745	218	0	963	0	523	-83
X.02	2	484	141	486	141	779	191	0	970	0	484	-141
XI.02	0	525	113	525	113	940	236	0	1176	0	651	-113
XII.02	9	613	116	622	116	791	250	0	1041	0	419	-116
2002	**226**	**5208**	**1329**	**5434**	**1329**	**9061**	**3429**	**12**	**12490**	**12**	**7056**	**-1317**

[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 operation [1]

FRANCE | GWh

MM_YY	F→B	F→CH	F→D	F→E	F→GB	F→I	F_UCTE_EXP	F_III_EXP	B→F	CH→F	D→F	E→F	GB→F	I→F	F_UCTE_IMP	F_III_IMP	F_UCTE_SLD	F_III_SLD
	Export (-)								Import (+)								Balance	
I.97	368	978	1170	26	1426	1551	4093	1426	202	45	12	483	0	27	769	0	-3324	-1426
II.97	448	1017	1239	100	1330	1475	4279	1330	115	3	0	259	0	30	407	0	-3872	-1330
III.97	479	1023	1416	206	1447	1539	4663	1447	91	1	0	109	0	35	236	0	-4427	-1447
IV.97	544	846	1500	172	1416	1498	4560	1416	53	6	0	96	0	32	187	0	-4373	-1416
V.97	618	631	1309	177	1400	1435	4170	1400	31	38	3	120	0	34	226	0	-3944	-1400
VI.97	604	562	1318	142	1273	1362	3988	1273	13	25	1	139	0	37	215	0	-3773	-1273
VII.97	498	516	1323	192	1389	1301	3830	1389	11	72	5	132	0	35	255	0	-3575	-1389
VIII.97	844	537	1515	192	1427	817	3905	1427	12	56	8	142	0	36	254	0	-3651	-1427
IX.97	640	476	1471	250	1236	1408	4245	1236	28	78	8	85	0	18	217	0	-4028	-1236
X.97	569	748	1463	309	1464	1511	4600	1464	39	66	8	73	0	16	202	0	-4398	-1464
XI.97	429	943	1451	227	1413	1653	4703	1413	64	38	8	149	0	29	288	0	-4415	-1413
XII.97	280	1085	1365	121	1423	1763	4614	1423	146	33	8	281	0	31	499	0	-4115	-1423
1997	**6321**	**9362**	**16540**	**2114**	**16644**	**17313**	**51650**	**16644**	**805**	**461**	**61**	**2068**	**0**	**360**	**3755**	**0**	**-47895**	**-16644**
I.01	861	1075	1004	284	1118	1706	4930	1118	14	108	24	186	0	29	361	0	-4569	-1118
II.01	713	853	644	344	934	1516	4070	934	10	137	29	159	0	29	364	0	-3706	-934
III.01	848	1026	1006	275	1149	1811	4966	1149	4	59	11	220	0	29	323	0	-4643	-1149
IV.01	1074	758	812	467	827	1672	4783	827	0	42	25	118	0	31	216	0	-4567	-827
V.01	1069	470	905	696	924	1405	4545	924	0	123	24	34	0	44	225	0	-4320	-924
VI.01	1032	462	1033	678	888	1404	4609	888	0	97	7	37	1	31	172	1	-4437	-887
VII.01	1134	597	1552	705	1034	1586	5574	1034	4	91	32	44	0	32	203	0	-5371	-1034
VIII.01	1258	391	1519	713	1075	1129	5010	1075	1	302	32	56	0	60	451	0	-4559	-1075
IX.01	1060	628	1476	671	719	1329	5164	719	2	172	2	46	0	21	243	0	-4921	-719
X.01	1036	1016	2098	442	1039	1674	6266	1039	5	46	0	60	0	13	124	0	-6142	-1039
XI.01	876	1073	1507	692	583	1612	5760	583	47	109	1	81	58	29	267	58	-5493	-525
XII.01	554	981	1019	752	537	1354	4660	537	118	320	42	133	144	77	690	144	-3970	-393
2001	**11515**	**9330**	**14575**	**6719**	**10827**	**18198**	**60337**	**10827**	**205**	**1606**	**229**	**1174**	**203**	**425**	**3639**	**203**	**-56698**	**-10624**
I.02	410	1121	1371	711	586	1544	5157	586	148	234	13	92	55	56	543	55	-4614	-531
II.02	409	1134	1341	827	658	1452	5163	658	111	103	0	38	75	36	288	75	-4875	-583
III.02	679	1229	1517	903	864	1860	6188	864	66	21	0	33	23	36	156	23	-6032	-841
IV.02	1001	1052	1713	855	733	1746	6367	733	70	20	0	17	40	34	141	40	-6226	-693
V.02	1044	775	1919	589	1317	1615	5942	1317	13	45	0	18	2	42	118	2	-5824	-1315
VI.02	1127	594	1755	423	799	1529	5428	799	13	46	0	15	15	45	119	15	-5309	-784
VII.02	1120	625	1857	746	309	1402	5750	309	46	237	0	1	262	36	320	262	-5430	-47
VIII.02	1246	618	1734	752	429	1014	5364	429	14	116	1	1	61	60	192	61	-5172	-368
IX.02	1351	769	1597	745	464	1541	6003	464	2	106	4	0	146	23	135	146	-5868	-318
X.02	1035	1019	789	779	826	1779	5401	826	9	44	27	2	57	26	108	57	-5293	-769
XI.02	1154	897	1298	940	1358	1796	6085	1358	8	31	1	0	0	32	72	0	-6013	-1358
XII.02	925	1114	1927	791	1167	1747	6504	1167	26	91	1	9	5	37	164	5	-6340	-1162
2002	**11501**	**10947**	**18818**	**9061**	**9510**	**19025**	**69352**	**9510**	**526**	**1094**	**47**	**226**	**741**	**463**	**2356**	**741**	**-66996**	**-8769**

[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".

FRANCE

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	33109
			2001	35629
			2002	40850
Thermal nuclear net production	GWh	Σ	1997	375934
			2001	401280
			2002	415511
Hydraulic net production	GWh	Σ	1997	63637
			2001	74872
			2002	60244
Total net electrical energy production	GWh	Σ	1997	472680
			2001	511781
			2002	516605
Total physical import / export balance [1]	GWh	Σ	1997	-65773
			2001	-68901
			2002	-76904
Consumption of pumps	GWh	Σ	1997	5236
			2001	5840
			2002	7352
National electrical consumption	GWh	Σ	1997	401672
			2001	437040
			2002	432349
National electrical consumption as percentage of total values	%	∅ pond.	1997	99
			2001	97
			2002	97
Energy capability factor (hydro power)		∅ pond.	1997	0,91
			2001	1,05
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	58721
			2001	65278
			2002	56625
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	62354
			2001	72555
			2002	69552
Peak load on the 3rd Wednesday	MW	max.	1997	64007
			2001	74952
			2002	72873
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	69443
			2001	74967
			2002	80886

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

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
6105	3839	1819	1814	1332	1770	1195	1258	2336	3695	3803	4143
3493	3316	3053	2261	1992	2066	1600	1174	1558	2403	5443	7270
6406	5037	4367	3377	2394	2000	2193	1494	2716	3453	3479	3934
35313	31136	32660	33205	29722	27728	28690	27994	28908	32643	33259	34676
38868	33307	33738	31562	28868	28537	31198	30762	32907	35789	37163	38581
39942	34276	35443	35453	33484	31037	32856	30317	32076	35056	36161	39410
7123	5523	4884	4106	5448	5623	6419	4844	4502	4396	4621	6148
7421	6213	8001	8191	8405	6905	6442	4847	4572	4880	4362	4633
4024	3845	5261	3880	5558	5762	4468	4427	4443	5229	6233	7114
48541	40498	39363	39125	36502	35121	36304	34096	35746	40734	41683	44967
49782	42836	44792	42014	39265	37508	39240	36783	39037	43072	46968	50484
50372	43158	45071	42710	41436	38799	39517	36238	39235	43738	45873	50458
-4891	-5297	-5962	-5835	-5379	-5119	-5054	-5187	-5381	-5978	-5974	-5716
-5832	-4777	-5946	-5530	-5395	-5473	-6466	-5786	-5761	-7296	-6179	-4460
-5244	-5527	-6961	-7027	-7241	-6177	-5595	-5657	-6272	-6160	-7488	-7555
350	394	486	436	541	478	423	364	406	563	393	402
655	432	573	481	490	276	253	368	455	696	559	602
682	648	601	625	661	557	594	515	539	699	636	595
43300	34807	32914	32855	30582	29525	30826	28545	29959	34194	35316	38849
43295	37627	38273	36003	33380	31759	32521	30629	32821	35080	40230	45422
44446	36983	37509	35058	33534	32065	33328	30066	32424	36879	37749	42308
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
1,07	0,89	0,78	0,65	0,96	0,94	1,10	1,01	0,82	0,60	0,89	1,10
1,13	0,83	1,49	1,12	1,32	1,15	1,10	1,02	1,03	0,92	0,60	0,57
-	-	-	-	-	-	-	-	-	-	-	-
58721	48334	40782	43214	37202	37577	37522	34724	36733	41173	43756	57381
57843	54112	47017	48907	39454	39644	39551	35133	42569	40548	55750	**65278**
56625	54694	43430	49014	41672	40127	40225	36482	39201	42789	48798	53778
61696	58377	52944	53225	50000	49639	49986	45122	49294	56376	55935	**62354**
66220	60325	57389	60834	53193	52807	53229	38607	57599	55367	64505	**72555**
69552	67101	56339	59323	53993	54224	54104	48950	53368	57882	62617	68679
63399	59541	54242	53751	50686	49743	50422	45729	49572	56480	59499	**64007**
68581	61493	57700	61014	53631	53291	54018	41005	57639	55944	68435	**74952**
72024	68388	57026	60291	54183	54814	54446	49766	53802	57949	66027	**72873**
66232	67033	61798	61804	58599	55702	57593	53026	56806	63105	64797	**69443**
74967	68034	67014	68676	61361	60493	64195	48340	65539	66460	72691	74546
77771	74278	67389	70462	65545	63649	62962	57347	62520	66845	74409	**80886**

HELLAS

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	32172
			2001	41818
			2002	41641
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	4053
			2001	2663
			2002	3382
Total net electrical energy production	GWh	Σ	1997	36225
			2001 [2]	44481
			2002 [2]	45023
Total physical import / export balance [1]	GWh	Σ	1997	2294
			2001	2501
			2002	2914
Consumption of pumps	GWh	Σ	1997	304
			2001	897
			2002	945
National electrical consumption	GWh	Σ	1997	38215
			2001	46085
			2002	46992
National electrical consumption as percentage of total values	%	∅ pond.	1997	95
			2001	91
			2002	91
Energy capability factor (hydro power)		∅ pond.	1997	0,91
			2001	0,49
			2002	0,72
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	3905
			2001	5627
			2002	6513
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	6126
			2001	8023
			2002	8582
Peak load on the 3rd Wednesday	MW	max.	1997	6705
			2001	8270
			2002	8786
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	6326
			2001	7414
			2002	7657

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2396	2646	2907	2514	2406	2639	3084	2649	2552	2679	2838	2862
3601	3224	3438	3162	3263	3482	3989	3777	3366	3396	3413	3707
3730	3171	3392	3224	3189	3619	4123	3695	3246	3283	3347	3622
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
808	378	159	187	292	298	384	278	231	327	255	456
168	152	134	127	167	248	392	298	221	165	185	406
350	190	175	212	197	283	367	223	270	290	300	525
3204	3024	3066	2701	2698	2937	3468	2927	2783	3006	3093	3318
3769	3376	3572	3289	3430	3730	4381	4075	3587	3561	3598	4113
4080	3361	3567	3436	3386	3902	4490	3918	3516	3573	3647	4147
23	-20	138	255	318	335	331	317	258	151	99	89
196	134	89	51	140	284	312	293	235	243	279	245
196	233	267	255	279	329	404	214	187	201	221	128
8	18	35	30	22	26	22	23	30	35	36	19
83	66	70	61	83	57	40	62	92	99	95	89
94	94	94	91	91	80	77	54	81	90	85	14
3219	2986	3169	2926	2994	3246	3777	3221	3011	3122	3156	3388
3882	3444	3591	3279	3487	3957	4653	4306	3730	3705	3782	4269
4182	3500	3740	3600	3574	4151	4817	4078	3622	3684	3783	4261
95	95	95	95	95	95	95	95	95	95	95	95
91	91	91	91	91	91	91	91	91	91	91	91
91	91	91	91	91	91	91	91	91	91	91	91
1,48	0,40	0,52	0,71	1,00	0,57	0,51	0,85	0,54	1,41	1,16	1,29
0,48	0,55	0,50	0,61	0,45	0,35	0,42	0,48	0,48	0,16	0,26	0,61
0,63	0,31	0,48	0,90	0,50	0,39	0,64	0,84	2,53	0,87	0,64	1,27
3523	3618	3395	3384	3161	3650	**3905**	3332	3077	2963	3416	3866
4534	4781	3972	4122	3942	4481	**5627**	4362	4426	4293	4749	4944
5152	4580	4543	4268	4244	5088	**6513**	4452	4286	4185	4451	4504
5200	5313	5163	5086	5489	**6126**	6099	5320	5054	5109	5127	6019
6479	6360	5730	5565	5641	6819	**8023**	5176	6678	6056	6203	7012
7050	6311	5992	6003	6096	7593	**8582**	6471	6089	5972	5999	6882
5770	5877	5660	5616	5629	6529	**6705**	6110	5789	5849	5687	6263
6668	6938	6199	5782	5920	6870	**8270**	5524	6739	6360	6872	7735
7102	6624	6411	6225	6658	7679	**8786**	6687	6610	6428	6915	7480
5400	5513	5363	5286	5689	**6326**	6299	5520	5254	5309	5327	6219
6159	6085	5569	5554	5294	6261	**7414**	4642	6074	5663	5731	6664
6762	5817	5571	5569	5568	7077	**7657**	6009	5617	5584	5621	6610

Physical exchanges in interconnected operation [1]

MM_YY	GR→AL	GR→BG	GR→I	GR→JIEL	GR_UCTE_EXP	GR_III_EXP	AL→GR	BG→GR	I→GR	JIEL→GR	GR_UCTE_IMP	GR_III_IMP	GR_UCTE_SLD	GR_III_SLD
	Export (-)						Import (+)						Balance	
I.97	41	5	0	7	7	46	1	34	0	42	42	35	35	-11
II.97	67	9	0	7	7	76	0	18	0	46	46	18	39	-58
III.97	52	1	0	5	5	53	2	99	0	96	96	101	91	48
IV.97	39	1	0	0	0	40	5	128	0	164	164	133	164	93
V.97	25	1	0	0	0	26	17	159	0	169	169	176	169	150
VI.97	20	2	0	0	0	22	34	153	0	172	172	187	172	165
VII.97	23	0	0	0	0	23	9	189	0	156	156	198	156	175
VIII.97	25	0	0	1	1	25	11	184	0	148	148	195	147	170
IX.97	32	1	0	0	0	33	3	156	0	133	133	159	133	126
X.97	68	1	0	3	3	69	0	123	0	100	100	123	97	54
XI.97	61	4	0	2	2	65	0	99	0	68	68	99	66	34
XII.97	84	1	0	2	2	85	0	110	0	67	67	110	65	25
1997	**537**	**26**	**0**	**27**	**27**	**563**	**82**	**1452**	**0**	**1361**	**1361**	**1534**	**1334**	**971**
I.01	98	0	0	9	9	98	0	249	0	54	54	249	45	151
II.01	106	0	0	18	18	106	0	229	0	29	29	229	11	123
III.01	77	1	0	5	5	78	0	61	0	111	111	61	106	-17
IV.01	88	2	0	2	2	90	0	59	0	84	84	59	82	-31
V.01	60	0	0	1	1	60	1	82	0	119	119	83	118	23
VI.01	27	0	0	0	0	27	6	143	0	164	164	149	164	122
VII.01	50	0	0	1	1	50	1	225	0	138	138	226	137	176
VIII.01	109	0	0	5	5	109	0	337	0	71	71	337	66	228
IX.01	76	0	0	6	6	76	1	193	0	123	123	194	117	118
X.01	94	0	6	1	7	94	0	236	14	96	110	236	103	142
XI.01	92	0	0	2	2	92	0	291	0	82	82	291	80	199
XII.01	120	0	0	5	5	120	0	303	0	68	68	303	63	183
2001	**997**	**3**	**6**	**55**	**61**	**1000**	**9**	**2408**	**14**	**1139**	**1153**	**2417**	**1092**	**1417**
I.02	128	0	0	4	4	128	0	269	0	59	59	269	55	141
II.02	120	0	0	7	7	120	0	312	0	48	48	312	41	192
III.02	113	0	0	1	1	113	0	273	0	108	108	273	107	160
IV.02	74	0	1	1	2	74	1	160	18	152	170	161	168	87
V.02	109	0	6	2	8	109	0	257	76	63	139	257	131	148
VI.02	123	0	0	3	3	123	0	262	95	98	193	262	190	139
VII.02	97	0	1	2	3	97	0	281	143	80	223	281	220	184
VIII.02	106	0	56	3	59	106	0	285	17	77	94	285	35	179
IX.02	98	0	102	15	117	98	3	343	3	53	56	346	-61	248
X.02	72	0	129	5	134	72	3	304	0	100	100	307	-34	235
XI.02	52	0	99	2	101	52	2	303	0	69	69	305	-32	253
XII.02	71	0	101	5	106	71	0	263	0	42	42	263	-64	192
2002	**1163**	**0**	**495**	**50**	**545**	**1163**	**9**	**3312**	**352**	**949**	**1301**	**3321**	**756**	**2158**

[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 operation [1]

ITALIA | GWh

MM_YY	I→A	I→CH	I→F	I→GR	I→SLO	I_UCTE_EXP	I_III_EXP	A→I	CH→I	F→I	GR→I	SLO→I	I_UCTE_IMP	I_III_IMP	I_UCTE_SLD	I_III_SLD
	Export (-)							Import (+)							Balance	
I.97	0	0	27	0	42	69	0	123	1467	1551	0	120	3261	0	3192	0
II.97	0	0	30	0	63	93	0	114	1406	1475	0	60	3055	0	2962	0
III.97	0	1	35	0	62	98	0	121	1714	1539	0	60	3434	0	3336	0
IV.97	0	0	32	0	55	87	0	141	1669	1498	0	51	3359	0	3272	0
V.97	0	1	34	0	35	70	0	164	1919	1435	0	70	3588	0	3518	0
VI.97	0	3	37	0	27	67	0	147	1772	1362	0	121	3402	0	3335	0
VII.97	0	2	35	0	18	55	0	160	1805	1301	0	156	3422	0	3367	0
VIII.97	0	3	36	0	72	111	0	121	1334	817	0	30	2302	0	2191	0
IX.97	0	0	18	0	31	49	0	145	1739	1408	0	104	3396	0	3347	0
X.97	0	0	16	0	57	73	0	137	1901	1511	0	42	3591	0	3518	0
XI.97	0	8	29	0	60	97	0	119	1555	1653	0	75	3402	0	3305	0
XII.97	0	0	31	0	66	97	0	115	1667	1763	0	97	3642	0	3545	0
1997	**0**	**18**	**360**	**0**	**588**	**966**	**0**	**1607**	**19948**	**17313**	**0**	**986**	**39854**	**0**	**38888**	**0**
I.01	0	0	29	0	0	29	0	166	2032	1706	0	546	4450	0	4421	0
II.01	0	0	29	0	0	29	0	136	1800	1516	0	540	3992	0	3963	0
III.01	0	0	29	0	0	29	0	145	1874	1811	0	622	4452	0	4423	0
IV.01	0	0	31	0	0	31	0	162	1841	1672	0	591	4266	0	4235	0
V.01	0	0	44	0	0	44	0	169	1933	1405	0	455	3962	0	3918	0
VI.01	0	2	31	0	7	40	0	165	1920	1404	0	308	3797	0	3757	0
VII.01	0	2	32	0	17	51	0	165	1882	1586	0	246	3879	0	3828	0
VIII.01	0	31	60	0	23	114	0	73	1136	1129	0	109	2447	0	2333	0
IX.01	0	7	21	0	3	31	0	165	2166	1329	0	338	3998	0	3967	0
X.01	0	0	13	14	7	34	0	178	2457	1674	6	367	4682	0	4648	0
XI.01	0	0	29	0	8	37	0	164	2323	1612	0	428	4527	0	4490	0
XII.01	0	0	77	0	1	78	0	175	2462	1354	0	583	4574	0	4496	0
2001	**0**	**42**	**425**	**14**	**66**	**547**	**0**	**1863**	**23826**	**18198**	**6**	**5133**	**49026**	**0**	**48479**	**0**
I.02	0	0	56	0	4	60	0	167	2336	1544	0	467	4514	0	4454	0
II.02	0	1	36	0	2	39	0	138	2128	1452	0	467	4185	0	4146	0
III.02	0	2	36	0	0	38	0	154	2142	1860	0	493	4649	0	4611	0
IV.02	0	0	34	18	0	52	0	159	2127	1746	1	381	4414	0	4362	0
V.02	0	1	42	76	38	157	0	162	2198	1615	6	219	4200	0	4043	0
VI.02	0	1	45	95	26	167	0	147	2149	1529	0	252	4077	0	3910	0
VII.02	0	2	36	143	8	189	0	159	2382	1402	1	265	4209	0	4020	0
VIII.02	0	1	60	17	2	80	0	70	1622	1014	56	265	3027	0	2947	0
IX.02	0	0	23	3	0	26	0	152	1975	1541	102	377	4147	0	4121	0
X.02	0	2	26	0	0	28	0	171	2082	1779	129	710	4871	0	4843	0
XI.02	0	10	32	0	0	42	0	160	1803	1796	99	706	4564	0	4522	0
XII.02	0	2	37	0	0	39	0	149	2094	1747	101	629	4720	0	4681	0
2002	**0**	**22**	**463**	**352**	**80**	**917**	**0**	**1788**	**25038**	**19025**	**495**	**5231**	**51577**	**0**	**50660**	**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".

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Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	193507
			2001	212633
			2002	222979
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	46368
			2001	53235
			2002	47291
Total net electrical energy production	GWh	Σ	1997	239875
			2001	265868
			2002	270270
Total physical import / export balance [1]	GWh	Σ	1997	38832
			2001	48479
			2002	50660
Consumption of pumps	GWh	Σ	1997	6707
			2001	9512
			2002	10569
National electrical consumption	GWh	Σ	1997	272000
			2001	304835
			2002	310361
National electrical consumption as percentage of total values	%	∅ pond.	1997	100
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	0,94
			2001	1,04
			2002	0,90
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	24381
			2001	29678
			2002	31343
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	42109
			2001	49051
			2002	50551
Peak load on the 3rd Wednesday	MW	max.	1997	44286
			2001	51277
			2002	50910
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	36478
			2001	44804
			2002	43939

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

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
16095	15831	16288	16249	15444	14812	15883	13328	16704	18260	17517	17096
18304	17407	18035	15837	16405	16569	18094	16612	18269	18740	18922	19439
21303	19048	19490	18175	17390	18126	19927	16154	18637	18829	18203	17697
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
4323	3285	3281	3216	4117	4977	5576	4179	3964	2811	3224	3415
4682	3776	4738	4358	6124	6107	5892	4510	3534	3740	3120	2654
2800	2500	2776	2746	5272	5425	5105	3805	3837	4002	4425	4598
20418	19116	19569	19465	19561	19789	21459	17507	20668	21071	20741	20511
22986	21183	22773	20195	22529	22676	23986	21122	21803	22480	22042	22093
24103	21548	22266	20921	22662	23551	25032	19959	22474	22831	22628	22295
3195	2961	3338	3235	3517	3343	3370	2165	3347	3519	3305	3537
4421	3963	4423	4235	3918	3757	3828	2333	3967	4648	4490	4496
4454	4146	4611	4362	4043	3910	4020	2947	4121	4843	4522	4681
499	469	418	682	510	535	683	436	561	619	634	661
926	763	815	795	837	736	724	716	641	782	826	951
975	867	869	876	900	899	892	817	816	885	859	914
23114	21608	22489	22018	22568	22597	24146	19236	23454	23971	23412	23387
26481	24383	26381	23635	25610	25697	27090	22739	25129	26346	25706	25638
27582	24827	26008	24407	25805	26562	28160	22089	25779	26789	26291	26062
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
1,40	0,98	0,88	0,71	0,82	1,02	0,96	1,04	0,85	0,63	1,08	1,10
1,52	1,14	1,35	1,06	1,25	1,07	1,08	1,09	0,79	0,81	0,64	0,56
0,54	0,63	0,65	0,63	1,04	0,96	0,84	0,96	0,91	0,80	1,30	1,37
22615	23117	22139	22786	22684	24265	**24381**	18186	23344	22299	22770	23920
28137	27950	27093	26577	27404	28141	**29678**	21061	27715	27889	28097	28759
28768	28375	27659	22579	27695	**31343**	29865	23469	28926	28169	28266	28473
39297	39479	37499	37789	37688	40075	39835	27147	37829	37143	40885	**42109**
48147	45988	44067	44201	43824	44542	47416	25013	43867	44291	46449	**49051**
49641	46851	44267	44933	44077	**50551**	47812	34195	46005	46267	46579	48960
40710	40168	37777	38556	37787	40075	39835	28887	37954	37540	42572	**44286**
49129	46634	44506	44505	44076	44779	47416	27915	44111	44949	49270	**51277**
50910	47341	44781	45167	44359	50551	47812	34195	46141	46385	49465	**50789**
34292	33756	31164	32158	31505	34259	33909	23384	32525	31550	35045	**36478**
42239	39624	37724	37577	37912	38318	41489	24494	37567	37706	42003	**44804**
43939	40414	37520	37884	37785	43668	41103	29978	39516	39050	42599	43379

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Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	n.a.
			2001	4234
			2002	4675
Thermal nuclear net production	GWh	Σ	1997	n.a.
			2001	5079
			2002	5303
Hydraulic net production	GWh	Σ	1997	n.a.
			2001	3270
			2002	3001
Total net electrical energy production	GWh	Σ	1997	n.a.
			2001	12583
			2002	12979
Total physical import / export balance [1]	GWh	Σ	1997	n.a
			2001	-1792
			2002	-1252
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	0
			2002	0
National electrical consumption	GWh	Σ	1997	n.a.
			2001	10791
			2002	11727
National electrical consumption as percentage of total values	%	∅ pond.	1997	n.a.
			2001	95
			2002	95
Energy capability factor (hydro power)		∅ pond.	1997	n.a.
			2001	0,92
			2002	1,05
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	1142
			2002	1156
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	1713
			2002	1811
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	1789
			2002	1846
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	1888
			2002	2072

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

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.
262	343	392	384	400	215	261	288	300	403	475	511
510	461	423	433	423	384	296	171	375	408	383	408
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
506	455	503	428	95	214	483	447	477	503	488	480
492	416	487	449	157	370	485	494	477	502	486	488
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
369	248	332	328	449	212	332	219	258	229	170	124
110	113	165	178	297	308	256	330	229	293	365	357
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1137	1046	1227	1140	944	641	1076	954	1035	1135	1133	1115
1112	990	1075	1060	877	1062	1037	995	1081	1203	1234	1253
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-152	-175	-259	-259	-47	-72	-179	-85	-139	-182	-154	-89
-64	-68	-213	-87	78	-103	-56	-73	-97	-158	-211	-200
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.
985	871	968	881	897	569	897	869	896	953	979	1026
1048	922	862	973	955	959	981	922	984	1045	1023	1053
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
95	95	95	95	95	95	95	95	95	95	95	95
95	95	95	95	95	95	95	95	95	95	95	95
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0,45	0,31	0,83	1,12	1,02	0,84	0,92	1,09	1,10	0,90	0,83	1,49
1,03	0,95	0,46	1,02	1,02	1,02	0,92	1,09	1,09	0,90	1,49	1,49
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1090	0	1019	1019	963	1011	972	887	985	1026	1059	**1142**
1137	1079	1080	1083	1058	**1156**	1124	1081	1113	1114	1144	**1156**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1638	1515	1504	1513	1434	1429	1427	1041	1492	1532	1605	**1713**
1690	1641	1593	1624	1540	1615	1558	1527	1601	1622	1644	**1811**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1695	1618	1568	1568	1488	1470	1483	1085	1575	1646	1601	**1789**
1782	1717	1720	1660	1587	1672	1599	1595	1684	1744	1722	**1846**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1647	1648	1813	1813	1327	1631	1631	1230	1685	1681	1796	**1888**
1795	1806	1756	1934	1249	2061	1658	1605	1821	1821	2015	**2072**

Physical exchanges in interconnected operation [1]

SLOVENIJA | GWh

MM_YY	SLO→A	SLO→I	SLO→HR	SLO_UCTE_EXP	SLO_III_EXP	A→SLO	I→SLO	HR→SLO	SLO_UCTE_IMP	SLO_III_IMP	SLO_UCTE_SLD	SLO_III_SLD
	Export (-)					Import (+)					Balance	
I.97	4	120	n.a.	n.a.	0	134	42	n.a.	n.a.	0	n.a.	0
II.97	1	60	n.a.	n.a.	0	111	63	n.a.	n.a.	0	n.a.	0
III.97	8	60	n.a.	n.a.	0	103	62	n.a.	n.a.	0	n.a.	0
IV.97	6	51	n.a.	n.a.	0	103	55	n.a.	n.a.	0	n.a.	0
V.97	0	70	n.a.	n.a.	0	251	35	n.a.	n.a.	0	n.a.	0
VI.97	0	121	n.a.	n.a.	0	271	27	n.a.	n.a.	0	n.a.	0
VII.97	0	156	n.a.	n.a.	0	237	18	n.a.	n.a.	0	n.a.	0
VIII.97	9	30	n.a.	n.a.	0	124	72	n.a.	n.a.	0	n.a.	0
IX.97	0	104	n.a.	n.a.	0	169	31	n.a.	n.a.	0	n.a.	0
X.97	0	42	n.a.	n.a.	0	203	57	n.a.	n.a.	0	n.a.	0
XI.97	1	75	n.a.	n.a.	0	154	60	n.a.	n.a.	0	n.a.	0
XII.97	17	97	n.a.	n.a.	0	78	66	n.a.	n.a.	0	n.a.	0
1997	**46**	**986**	n.a.	n.a.	**0**	**1938**	**588**	n.a.	n.a.	**0**	**n.a.**	**0**
I.01	8	546	257	811	0	199	0	460	659	0	-152	0
II.01	4	540	239	783	0	247	0	360	607	0	-176	0
III.01	24	622	270	916	0	190	0	473	663	0	-253	0
IV.01	8	591	271	870	0	168	0	443	611	0	-259	0
V.01	0	455	157	612	0	296	0	269	565	0	-47	0
VI.01	0	308	269	577	0	345	7	153	505	0	-72	0
VII.01	0	246	365	611	0	274	17	141	432	0	-179	0
VIII.01	4	109	357	470	0	225	23	137	385	0	-85	0
IX.01	0	338	310	648	0	298	3	208	509	0	-139	0
X.01	0	367	317	684	0	260	7	235	502	0	-182	0
XI.01	8	428	251	687	0	205	8	320	533	0	-154	0
XII.01	6	583	203	792	0	320	1	382	703	0	-89	0
2001	**62**	**5133**	**3266**	**8461**	**0**	**3027**	**66**	**3581**	**6674**	**0**	**-1787**	**0**
I.02	4	467	208	679	0	285	4	326	615	0	-64	0
II.02	2	467	208	677	0	278	2	329	609	0	-68	0
III.02	101	493	274	868	0	295	0	360	655	0	-213	0
IV.02	14	381	255	650	0	245	0	318	563	0	-87	0
V.02	2	219	200	421	0	342	38	119	499	0	78	0
VI.02	0	252	306	558	0	270	26	159	455	0	-103	0
VII.02	0	265	313	578	0	341	8	173	522	0	-56	0
VIII.02	0	265	375	640	0	316	2	249	567	0	-73	0
IX.02	28	377	275	680	0	182	0	401	583	0	-97	0
X.02	2	710	209	921	0	258	0	503	761	0	-160	0
XI.02	16	706	194	916	0	212	0	493	705	0	-211	0
XII.02	16	629	215	860	0	222	0	438	660	0	-200	0
2002	**185**	**5231**	**3032**	**8448**	**0**	**3246**	**80**	**3868**	**7194**	**0**	**-1254**	**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 operation [1]

HRVATSKA | GWh

MM_YY	HR→BiH	HR→H	HR→JIEL	HR→SLO	HR_UCTE_EXP	HR_III_EXP	BiH→HR	H→HR	JIEL→HR	SLO→HR	HR_UCTE_IMP	HR_III_IMP	HR_UCTE_SLD	HR_III_SLD
	Export (-)						Import (+)						Balance	
I.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
II.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
III.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
IV.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
V.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
VI.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	0	n.a.	n.a.	0	n.a.	0
VII.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	16	n.a.	n.a.	0	n.a.	0
VIII.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	12	n.a.	n.a.	0	n.a.	0
IX.97	n.a.	0	0	n.a.	n.a.	0	n.a.	0	3	n.a.	n.a.	0	n.a.	0
X.97	n.a.	0	0	n.a.	n.a.	0	n.a.	7	1	n.a.	n.a.	7	n.a.	0
XI.97	n.a.	0	0	n.a.	n.a.	0	n.a.	38	0	n.a.	n.a.	38	n.a.	0
XII.97	n.a.	0	0	n.a.	n.a.	0	n.a.	43	0	n.a.	n.a.	43	n.a.	0
1997	**n.a.**	**0**	**0**	**n.a.**	**n.a.**	**0**	**n.a.**	**88**	**32**	**n.a.**	**n.a.**	**88**	**n.a.**	0
I.01	160	0	0	460	620	0	70	390	0	257	717	0	97	0
II.01	147	0	0	360	507	0	80	357	0	239	676	0	169	0
III.01	100	0	1	473	574	0	116	336	0	270	722	0	148	0
IV.01	124	0	0	443	567	0	71	287	0	271	629	0	62	0
V.01	99	0	0	269	368	0	63	316	0	157	536	0	168	0
VI.01	179	0	0	153	332	0	18	303	0	269	590	0	258	0
VII.01	146	0	0	141	287	0	17	250	0	365	632	0	345	0
VIII.01	144	0	0	137	281	0	24	245	0	357	626	0	345	0
IX.01	153	0	0	208	361	0	17	392	0	310	719	0	358	0
X.01	184	3	0	235	422	0	25	506	0	317	848	0	426	0
XI.01	162	0	0	320	482	0	40	600	0	251	891	0	409	0
XII.01	169	0	0	382	551	0	45	711	0	203	959	0	408	0
2001	**1767**	**3**	**1**	**3581**	**5352**	**0**	**586**	**4693**	**0**	**3266**	**8545**	**0**	**3193**	**0**
I.02	157	0	0	326	483	0	26	690	0	208	924	0	441	0
II.02	168	0	0	329	497	0	43	639	0	208	890	0	393	0
III.02	166	0	0	360	526	0	43	533	0	274	850	0	324	0
IV.02	158	0	2	318	478	0	56	441	0	255	752	0	274	0
V.02	113	0	6	119	238	0	44	370	0	200	614	0	376	0
VI.02	144	0	3	159	306	0	37	281	0	306	624	0	318	0
VII.02	169	0	4	173	346	0	35	384	0	313	732	0	386	0
VIII.02	114	1	0	249	364	0	31	259	0	375	665	0	301	0
IX.02	97	0	0	401	498	0	53	366	0	275	694	0	196	0
X.02	109	0	0	503	612	0	77	506	0	209	792	0	180	0
XI.02	90	0	0	493	583	0	93	413	0	194	700	0	117	0
XII.02	98	0	0	438	536	0	96	442	0	215	753	0	217	0
2002	**1583**	**1**	**15**	**3868**	**5467**	**0**	**634**	**5324**	**0**	**3032**	**8990**	**0**	**3523**	**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".

HRVATSKA

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	n.a
			2001	4711
			2002	5933
Thermal nuclear net production	GWh	Σ	1997	n.a
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	n.a
			2001	6551
			2002	5374
Total net electrical energy production	GWh	Σ	1997	n.a.
			2001	11262
			2002 [2]	11307
Total physical import / export balance [1]	GWh	Σ	1997	n.a.
			2001	3190
			2002	3522
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	49
			2002	95
National electrical consumption	GWh	Σ	1997	n.a.
			2001	14403
			2002	14734
National electrical consumption as percentage of total values	%	∅ pond.	1997	n.a
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	-
			2001	1,08
			2002	1,05
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	1685
			2002	1579
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	2630
			2002	2572
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	2713
			2002	2623
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	2630
			2002	2572

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

[2] Including deliveries from industry

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.
388	317	285	296	259	328	436	454	377	404	484	683
738	458	515	454	295	437	555	510	567	430	414	560
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.
885	733	835	793	607	436	344	321	357	319	426	495
371	428	431	464	422	330	259	345	343	596	688	697
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1273	1050	1120	1089	866	764	780	775	734	723	910	1178
1109	886	946	918	717	767	814	855	910	1026	1102	1257
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
99	171	111	66	172	261	348	347	360	429	414	412
441	393	324	275	376	319	386	300	195	179	117	217
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	4	1	4	1	4	6	1	5	6	0	5
3	1	2	8	12	12	11	10	7	11	2	16
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1360	1217	1230	1151	1037	1021	1122	1121	1089	1146	1324	1585
1547	1278	1268	1185	1081	1074	1189	1145	1098	1194	1217	1458
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
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
1,81	1,14	1,62	1,15	1,61	0,83	0,82	0,86	1,17	0,48	0,86	0,49
0,57	1,31	0,67	0,89	0,82	0,84	0,80	1,68	2,03	1,70	1,25	1,00
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1349	1310	1178	1267	987	1030	1135	1101	1097	1062	1345	**1685**
1579	1331	1183	1189	1033	1181	1213	1156	1133	1201	1207	1503
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2313	2118	1882	2011	1630	1739	1789	1513	1898	1769	2191	**2630**
2572	2187	1876	1913	1689	1861	1900	1852	1731	1818	1820	2327
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2375	2255	2043	2152	1727	1776	1852	1611	1974	1966	2379	**2713**
2623	2323	2092	2084	1833	1919	1943	1923	1913	1961	2056	2463
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2313	2118	1882	2011	1630	1739	1789	1513	1898	1769	2191	**2630**
2572	2187	1876	1913	1689	1861	1900	1852	1731	1818	1820	2327

				I-XII
Thermal conventional net production	GWh	Σ	1997	30011
			2001	28547
			2002	28704
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	14146
			2001	13197
			2002	12473
Total net electrical energy production	GWh	Σ	1997	44157
			2001	41744
			2002	41177
Total physical import / export balance [1]	GWh	Σ	1997	1001
			2001	4229
			2002	4475
Consumption of pumps	GWh	Σ	1997	1111
			2001	1046
			2002	1028
National electrical consumption	GWh	Σ	1997	44045
			2001	44927
			2002	44624
National electrical consumption as percentage of total values	%	∅ pond.	1997	96
			2001	96
			2002	96
Energy capability factor (hydro power)		∅ pond.	1997	0,90
			2001	0,93
			2002	0,96
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	5658
			2001	6582
			2002	6247
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	7796
			2001	8025
			2002	7705
Peak load on the 3rd Wednesday	MW	max.	1997	8420
			2001	8297
			2002	8020
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	7099
			2001	6477
			2002	5716

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

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2524	2733	2894	2590	1604	1805	1979	2300	2448	2919	3093	3122
2940	2479	2554	2318	1736	1882	2088	1904	1979	2366	2850	3451
3464	2689	2824	2484	2092	2114	2190	2043	1955	1878	2140	2831
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
1822	1121	1284	1490	1563	1128	1101	845	688	982	847	1275
1190	1168	1336	1507	1303	1082	922	799	877	825	1043	1145
846	944	1107	1255	955	866	685	839	803	1483	1291	1399
4346	3854	4178	4080	3167	2933	3080	3145	3136	3901	3940	4397
4130	3647	3890	3825	3039	2964	3010	2703	2856	3191	3893	4596
4310	3633	3931	3739	3047	2980	2875	2882	2758	3361	3431	4230
537	303	-18	-49	-121	-123	-206	-166	-94	27	453	458
932	802	309	24	44	-8	23	295	250	264	511	783
861	465	237	97	130	62	188	199	405	446	640	745
100	34	55	92	137	29	53	145	115	82	206	63
159	90	165	135	72	44	64	49	110	67	61	30
90	105	115	136	82	49	52	91	88	95	69	56
4783	4123	4103	3939	2909	2781	2821	2834	2927	3846	4187	4792
4903	4359	4034	3714	3011	2912	2969	2949	2996	3388	4343	5349
5081	3993	4053	3700	3095	2993	3011	2990	3075	3712	4002	4919
96	96	96	96	96	96	96	96	96	96	96	96
96	96	96	96	96	96	96	96	96	96	96	96
96	96	96	96	96	96	96	96	96	96	96	96
0,65	0,81	0,85	0,92	1,08	0,87	1,01	1,11	0,81	0,81	0,78	1,05
1,17	1,05	1,03	1,01	0,80	0,86	0,89	0,83	1,35	0,76	0,81	0,71
0,66	1,03	0,85	0,94	0,70	0,73	0,67	1,20	1,28	2,20	0,77	1,09
5018	5062	4518	4602	2733	2788	2843	2837	2932	3753	4838	**5658**
5625	5277	3952	4357	2922	2930	3039	2897	3187	3116	5328	**6582**
6247	4882	3945	3691	3111	3163	3153	3113	3180	3733	4002	5685
6708	7009	6567	6400	4330	4564	4305	4480	4686	6329	6758	**7796**
7728	7325	5871	6243	4655	4839	4476	4366	5080	4876	6847	**8025**
7705	6302	5594	5256	4667	4749	4669	4499	4710	5344	5616	7318
7561	7295	6742	6835	4632	4572	4569	4988	5227	6633	7535	**8420**
8058	7570	6524	6339	5239	4961	4909	4836	5538	5755	7176	**8297**
8020	6847	6440	6135	5342	5247	4863	5149	5531	6163	6566	7763
4300	3846	4167	6638	4464	4775	4400	4713	4767	6266	5966	**7099**
6477	6160	5767	5889	4850	4868	4209	3701	4444	4192	5889	6432
5665	5006	4911	4620	4117	4202	4055	4000	3882	4763	4294	**5716**

Physical exchanges in interconnected operation [1]

JIEL | GWh

MM_YY	JIEL→AL	JIEL→BG	JIEL→BiH	JIEL→GR	JIEL→H	JIEL→HR	JIEL→RO	JIEL_UCTE_EXP	JIEL_III_EXP	AL→JIEL	BG→JIEL	BiH→JIEL	GR→JIEL	H→JIEL	HR→JIEL	RO→JIEL	JIEL_UCTE_IMP	JIEL_III_IMP	JIEL_UCTE_SLD	JIEL_III_SLD
	Export (-)									Import (+)									Balance	
I.97	18	0	n.a.	42	0	0	6	42	24	131	129	n.a.	7	98	0	49	7	407	-35	383
II.97	1	1	n.a.	46	0	0	9	46	11	127	61	n.a.	7	74	0	33	7	295	-39	284
III.97	7	10	n.a.	96	0	0	32	96	49	72	28	n.a.	5	0	0	13	5	113	-91	64
IV.97	8	10	n.a.	164	0	0	45	164	63	52	36	n.a.	0	0	0	17	0	105	-164	42
V.97	7	21	n.a.	169	0	0	66	169	94	57	19	n.a.	0	0	0	9	0	85	-169	-9
VI.97	18	33	n.a.	172	0	0	69	172	120	55	7	n.a.	0	0	0	7	0	69	-172	-51
VII.97	14	21	n.a.	156	0	16	125	172	160	31	7	n.a.	0	0	0	1	0	39	-172	-121
VIII.97	6	21	n.a.	148	0	12	137	160	164	39	10	n.a.	1	52	0	0	1	101	-159	-63
IX.97	13	9	n.a.	133	0	3	89	136	111	31	29	n.a.	0	0	0	1	0	61	-136	-50
X.97	28	3	n.a.	100	0	1	69	101	100	26	86	n.a.	3	3	0	27	3	142	-98	42
XI.97	9	0	n.a.	68	0	0	0	68	9	54	112	n.a.	2	86	0	132	2	384	-66	375
XII.97	7	0	n.a.	67	0	0	3	67	10	73	136	n.a.	2	143	0	109	2	461	-65	451
1997	**136**	**129**	**n.a.**	**1361**	**0**	**32**	**650**	**1393**	**915**	**748**	**660**	**n.a.**	**27**	**456**	**0**	**398**	**27**	**2262**	**-1366**	**1347**
I.01	72	0	47	54	0	0	0	101	72	0	245	379	9	142	0	330	530	575	429	503
II.01	99	0	41	29	0	0	0	70	99	0	219	381	18	138	0	217	537	436	467	337
III.01	96	4	31	111	0	0	17	142	117	0	48	458	5	25	1	31	489	79	347	-38
IV.01	70	51	59	84	0	0	77	143	198	0	7	348	2	1	0	7	351	14	208	-184
V.01	72	27	73	119	0	0	18	192	117	3	16	281	1	29	0	24	311	43	119	-74
VI.01	36	87	54	164	0	0	58	218	181	3	5	280	0	95	0	8	375	16	157	-165
VII.01	41	41	86	138	0	0	66	224	148	23	23	234	1	105	0	10	340	56	116	-92
VIII.01	75	0	89	71	0	0	19	160	94	4	191	168	5	123	0	58	296	253	136	159
IX.01	51	1	36	123	0	0	21	159	73	5	175	166	6	96	0	34	268	214	109	141
X.01	71	12	30	96	0	0	7	126	90	5	67	182	1	144	0	79	327	151	201	61
XI.01	90	0	49	82	0	0	2	131	92	6	138	299	2	182	0	107	483	251	352	159
XII.01	50	0	100	68	0	0	0	168	50	7	245	259	5	195	0	290	459	542	291	492
2001	**823**	**223**	**695**	**1139**	**0**	**0**	**285**	**1834**	**1331**	**56**	**1379**	**3435**	**55**	**1275**	**1**	**1195**	**4766**	**2630**	**2932**	**1299**
I.02	37	0	91	59	0	0	0	150	37	8	227	250	4	201	0	358	455	593	305	556
II.02	109	0	48	48	0	0	1	96	110	0	140	246	7	187	0	90	440	230	344	120
III.02	123	10	44	108	0	0	22	152	155	0	52	264	1	189	0	37	454	89	302	-66
IV.02	123	20	55	152	0	0	26	207	169	0	38	255	1	134	2	43	392	81	185	-88
V.02	122	15	78	63	0	0	6	141	143	0	23	191	2	141	6	51	340	74	199	-69
VI.02	139	17	55	98	0	0	8	153	164	0	35	192	3	114	3	33	312	68	159	-96
VII.02	146	1	54	80	0	0	4	134	151	0	77	165	2	146	4	81	317	158	183	7
VIII.02	110	2	58	77	0	0	3	135	115	0	61	146	3	153	0	86	302	147	167	32
IX.02	85	0	56	53	0	0	17	109	102	6	238	156	15	143	0	59	314	303	205	201
X.02	52	1	51	100	0	0	6	151	59	13	149	200	5	141	0	148	346	310	195	251
XI.02	39	0	24	69	0	0	0	93	39	13	147	273	2	193	0	145	468	305	375	266
XII.02	38	0	74	42	0	0	0	116	38	1	188	316	5	205	0	184	526	373	410	335
2002	**1123**	**66**	**688**	**949**	**0**	**0**	**93**	**1637**	**1282**	**41**	**1375**	**2654**	**50**	**1947**	**15**	**1315**	**4666**	**2731**	**3029**	**1449**

[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 operation [1]

LUXEMBOURG | GWh

MM_YY	L→B	L→D	L_UCTE_EXP	L_III_EXP	B→L	D→L	L_UCTE_IMP	L_III_IMP	L_UCTE_SLD	L_III_SLD
	Export (-)				Import (+)				Balance	
I.97	0	65	65	0	126	394	520	0	455	0
II.97	0	56	56	0	119	332	451	0	395	0
III.97	0	63	63	0	135	354	489	0	426	0
IV.97	0	65	65	0	128	349	477	0	412	0
V.97	0	71	71	0	127	341	468	0	397	0
VI.97	0	76	76	0	129	342	471	0	395	0
VII.97	0	71	71	0	126	345	471	0	400	0
VIII.97	0	75	75	0	116	318	434	0	359	0
IX.97	0	82	82	0	148	344	492	0	410	0
X.97	0	81	81	0	175	373	548	0	467	0
XI.97	0	74	74	0	174	362	536	0	462	0
XII.97	0	69	69	0	170	356	526	0	457	0
1997	**0**	**848**	**848**	**0**	**1673**	**4210**	**5883**	**0**	**5035**	**0**
I.01	0	63	63	0	175	404	579	0	516	0
II.01	0	49	49	0	161	355	516	0	467	0
III.01	0	63	63	0	188	402	590	0	527	0
IV.01	0	65	65	0	164	370	534	0	469	0
V.01	0	57	57	0	177	340	517	0	460	0
VI.01	0	60	60	0	172	353	525	0	465	0
VII.01	0	36	36	0	169	341	510	0	474	0
VIII.01	0	70	70	0	110	367	477	0	407	0
IX.01	60	82	142	0	166	397	563	0	421	0
X.01	36	74	110	0	190	405	595	0	485	0
XI.01	151	64	215	0	173	396	569	0	354	0
XII.01	135	62	197	0	162	392	554	0	357	0
2001	**382**	**745**	**1127**	**0**	**2007**	**4522**	**6529**	**0**	**5402**	**0**
I.02	269	73	342	0	161	430	591	0	249	0
II.02	208	65	273	0	168	373	541	0	268	0
III.02	46	64	110	0	178	394	572	0	462	0
IV.02	143	63	206	0	147	379	526	0	320	0
V.02	185	76	261	0	139	394	533	0	272	0
VI.02	217	82	299	0	136	400	536	0	237	0
VII.02	230	83	313	0	140	412	552	0	239	0
VIII.02	127	86	213	0	109	397	506	0	293	0
IX.02	140	69	209	0	133	390	523	0	314	0
X.02	161	76	237	0	150	423	573	0	336	0
XI.02	203	69	272	0	144	404	548	0	276	0
XII.02	103	77	180	0	120	419	539	0	359	0
2002	**2032**	**883**	**2915**	**0**	**1725**	**4815**	**6540**	**0**	**3625**	**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".

LUXEMBOURG

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	298
			2001	581
			2002	2594
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	942
			2001	873
			2002	996
Total net electrical energy production	GWh	Σ	1997	1240
			2001	1454
			2002	3590
Total physical import / export balance [1]	GWh	Σ	1997	5172
			2001	5511
			2002	3625
Consumption of pumps	GWh	Σ	1997	1188
			2001	1026
			2002	1198
National electrical consumption	GWh	Σ	1997	5224
			2001	5939
			2002	6017
National electrical consumption as percentage of total values	%	∅ pond.	1997	99
			2001	99
			2002	99
Energy capability factor (hydro power)		∅ pond.	1997	-
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	650
			2001	729
			2002	756
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	745
			2001	824
			2002	815
Peak load on the 3rd Wednesday	MW	max.	1997	813
			2001	879
			2002	892
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	779
			2001	833
			2002	821

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

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
34	31	33	34	31	30	30	25	8	12	14	16
29	27	29	26	23	21	20	16	24	24	177	165
299	234	75	193	244	275	285	161	190	220	267	151
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
74	67	75	70	79	85	79	78	84	85	83	83
79	64	77	79	70	66	41	74	89	85	75	74
87	81	78	72	85	87	87	89	72	85	83	90
108	98	108	104	110	115	109	103	92	97	97	99
108	91	106	105	93	87	61	90	113	109	252	239
386	315	153	265	329	362	372	250	262	305	350	241
456	396	425	418	404	400	408	385	435	490	479	476
516	468	526	469	460	466	475	417	481	521	354	358
249	268	462	320	272	237	239	293	314	336	276	359
96	79	92	91	97	105	99	107	109	111	105	97
88	70	87	86	80	82	52	97	114	99	87	84
100	88	87	84	103	112	112	118	92	102	96	104
468	415	441	431	417	410	418	381	418	476	471	478
536	489	545	488	473	471	484	410	480	531	519	513
535	495	528	501	498	487	499	425	484	539	530	496
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
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
650	557	587	585	543	503	538	421	596	632	642	571
663	718	**729**	641	623	602	593	391	661	667	724	716
756	717	676	687	660	651	645	560	644	603	710	615
710	660	**745**	715	651	641	734	659	743	687	670	689
813	722	766	795	681	630	810	446	**824**	804	734	717
800	**815**	710	667	798	729	701	741	778	732	712	760
736	691	760	715	704	682	759	667	743	797	**813**	764
879	859	826	811	751	715	811	450	863	862	802	857
892	855	852	808	812	742	761	741	810	819	827	760
735	689	**779**	744	681	670	755	685	767	705	693	714
815	723	766	797	684	634	816	452	**833**	795	741	722
800	**821**	716	627	801	730	701	746	778	736	718	766

NEDERLAND

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	56152
			2001	86669
			2002	88688
Thermal nuclear net production	GWh	Σ	1997	2243
			2001	3745
			2002	3687
Hydraulic net production	GWh	Σ	1997	0
			2001	0
			2002	0
Total net electrical energy production	GWh	Σ	1997 [2]	58395
			2001 [2]	90414
			2002 [2]	92375
Total physical import / export balance [1]	GWh	Σ	1997	12835
			2001	17284
			2002	16382
Consumption of pumps	GWh	Σ	1997	0
			2001	0
			2002	0
National electrical consumption	GWh	Σ	1997	71230
			2001	107698
			2002	108757
National electrical consumption as percentage of total values	%∅	pond.	1997	77
			2001	100
			2002	100
Energy capability factor (hydro power)	∅	pond.	1997	-
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	6393
			2001	7712
			2002	7853
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	11301
			2001	13344
			2002	14129
Peak load on the 3rd Wednesday	MW	max.	1997	11785
			2001	13755
			2002	14925
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	9667
			2001	11361
			2002	11761

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
5413	4437	4715	4628	4466	4409	4433	4595	4516	4919	4694	4927
7812	7038	7855	7047	6899	6707	6818	6809	7059	7330	7445	7850
8368	7138	7600	7113	6873	6745	6862	7005	7234	7905	7738	8107
326	88	0	0	0	0	214	288	324	337	327	339
337	306	337	326	336	324	329	314	140	335	325	336
335	304	337	325	335	324	333	320	185	225	326	338
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
5739	4525	4715	4628	4466	4409	4647	4883	4840	5256	5021	5266
8149	7344	8192	7373	7235	7031	7147	7123	7199	7665	7770	8186
8703	7442	7937	7438	7208	7069	7195	7325	7419	8130	8064	8445
691	970	1070	1082	1254	1336	1173	1147	1135	1004	1059	914
1494	1258	1134	1114	1406	1403	1481	1690	1571	1767	1563	1403
1031	1281	1382	1186	1492	1486	1496	1512	1439	1276	1369	1432
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
6430	5495	5785	5710	5720	5745	5820	6030	5975	6260	6080	6180
9643	8602	9326	8487	8641	8434	8628	8813	8770	9432	9333	9589
9734	8723	9319	8624	8700	8555	8691	8837	8858	9406	9433	9877
77	75	76	78	78	79	79	80	80	77	76	74
100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
5808	4545	5252	5468	5790	5713	5998	**6393**	5836	5643	5647	5991
7236	6589	6895	6960	7125	**7712**	7066	7532	7057	6931	7044	7453
7236	6979	7257	7085	7050	7530	7427	7812	7398	7002	7622	**7853**
10927	10624	10618	10631	10707	10460	10427	10906	10876	10760	10874	**11301**
13102	12532	12804	12460	11856	12102	11624	12669	12489	12101	12600	**13344**
13138	12563	12396	12542	12274	12530	12176	12538	12456	12414	12854	**14129**
11138	10757	10667	10655	10795	10525	10538	11006	10952	10828	11342	**11785**
13348	12500	12939	12480	12090	12255	11783	12842	12622	12280	13371	**13755**
13622	12806	12545	12696	12443	12587	12285	12589	12478	12478	13847	**14925**
9667	7760	8143	8209	8291	7896	8466	9315	8679	9199	8720	9555
10456	10050	10494	10387	9292	9061	9125	9622	9572	9361	10093	**11361**
10999	9781	9543	10370	9305	10408	10041	10309	10147	10316	10475	**11761**

Physical exchanges in interconnected operation [1]

NEDERLAND | GWh

MM_YY	NL→B	NL→D	NL_UCTE_EXP	NL_III_EXP	B→NL	D→NL	NL_UCTE_IMP	NL_III_IMP	NL_UCTE_SLD	NL_III_SLD
	Export (-)				Import (+)				Balance	
I.97	502	183	685	0	171	1204	1375	0	690	0
II.97	320	108	428	0	271	1128	1399	0	971	0
III.97	364	122	486	0	338	1217	1555	0	1069	0
IV.97	284	136	420	0	384	1118	1502	0	1082	0
V.97	235	156	391	0	479	1166	1645	0	1254	0
VI.97	304	86	390	0	294	1431	1725	0	1335	0
VII.97	371	106	477	0	226	1423	1649	0	1172	0
VIII.97	172	156	328	0	568	908	1476	0	1148	0
IX.97	198	167	365	0	470	1028	1498	0	1133	0
X.97	204	147	351	0	397	957	1354	0	1003	0
XI.97	250	94	344	0	373	1029	1402	0	1058	0
XII.97	332	111	443	0	254	1103	1357	0	914	0
1997	**3536**	**1572**	**5108**	**0**	**4225**	**13712**	**17937**	**0**	**12829**	**0**
I.01	428	12	440	0	260	1674	1934	0	1494	0
II.01	488	2	490	0	138	1611	1749	0	1259	0
III.01	620	23	643	0	85	1692	1777	0	1134	0
IV.01	441	36	477	0	147	1445	1592	0	1115	0
V.01	369	42	411	0	411	1405	1816	0	1405	0
VI.01	191	105	296	0	419	1280	1699	0	1403	0
VII.01	92	53	145	0	515	1112	1627	0	1482	0
VIII.01	78	75	153	0	764	1030	1794	0	1641	0
IX.01	162	24	186	0	460	1297	1757	0	1571	0
X.01	177	13	190	0	569	1389	1958	0	1768	0
XI.01	248	8	256	0	459	1360	1819	0	1563	0
XII.01	508	13	521	0	260	1665	1925	0	1404	0
2001	**3802**	**406**	**4208**	**0**	**4487**	**16960**	**21447**	**0**	**17239**	**0**
I.02	642	18	660	0	152	1539	1691	0	1031	0
II.02	465		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	583	805	1388	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**	**0**	**6818**	**14037**	**20855**	**0**	**16368**	**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 operation [1]

ÖSTERREICH | GWh

MM_YY	A→CH	A→CZ	A→D	A→H	A→I	A→SLO	A_UCTE_EXP	A_III_EXP	CH→A	CZ→A	D→A	H→A	I→A	SLO→A	A_UCTE_IMP	A_III_IMP	A_UCTE_SLD	A_III_SLD
	Export (-)								Import (+)								Balance	
I.97	121	2	272	10	123	134	650	12	40	269	552	108	0	4	596	377	-54	365
II.97	112	4	206	15	114	111	543	19	32	237	631	77	0	1	664	314	121	295
III.97	127	13	228	26	121	103	579	39	31	196	522	70	0	8	561	266	-18	227
IV.97	218	7	167	11	141	103	629	18	4	220	581	57	0	6	591	277	-38	259
V.97	244	0	316	51	164	251	975	51	23	164	442	50	0	0	465	214	-510	163
VI.97	149	3	482	44	147	271	1049	47	29	256	136	39	0	0	165	295	-884	248
VII.97	49	18	640	34	160	237	1086	52	113	202	179	48	0	0	292	250	-794	198
VIII.97	151	27	578	36	121	124	974	63	36	145	214	47	0	9	259	192	-715	129
IX.97	162	2	255	19	145	169	731	21	40	254	448	71	0	0	488	325	-243	304
X.97	266	8	209	19	137	203	815	27	24	180	605	77	0	0	629	257	-186	230
XI.97	241	1	130	36	119	154	644	37	17	252	699	46	0	1	717	298	73	261
XII.97	251	3	170	23	115	78	614	26	28	233	797	69	0	17	842	302	228	276
1997	**2091**	**88**	**3653**	**324**	**1607**	**1938**	**9289**	**412**	**417**	**2608**	**5806**	**759**	**0**	**46**	**6269**	**3367**	**-3020**	**2955**
I.01	399	0	429	2	166	199	1195	0	9	619	1190	173	0	8	1999	0	804	0
II.01	354	0	436	7	136	247	1180	0	3	489	959	107	0	4	1562	0	382	0
III.01	295	1	583	19	145	190	1233	0	14	361	756	71	0	24	1226	0	-7	0
IV.01	390	1	430	20	162	168	1171	0	9	380	912	96	0	8	1405	0	234	0
V.01	211	0	757	40	169	296	1473	0	35	388	467	68	0	0	958	0	-515	0
VI.01	111	0	477	38	165	345	1136	0	71	306	237	109	0	0	723	0	-413	0
VII.01	52	0	714	22	165	274	1227	0	257	425	122	86	0	0	890	0	-337	0
VIII.01	72	0	534	17	73	225	921	0	281	512	309	109	0	4	1215	0	294	0
IX.01	420	0	387	41	165	298	1311	0	18	412	496	37	0	0	963	0	-348	0
X.01	303	0	240	19	178	260	1000	0	26	694	521	87	0	0	1328	0	328	0
XI.01	463	0	238	0	164	205	1070	0	5	624	878	140	0	8	1655	0	585	0
XII.01	571	0	264	6	175	320	1336	0	1	520	1198	84	0	6	1809	0	473	0
2001	**3641**	**2**	**5489**	**231**	**1863**	**3027**	**14253**	**0**	**729**	**5730**	**8045**	**1167**	**0**	**62**	**15733**	**0**	**1480**	**0**
I.02	509	0	225	17	167	285	1203	0	11	605	1275	54	0	4	1949	0	746	0
II.02	476	0	291	25	138	278	1208	0	22	497	1003	29	0	2	1553	0	345	0
III.02	422	0	332	56	154	295	1259	0	1	508	773	18	0	101	1401	0	142	0
IV.02	454	0	267	26	159	245	1151	0	4	478	810	38	0	14	1344	0	193	0
V.02	310	0	356	73	162	342	1243	0	15	488	539	20	0	2	1064	0	-179	0
VI.02	208	0	376	50	147	270	1051	0	15	514	503	60	0	0	1092	0	41	0
VII.02	142	0	355	49	159	341	1046	0	81	727	556	98	0	0	1462	0	416	0
VIII.02	255	0	421	36	70	316	1098	0	52	516	476	122	0	0	1166	0	68	0
IX.02	394	0	294	62	152	182	1084	0	17	485	689	67	0	28	1286	0	202	0
X.02	360	0	401	41	171	258	1231	0	23	425	682	104	0	2	1236	0	5	0
XI.02	214	1	526	37	160	212	1150	0	24	330	411	134	0	16	915	0	-235	0
XII.02	432	2	426	20	149	222	1251	0	18	368	741	124	0	16	1267	0	16	0
2002	**4176**	**3**	**4270**	**492**	**1788**	**3246**	**13975**	**0**	**283**	**5941**	**8458**	**868**	**0**	**185**	**15735**	**0**	**1760**	**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".

ÖSTERREICH

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	13227
			2001	14159
			2002	16074
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	34499
			2001	40487
			2002	35134
Total net electrical energy production	GWh	Σ	1997	47726
			2001	54646
			2002	51208
Total physical import / export balance [1]	GWh	Σ	1997	-788
			2001	184
			2002	452
Consumption of pumps	GWh	Σ	1997	1469
			2001	1994
			2002	981
National electrical consumption	GWh	Σ	1997	45472
			2001	52836
			2002	50679
National electrical consumption as percentage of total values	%	∅ pond.	1997	84
			2001	87
			2002	90
Energy capability factor (hydro power)		∅ pond.	1997	1,00
			2001	1,11
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	5746
			2001	5705
			2002	6417
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	7546
			2001	7717
			2002	8219
Peak load on the 3rd Wednesday	MW	max.	1997	7617
			2001	7918
			2002	8589
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	8492
			2001	9394
			2002	7824

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

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
2226	1707	1171	931	228	214	188	270	1032	1599	2001	1660
1829	1810	1640	819	393	239	311	364	921	1438	2015	2380
2641	1876	1803	1262	505	421	483	421	1182	1505	2117	1858
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
2218	1991	2729	2805	3796	3898	4093	3722	2556	2438	1930	2323
2803	2646	3404	3583	4472	4290	4195	3446	3740	2809	2461	2638
2491	2491	2719	2786	3313	3163	2965	3058	2654	3192	3112	3190
4444	3698	3900	3736	4024	4112	4281	3992	3588	4037	3931	3983
4632	4456	5044	4402	4865	4529	4506	3810	4661	4247	4476	5018
5132	4367	4522	4048	3818	3584	3448	3479	3836	4697	5229	5048
200	274	167	117	-389	-551	-607	-610	-19	27	203	400
499	117	-176	-13	-573	-457	-367	242	-389	367	499	435
237	-102	-190	81	-58	236	517	263	240	-162	-369	-241
21	44	96	70	277	229	284	119	84	95	50	100
99	83	128	124	265	229	170	162	168	169	177	220
84	49	31	100	115	122	77	103	104	93	40	63
4624	3928	3971	3782	3359	3331	3390	3264	3486	3970	4084	4283
5032	4490	4740	4265	4027	3843	3969	3890	4104	4445	4798	5233
5285	4216	4301	4029	3645	3698	3888	3639	3972	4442	4820	4744
86	85	84	84	82	82	82	82	83	83	84	84
88	88	88	88	87	86	86	86	87	87	88	89
90	90	90	90	90	90	90	90	90	90	90	90
0,95	0,99	1,15	0,93	1,06	1,00	1,08	0,99	0,83	0,99	0,84	1,19
1,14	1,16	1,32	1,19	1,17	1,08	1,02	0,89	1,31	1,05	1,00	1,11
-	-	-	-	-	-	-	-	-	-	-	-
5746	5014	4456	4520	3695	3405	3553	3489	3784	4094	4853	5530
5671	5131	4665	4820	3929	3972	3896	3763	4695	4506	5462	**5705**
6417	5433	5095	5104	4424	4686	4510	4281	4698	4962	6015	6283
7546	7109	6814	6789	5966	6139	6162	6138	6238	6689	6893	7309
7717	7405	7164	6956	6390	6494	6426	5777	7133	7072	7467	7611
8219	7676	7414	7137	6652	7101	6824	6793	6916	7358	7769	7918
7617	7223	6871	6912	6174	6195	6285	6253	6446	6689	7176	7518
7905	7506	7382	7070	6566	6717	6481	5777	7133	7139	7913	**7918**
8290	7965	7714	7601	7122	7244	7126	7227	7553	7744	8584	**8589**
8492	7510	8069	7976	7986	8247	7882	8027	7006	8132	7145	7332
8260	8173	**9394**	8075	8539	8693	7277	7548	8224	8455	8109	7847
7188	6384	**7824**	6690	6831	6955	5959	6180	6735	6924	6640	6426

PORTUGAL

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	16324
			2001	25961
			2002	31132
Thermal nuclear net production	GWh	Σ	1997	0
			2001	0
			2002	0
Hydraulic net production	GWh	Σ	1997	12860
			2001	14304
			2002	8315
Total net electrical energy production	GWh	Σ	1997 [2]	29184
			2001 [2]	40265
			2002 [2]	39447
Total physical import / export balance [1]	GWh	Σ	1997	2898
			2001	239
			2002	1901
Consumption of pumps	GWh	Σ	1997	101
			2001	484
			2002	671
National electrical consumption	GWh	Σ	1997	31978
			2001	40020
			2002	40677
National electrical consumption as percentage of total values	%	∅ pond.	1997	92
			2001	91
			2002	91
Energy capability factor (hydro power)		∅ pond.	1997	1,22
			2001	1,19
			2002	0,75
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	2854
			2001	3826
			2002	3584
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	4947
			2001	6470
			2002	6118
Peak load on the 3rd Wednesday	MW	max.	1997	5206
			2001	7020
			2002	6485
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	4958
			2001	6409
			2002	6067

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
875	954	1250	1557	1560	1333	1793	1535	1798	1961	923	785
1233	1092	1201	1559	2151	2512	2762	2396	2516	2559	2730	3250
3196	2737	2667	2621	2676	2687	3085	2578	2746	2751	2110	1278
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
2158	1504	999	510	489	911	546	423	643	734	1808	2135
2546	2138	2320	1748	1186	676	551	525	531	745	715	623
668	532	850	662	445	487	398	252	324	475	1130	2092
3033	2458	2249	2067	2049	2244	2339	1958	2441	2695	2731	2920
3779	3230	3521	3307	3337	3188	3313	2921	3047	3304	3445	3873
3864	3269	3517	3283	3121	3174	3483	2830	3070	3226	3240	3370
8	37	308	478	494	266	453	505	259	77	2	11
-71	-39	-24	-254	-40	12	81	229	221	64	46	14
33	24	-21	-39	179	84	96	339	231	302	298	375
19	2	0	26	3	0	3	5	0	3	23	17
14	10	10	38	49	38	53	42	56	45	43	86
86	64	37	29	46	58	78	66	49	57	50	51
3021	2493	2557	2518	2539	2509	2789	2459	2701	2769	2709	2914
3694	3181	3487	3015	3248	3162	3341	3108	3212	3323	3448	3801
3811	3229	3459	3215	3254	3200	3501	3103	3252	3471	3488	3694
92	92	92	92	92	92	92	92	92	92	92	92
91	91	91	91	91	91	91	91	91	91	91	91
91	91	91	91	91	91	91	91	91	91	91	91
1,52	0,98	0,63	0,49	0,67	1,52	0,85	0,92	1,15	1,01	2,53	1,96
1,75	1,28	1,81	1,26	1,09	0,84	0,95	1,79	1,12	1,26	0,58	0,29
0,39	0,40	0,73	0,56	0,43	0,58	0,22	0,36	0,75	1,02	1,31	1,78
2569	2621	2507	2760	2569	2651	2738	2474	**2854**	2651	2619	2825
3304	3155	3106	2928	3053	3463	3303	3010	3342	3224	3467	**3826**
3564	3453	3142	3257	3224	3447	**3584**	3167	3297	3230	3248	3365
4752	4609	4195	4443	4319	4386	4509	3810	4654	4416	4463	**4947**
5989	5434	5532	5097	5302	5729	5375	3633	5494	5557	5921	**6470**
6118	5785	5452	5375	5357	5549	5930	4753	5475	5423	5760	5684
5033	4740	4381	4543	4389	4506	4659	3970	4843	4585	4819	**5206**
6377	5720	5699	5165	5371	5808	5476	4195	5600	5660	6532	**7020**
6485	6170	5676	5428	5473	5659	6133	4864	5595	5594	6290	6196
4596	4628	3914	3765	3772	3886	3921	3190	4247	4436	4474	**4958**
6085	5156	5600	5156	5146	5746	5512	2997	5004	5446	5790	**6409**
6067	5563	5732	5615	5048	5253	5587	4349	5141	5034	5199	5372

Physical exchanges in interconnected operation [1]

PORTUGAL | GWh

MM_YY	P→E	P_UCTE_EXP	P_III_EXP	E→P	P_UCTE_IMP	P_III_IMP	P_UCTE_SLD	P_III_SLD
	Export (-)			Import (+)			Balance	
I.97	272	272	0	272	272	0	0	0
II.97	199	199	0	230	230	0	31	0
III.97	187	187	0	488	488	0	301	0
IV.97	157	157	0	627	627	0	470	0
V.97	120	120	0	607	607	0	487	0
VI.97	201	201	0	461	461	0	260	0
VII.97	169	169	0	613	613	0	444	0
VIII.97	111	111	0	609	609	0	498	0
IX.97	191	191	0	434	434	0	243	0
X.97	334	334	0	404	404	0	70	0
XI.97	243	243	0	240	240	0	-3	0
XII.97	296	296	0	299	299	0	3	0
1997	**2480**	**2480**	**0**	**5284**	**5284**	**0**	**2804**	**0**
I.01	302	302	0	225	225	0	-77	0
II.01	240	240	0	200	200	0	-40	0
III.01	227	227	0	200	200	0	-27	0
IV.01	436	436	0	178	178	0	-258	0
V.01	281	281	0	235	235	0	-46	0
VI.01	323	323	0	329	329	0	6	0
VII.01	353	353	0	427	427	0	74	0
VIII.01	139	139	0	355	355	0	216	0
IX.01	261	261	0	471	471	0	210	0
X.01	308	308	0	362	362	0	54	0
XI.01	282	282	0	318	318	0	36	0
XII.01	327	327	0	329	329	0	2	0
2001	**3479**	**3479**	**0**	**3629**	**3629**	**0**	**150**	**0**
I.02	328	328	0	349	349	0	21	0
II.02	338	338	0	352	352	0	14	0
III.02	388	388	0	356	356	0	-32	0
IV.02	410	410	0	362	362	0	-48	0
V.02	292	292	0	462	462	0	170	0
VI.02	293	293	0	366	366	0	73	0
VII.02	314	314	0	399	399	0	85	0
VIII.02	171	171	0	500	500	0	329	0
IX.02	218	218	0	440	440	0	222	0
X.02	191	191	0	484	484	0	293	0
XI.02	236	236	0	525	525	0	289	0
XII.02	250	250	0	613	613	0	363	0
2002	**3429**	**3429**	**0**	**5208**	**5208**	**0**	**1779**	**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 operation [1]

SCHWEIZ | GWh

MM_YY	CH→A	CH→D	CH→F	CH→I	CH_UCTE_EXP	CH_III_EXP	A→CH	D→CH	F→CH	I→CH	CH_UCTE_IMP	CH_III_IMP	CH_UCTE_SLD	CH_III_SLD
	Export (-)						Import (+)						Balance	
I.97	40	367	45	1467	1919	0	121	783	978	0	1882	0	-37	0
II.97	32	255	3	1406	1696	0	112	829	1017	0	1958	0	262	0
III.97	31	313	1	1714	2059	0	127	842	1023	1	1993	0	-66	0
IV.97	4	292	6	1669	1971	0	218	652	846	0	1716	0	-255	0
V.97	23	334	38	1919	2314	0	244	515	631	1	1391	0	-923	0
VI.97	29	496	25	1772	2322	0	149	395	562	3	1109	0	-1213	0
VII.97	113	658	72	1805	2648	0	49	249	516	2	816	0	-1832	0
VIII.97	36	636	56	1334	2062	0	151	353	537	3	1044	0	-1018	0
IX.97	40	504	78	1739	2361	0	162	516	476	0	1154	0	-1207	0
X.97	24	395	66	1901	2386	0	266	1001	748	0	2015	0	-371	0
XI.97	17	430	38	1555	2040	0	241	1000	943	8	2192	0	152	0
XII.97	28	417	33	1667	2145	0	251	1000	1085	0	2336	0	191	0
1997	**417**	**5097**	**461**	**19948**	**25923**	**0**	**2091**	**8135**	**9362**	**18**	**19606**	**0**	**-6317**	**0**
I.01	9	449	108	2032	2598	0	399	1159	1075	0	2633	0	35	0
II.01	3	409	137	1800	2349	0	354	968	853	0	2175	0	-174	0
III.01	14	518	59	1874	2465	0	295	815	1026	0	2136	0	-329	0
IV.01	9	373	42	1841	2265	0	390	654	758	0	1802	0	-463	0
V.01	35	796	123	1933	2887	0	211	340	470	0	1021	0	-1866	0
VI.01	71	854	97	1920	2942	0	111	309	462	2	884	0	-2058	0
VII.01	257	918	91	1882	3148	0	52	354	597	2	1005	0	-2143	0
VIII.01	281	882	302	1136	2601	0	72	367	391	31	861	0	-1740	0
IX.01	18	361	172	2166	2717	0	420	867	628	7	1922	0	-795	0
X.01	26	395	46	2457	2924	0	303	1041	1016	0	2360	0	-564	0
XI.01	5	261	109	2323	2698	0	463	1313	1073	0	2849	0	151	0
XII.01	1	132	320	2462	2915	0	571	1908	981	0	3460	0	545	0
2001	**729**	**6348**	**1606**	**23826**	**32509**	**0**	**3641**	**10095**	**9330**	**42**	**23108**	**0**	**-9401**	**0**
I.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**

[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".

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Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	1835
			2001	2601
			2002	2585
Thermal nuclear net production	GWh	Σ	1997	23971
			2001	25293
			2002	25691
Hydraulic net production	GWh	Σ	1997	34794
			2001	42252
			2002	36589
Total net electrical energy production	GWh	Σ	1997	60600
			2001 [2]	70146
			2002 [2]	64865
Total physical import / export balance [1]	GWh	Σ	1997	-6754
			2001	-10299
			2002	-3965
Consumption of pumps	GWh	Σ	1997	1519
			2001	1947
			2002	2447
National electrical consumption	GWh	Σ	1997	52327
			2001	57900
			2002	58453
National electrical consumption as percentage of total values	%	∅ pond.	1997	100
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	1,02
			2001	1,17
			2002	1,05
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	6940
			2001	7837
			2002	7498
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	8478
			2001	9276
			2002	9197
Peak load on the 3rd Wednesday	MW	max.	1997	8578
			2001	9396
			2002	9464
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	10904
			2001	12408
			2002	11868

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

[2] Including deliveries from industry

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
191	194	185	131	116	114	120	112	136	159	196	181
246	228	236	223	212	202	190	165	211	228	227	233
248	234	235	213	210	200	198	213	164	205	226	239
2287	2063	2267	2183	2174	1521	1835	1196	1976	1994	2194	2281
2356	2136	2375	2298	2336	2111	1468	1130	2051	2348	2297	2387
2384	2143	2377	2232	2256	1658	1809	1439	2277	2394	2309	2413
2826	2115	2253	2271	2890	3771	4034	3786	3356	2813	2334	2345
3051	2895	3132	2874	4163	4442	5130	5076	3292	2985	2708	2504
2360	1915	2250	2355	3500	4240	4285	3886	3136	2490	3190	2982
5304	4372	4705	4585	5180	5406	5989	5094	5468	4966	4724	4807
5653	5259	5743	5395	6711	6755	6788	6371	5554	5561	5232	5124
4992	4292	4862	4800	5966	6098	6292	5538	5577	5089	5725	5634
-56	193	-135	-308	-1001	-1274	-1895	-1037	-1237	-379	117	258
-52	-238	-403	-574	-1955	-2157	-2160	-1810	-906	-630	97	489
860	770	410	90	-1135	-1345	-1640	-915	-745	110	-395	-30
23	32	49	42	195	278	284	242	191	72	50	61
87	66	114	106	255	312	287	239	139	128	96	118
104	85	120	128	220	373	310	274	271	180	184	198
5225	4533	4521	4235	3984	3854	3810	3815	4040	4515	4791	5004
5514	4955	5226	4715	4501	4286	4341	4322	4509	4803	5233	5495
5748	4977	5152	4762	4611	4380	4342	4349	4561	5019	5146	5406
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
1,07	0,99	1,13	0,83	0,97	1,15	0,98	1,08	1,02	0,87	0,95	1,08
1,25	1,07	1,50	1,00	1,47	1,20	1,16	1,21	0,95	1,11	0,89	0,89
0,78	1,02	1,11	1,02	1,10	1,15	0,94	0,93	0,92	0,91	1,80	1,39
6940	6204	4972	5654	4414	4357	4331	4568	4590	5445	6075	6650
7413	6853	6114	6298	5178	4992	4810	4614	5512	5123	6775	**7837**
7498	6715	5643	6014	5169	5257	5067	5125	5081	5147	6192	6676
8478	7922	7295	7464	7437	6805	6740	7307	7360	7919	8444	8305
9167	8745	8879	8327	7974	7852	7620	7285	8195	8204	8890	**9276**
9197	8844	8312	8285	7759	8052	7982	7994	8079	8162	8642	8848
8512	8080	7562	7865	7691	7375	7013	7598	7664	8274	8573	**8578**
9337	8843	8994	8496	8196	8090	7778	7407	8328	8288	9030	**9396**
9464	9038	8420	8504	7942	8200	8050	8122	8289	8360	8741	9173
10904	9082	9137	9073	10509	9916	10639	9075	9916	10431	9331	9607
12038	10681	10862	11003	11840	**12408**	10842	10398	11421	11275	10414	11226
9491	10095	9661	10324	11135	11116	**11868**	11267	11679	9178	11328	11802

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Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	n.a.
			2001	52545
			2002	49978
Thermal nuclear net production	GWh	Σ	1997	n.a.
			2001	13778
			2002	17584
Hydraulic net production	GWh	Σ	1997	n.a.
			2001	2456
			2002	2834
Total net electrical energy production	GWh	Σ	1997	n.a.
			2001 [2]	68779
			2002 [2]	70396
Total physical import / export balance [1]	GWh	Σ	1997	n.a.
			2001	-9536
			2002	-11393
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	554
			2002	481
National electrical consumption	GWh	Σ	1997	n.a.
			2001	58689
			2002	58522
National electrical consumption as percentage of total values	%	∅ pond.	1997	n.a.
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	n.a.
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	7990
			2002	8155
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	9090
			2002	9103
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	9609
			2002	9763
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	10841
			2002	10869

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

[2] Including deliveries from industry

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.
5289	4625	4983	4707	4246	4111	3643	3679	3893	3930	4862	4577
4436	4326	4770	4578	3688	3374	3472	3596	3725	4399	4552	5062
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1256	1130	1154	925	952	898	965	1080	1112	1563	1209	1534
1857	1436	1248	859	1462	1480	1670	1541	1728	1520	1545	1238
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
147	195	257	289	215	154	146	172	223	204	230	224
268	297	383	264	193	147	166	288	174	196	242	216
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6692	5950	6394	5921	5413	5163	4754	4931	5228	5697	6301	6335
6561	6059	6401	5701	5343	5001	5308	5425	5627	6115	6339	6516
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-752	-727	-808	-978	-1066	-921	-749	-742	-746	-777	-734	-536
-538	-967	-1007	-871	-996	-878	-1188	-1285	-1203	-894	-935	-631
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
45	48	51	35	38	46	50	44	42	52	53	50
39	25	33	31	35	31	44	63	42	39	46	53
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5895	5175	5535	4908	4309	4196	3955	4145	4440	4868	5514	5749
5984	5067	5361	4799	4312	4092	4076	4077	4382	5182	5358	5832
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
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.
7990	7274	7039	6665	5445	5457	4946	5069	5904	5799	7177	7676
8155	7040	6642	6715	5581	5400	5188	5127	5591	6339	6642	7751
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8941	8613	8282	7817	6736	6768	6398	6725	7327	7393	8884	9090
9086	8435	7961	7536	6836	6813	6687	6653	7122	8010	8239	**9103**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9609	9204	8867	8240	6848	6858	6512	6851	7453	7694	9171	9235
9407	8677	8245	7741	6987	6977	6835	6856	7320	8165	9161	**9763**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10755	10706	10139	10261	9136	9035	7866	8269	9100	9227	**10841**	10392
10623	**10869**	10122	8730	8834	8805	8786	8820	9430	9644	10511	10090

Physical exchanges in interconnected operation [1]

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MM_YY	CZ→A	CZ→D	CZ→PL	CZ→SK	CZ_UCTE_EXP	CZ_III_EXP	A→CZ	D→CZ	PL→CZ	SK→CZ	CZ_UCTE_IMP	CZ_III_IMP	CZ_UCTE_SLD	CZ_III_SLD
	Export (-)						Import (+)						Balance	
I.97	269	180	n.a.	n.a.	449	0	2	110	n.a.	n.a.	112	0	-337	0
II.97	237	171	n.a.	n.a.	408	0	4	109	n.a.	n.a.	113	0	-295	0
III.97	196	212	n.a.	n.a.	408	0	13	66	n.a.	n.a.	79	0	-329	0
IV.97	220	271	n.a.	n.a.	491	0	7	23	n.a.	n.a.	30	0	-461	0
V.97	164	216	n.a.	n.a.	380	0	0	95	n.a.	n.a.	95	0	-285	0
VI.97	256	273	n.a.	n.a.	529	0	3	245	n.a.	n.a.	248	0	-281	0
VII.97	202	261	n.a.	n.a.	463	0	18	116	n.a.	n.a.	134	0	-329	0
VIII.97	145	114	n.a.	n.a.	259	0	27	147	n.a.	n.a.	174	0	-85	0
IX.97	254	304	n.a.	n.a.	558	0	2	76	n.a.	n.a.	78	0	-480	0
X.97	180	344	n.a.	n.a.	524	0	8	121	n.a.	n.a.	129	0	-395	0
XI.97	252	427	n.a.	n.a.	679	0	1	288	n.a.	n.a.	289	0	-390	0
XII.97	233	401	n.a.	n.a.	634	0	3	0	n.a.	n.a.	3	0	-631	0
1997	**2608**	**3174**	**n.a.**	**n.a.**	**5782**	**0**	**88**	**1396**	**n.a.**	**n.a.**	**1484**	**0**	**-4298**	**0**
I.01	619	740	4	387	1750	0	0	32	838	128	998	0	-752	0
II.01	489	776	4	334	1603	0	0	12	760	104	876	0	-727	0
III.01	361	958	12	308	1639	0	1	1	735	95	832	0	-807	0
IV.01	380	863	17	250	1510	0	1	0	463	68	532	0	-978	0
V.01	388	866	1	277	1532	0	0	0	388	78	466	0	-1066	0
VI.01	306	776	0	340	1422	0	0	3	394	104	501	0	-921	0
VII.01	425	657	0	335	1417	0	0	8	520	140	668	0	-749	0
VIII.01	512	529	6	355	1402	0	0	7	592	61	660	0	-742	0
IX.01	412	779	8	245	1444	0	0	1	633	64	698	0	-746	0
X.01	694	680	5	336	1715	0	0	54	802	82	938	0	-777	0
XI.01	624	832	3	270	1729	0	0	29	814	152	995	0	-734	0
XII.01	520	805	3	273	1601	0	0	52	879	134	1065	0	-536	0
2001	**5730**	**9261**	**63**	**3710**	**18764**	**0**	**2**	**199**	**7818**	**1210**	**9229**	**0**	**-9535**	**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	1	570	22	593	0	-996	0
VI.02	514	582	6	379	1481	0	0	1	562	36	599	0	-882	0
VII.02	727	522	19	591	1859	0	0	75	548	48	671	0	-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	1	0	753	220	974	0	-935	0
XII.02	368	1086	5	213	1672	0	2	0	858	181	1041	0	-631	0
2002	**5941**	**10557**	**87**	**4307**	**20892**	**0**	**3**	**194**	**8442**	**857**	**9496**	**0**	**-11396**	**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 operation [1]

MAGYARORSZAG | GWh

MM_YY	H→A	H→HR	H→JIEL	H→SK	H→UA	H→RO	H_UCTE_EXP	H_III_EXP	A→H	HR→H	JIEL→H	SK→H	RO→H	UA→H	H_UCTE_IMP	H_III_IMP	H_UCTE_SLD	H_III_SLD
	Export (-)								Import (+)								Balance	
I.97	108	0	98	n.a.	n.a.	n.a.	206	n.a.	10	0	0	n.a.	n.a.	n.a.	10	n.a.	-196	n.a.
II.97	77	0	74	n.a.	n.a.	n.a.	151	n.a.	15	0	0	n.a.	n.a.	n.a.	15	n.a.	-136	n.a.
III.97	70	0	0	n.a.	n.a.	n.a.	70	n.a.	26	0	0	n.a.	n.a.	n.a.	26	n.a.	-44	n.a.
IV.97	57	0	0	n.a.	n.a.	n.a.	57	n.a.	11	0	0	n.a.	n.a.	n.a.	11	n.a.	-46	n.a.
V.97	50	0	0	n.a.	n.a.	n.a.	50	n.a.	51	0	0	n.a.	n.a.	n.a.	51	n.a.	1	n.a.
VI.97	39	0	0	n.a.	n.a.	n.a.	39	n.a.	44	0	0	n.a.	n.a.	n.a.	44	n.a.	5	n.a.
VII.97	48	0	0	n.a.	n.a.	n.a.	48	n.a.	34	0	0	n.a.	n.a.	n.a.	34	n.a.	-14	n.a.
VIII.97	47	0	52	n.a.	n.a.	n.a.	99	n.a.	36	0	0	n.a.	n.a.	n.a.	36	n.a.	-63	n.a.
IX.97	71	0	0	n.a.	n.a.	n.a.	71	n.a.	19	0	0	n.a.	n.a.	n.a.	19	n.a.	-52	n.a.
X.97	77	7	3	n.a.	n.a.	n.a.	87	n.a.	19	0	0	n.a.	n.a.	n.a.	19	n.a.	-68	n.a.
XI.97	46	38	86	n.a.	n.a.	n.a.	170	n.a.	36	0	0	n.a.	n.a.	n.a.	36	n.a.	-134	n.a.
XII.97	69	43	143	n.a.	n.a.	n.a.	255	n.a.	23	0	0	n.a.	n.a.	n.a.	23	n.a.	-232	n.a.
1997	**759**	**88**	**456**	**n.a.**	**n.a.**	**n.a.**	**1303**	**n.a.**	**324**	**0**	**0**	**n.a.**	**n.a.**	**n.a.**	**324**	**n.a.**	**-979**	**n.a.**
I.01	173	390	142	0	0	16	705	16	2	0	0	712	0	231	714	231	9	215
II.01	107	357	138	0	0	26	602	26	7	0	0	642	0	212	649	212	47	186
III.01	71	336	25	0	0	14	432	14	19	0	0	604	0	137	623	137	191	123
IV.01	96	287	1	0	0	0	384	0	20	0	0	550	0	69	570	69	186	69
V.01	68	316	29	0	0	0	413	0	40	0	0	633	0	111	673	111	260	111
VI.01	109	303	95	0	0	14	507	14	38	0	0	608	0	169	646	169	139	155
VII.01	86	250	105	0	0	23	441	23	22	0	0	670	0	143	692	143	251	120
VIII.01	109	245	123	0	0	1	477	1	17	0	0	757	0	93	774	93	297	92
IX.01	37	392	96	0	0	0	525	0	41	0	0	661	0	133	702	133	177	133
X.01	87	506	144	0	0	0	737	0	19	3	0	822	0	196	844	196	107	196
XI.01	140	600	182	0	0	0	922	0		0	0	802	0	180	802	180	-120	180
XII.01	84	711	195	0	0	0	990	0	6	0	0	853	0	182	859	182	-131	182
2001	**1167**	**4693**	**1275**	**0**	**0**	**94**	**7135**	**94**	**231**	**3**	**0**	**8314**	**0**	**1856**	**8548**	**1856**	**1413**	**1762**
I.02	54	690	201	0	0	0	945	0	17	0	0	958	0	240	975	240	30	240
II.02	29	639	187	0	0	0	855	0	25	0	0	860	0	199	885	199	30	199
III.02	18	533	189	0	0	18	740	0	56	0	0	772	0	241	828	241	88	241
IV.02	38	441	134	0	0	25	613	0	26	0	0	780	0	208	806	208	193	208
V.02	20	370	141	0	0	24	531	0	73	0	0	831	0	66	904	66	373	66
VI.02	60	281	114	0	0	12	455	0	50	0	0	668	0	139	718	139	263	139
VII.02	98	384	146	0	0	24	628	0	49	0	0	851	0	342	900	342	272	342
VIII.02	122	259	153	0	6	23	534	6	36	1	0	740	0	232	777	232	243	226
IX.02	67	366	143	0	0	24	576	0	62	0	0	716	0	289	778	289	202	289
X.02	104	506	141	0	4	27	751	4	41	0	0	734	0	351	775	351	24	347
XI.02	134	413	193	0	7	3	740	7	37	0	0	619	0	315	656	315	-84	308
XII.02	124	442	205	0	3	10	771	3	20	0	0	636	0	327	656	327	-115	324
2002	**868**	**5324**	**1947**	**0**	**20**	**190**	**8139**	**210**	**492**	**1**	**0**	**9165**	**0**	**2949**	**9658**	**2949**	**1519**	**2929**

[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".

MAGYARORSZAG

Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	n.a.
			2001	20141
			2002	19619
Thermal nuclear net production	GWh	Σ	1997	n.a.
			2001	13290
			2002	13124
Hydraulic net production	GWh	Σ	1997	n.a.
			2001	179
			2002	189
Total net electrical energy production	GWh	Σ	1997	n.a.
			2001 [2]	33610
			2002 [2]	32932
Total physical import / export balance [1]	GWh	Σ	1997	n.a.
			2001	3175
			2002	4258
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	0
			2002	0
National electrical consumption	GWh	Σ	1997	n.a.
			2001	36785
			2002	37190
National electrical consumption as percentage of total values	%	∅ pond.	1997	n.a.
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	n.a.
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	4394
			2002	4402
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	5427
			2002	5697
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	5796
			2002	5875
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	5277
			2002	5179

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

[2] Including deliveries from industry

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.
1891	1601	1728	1637	1442	1444	1657	1553	1605	1532	1942	2109
1882	1639	1767	1695	1516	1549	1507	1346	1482	1597	1760	1879
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1311	1186	1154	1056	1046	1000	865	886	977	1298	1265	1246
1308	1179	1117	882	925	931	912	1073	1024	1276	1238	1259
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	14	5	9	20	16	17	19	14	20	12	16
17	2	5	22	23	20	17	20	14	20	10	19
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3219	2801	2887	2702	2508	2460	2539	2458	2596	2850	3219	3371
3207	2820	2889	2599	2464	2500	2436	2439	2520	2893	3008	3157
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
224	233	314	255	371	294	371	389	310	303	60	51
270	229	311	376	415	390	590	446	467	344	221	199
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.
3443	3034	3201	2957	2879	2754	2910	2847	2906	3153	3279	3422
3477	3049	3200	2975	2879	2890	3026	2885	2987	3237	3229	3356
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
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.
4236	4062	3819	3874	3510	3460	3441	3454	3668	3695	4154	**4394**
4402	4024	3853	3757	3508	3694	3725	2900	3634	3801	3759	4162
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5374	5251	5261	4891	4678	4889	4775	4672	4930	5022	5387	**5427**
5697	5232	5015	4813	4724	5050	5065	4573	4825	5198	5132	5355
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5573	5613	5547	5082	4769	4928	4898	4759	5282	5461	5709	**5796**
5875	5536	5618	5083	4819	5094	5110	4648	5248	5477	5581	5826
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5016	4760	4783	4497	3836	4466	4207	3979	4285	4516	5179	**5277**
5179	4777	4453	4052	4034	4222	4139	3872	4112	4621	4639	5050

POLSKA

Monthly values / Operation

				I-XII
Thermal conventional net production [3]	GWh	Σ	1997	n.a.
			2001	140515
			2002	139511
Thermal nuclear net production [3]	GWh	Σ	1997	n.a.
			2001	0
			2002	0
Hydraulic net production [3]	GWh	Σ	1997	n.a.
			2001	4057
			2002	3722
Total net electrical energy production [3]	GWh	Σ	1997	n.a.
			2001 [2]	144572
			2002 [2]	143233
Total physical import / export balance [1]	GWh	Σ	1997	n.a.
			2001	-6729
			2002	-7072
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	2602
			2002	2248
National electrical consumption	GWh	Σ	1997	n.a.
			2001	135241
			2002	133913
National electrical consumption as percentage of total values	%∅	pond.	1997	n.a.
			2001	100
			2002	100
Energy capability factor (hydro power)	∅	pond.	1997	n.a.
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	17276
			2002	17628
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	20529
			2002	20847
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	21996
			2002	22627
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	22410
			2002	22828

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

[2] Including deliveries from industry

[3] Gross value

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.
13797	12338	13096	11191	10214	9942	10110	10143	10930	11982	12963	13809
13781	11425	12126	10935	10089	9877	10097	10099	11075	12871	12704	14432
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.
323	325	409	397	335	325	382	323	332	314	300	292
329	391	416	346	277	305	243	253	254	302	337	269
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14120	12663	13505	11588	10549	10267	10492	10466	11262	12296	13263	14101
14110	11816	12542	11281	10366	10182	10340	10352	11329	13173	13041	14701
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-635	-689	-719	-393	-308	-324	-452	-402	-645	-604	-821	-737
-814	-599	-466	-463	-426	-447	-296	-301	-710	-841	-746	-963
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
263	247	271	233	207	193	194	171	191	209	201	222
217	171	195	201	180	172	160	157	197	191	195	212
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13222	11727	12515	10962	10034	9750	9846	9893	10426	11483	12241	13142
13079	11046	11881	10617	9760	9563	9884	9894	10422	12141	12100	13526
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
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.
17276	17036	16852	15251	13414	13329	13000	12162	14208	14429	16268	17001
17524	15433	15129	14464	13129	13400	13165	12117	13809	15388	15862	**17628**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20529	19890	18954	17608	15836	16031	15490	12035	16903	17481	19450	20286
20462	18737	17740	16831	15445	15802	15462	15388	16718	18340	19105	**20847**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21984	20587	20349	18384	16374	16188	15542	13623	18688	19080	21171	21996
21738	20033	19432	18070	16030	16157	15898	16164	18329	19803	20913	**22627**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22261	21866	20729	19067	17171	17383	17033	13324	18823	19221	21624	**22410**
22462	20691	19504	18492	16857	17423	16753	16710	18607	20256	21101	**22828**

Physical exchanges in interconnected operation [1]

POLSKA | **GWh**

MM_YY	PL→D	PL→CZ	PL→SK	PL→S	PL→BY	PL→UA	PL_UCTE_EXP	PL_III_EXP	D→PL	CZ→PL	SK→PL	S→PL	BY→PL	UA→PL	PL_UCTE_IMP	PL_III_IMP	PL_UCTE_SLD	PL_III_SLD
	Export (-)								Import (+)								Balance	
I.97	114	n.a.	n.a.	0	0	n.a.	114	n.a.	258	n.a.	n.a.	0	0	n.a.	258	n.a.	144	n.a.
II.97	103	n.a.	n.a.	0	0	n.a.	103	n.a.	250	n.a.	n.a.	0	0	n.a.	250	n.a.	147	n.a.
III.97	104	n.a.	n.a.	0	0	n.a.	104	n.a.	304	n.a.	n.a.	0	0	n.a.	304	n.a.	200	n.a.
IV.97	67	n.a.	n.a.	0	0	n.a.	67	n.a.	303	n.a.	n.a.	0	0	n.a.	303	n.a.	236	n.a.
V.97	31	n.a.	n.a.	0	0	n.a.	31	n.a.	263	n.a.	n.a.	0	0	n.a.	263	n.a.	232	n.a.
VI.97	31	n.a.	n.a.	0	0	n.a.	31	n.a.	265	n.a.	n.a.	0	0	n.a.	265	n.a.	234	n.a.
VII.97	60	n.a.	n.a.	0	0	n.a.	60	n.a.	419	n.a.	n.a.	0	0	n.a.	419	n.a.	359	n.a.
VIII.97	137	n.a.	n.a.	0	0	n.a.	137	n.a.	284	n.a.	n.a.	0	0	n.a.	284	n.a.	147	n.a.
IX.97	77	n.a.	n.a.	0	0	n.a.	77	n.a.	411	n.a.	n.a.	0	0	n.a.	411	n.a.	334	n.a.
X.97	69	n.a.	n.a.	0	0	n.a.	69	n.a.	430	n.a.	n.a.	0	0	n.a.	430	n.a.	361	n.a.
XI.97	95	n.a.	n.a.	0	0	n.a.	95	n.a.	448	n.a.	n.a.	0	0	n.a.	448	n.a.	353	n.a.
XII.97	78	n.a.	n.a.	0	0	n.a.	78	n.a.	442	n.a.	n.a.	0	0	n.a.	442	n.a.	364	n.a.
1997	**966**	**n.a.**	**n.a.**	**0**	**0**	**n.a.**	**966**	**n.a.**	**4077**	**n.a.**	**n.a.**	0	**0**	**n.a.**	**4077**	**n.a.**	**3111**	**n.a.**
I.01	51	838	194	19	0	0	1083	19	162	4	0	158	0	60	166	218	-917	199
II.01	92	760	173	0	0	0	1025	0	81	4	0	142	0	53	85	195	-940	195
III.01	134	735	166	0	0	0	1035	0	87	12	0	101	0	58	99	159	-936	159
IV.01	137	463	119	0	0	0	719	0	84	17	0	129	0	49	101	178	-618	178
V.01	133	388	139	0	0	0	660	0	108	1	0	151	0	43	109	194	-551	194
VI.01	120	394	132	0	0	0	646	0	104	0	1	140	0	32	105	172	-541	172
VII.01	104	520	167	0	0	0	791	0	112	0	1	136	0	50	113	186	-678	186
VIII.01	53	592	152	0	0	0	797	0	167	6	0	140	0	49	173	189	-624	189
IX.01	104	633	209	0	0	0	946	0	96	8	0	117	0	45	104	162	-842	162
X.01	37	802	184	0	0	0	1023	0	165	5	0	157	0	52	170	209	-853	209
XI.01	147	814	207	0	0	0	1168	0	60	3	0	180	0	46	63	226	-1105	226
XII.01	80	879	182	0	0	0	1141	0	90	3	0	148	0	52	93	200	-1048	200
2001	**1192**	**7818**	**2024**	**19**	**0**	**0**	**11034**	**19**	**1316**	**63**	**2**	**1699**	**0**	**589**	**1381**	**2288**	**-9653**	**2269**
I.02	49	989	237	0	0	0	1275	0	133	1	0	144	131	52	134	327	-1141	327
II.02	48	756	201	0	0	0	1005	0	94	4	0	153	111	45	98	309	-907	309
III.02	29	741	212	0	0	0	982	0	184	9	0	159	123	42	193	324	-789	324
IV.02	23	611	178	0	0	0	812	0	185	8	0	47	71	39	193	157	-619	157
V.02	27	570	145	0	0	0	742	0	162	8	0	66	42	38	170	146	-572	146
VI.02	67	562	198	0	0	0	827	0	135	6	0	154	45	41	141	240	-686	240
VII.02	4	548	308	0	0	0	860	0	320	19	0	142	43	39	339	224	-521	224
VIII.02	70	461	150	0	0	0	681	0	137	11	0	133	41	58	148	232	-533	232
IX.02	99	732	135	0	0	0	966	0	116	5	0	93	42	0	121	135	-845	135
X.02	53	861	206	0	0	0	1120	0	140	6	0	32	57	45	146	134	-974	134
XI.02	78	753	160	0	0	0	991	0	94	5	0	0	46	101	99	147	-892	147
XII.02	58	858	163	196	0	0	1079	196	172	5	0	0	47	89	177	136	-902	-60
2002	**605**	**8442**	**2293**	**196**	**0**	**0**	**11340**	**196**	**1872**	**87**	**0**	**1123**	**799**	**589**	**1959**	**2511**	**-9381**	**2315**

[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".

Physical exchanges in interconnected operation [1]

SLOVENSKO | GWh

MM_YY	SK→CZ	SK→H	SK→PL	SK→UA	SK_UCTE_EXP	SK_III_EXP	CZ→SK	H→SK	PL→SK	UA→SK	SK_UCTE_IMP	SK_III_IMP	SK_UCTE_SLD	SK_III_SLD
	Export (-)						Import (+)						Balance	
I.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	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.97	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1997	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
I.01	128	712	0	1	840	1	387	0	194	44	581	44	-259	43
II.01	104	642	0	1	746	1	334	0	173	46	507	46	-239	45
III.01	95	604	0	12	699	12	308	0	166	27	474	27	-225	15
IV.01	68	550	0	16	618	16	250	0	119	9	369	9	-249	-7
V.01	78	633	0	18	711	18	277	0	139	13	416	13	-295	-5
VI.01	104	608	1	78	713	78	340	0	132	13	472	13	-241	-65
VII.01	140	670	1	41	811	41	335	0	167	14	502	14	-309	-27
VIII.01	61	757	0	14	818	14	355	0	152	18	507	18	-311	4
IX.01	64	661	0	6	725	6	245	0	209	20	454	20	-271	14
X.01	82	822	0	17	904	17	336	0	184	17	520	17	-384	0
XI.01	152	802	0	1	954	1	270	0	207	64	477	64	-477	63
XII.01	134	853	0	13	987	13	273	0	182	44	455	44	-532	31
2001	**1210**	**8314**	**2**	**218**	**9526**	**218**	**3710**	**0**	**2024**	**329**	**5734**	**329**	**-3792**	**111**
I.02	69	958	0	10	1027	10	365	0	237	25	602	25	-425	15
II.02	28	860	0	3	888	3	330	0	201	23	531	23	-357	20
III.02	34	772	0	65	806	65	339	0	212	13	551	13	-255	-52
IV.02	35	780	0	86	815	86	300	0	178	6	478	6	-337	-80
V.02	22	831	0	11	853	11	406	0	145	8	551	8	-302	-3
VI.02	36	668	0	41	704	41	379	0	198	6	577	6	-127	-35
VII.02	48	851	0	199	899	199	591	0	308	4	899	4	0	-195
VIII.02	28	740	0	97	768	97	467	0	150	4	617	4	-151	-93
IX.02	40	716	0	83	756	83	453	0	135	4	588	4	-168	-79
X.02	116	734	0	125	850	125	307	0	206	0	513	0	-337	-125
XI.02	220	619	0	52	839	52	157	0	160	1	317	1	-522	-51
XII.02	181	636	0	72	817	72	213	0	163	0	376	0	-441	-72
2002	**857**	**9165**	**0**	**844**	**10022**	**844**	**4307**	**0**	**2293**	**94**	**6600**	**94**	**-3422**	**-750**

[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".

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Monthly values / Operation

				I-XII
Thermal conventional net production	GWh	Σ	1997	n.a.
			2001	9138
			2002	8730
Thermal nuclear net production	GWh	Σ	1997	n.a.
			2001	15742
			2002	16543
Hydraulic net production	GWh	Σ	1997	n.a.
			2001	4863
			2002	5300
Total net electrical energy production	GWh	Σ	1997	n.a.
			2001 [2]	29743
			2002 [2]	30573
Total physical import / export balance [1]	GWh	Σ	1997	n.a.
			2001	-3678
			2002	-4158
Consumption of pumps	GWh	Σ	1997	n.a.
			2001	258
			2002	277
National electrical consumption	GWh	Σ	1997	n.a.
			2001	25807
			2002	26138
National electrical consumption as percentage of total values	%	∅ pond.	1997	n.a.
			2001	100
			2002	100
Energy capability factor (hydro power)		∅ pond.	1997	n.a.
			2001	1,10
			2002	1,22
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	3684
			2002	3543
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	4108
			2002	4025
Peak load on the 3rd Wednesday	MW	max.	1997	n.a.
			2001	4264
			2002	4174
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	n.a.
			2001	4680
			2002	4586

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

[2] Including deliveries from industry

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.
1007	865	880	780	645	610	561	481	550	773	921	1065
942	745	776	784	664	620	567	483	575	793	831	950
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1384	1238	1190	1089	1111	1144	1144	1341	1318	1495	1612	1676
1667	1356	1354	1303	1198	1044	1222	1238	1359	1597	1525	1680
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	347	508	487	462	442	511	393	394	314	294	353
405	506	523	437	399	414	369	457	331	416	575	468
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2749	2450	2578	2356	2218	2196	2216	2215	2262	2582	2827	3094
3014	2607	2653	2524	2261	2078	2158	2178	2265	2806	2931	3098
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
-215	-194	-211	-255	-300	-305	-335	-308	-257	-383	-414	-501
-410	-337	-308	-417	-306	-162	-195	-245	-247	-455	-568	-508
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	16	20	13	23	8	7	30	29	30	34	25
28	31	24	17	13	20	17	26	28	29	26	18
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2511	2240	2347	2088	1895	1883	1874	1877	1976	2169	2379	2568
2576	2239	2321	2090	1942	1896	1946	1907	1990	2322	2337	2572
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
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.
1,08	1,00	1,28	1,01	0,92	1,23	1,46	0,99	1,41	0,89	0,81	0,98
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.
3484	3381	3080	3003	2559	2588	2459	2538	2771	2835	3377	**3684**
3539	3240	3081	2937	2493	2568	2532	2413	2694	3025	3010	**3543**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3942	3845	3557	3256	2993	3150	2976	3002	3210	3382	3800	**4108**
4025	3829	3526	3307	3000	3137	3080	2980	3257	3693	3641	3984
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4083	3974	3837	3464	3085	3223	3046	3152	3512	3662	4084	**4264**
4158	4000	3837	3500	3139	3209	3160	3072	3411	3825	3877	**4174**
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4261	4238	3806	3550	3519	3574	3473	3453	3572	3817	4406	**4680**
4586	4360	3896	3928	3431	3390	3162	3516	3426	4357	4357	4558

				I-XII
Thermal conventional net production	GWh	Σ	1997	792047
			2001	1129842
			2002	1186695
Thermal nuclear net production	GWh	Σ	1997	665210
			2001	744350
			2002	757757
Hydraulic net production	GWh	Σ	1997	272041
			2001	331610
			2002	276140
Total net electrical energy production	GWh	Σ	1997 [2]	1729298
			2001 [2]	2205802
			2002 [2]	2220592
Total physical import / export balance [1]	GWh	Σ	1997	-10254
			2001	-4859
			2002	-2933
Consumption of pumps	GWh	Σ	1997	26095
			2001	38078
			2002	42702
National electrical consumption	GWh	Σ	1997	1692948
			2001	2162865
			2002	2174957
National electrical consumption as percentage of total values	%∅	pond.	1997	-
			2001	-
			2002	-
Energy capability factor (hydro power)	∅	pond.	1997	-
			2001	-
			2002	-
Consumption load at 3:00 a.m. on the 3rd Wednesday	MW	max.	1997	200416
			2001	252486
			2002	241218
Consumption load at 11:00 a.m. on the 3rd Wednesday	MW	max.	1997	262921
			2001	335714
			2002	329492
Peak load on the 3rd Wednesday	MW	max.	1997	268889
			2001	342904
			2002	341063
Power produced in parallel operation on the 3rd Wednesday at 11:00 a.m.	MW	max.	1997	273557
			2001	341091
			2002	342284

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

[2] Including deliveries from industry

[3] Erratum Belgean values on thermal conventional production updated as of 11 December 2003

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
75533	66082	66025	64781	57860	58515	60807	56858	65804	74199	73039	72544
103420	92964	97987	86975	84968	83720	87133	83540	89175	97212	108124	114624
119761	102155	106465	97781	90282	87728	92997	85750	95254	102386	101788	104348
62830	55317	57701	57891	53667	49076	50832	49600	51397	57398	58589	60912
70688	61555	63097	58791	56009	54823	57802	58470	60857	65042	66118	71098
72960	62904	64044	61352	60305	58000	60953	56905	58484	65313	65794	70743
29281	21366	20553	18985	23460	25468	26935	22102	19466	17914	20479	26032
33024	28954	34683	31858	34155	30343	29663	25138	22395	21449	19955	19993
19001	17717	21611	20129	25746	26199	23447	21942	20308	22858	26494	30688
167644	142765	144279	141657	134987	133059	138574	128560	136667	149511	152107	159488
207132	183473	195767	177624	175132	168886	174598	167148	172427	183703	194197	205715
211722	182776	192120	179262	176333	171927	177397	164597	174046	190557	194076	205779
-809	-752	-1367	-771	-821	-731	-1064	-1256	-603	-818	-646	-616
239	-136	-1199	-1366	-1030	-1380	-1110	-942	25	-87	983	1144
710	-52	-432	-294	-832	-135	738	50	578	-540	-1181	-1543
1905	1592	1767	1940	2458	2347	2570	2221	2250	2328	2345	2372
3663	2796	3333	2926	3272	2931	2870	2945	3091	3364	3173	3714
3830	3338	3263	3371	3634	3724	3652	3457	3562	3688	3507	3676
164930	140421	141142	138945	131708	129980	134939	125085	133816	146367	149115	156500
203708	180541	191235	173332	170830	164575	170618	163261	169361	180252	192007	203145
208602	179386	188425	175597	171867	168068	174483	161190	171062	186329	189388	200560
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
199049	174274	159012	165005	145401	146397	146937	136193	146168	156328	170957	**200416**
237776	232042	215438	209175	186943	191336	189604	171891	195413	198251	235543	**252486**
241218	233504	211056	206731	191704	198646	195971	178384	192808	204988	225330	238104
256923	243484	231690	231241	223150	224166	223495	204129	225481	237101	243628	**262921**
318761	306331	294618	294203	274349	280371	276253	220867	285467	285831	314923	**335714**
327861	315375	292155	293900	276059	291752	282633	258870	283118	295852	309416	**329492**
259481	244525	231690	231334	224280	225509	225286	208329	225481	237101	250051	**268889**
323692	309671	295862	294203	275418	282367	278752	223185	285607	285831	326034	**342904**
334563	320550	292700	293900	277551	294360	284950	260926	284388	295852	321896	**341063**
265631	251377	240663	243128	234772	236600	234638	215444	234816	248586	254257	**273557**
329883	315252	308437	305970	288386	294992	290182	241369	294550	298781	326958	**341091**
333756	321387	303196	304142	289444	302928	291412	266362	292127	301477	324753	**342284**

EXPORTING COUNTRIES	Year	IMPORTING COUNTRIES B	D	E	F	GR	I	SLO	HR	BiH	JIEL	L	NL	A	P	CH	CZ	H	PL	SK	UCTE	III	TOTAL Export
B	**1997**				805							1673	4225								6703		6703
	2001				205							2007	4487								6699		6699
	2002				526							1725	6818								9069		9069
D	**1997**				61							4210	13712	5806		8135	1396		4077		31924	6917	38841
	2001				229							4522	16960	8045		10095	199		1316		41366	3408	44774
	2002				47							4815	14037	8458		11859	194		1872		41282	4247	45529
E	**1997**				2068										5284						7352	132	7484
	2001				1174										3629						4803	1577	6380
	2002				226										5208						5434	1329	6763
F	**1997**	6321	16540	2114			17313									9362					51650	16644	68294
	2001	11515	14575	6719			18198									9330					60337	10827	71164
	2002	11501	18818	9061			19025									10947					69352	9510	78862
GR	**1997**						0				27										27	563	590
	2001						6				55										61	1000	1061
	2002						495				50										545	1163	1708
I	**1997**				360	0		588						0		18					966		966
	2001				425	14		66						0		42					547		547
	2002				463	352		80						0		22					917		917
SLO	**1997**						986		n.a.					46							1032		1032
	2001						5133		3266					62							8461		8461
	2002						5231		3032					185							8448		8448
HR	**1997**							n.a.		n.a.	0							0			n.a.	0	n.a.
	2001							3581		1767	1							3			5349		5349
	2002							3868		1583	15							1			5466		5466
BiH	**1997**								n.a.		n.a.										n.a.		n.a.
	2001								586		3435										4021		4021
	2002								634		2654										3288		3288
JIEL	**1997**					1361			32	n.a.								0			1393	915	2308
	2001					1139			0	695								0			1834	1331	3165
	2002					949			0	688								0			1637	1282	2919
L	**1997**	0	848																		848		848
	2001	382	745																		1127		1127
	2002	2032	883																		2915		2915
NL	**1997**	3536	1572																		5108		5108
	2001	3802	406																		4208		4208
	2002	3037	1450																		4487		4487
A	**1997**		3653				1607	1938								2091	88	324			9289	412	9701
	2001		5489				1863	3027								3641	2	231			14253		14253
	2002		4270				1788	3246								4176	3	492			13975		13975
P	**1997**			2480																	2480		2480
	2001			3479																	3479		3479
	2002			3429																	3429		3429
CH	**1997**		5097		461		19948							417							25923		25923
	2001		6348		1606		23826							729							32509		32509
	2002		3836		1094		25038							283							30251		30251

UCTE	**1997**	9857	27710	4594	3755	1361	39854	n.a.	n.a.	27	5883	17937	6269	5284	19606	1484	324	4077	n.a.	142137	25615	167752
	2001	15699	38016	10198	3639	1153	49026	6674	8545	4766	6529	21447	15733	3629	23108	9229	8548	1381	5734	235516	18143	253659
	2002	16570	40419	12490	2356	1301	51577	7194	8990	4666	6540	20855	15735	5208	27004	9496	9658	1959	6600	250889	17531	268420
CZ	**1997**		3174										2608					n.a.	n.a.	5782	n.a.	n.a.
	2001		9261										5730					63	3710	18764		18764
	2002		10557										5941					87	4307	20892		20892
H	**1997**							88		456			759						n.a.	1303	n.a.	n.a.
	2001							4693		1275			1167						0	7135	94	7229
	2002							5324		1947			868						0	8139	210	8349
PL	**1997**		966													n.a.			n.a.	966	n.a.	n.a.
	2001		1192													7818			2024	11034	19	11053
	2002		605													8442			2293	11340	196	11536
SK	**1997**															n.a.	n.a.	n.a.		n.a.	n.a.	n.a.
	2001															1210	8314	2		9526	218	9744
	2002															857	9165	0		10022	844	10866
III	**1997**		8168	2	0	1534				2262							n.a.	n.a.	n.a.	11966	n.a.	n.a.
	2001		5478	0	203	2417				2630							1856	2288	329	15201		15201
	2002		5798	12	741	3321				2731							2949	2511	94	18157		18157
TOTAL Import	**1997**	9857	35878	4596	3755	2895	39854	n.a.	n.a.	2289	5883	17937	6269	5284	19606	n.a.	n.a.	n.a.	n.a.			
	2001	15699	43494	10198	3842	3570	49026	6674	8545	7396	6529	21447	15733	3629	23108	9229	10404	3669	6063			
	2002	16570	46217	12502	3097	4622	51577	7194	8990	7397	6540	20855	15735	5208	27004	9496	12607	4470	6694			
Saldo UCTE	**1997**	3154	-4214	-2758	-47895	1334	38888	n.a.	n.a.	-1366	5035	12829	-3020	2804	-6317	n.a.	n.a.	n.a.	n.a.			
	2001	9000	-3350	5395	-56698	1092	48479	-1787	3196	2932	5402	17239	1480	150	-9401	-9535	1413	-9653	-3792			
	2002	7501	-863	7056	-66996	756	50660	-1254	3524	3029	3625	16368	1760	1779	-3247	-11396	1519	-9381	-3422			
Saldo TOTAL	**1997**	3154	-2963	-2888	-64539	2305	38888	n.a.	n.a.	-19	5035	12829	-3432	2804	-6317	n.a.	n.a.	n.a.	n.a.			
	2001	9000	-1280	3818	-67322	2509	48479	-1787	3196	4231	5402	17239	1480	150	-9401	-9535	3175	-7384	-3681			
	2002	7501	688	5739	-75765	2914	50660	-1254	3524	4478	3625	16368	1760	1779	-3247	-11396	4258	-7066	-4172			

LOAD VALUES

Load values

II

HOURLY LOAD VALUES PER COUNTRY

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 2002.

[1] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Hourly load values on the 3rd Wednesday in MW

Belgique

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	10504	10076	9759	9415	9289	9597	10533	11426	11824	11819	11773
20 / 2/ 2002	10209	9767	9371	9132	9015	9400	10423	11277	11445	11649	11652
20 / 3/ 2002	9806	9145	8738	8441	8417	8863	9951	10526	10805	11078	11170
17 / 4/ 2002	9760	9173	8775	8544	8593	9102	9989	10702	11036	11192	11215
15 / 5/ 2002	8893	8359	8024	7958	7962	8200	8809	9781	10317	10500	10585
19 / 6/ 2002	8695	8229	7883	7806	7794	7986	8584	9508	10297	10602	10646
17 / 7/ 2002	8204	7719	7470	7239	7326	7454	7860	8553	9226	9651	9812
21 / 8/ 2002	8495	8171	7857	7624	7751	8053	8679	9493	10278	10701	10902
18 / 9/ 2002	8562	8174	7849	7688	7761	8118	9065	10076	10530	10769	10694
16 /10 2002	9389	8746	8238	8228	8225	8599	9596	10990	11114	11106	11173
20 /11/ 2002	9936	9429	9033	8902	8917	9273	10287	11311	11386	11422	11433
18 /12/ 2002	10750	10416	9980	9766	9554	9759	10711	11687	12250	12163	12141

Deutschland [1]

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	51900	50800	49900	50900	52200	55400	62000	69400	69900	69100	69500
20 / 2/ 2002	57200	55100	53600	54200	55200	56200	62700	67100	69100	69300	70500
20 / 3/ 2002	51700	50800	50500	51500	53400	56700	61700	67000	68400	68100	68800
17 / 4/ 2002	47500	45500	45200	46200	48700	53800	59900	65300	67700	67900	69300
15 / 5/ 2002	42500	41000	40300	41000	43000	47100	54800	61200	63700	63800	64900
19 / 6/ 2002	42900	41300	40700	41000	42700	46300	54800	61200	64000	64600	66500
17 / 7/ 2002	41900	40700	40000	40100	41000	44000	52100	57800	60300	61000	61900
21 / 8/ 2002	40600	39200	38000	38300	40400	43900	51400	57400	59300	60300	62100
18 / 9/ 2002	42700	41100	40800	41100	43500	48900	57000	61400	63600	64000	64900
16 /10 2002	48500	46800	47000	47500	49000	52900	60100	67300	68200	68200	68800
20 /11/ 2002	56700	54500	54000	53800	55000	57000	63700	69300	71100	72000	72300
18 /12/ 2002	55200	53900	52900	53700	54600	57100	65300	72300	73500	73600	73900

[1] Values estimated on the basis of former data from the German Federal Office for Statistics

Espãna

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	26252	24179	22960	22250	21734	21580	23605	26293	29641	30701	31636
20 / 2/ 2002	26605	23789	22558	22017	21602	21682	23615	26163	28572	29869	30914
20 / 3/ 2002	22601	20600	19460	19003	18704	18992	21184	23375	25718	26951	27998
17 / 4/ 2002	23973	22315	20912	20297	19909	19807	21611	24164	26170	27081	27840
15 / 5/ 2002	21843	20415	19329	18933	18753	18807	20360	22040	23860	25134	25667
19 / 6/ 2002	24230	22637	21372	20849	20741	20727	21681	23273	26095	28079	29250
17 / 7/ 2002	23316	21442	20565	19998	19795	19830	21306	23064	25268	27432	28389
21 / 8/ 2002	22454	20559	19272	18674	18482	18451	19653	20423	21426	24140	25961
18 / 9/ 2002	22385	20798	19474	19173	19100	19201	20989	23807	25881	27389	28394
16 /10 2002	22096	20569	19062	18592	18742	18767	20760	24094	26468	26839	27644
20 /11/ 2002	25192	22755	21369	20486	20160	20232	22074	24398	27401	28657	29554
18 /12/ 2002	26627	24031	22249	21488	21291	21135	22810	25594	28875	29955	30846

Hourly load values on the 3rd Wednesday in MW

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
11856	11709	11695	11590	11512	11435	12012	12354	11922	11418	10934	11113	11047
11751	11670	11622	11558	11457	11286	11244	11779	11778	11358	10841	11051	10978
11306	11130	11086	11031	10903	10707	10783	10953	11330	10976	10333	10495	10402
11378	11106	11080	10978	10862	10673	10538	10351	10081	10032	10410	10552	10457
10828	10678	10693	10541	10478	10326	10147	9926	9641	9413	9548	10037	9723
10921	10770	10750	10737	10724	10588	10471	10122	9771	9485	9252	9510	9460
10069	9952	9821	9711	9660	9559	9439	9258	8916	8596	8547	9025	8745
11149	11004	10800	10805	10659	10553	10404	10199	9771	9574	9704	9670	9328
10998	10691	10717	10632	10531	10409	10259	10030	9818	10268	9958	9698	9180
11374	11282	11289	11246	11172	11063	11016	11067	11358	10985	10427	10278	10127
11551	11350	11377	11309	11220	11345	12203	12388	11822	11299	10748	10777	10724
12135	11899	11974	11888	11766	11919	12870	12991	12420	11912	11321	11650	11694

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
69900	68700	67900	66200	65800	66500	71100	71000	68200	63900	62300	60400	57500
71200	70700	69700	68500	66900	66100	68700	72500	69300	65000	64700	63000	62900
71100	68300	67100	65900	63600	61900	62700	67700	68500	63900	61900	60000	58400
69800	68600	67600	66500	64400	62500	62500	61700	61100	61500	59900	57400	53100
66000	65200	63600	62000	60800	59200	59100	59400	58200	56100	55600	51800	47700
67500	65500	64300	63400	61300	59600	58200	57700	55800	54100	52600	51500	47800
63300	61100	60100	58700	56900	55600	54900	54400	52600	50300	49700	47400	43400
62300	61500	60100	59000	57200	55700	55300	54900	54200	52900	50200	46900	42400
65700	64500	63200	62000	60600	58800	58400	59000	61400	58900	54200	50200	45600
68900	66900	64900	63700	62500	60200	61200	66700	66500	61900	59200	56900	53200
73400	73300	72000	71400	70800	72800	73900	73000	71000	66300	64600	63000	59400
75800	74400	73400	72900	72900	74600	75500	74700	72400	68000	66500	64500	61000

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
31948	31437	29725	28390	28738	29059	30034	32570	33771	33021	31732	29692	29289
30492	30500	29395	27361	27818	28462	28715	29386	31905	31798	30807	28597	28268
28142	27677	27658	26115	25720	26157	26316	25794	27274	28838	27953	25764	25275
28010	27829	27190	25730	26096	26573	26824	26423	25959	26851	29301	27531	24958
26372	26710	26093	24535	24769	25259	25567	25366	24961	25013	25557	25219	22697
30546	30888	30699	29123	29169	29693	30015	29733	28743	26975	26268	26118	23816
29378	29767	29869	28835	28547	29097	29562	29591	28768	27514	27030	27379	25697
26642	26882	27396	26303	25842	25940	26155	26141	25874	25227	27097	25646	23406
29052	29067	29043	27165	27024	27771	27935	27875	27578	28507	28935	26254	23855
27982	27848	27437	25830	26034	26918	27432	26946	28562	29878	28164	26227	23362
29913	29785	28741	27538	27740	28118	29432	31745	32251	31181	30578	28196	27420
30965	30444	29422	28204	28489	29681	30840	33187	32813	32187	31030	29004	28861

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
16 / 1/ 2002	57793	58262	56625	54653	54274	57249	62733	68434	69712	70205	69552
20 / 2/ 2002	53593	56784	54694	52600	51805	54309	59304	63328	65660	66788	67101
20 / 3/ 2002	45521	45604	43430	41636	41194	44191	49557	53483	56018	56710	56339
17 / 4/ 2002	50332	50635	49014	47040	46985	49802	54072	57890	59889	60291	59323
15 / 5/ 2002	43563	43460	41672	39901	39848	42039	46131	50532	53226	54002	53993
19 / 6/ 2002	42660	42138	40127	38320	38601	39789	43903	48623	51866	53797	54224
17 / 7/ 2002	42544	42298	40225	38275	38234	40111	43603	47603	50977	53285	54104
21 / 8/ 2002	38600	38438	36482	34848	34825	36827	38924	42137	45777	48044	48950
18 / 9/ 2002	41235	41069	39201	37558	37650	40396	46269	49470	52165	53308	53368
16 /10 2002	44984	44744	42789	40626	40384	43417	49738	55194	57155	57949	57882
20 /11/ 2002	50581	50702	48798	46748	46770	49697	56018	61129	62550	63176	62617
18 /12/ 2002	55144	55672	53778	51698	51600	54695	61281	67461	68829	69083	68679

Hellas

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	5176	5239	5152	5053	4990	5469	5734	6353	6877	6976	7050
20 / 2/ 2002	4889	4745	4580	4556	4553	4784	5230	5728	6172	6253	6311
20 / 3/ 2002	4738	4692	4543	4428	4498	4805	5309	5619	5887	5983	5992
17 / 4/ 2002	4555	4434	4268	4225	4265	4681	4966	5418	5868	5898	6003
15 / 5/ 2002	4523	4373	4244	4222	4283	4446	5024	5548	5533	5850	6096
19 / 6/ 2002	5590	5284	5088	5060	5106	5302	5871	6510	7216	7379	7593
17 / 7/ 2002	6795	6476	6513	6355	6279	6352	6831	7502	8007	8299	8582
21 / 8/ 2002	4465	4450	4452	4402	4350	4318	4742	5591	6008	6269	6471
18 / 9/ 2002	4197	4343	4286	4248	4392	4536	4909	5409	5878	5967	6089
16 /10 2002	4438	4249	4185	4151	4275	4482	5037	5463	5710	5843	5972
20 /11/ 2002	4644	4557	4451	4341	4414	4916	5445	5617	5957	5927	5999
18 /12/ 2002	4706	4713	4504	4430	4426	5002	5767	6264	6730	6843	6882

Italia

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	30471	29254	28768	28817	29391	32378	38312	45744	48815	49876	49641
20 / 2/ 2002	29930	28697	28375	28296	29142	31701	37060	43951	46593	47149	46851
20 / 3/ 2002	29238	28081	27659	27523	28165	30555	34843	41833	44143	44624	44267
17 / 4/ 2002	23789	22896	22579	22640	23807	27502	33232	41035	44404	45167	44933
15 / 5/ 2002	29377	28195	27695	27560	27885	28906	33612	40641	43521	44359	44077
19 / 6/ 2002	33495	32263	31343	31161	31433	32190	37572	44397	48767	50369	50551
17 / 7/ 2002	31820	30535	29865	29640	30290	31270	35330	42071	45650	47682	47812
21 / 8/ 2002	25296	24213	23469	23272	23597	24637	26284	29904	32954	34117	34195
18 / 9/ 2002	30368	29246	28926	28669	29034	31461	35855	41836	44859	46141	46005
16 /10 2002	29821	28651	28169	28069	28643	31228	36828	43102	45234	46192	46267
20 /11/ 2002	29922	28755	28266	28268	28959	31916	37170	43624	46202	46912	46579
18 /12/ 2002	30111	28861	28473	28486	28486	32124	38302	45787	48024	49109	48960

Hourly load values on the 3rd Wednesday in MW

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
69306	68581	68212	65957	64783	64561	68771	72024	69340	66145	61723	63607	62210
67704	66774	66660	64890	63471	62498	62640	68388	66137	62361	58510	60563	58532
56472	56015	55624	53874	52456	51444	51068	54814	57026	53225	49264	50117	48471
58689	57928	57597	55660	53739	52100	51104	52642	52240	53680	52660	54341	52428
54183	53692	53306	52126	50505	49144	47961	49051	47558	46180	47367	48914	46790
54814	54628	54069	53718	52512	51463	50402	51076	48945	46715	46431	49242	46860
54446	53880	53497	52703	51451	50026	48715	49281	47786	45695	45729	48885	46722
49503	49766	48671	47824	46472	45350	44630	45238	44117	44027	44134	45265	42904
53802	53490	53121	52095	50640	49680	48564	50166	50255	50441	46544	47055	45128
57940	57042	56457	55322	53899	52665	52408	56169	57704	53889	49729	50741	48680
62351	61749	61228	59899	58671	59498	63503	66027	62491	58240	54200	55254	52965
68809	68196	67548	65970	65227	66423	71134	72873	69626	66221	62027	63551	61622

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
7102	7048	6767	6573	6712	6823	7043	7093	6962	6599	5916	5765	5395
6281	6140	5755	5621	5563	5575	6170	6624	6533	6205	5549	5250	4813
5928	5791	5487	5471	5316	5256	5674	6411	6411	6096	5457	5155	4967
6015	5906	5631	5344	5268	5158	5096	5411	6125	6225	5501	5070	4771
6155	6112	5844	5513	5241	5470	5507	5620	6121	6421	5712	5143	4869
7660	7628	7442	6998	6725	6623	6644	6691	6775	7067	6772	6259	5487
8768	8786	8589	8279	8028	7934	7893	7767	7652	7988	7641	7242	6776
6580	6538	6211	5770	5588	5617	5748	5891	6394	6384	5880	5431	4981
6132	6119	5941	5446	5265	5359	5391	5901	6562	6182	5495	4835	4497
5992	5913	5802	5343	5146	5159	5382	6271	6366	6038	5357	4768	4371
5958	5905	5740	5580	5636	6214	6494	6632	6475	6174	5492	4989	4755
6937	6965	6814	6701	6952	7369	7477	7431	7290	6902	6199	5796	5199

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
47965	45043	46017	47369	47979	49462	50910	49212	46048	43347	39721	36079	32526
45190	42036	43697	44720	44926	45048	47095	47341	44599	42036	38238	35075	31980
42114	39280	40996	42248	42363	41648	41265	44781	42007	39348	36253	33781	30544
43653	40856	42203	43226	43203	42571	40968	40332	41065	41017	37889	34884	31455
42641	40322	41727	42739	42694	42152	40302	39014	38573	39920	37413	34846	31368
49510	47479	48688	49184	49486	49196	47278	45480	43633	43428	42545	39806	36732
46561	44217	45049	45810	45916	45804	44403	42618	41153	41191	39558	36906	33962
34169	33164	32609	32568	32835	32696	32746	32610	33107	33990	31512	29497	27132
45024	42277	43566	44700	44921	44324	42593	42227	44427	41864	38154	35474	32571
44366	41684	42936	43958	44263	43556	43169	46385	44118	41329	37879	34969	31956
45123	42401	43938	45330	46548	49465	48969	47124	44329	41667	38174	35014	32000
47083	44095	45440	46645	47669	50789	50638	49105	46073	43223	39832	36194	32670

Hourly load values on the 3rd Wednesday in MW

Slovenija

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	1249	1155	1137	1135	1144	1227	1531	1693	1731	1708	1690
20 / 2/ 2002	1162	1100	1079	1062	1081	1165	1474	1611	1676	1639	1641
20 / 3/ 2002	1175	1133	1080	1103	1084	1194	1476	1598	1646	1606	1593
17 / 4/ 2002	1200	1142	1083	1089	1105	1188	1496	1621	1660	1637	1624
15 / 5/ 2002	1171	1109	1058	1060	1107	1131	1413	1572	1587	1533	1540
19 / 6/ 2002	1254	1157	1156	1150	1160	1200	1441	1631	1626	1604	1615
17 / 7/ 2002	1213	1148	1124	1095	1101	1170	1394	1549	1594	1550	1558
21 / 8/ 2002	1153	1103	1081	1046	1088	1139	1354	1511	1587	1550	1527
18 / 9/ 2002	1206	1121	1113	1112	1121	1195	1497	1630	1624	1580	1601
16 /10 2002	1195	1143	1114	1116	1103	1202	1526	1703	1693	1644	1622
20 /11/ 2002	1216	1161	1144	1144	1150	1235	1547	1671	1701	1642	1644
18 /12/ 2002	1276	1210	1156	1196	1195	1261	1594	1807	1819	1816	1811

Hrvatska

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	1784	1655	1579	1536	1561	1687	2083	2349	2527	2619	2572
20 / 2/ 2002	1521	1409	1331	1319	1332	1477	1817	2097	2236	2222	2187
20 / 3/ 2002	1311	1241	1183	1155	1175	1293	1549	1845	1933	1921	1876
17 / 4/ 2002	1347	1240	1189	1153	1193	1284	1555	1816	1943	1911	1913
15 / 5/ 2002	1194	1080	1033	1031	1042	1081	1298	1572	1692	1701	1689
19 / 6/ 2002	1393	1242	1181	1125	1156	1133	1398	1548	1770	1817	1861
17 / 7/ 2002	1413	1294	1213	1189	1185	1212	1383	1613	1789	1851	1900
21 / 8/ 2002	1359	1215	1156	1141	1148	1210	1370	1577	1786	1839	1852
18 / 9/ 2002	1308	1195	1133	1104	1118	1234	1458	1660	1764	1781	1731
16 /10 2002	1422	1288	1201	1164	1198	1279	1592	1747	1814	1821	1818
20 /11/ 2002	1392	1272	1207	1196	1206	1321	1589	1705	1766	1763	1820
18 /12/ 2002	1796	1618	1503	1470	1490	1633	1926	2191	2313	2345	2327

JIEL (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	7181	6588	6247	5987	5896	6118	6772	7330	7577	7726	7705
20 / 2/ 2002	5815	5293	4882	4705	4603	4993	5709	6253	6394	6369	6302
20 / 3/ 2002	4693	4168	3945	3795	3767	4166	4768	5473	5585	5685	5594
17 / 4/ 2002	4354	3950	3691	3525	3550	3806	4460	5153	5370	5395	5256
15 / 5/ 2002	3706	3283	3111	3012	3052	3229	3800	4382	4705	4691	4667
19 / 6/ 2002	3821	3361	3163	3004	3052	3244	3687	4276	4533	4734	4749
17 / 7/ 2002	3798	3412	3153	3092	3000	3137	3624	4134	4453	4612	4669
21 / 8/ 2002	3644	3249	3113	2947	2903	3124	3559	4056	4295	4454	4499
18 / 9/ 2002	3712	3289	3180	3031	3034	3244	4006	4619	4731	4750	4710
16 /10 2002	4500	4068	3733	3636	3631	4003	4739	5309	5550	5544	5344
20 /11/ 2002	4745	4311	4002	3972	4021	4236	4849	5427	5522	5596	5616
18 /12/ 2002	6534	6054	5685	5508	5441	5672	6382	6996	7230	7264	7318

Hourly load values on the 3rd Wednesday in MW

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
1709	1703	1770	1707	1674	1682	1767	1782	1742	1639	1505	1434	1285
1654	1646	1717	1654	1610	1551	1630	1686	1692	1616	1443	1395	1290
1602	1638	1588	1567	1565	1503	1468	1618	1720	1609	1509	1364	1262
1621	1623	1640	1630	1606	1574	1507	1538	1603	1641	1510	1373	1288
1543	1564	1527	1584	1527	1534	1458	1411	1499	1522	1519	1399	1304
1628	1672	1629	1667	1631	1628	1527	1515	1527	1527	1533	1470	1372
1583	1599	1551	1594	1534	1514	1430	1427	1464	1456	1476	1358	1265
1563	1577	1546	1595	1521	1497	1425	1433	1457	1511	1419	1298	1210
1604	1652	1637	1600	1574	1526	1488	1517	1653	1684	1526	1395	1302
1665	1700	1655	1649	1619	1632	1568	1666	1744	1669	1546	1396	1311
1654	1695	1704	1644	1618	1696	1722	1718	1689	1599	1486	1370	1282
1750	1767	1820	1773	1742	1835	1821	1846	1796	1717	1558	1484	1360

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
2587	2514	2428	2365	2333	2467	2623	2588	2563	2512	2481	2293	2033
2156	2118	2083	1998	1997	2045	2197	2323	2311	2234	2159	1964	1725
1881	1852	1802	1727	1513	1594	1716	1963	2092	2013	1921	1692	1450
1925	1913	1807	1786	1540	1742	1747	1769	1909	2084	1946	1776	1547
1738	1728	1650	1612	1552	1540	1513	1453	1498	1710	1833	1671	1396
1919	1909	1857	1811	1735	1728	1656	1671	1659	1702	1859	1806	1644
1937	1943	1904	1853	1740	1716	1672	1732	1738	1772	1881	1817	1608
1923	1899	1842	1747	1691	1693	1642	1669	1786	1940	1863	1720	1506
1768	1757	1701	1646	1568	1570	1553	1605	1904	1913	1813	1592	1518
1843	1777	1705	1656	1576	1576	1619	1869	1961	1926	1789	1625	1580
1829	1821	1779	1751	1754	1932	2111	2056	2033	1958	1880	1769	1580
2361	2307	2260	2254	2238	2392	2463	2447	2443	2372	2494	2327	2048

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
7690	7617	7545	7406	7451	7609	7881	7967	8020	7796	7655	7532	7615
5968	5881	5769	5665	5734	5967	6346	6816	6847	6652	6505	6388	6241
5494	5308	5219	5075	5054	5228	5447	6254	6440	6151	6019	5621	5358
5251	5135	5011	4912	4873	5029	5130	5324	5927	6135	5930	5344	4934
4797	4735	4624	4504	4449	4366	4222	4300	4562	5116	5342	4873	4231
4793	4840	4828	4623	4602	4471	4407	4309	4342	4698	5247	4946	4508
4729	4664	4651	4611	4441	4377	4264	4228	4396	4631	4863	4521	4163
4595	4650	4652	4536	4389	4288	4197	4284	4636	5149	4935	4497	4056
4697	4647	4586	4553	4495	4431	4326	4636	5433	5531	5191	4736	4210
5267	5170	4979	4899	4891	4831	4931	5783	6163	5973	5653	5327	4844
5551	5440	5405	5325	5537	6214	6566	6556	6558	6309	6026	5704	5274
7336	7359	7291	7240	7379	7689	7763	7713	7692	7529	7324	7227	7026

Hourly load values on the 3rd Wednesday in MW

Luxembourg

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	769	780	756	729	741	736	748	797	886	855	800
20 / 2/ 2002	755	721	717	719	731	702	679	784	820	829	815
20 / 3/ 2002	720	699	676	679	703	636	596	656	708	689	710
17 / 4/ 2002	701	727	687	675	603	615	579	641	667	678	667
15 / 5/ 2002	642	699	660	675	681	693	669	745	771	802	798
19 / 6/ 2002	625	617	651	548	527	514	596	665	680	725	729
17 / 7/ 2002	635	657	645	629	647	641	489	565	655	687	701
21 / 8/ 2002	428	474	560	415	496	487	514	569	615	634	741
18 / 9/ 2002	660	665	644	653	671	633	668	729	747	765	778
16 /10 2002	666	625	603	670	688	700	595	688	713	726	732
20 /11/ 2002	709	712	710	723	731	763	655	722	725	713	712
18 /12/ 2002	579	556	615	626	613	606	604	693	742	731	760

Nederland

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	8001	7401	7236	7185	7258	7736	9449	12171	13088	13274	13138
20 / 2/ 2002	7894	7224	6979	6915	6916	7460	9044	11215	12351	12678	12563
20 / 3/ 2002	7901	7396	7257	7236	7253	7773	9053	11055	12201	12459	12396
17 / 4/ 2002	7842	7285	7085	7009	7077	7565	8974	11158	12286	12645	12542
15 / 5/ 2002	7776	7206	7050	6910	7042	7230	8554	10644	11932	12161	12274
19 / 6/ 2002	8263	7717	7530	7422	7263	7415	8775	10829	11974	12439	12530
17 / 7/ 2002	8174	7692	7427	7338	7367	7480	8612	10462	11640	12042	12176
21 / 8/ 2002	8482	7893	7812	7640	7768	8140	9091	10953	12033	12421	12538
18 / 9/ 2002	8110	7587	7398	7239	7369	7789	9317	11034	12116	12430	12456
16 /10 2002	7930	7312	7002	6930	6982	7348	8920	11152	12048	12390	12414
20 /11/ 2002	8267	7792	7622	7591	7681	8128	9774	11932	12693	12951	12854
18 /12/ 2002	8702	8059	7853	7807	7917	8496	10314	13047	13790	14132	14129

Österreich

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	6768	6570	6417	6149	6142	6550	7151	8063	8178	8183	8219
20 / 2/ 2002	5923	5633	5433	5304	5369	5855	6509	7212	7484	7552	7676
20 / 3/ 2002	5437	5236	5095	4955	5066	5522	6289	7075	7286	7369	7414
17 / 4/ 2002	5553	5265	5104	4942	5086	5540	6187	6883	7080	7029	7137
15 / 5/ 2002	4798	4553	4424	4252	4254	4687	5524	6255	6497	6517	6652
19 / 6/ 2002	5164	4856	4686	4415	4480	4795	5769	6485	6770	6897	7101
17 / 7/ 2002	4925	4675	4510	4275	4327	4704	5424	6085	6432	6593	6824
21 / 8/ 2002	4730	4441	4281	4064	4086	4496	5295	5992	6432	6598	6793
18 / 9/ 2002	5082	4862	4698	4503	4599	5109	6127	6705	6818	6838	6916
16 /10 2002	5332	5130	4962	4827	4993	5476	6705	7355	7442	7305	7358
20 /11/ 2002	6329	6766	6015	5896	5983	6297	7145	7733	7795	7685	7769
18 /12/ 2002	6562	6405	6283	6117	6080	6310	7134	7718	7934	8017	7918

Hourly load values on the 3rd Wednesday in MW

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
776	799	853	853	857	858	856	892	862	833	788	825	832
831	818	822	813	812	792	774	814	855	818	808	813	796
727	714	716	705	700	690	701	810	852	813	766	790	742
685	662	658	652	683	705	752	793	705	769	808	799	764
812	803	790	788	761	759	745	750	748	730	748	749	689
742	718	719	722	713	699	683	698	712	698	723	719	681
721	685	679	679	645	660	671	732	761	757	747	720	715
641	640	636	621	605	610	598	590	588	603	593	540	483
810	774	723	707	743	754	727	742	730	743	737	702	668
732	737	741	703	730	754	752	780	819	800	750	779	730
735	733	720	721	715	715	795	810	809	823	800	827	765
725	739	728	682	712	705	721	734	726	656	664	709	683

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
13094	12772	12906	12655	12580	12704	13613	12989	12530	11473	10678	9606	8931
12636	12173	12427	12327	12220	12008	12093	12806	12365	11400	10621	9545	8749
12508	12197	12370	12108	12001	11737	11626	11984	12151	11374	10575	9682	8976
12435	12450	12632	12380	12209	11897	11432	10740	10577	10843	10622	9594	8879
12417	12145	12375	12109	12038	11641	11275	10491	10256	9777	10434	9824	9207
12587	12340	12531	12372	12309	11914	11446	10605	10388	9935	9794	9475	8952
12233	12074	12221	12020	11910	11502	11052	10198	9866	9326	9373	9445	9004
12526	12331	12422	12113	12077	11770	11373	10743	10528	10553	10489	9642	9171
12450	12247	12422	12188	12071	11755	11341	10802	11390	11229	10605	9667	8938
12436	12171	12426	12268	12203	12019	11763	12044	12028	11057	10387	9369	8778
12861	12646	12837	12659	12801	13501	13717	13142	12646	11777	11096	10052	9359
14073	13829	14014	13798	13792	14588	14737	14043	13611	12699	11741	10788	9880

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
8254	8014	8104	8126	8101	8131	8253	8176	7948	7529	7067	7346	6983
7780	7487	7425	7279	7199	7141	7446	7609	7323	6930	6499	6657	6240
7529	7233	7252	7188	7097	7020	7148	7365	7102	6719	6191	6208	5755
7248	6973	6918	6843	6737	6612	6592	6642	6646	6629	6230	6260	5920
6845	6562	6518	6407	6244	6145	6049	6005	5840	5881	5776	5556	5125
7223	7008	6944	6803	6678	6503	6399	6254	6035	5876	5886	5902	5542
7047	6705	6641	6551	6506	6412	6373	6265	6012	5886	5843	5739	5326
6976	6685	6577	6424	6347	6192	6117	6076	6031	5937	5490	5379	4956
7027	6756	6707	6567	6462	6415	6332	6262	6605	6408	5960	5777	5366
7491	7051	7102	7056	6958	6900	7016	7507	7329	6711	6351	6279	5842
7880	7458	7595	7685	7810	8160	8303	8155	7845	7275	6944	7039	6825
8111	8180	8130	7686	7782	7756	7761	8222	8472	8306	7960	7295	6941

Hourly load values on the 3rd Wednesday in MW

Portugal

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	4081	3745	3564	3524	3518	3634	4019	4800	5714	6067	6118
20 / 2/ 2002	3952	3621	3453	3369	3413	3526	3907	4468	5442	5684	5785
20 / 3/ 2002	3626	3319	3142	3091	3100	3216	3423	4160	5135	5376	5452
17 / 4/ 2002	3720	3408	3257	3224	3220	3322	3572	4137	5131	5301	5375
15 / 5/ 2002	3708	3392	3224	3201	3187	3280	3341	4004	5050	5257	5357
19 / 6/ 2002	3868	3569	3447	3307	3340	3415	3490	4158	5209	5425	5549
17 / 7/ 2002	4045	3733	3584	3483	3450	3545	3592	4232	5305	5701	5930
21 / 8/ 2002	3568	3311	3167	3103	3080	3143	3166	3478	4256	4590	4753
18 / 9/ 2002	3703	3383	3297	3234	3220	3295	3587	4130	5175	5389	5475
16 /10 2002	3653	3378	3230	3158	3159	3294	3588	4188	5037	5306	5423
20 /11/ 2002	3768	3402	3248	3248	3230	3388	3713	4321	5374	5643	5760
18 /12/ 2002	4022	3553	3365	3277	3287	3436	3813	4555	5427	5605	5684

Schweiz

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	7833	7730	7498	7237	7413	7617	8521	9129	9218	9236	9197
20 / 2/ 2002	6913	6860	6715	6649	6809	6979	7949	8545	8589	8803	8844
20 / 3/ 2002	5752	5673	5643	5718	6104	6640	7403	7925	7962	8212	8312
17 / 4/ 2002	6166	6040	6014	5974	6256	6650	7303	7892	8048	8137	8285
15 / 5/ 2002	5409	5311	5169	4987	5214	5707	6679	7263	7247	7408	7759
19 / 6/ 2002	5528	5407	5257	4943	5084	5844	7024	7511	7700	7878	8052
17 / 7/ 2002	5419	5266	5067	4784	4965	5560	6545	7185	7477	7712	7982
21 / 8/ 2002	5468	5285	5125	4831	5054	6008	6962	7614	7388	7768	7994
18 / 9/ 2002	5475	5319	5081	4971	5277	6124	7069	7710	7672	7833	8079
16 /10 2002	5706	5497	5147	5382	5916	6497	6786	8040	7942	7875	8162
20 /11/ 2002	6300	6310	6192	6207	6481	6860	7864	8235	8383	8514	8642
18 /12/ 2002	6863	6788	6676	6611	6841	7245	8186	8890	8886	8896	8848

Česká Republika

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	7923	8224	8155	7975	7922	7917	8346	9020	9182	9184	9086
20 / 2/ 2002	7238	7166	7040	6916	7004	7455	8233	8334	8500	8474	8435
20 / 3/ 2002	6812	6734	6642	6461	6705	7052	7746	7796	7995	7910	7961
17 / 4/ 2002	6703	6567	6715	6444	6540	6950	7741	7609	7637	7552	7536
15 / 5/ 2002	5754	5583	5581	5365	5378	5743	6658	6777	6919	6837	6836
19 / 6/ 2002	5549	5526	5400	5261	5441	5626	6573	6725	6863	6809	6813
17 / 7/ 2002	5274	5222	5188	4999	5031	5342	6179	6404	6622	6665	6687
21 / 8/ 2002	5254	5205	5127	4896	5067	5328	6157	6335	6505	6600	6653
18 / 9/ 2002	5793	5683	5591	5513	5704	6319	7136	7198	7251	7224	7122
16 /10 2002	6594	6422	6339	6262	6447	7067	8034	5408	8116	8029	8010
20 /11/ 2002	6818	6633	6642	6484	6641	7172	8200	8181	8388	8225	8239
18 /12/ 2002	7964	7865	7751	7753	7866	8200	9148	9026	9316	9145	9103

Hourly load values on the 3rd Wednesday in MW

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
6092	5418	5640	5785	5689	5683	6135	6485	6419	6227	5980	5519	4696
5838	5201	5469	5680	5631	5629	5586	6155	6118	5938	5669	5175	4439
5459	4865	5141	5260	5164	5076	4793	5158	5663	5398	5154	4666	4025
5425	4909	5189	5332	5237	5168	4895	4739	4839	5331	5164	4715	4098
5437	4948	5256	5457	5396	5334	5014	4852	4756	5035	5067	4677	4068
5623	5171	5488	5632	5604	5535	5227	5042	4834	4819	5116	4785	4220
6023	5635	5920	6112	6011	5897	5625	5444	5273	5242	5519	5194	4632
4850	4677	4740	4851	4809	4713	4539	4419	4423	4840	4678	4324	3849
5595	5091	5396	5574	5466	5435	5169	5060	5395	5427	5065	4612	4036
5458	4928	5170	5350	5369	5321	5091	5195	5594	5214	4911	4471	3856
5804	5431	5674	5884	5837	5971	6277	6275	6092	5830	5563	5006	4184
5695	5225	5450	5580	5575	5635	6131	6170	6044	5735	5477	5037	4366

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
9073	8914	8909	8972	8962	9041	9108	8821	8330	7853	8303	8179	8123
8604	8463	8529	8544	8429	8325	8484	8349	7796	7425	7728	7547	7207
7858	7669	7600	7491	7540	7313	7421	7545	7288	6858	7023	6641	6039
7849	7635	7731	7521	7463	7127	7173	6798	6939	6962	7102	6905	6668
7365	7170	7218	6910	6887	6500	6330	6136	5898	6222	6530	6248	5379
7769	7723	7831	7666	7425	7198	6839	6705	6507	6247	6778	6592	5768
7470	7263	7252	7156	7111	6836	6629	6364	6130	6014	6239	5916	5204
7459	7488	7731	7380	7348	7142	6706	6647	6414	6418	6612	6220	6011
7778	7609	7527	7429	7285	7072	6979	6982	7091	6709	6876	6424	6060
7919	7516	7827	7512	7445	7165	7091	7299	7729	6767	6952	6621	5855
8214	8100	8268	8113	8245	8516	8350	8024	7499	7156	7382	7173	6131
8755	8667	8713	8668	8641	8897	8810	8456	8076	7844	8039	7837	7819

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
9137	9291	9407	9269	9189	9146	9290	9282	9087	9003	8460	8025	8023
8592	8677	8472	8438	8251	8278	8648	8434	8286	7723	7259	7255	7151
8133	8213	8079	8095	8003	7972	7919	8245	8107	7511	7057	6850	6790
7516	7484	7361	7425	7446	7453	7239	7190	7527	7219	6789	6669	6607
6987	6963	6651	6661	6764	6508	6287	6348	6288	6393	6117	5967	5829
6977	6926	6628	6680	6635	6553	6243	6257	6205	6111	6125	5926	5779
6835	6734	6419	6448	6496	6388	6017	5954	5842	5834	5651	5431	5319
6856	6687	6350	6393	6432	6316	5995	6079	6198	6218	5867	5614	5431
7140	7159	6877	6831	6995	6800	6656	6889	7320	6668	6254	5928	5941
8095	7977	7870	7820	7669	7802	7678	8165	7909	7257	6763	6549	6490
8498	8505	8270	8400	8409	9161	8673	8508	8415	7651	7297	7006	6966
9263	9172	9103	9148	9172	9763	9411	9260	9180	8443	8074	7833	7838

Hourly load values on the 3rd Wednesday in MW

Magyarorszag

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	4904	4565	4402	4305	4442	4960	5641	5652	5660	5759	5697
20 / 2/ 2002	4461	4183	4024	3981	4192	4729	5128	5244	5227	5256	5232
20 / 3/ 2002	4306	3947	3853	3796	3999	4386	4803	4965	4955	4951	5015
17 / 4/ 2002	4308	4029	3757	3673	3796	4268	4974	4854	4791	4823	4813
15 / 5/ 2002	4017	3705	3508	3477	3594	4039	4700	4706	4677	4732	4724
19 / 6/ 2002	4234	3875	3694	3692	3637	4085	4688	4800	4937	5025	5050
17 / 7/ 2002	4188	3944	3725	3658	3773	4042	4571	4764	4928	4980	5065
21 / 8/ 2002	3368	3121	2900	2912	3121	3488	4064	4332	4409	4520	4573
18 / 9/ 2002	4176	3899	3634	3638	3832	4391	4938	4870	4864	4900	4825
16 /10 2002	4377	4084	3801	3805	3958	4584	5439	5196	5236	5226	5198
20 /11/ 2002	4211	3991	3759	3730	3961	4633	5029	5091	5129	5047	5132
18 /12/ 2002	4755	4386	4162	4139	4258	4868	5442	5439	5501	5369	5355

Polska

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	16681	17309	17524	17444	17769	18187	19550	20113	20441	20305	20462
20 / 2/ 2002	15357	15152	15433	15647	15976	16465	17073	18086	18476	18459	18737
20 / 3/ 2002	15282	15243	15129	14954	15295	15432	16447	17401	17645	17628	17740
17 / 4/ 2002	14429	14398	14464	14410	14600	14565	15813	16593	16942	16684	16831
15 / 5/ 2002	12872	12986	13129	13155	12750	13022	14288	14880	15341	15314	15445
19 / 6/ 2002	13708	13506	13400	12816	12618	13110	14103	15126	15545	15478	15802
17 / 7/ 2002	13249	13119	13165	12994	12512	12570	13267	14312	15080	15229	15462
21 / 8/ 2002	12699	12293	12117	12366	12274	12434	13171	14348	15182	15225	15388
18 / 9/ 2002	13479	13534	13809	13941	14176	14276	15523	16192	16574	16615	16718
16 /10 2002	15586	15386	15388	15251	15508	16094	17664	18152	18415	18317	18340
20 /11/ 2002	15785	15676	15862	15842	15994	16382	17878	18676	19129	18982	19105
18 /12/ 2002	17506	17293	17628	17499	17722	17899	19607	20268	20763	20766	20847

Slovensko

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00
16 / 1/ 2002	3760	3609	3539	3578	3626	3835	4081	4021	4083	4109	4025
20 / 2/ 2002	3450	3354	3240	3251	3371	3541	3710	3779	3825	3782	3829
20 / 3/ 2002	3190	3141	3081	3012	3091	3204	3450	3464	3509	3505	3526
17 / 4/ 2002	3110	3940	2937	2945	3010	3110	3375	3404	3357	3417	3307
15 / 5/ 2002	2715	2581	2493	2474	2496	2660	3044	3020	3020	3047	3000
19 / 6/ 2002	2752	2645	2568	2543	2609	2687	3011	3058	3123	3121	3137
17 / 7/ 2002	2711	2650	2532	2516	2536	2594	2932	3008	3064	3087	3080
21 / 8/ 2002	2561	2437	2413	2372	2424	2499	2799	2913	3001	3030	2980
18 / 9/ 2002	2795	2722	2694	2637	2727	2907	3253	3350	3344	3291	3257
16 /10 2002	3215	3090	3025	3056	3128	3305	3691	3653	3639	3718	3693
20 /11/ 2002	3190	3073	3010	3045	3117	3365	3679	3676	3749	3716	3641
18 /12/ 2002	3704	3561	3543	3534	3605	3751	4042	4016	4125	4100	3984

Hourly load values on the 3rd Wednesday in MW

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
5667	5703	5765	5807	5711	5875	5824	5746	5674	5629	5628	5625	5311
5168	5227	5357	5448	5438	5228	5479	5536	5405	5300	5271	5148	4849
4989	5070	5120	5237	5215	5042	5178	5618	5488	5144	5151	5081	4672
4726	4690	4563	4893	4788	4814	4532	4539	5083	4812	4608	4700	4569
4691	4665	4550	4819	4814	4698	4460	4358	4409	4742	4568	4578	4389
5076	4986	4884	5094	5075	4940	4758	4590	4629	4759	4866	4857	4553
5060	5035	4883	5110	4975	4990	4679	4597	4581	4848	4754	4815	4544
4548	4601	4405	4648	4559	4552	4347	4290	4585	4593	4300	4392	4175
4808	4826	4675	4903	4803	4872	4690	4889	5248	4919	4517	4568	4477
5075	5100	4940	5265	5145	5206	5112	5477	5285	4924	4831	4885	4729
5034	5147	5136	5205	5357	5581	5518	5497	5322	5324	5214	5049	4604
5319	5432	5487	5524	5743	5826	5684	5706	5552	5492	5543	5431	5075

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
20300	20396	19823	19747	19929	21738	21395	21461	21088	20556	19362	18528	17650
18822	19124	18631	18563	18311	18763	19952	20004	19628	18679	17530	16907	16222
17942	18061	17582	17622	17189	17079	17819	19432	19226	18494	17195	16306	15516
16753	16728	16228	16236	16051	15478	15770	15694	17359	18070	16355	15530	15004
15650	15596	15136	15376	15116	14753	14552	14491	14570	15982	15077	14513	13582
15863	16000	15681	15582	15404	15209	14995	14667	14594	14811	15534	15142	13748
15645	15701	15288	15363	15104	14903	14611	14348	14366	14665	15038	14566	13718
15594	15663	15119	15299	15054	14886	14548	14368	14944	16162	14879	14074	13086
16751	16784	16392	16544	16235	16074	15886	16884	18329	17535	15733	14956	13963
18268	18228	17698	17690	17237	17148	18087	19760	19473	18675	17444	16472	15591
19297	19465	19032	19211	19880	20913	20236	20362	19897	19118	17970	17057	16336
20887	21172	20882	20972	22172	22489	21891	22010	21674	20852	19992	18848	17294

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
4053	4100	4046	4084	3992	4123	4158	4121	4102	3962	3925	3921	3819
3900	3936	3886	3918	3851	3852	3956	4000	3904	3691	3639	3634	3519
3516	3587	3523	3612	3574	3566	3646	3837	3702	3564	3374	3420	3322
3367	3398	3274	3232	3166	3221	3133	3314	3500	3407	3225	3185	3174
3090	3130	3036	3099	3006	3021	2899	3028	3038	3139	3018	2942	2829
3209	3198	3161	3170	3125	3063	3027	3001	3031	3119	3071	3013	2873
3145	3160	3102	3075	3066	2996	2924	2997	2938	3018	2980	2890	2798
3052	3021	2911	2935	2875	2909	2788	2896	2985	3072	2856	2825	2723
3252	3191	3136	3176	3142	3124	3096	3281	3411	3226	3003	2944	2910
3716	3672	3573	3571	3553	3486	3512	3825	3711	3556	3335	3333	3347
3691	3707	3584	3652	3743	3867	3793	3877	3769	3603	3497	3504	3374
4066	4082	4031	4135	4171	4139	4174	4169	4117	3970	3853	3877	3783

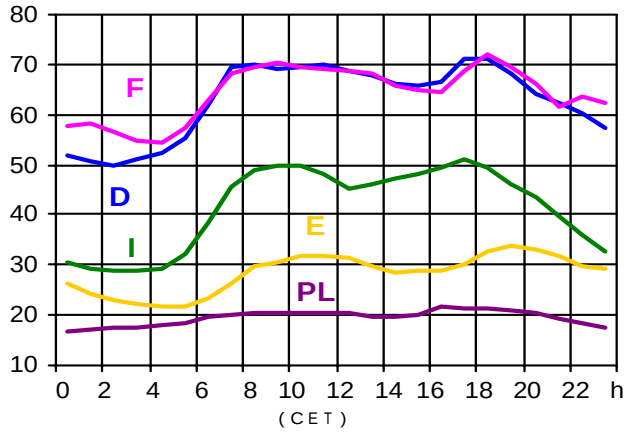
LOAD VALUES

1
2
3
4

Load values 2002 on the 3rd Wednesday - Graphs

Appendix of chapter II of the Statistical Yearbook 2002

16.01.2002 (in GW)



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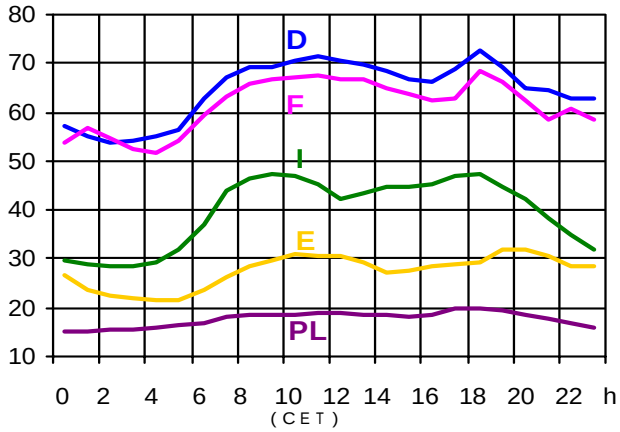

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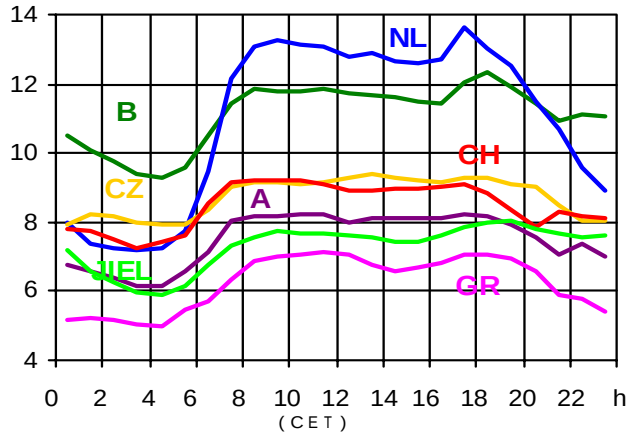

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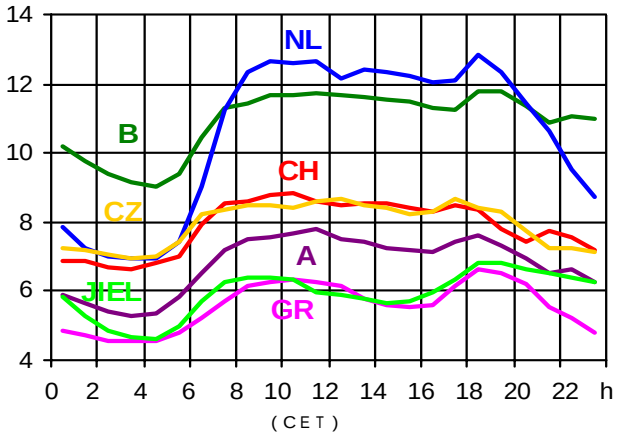

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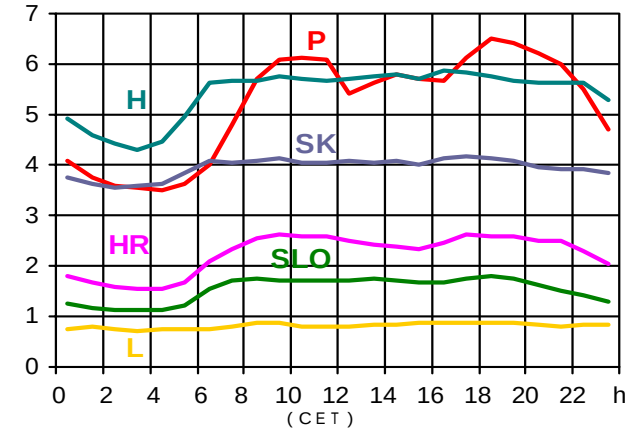

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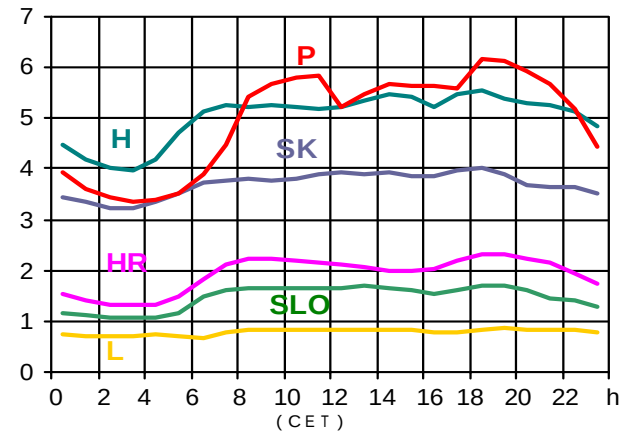

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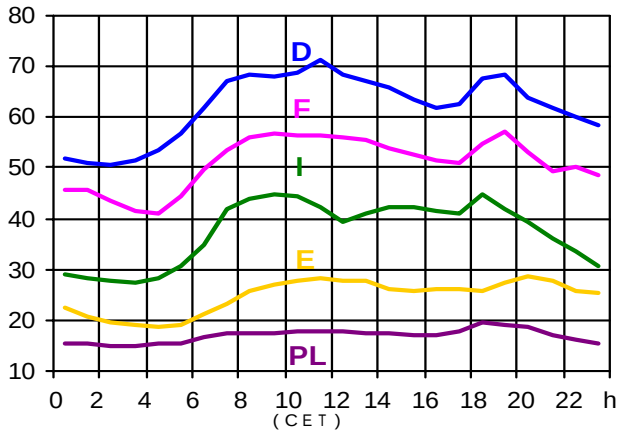
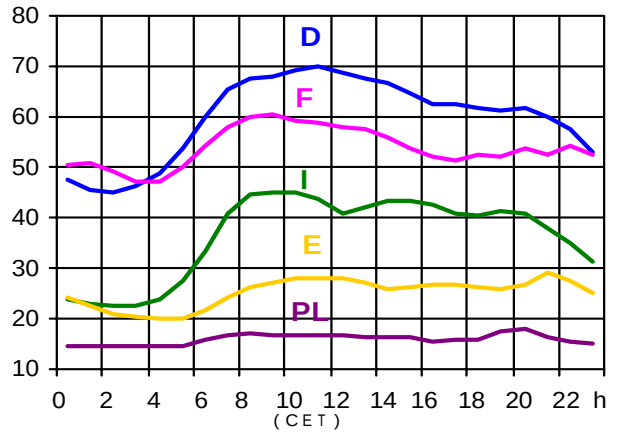


17.04.2002 (in GW)



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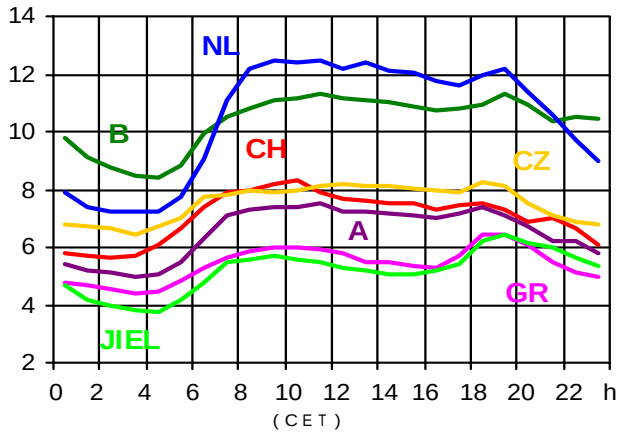

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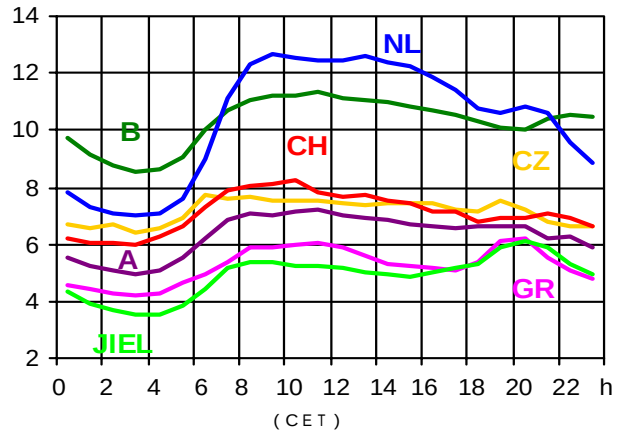

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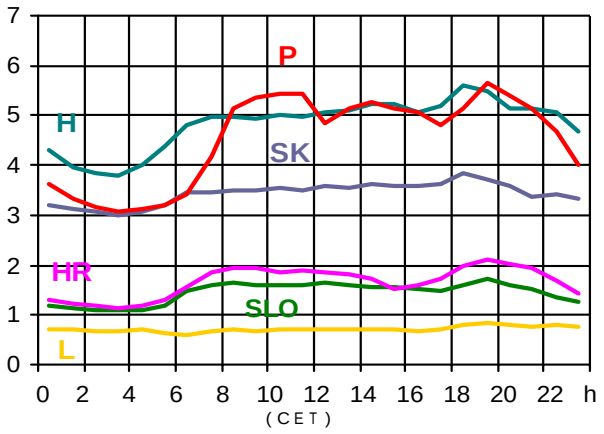

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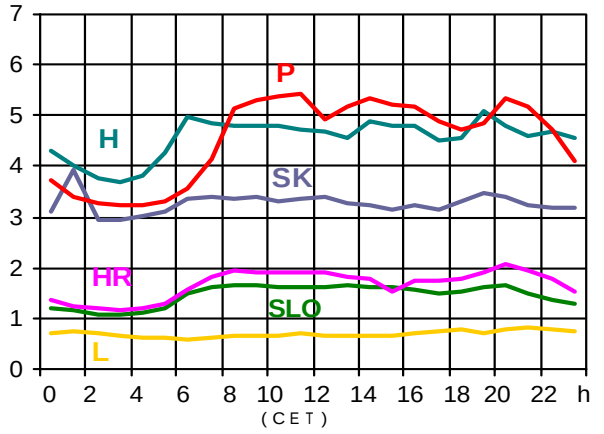

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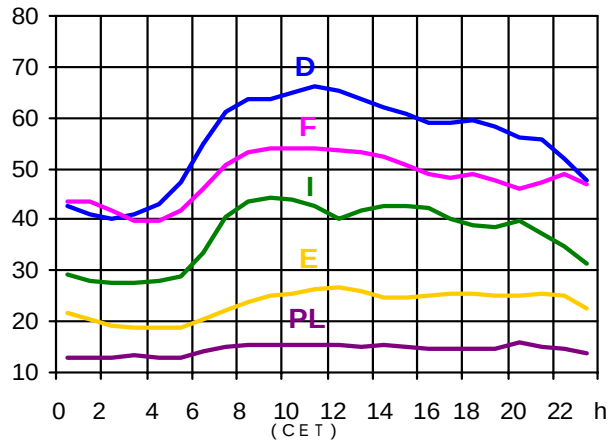
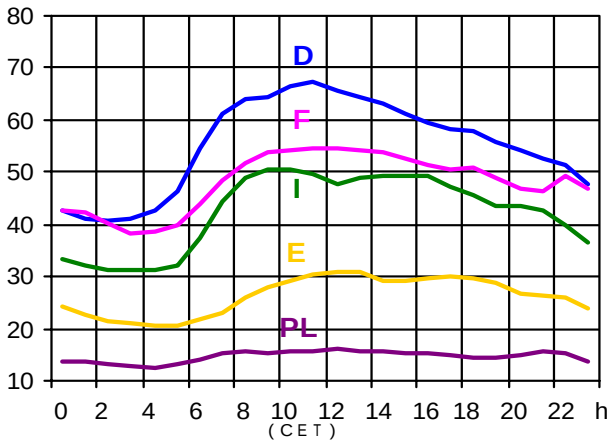


19.06.2002 (in GW)



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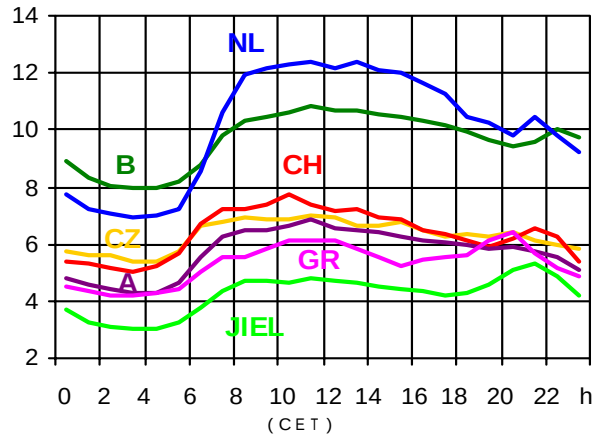

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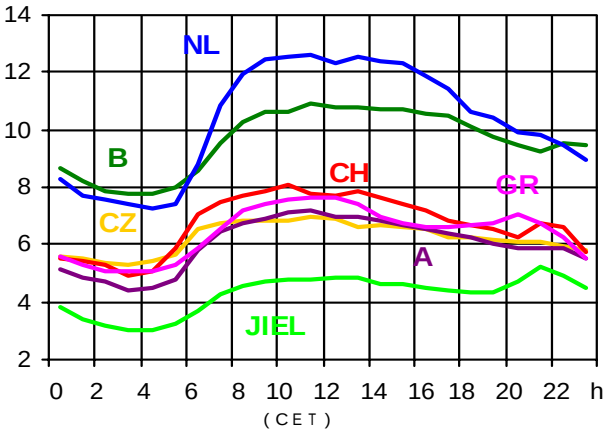

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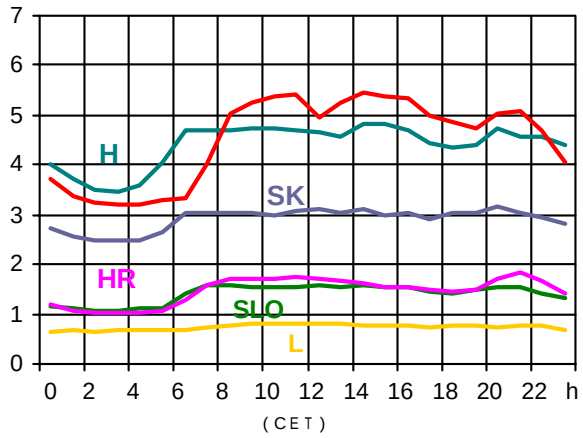

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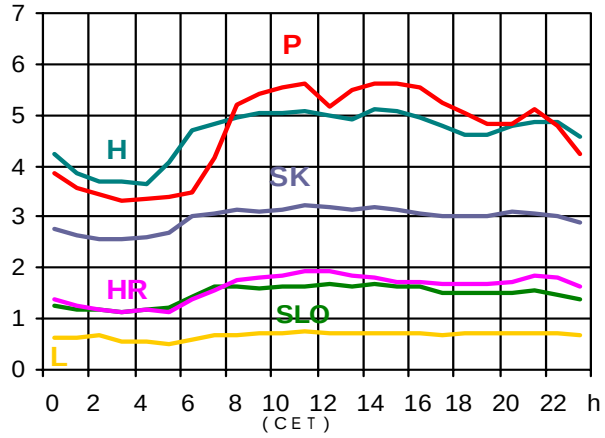
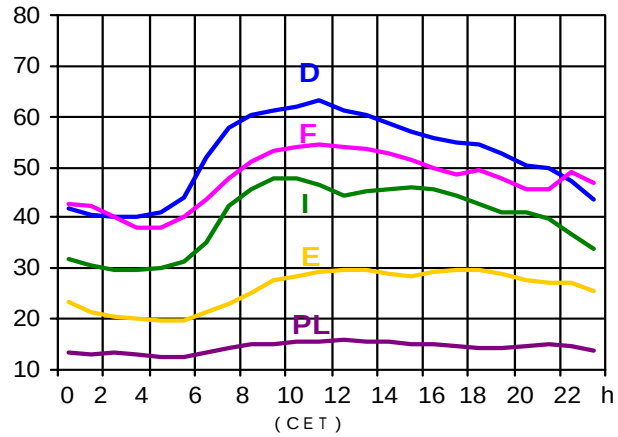
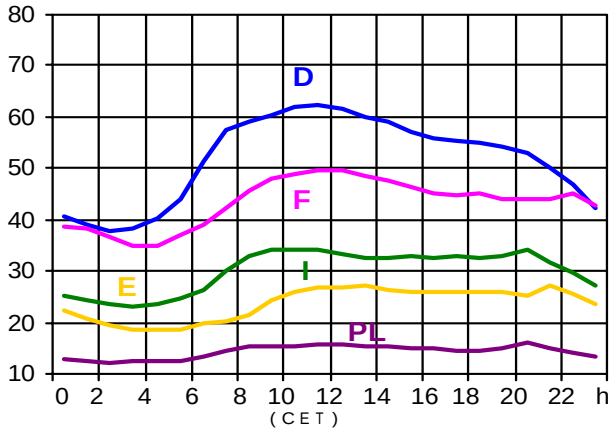


17.07.2002 (in GW)



21.08.2002 (in GW)



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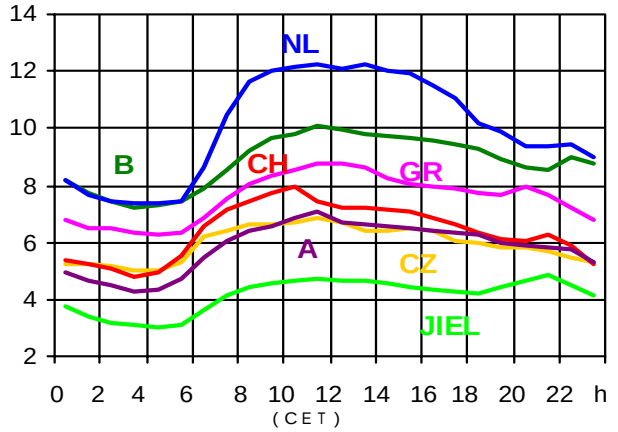
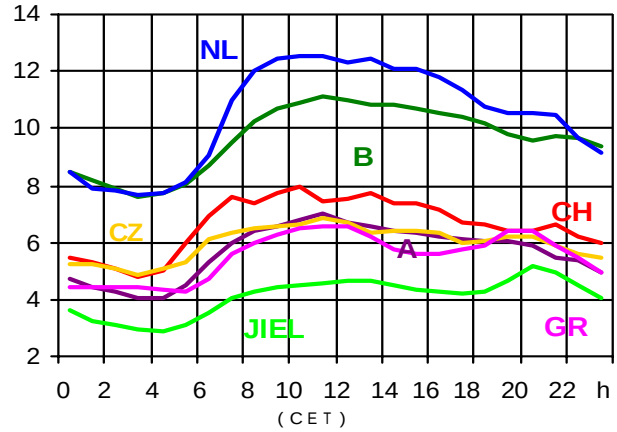
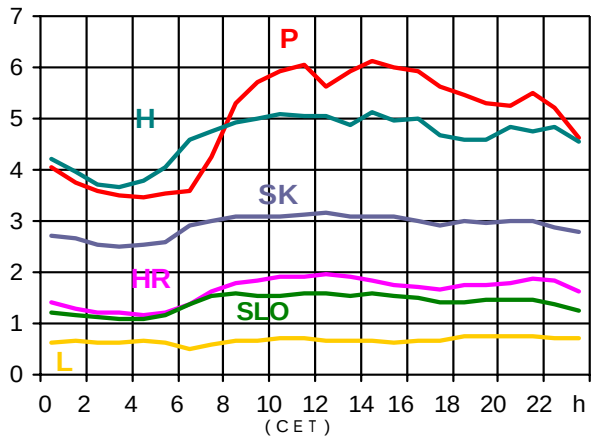


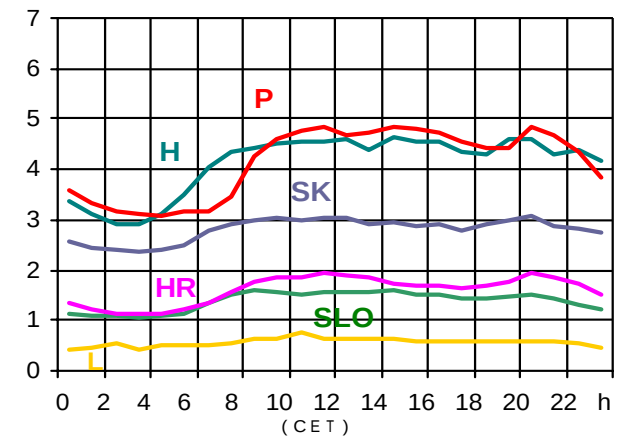
21.08.2002 (in GW)



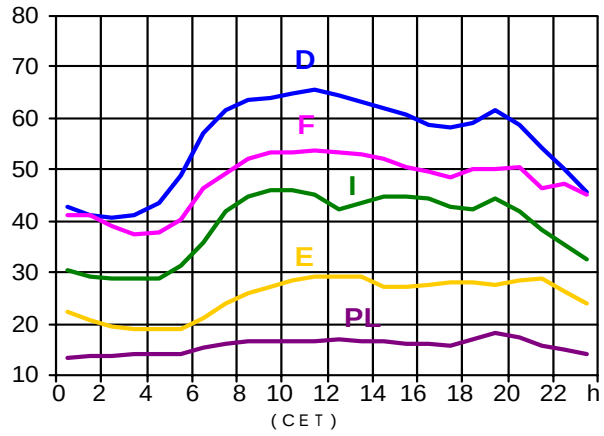
17.07.2002 (in GW)



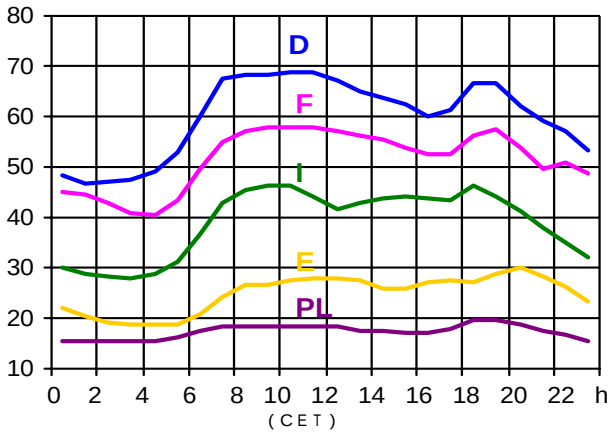
21.08.2002 (in GW)



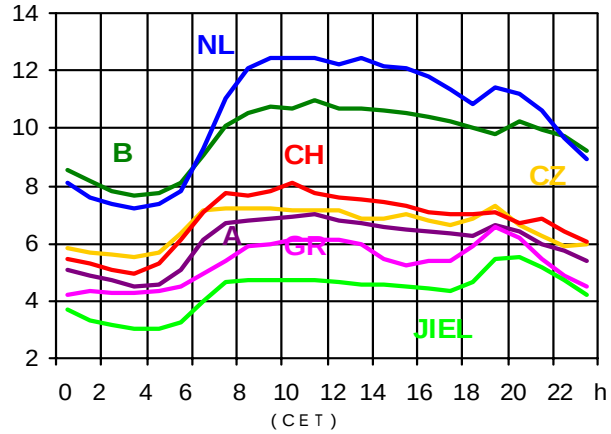
18.09.2002 (in GW)



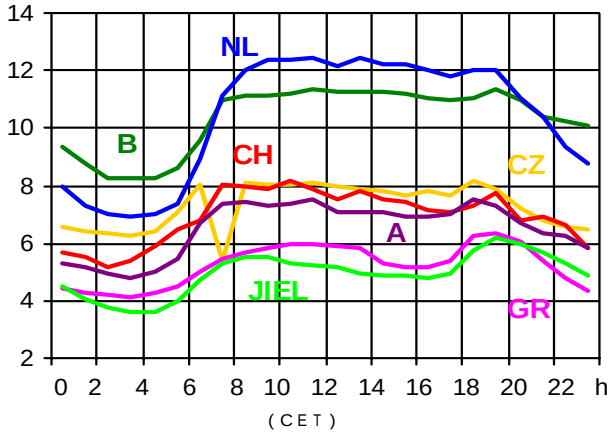
16.10.2002 (en/in GW)



18.09.2002 (in GW)



16.10.2002 (in GW)



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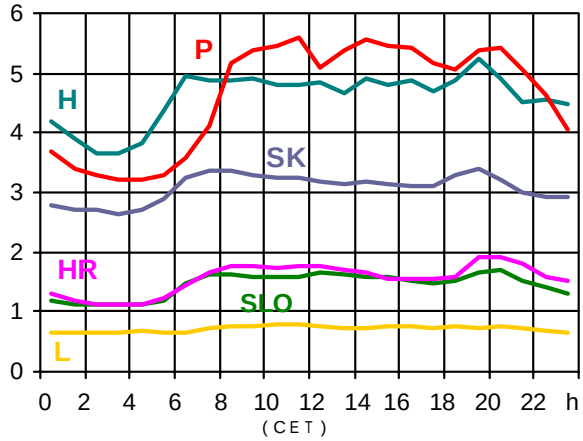
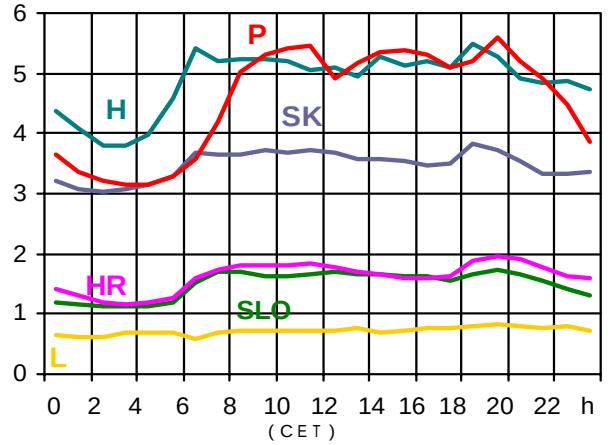
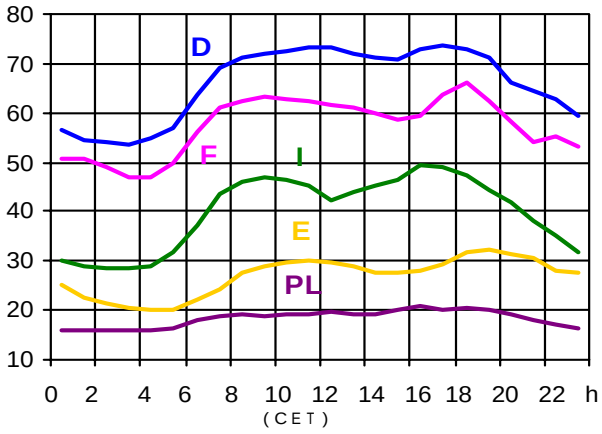


16.10.2002 (in GW)



20.11.2002 (in GW)



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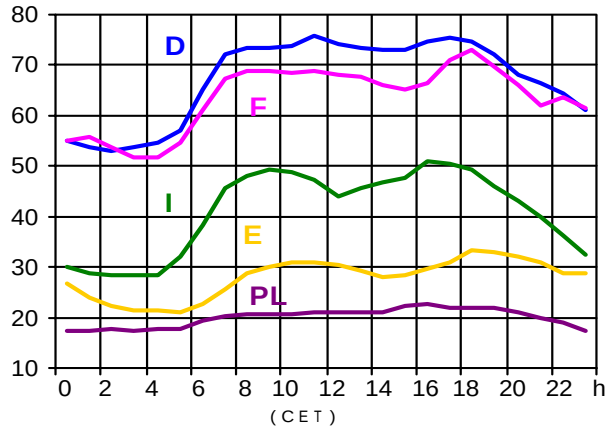
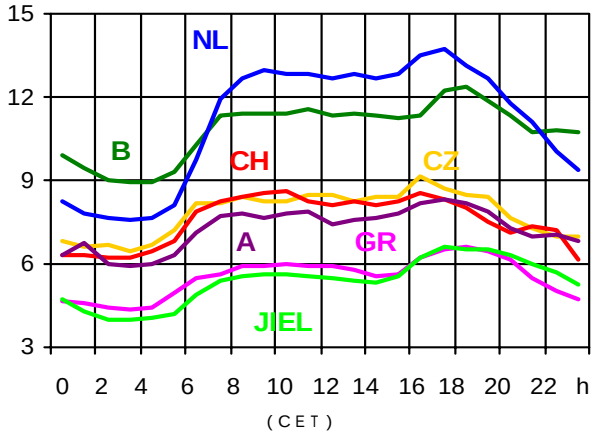
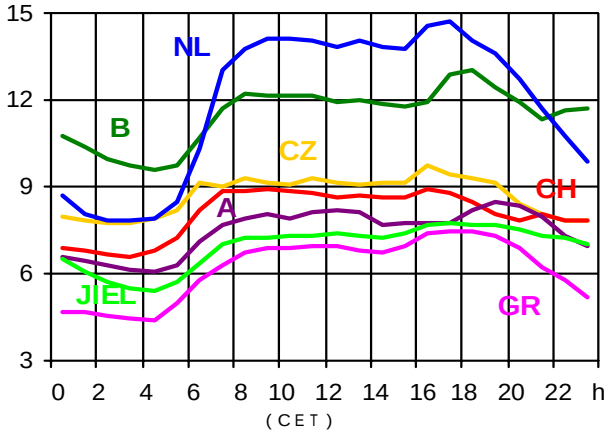


20.11.2002 (in GW)



18.12.2002 (in GW)



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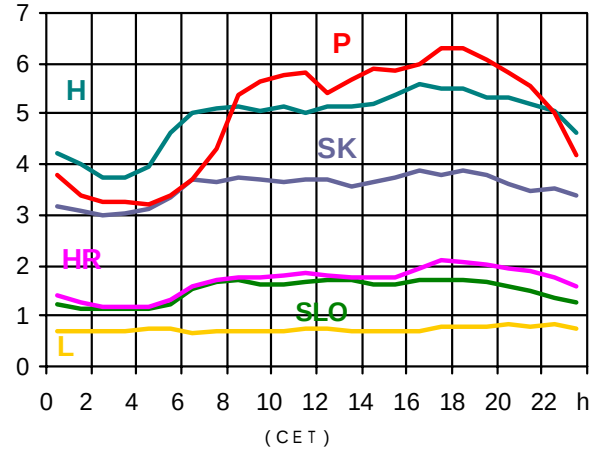

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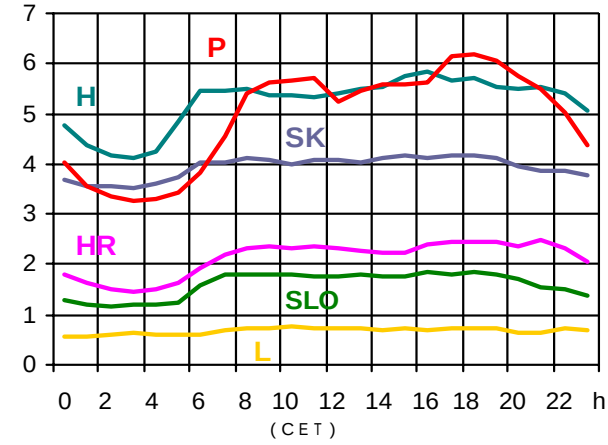


TABLES AND GRAPHS

3

Tables and graphs

III

Country	Thermal conventional TWh	%	Thermal nuclear TWh	%	Hydropower TWh	%	Total [1] TWh
B[5]	31,6	40,5	45,1	57,6	1,5	1,9	78,2 [2]
D	325,1	64,5	155,0	30,8	23,8	4,7	503,9 [2]
E	125,3	59,4	60,3	28,4	26,0	12,2	212,5 [2]
F	40,9	7,4	415,5	80,4	60,2	11,7	516,6
GR	41,6	92,5	-	-	3,4	7,5	45,0 [2]
I	223,0	82,5	-	-	47,3	17,5	270,3
SLO	4,7	36,0	5,3	40,9	3,0	23,1	13,0
HR	5,9	52,5	-	-	5,4	47,5	11,3 [2]
JIEL[3]	28,7	69,7	-	-	12,5	30,3	41,2
L	2,6	72,3	-	-	1,0	27,7	3,6
NL	88,7	96,0	3,7	4,0	-	-	92,4 [2]
A	16,1	31,4	-	-	35,1	68,6	51,2
P	31,1	78,9	-	-	8,3	21,1	39,4 [2]
CH	2,6	4,0	25,7	39,6	36,6	56,4	64,9 [2]
CZ	50,0	71,0	17,6	25,0	2,8	4,0	70,4 [2]
H	19,6	59,6	13,1	39,9	0,2	0,6	32,9 [2]
PL[4]	139,5	97,4	-	-	3,7	2,6	143,2 [2]
SK	8,7	28,6	16,5	54,1	5,3	17,3	30,6 [2]
UCTE[5]	**1186,7**	**53,4**	**757,8**	**34,1**	**276,1**	**12,4**	**2220,6** [2]

[1] Percentage as referred to total values

B	D	E	F	GR	I	SLO	HR	JIEL[3]	L	NL	A	P	CH	CZ	H	PL	SK
100	94	94	97	91	100	95	100	96	98	100	84	91	100	100	100	100	100

[2] Including deliveries from industry
[3] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)
[4] Gross values
[5] Erratum Belgean values thermal conventional production updated as of 11December 2003

Year	Thermal conventional TWh	Thermal nuclear TWh	Hydro power TWh	Total 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]	767,2	623,2	257,1	1647,5
1996	767,3	652,9	270,5	1690,6
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	1186,7	757,8	276,1	2220,6

[1] As of September 1995 total German values

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

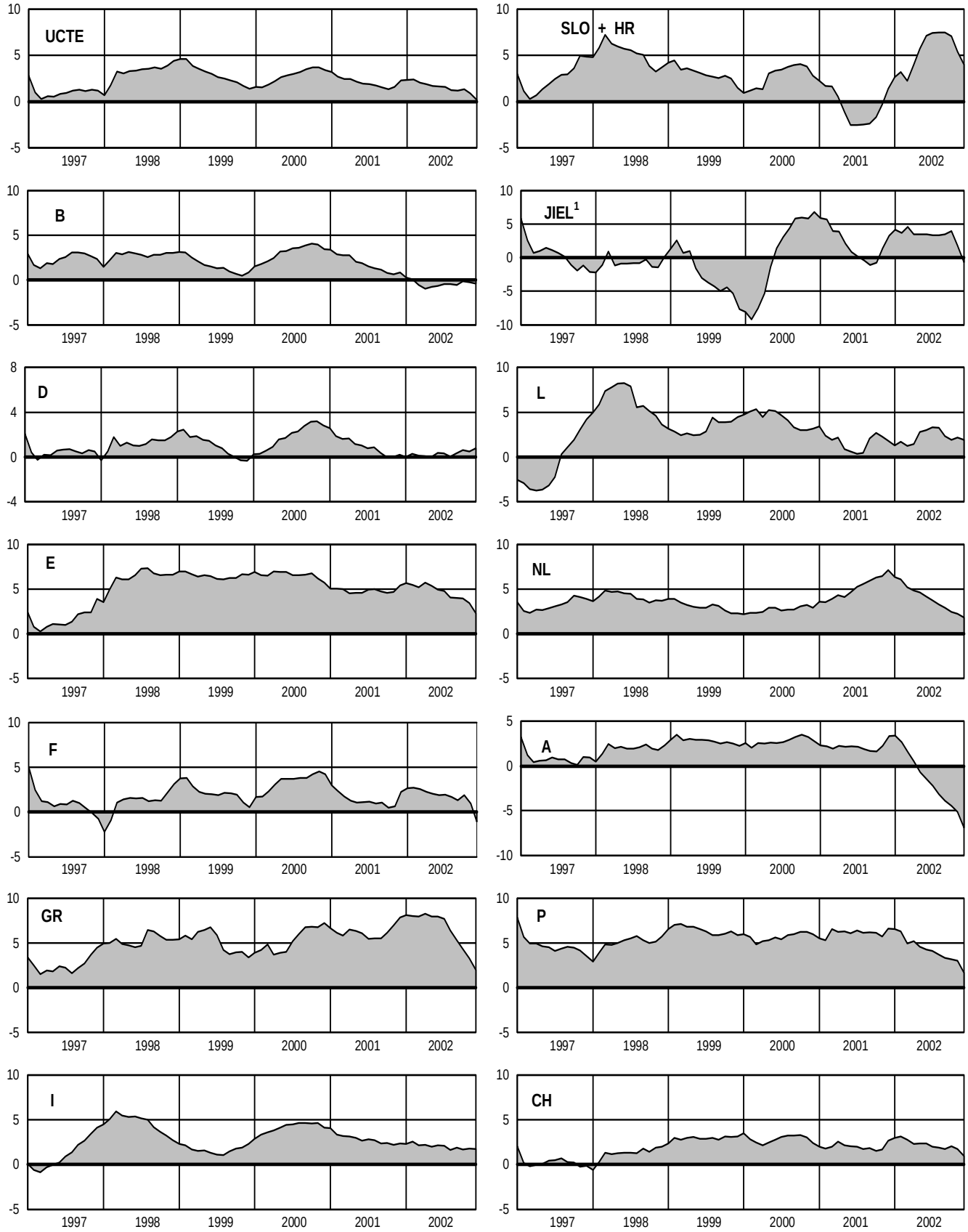
National electricity consumption and peak load

Country	B [3]	D	E	F	GR	I	SLO	HR	JIEL [1]	L	NL	A	P	CH	CZ	H	PL	SK	UCTE [3]
National electricity consumption																			
TWh	84,2	498,6	210,9	432,3	46,9	310,3	11,7	14,7	44,6	6,0	108,7	50,6	40,6	58,4	58,5	37,1	133,9	26,1	2174,9
Δ% [2]	0,8	0,8	2,6	-1,1	2,0	1,8	8,8	2,1	-0,6	1,7	1,0	-6,8	1,8	0,9	-0,2	8,8	-1,0	1,2	0,5
Percentage as refered to total values																			
%	100	94	94	97	91	100	95	100	96	99	100	90	91	100	100	100	100	100	-
Peak load on the 3rd Wednesday in 2002																			
GW	13,1	75,8	33,8	72,9	8,8	50,9	1,8	2,6	8,0	0,9	14,9	8,6	6,5	9,5	9,8	5,9	22,6	4,2	341,1
Month	XII	XII	I	XII	VII	I	XII	I	I	I	XII	XII	I	I	XII	I	XII	XII	XII

Maximum load within UCTE on a 3rd Wednesday:	303,0 GW XII, 7:00 p.m.

[1] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)
[2] As compared to the last year
[3] Erratum Belgean values thermal conventional production updated as of 11December 2003

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



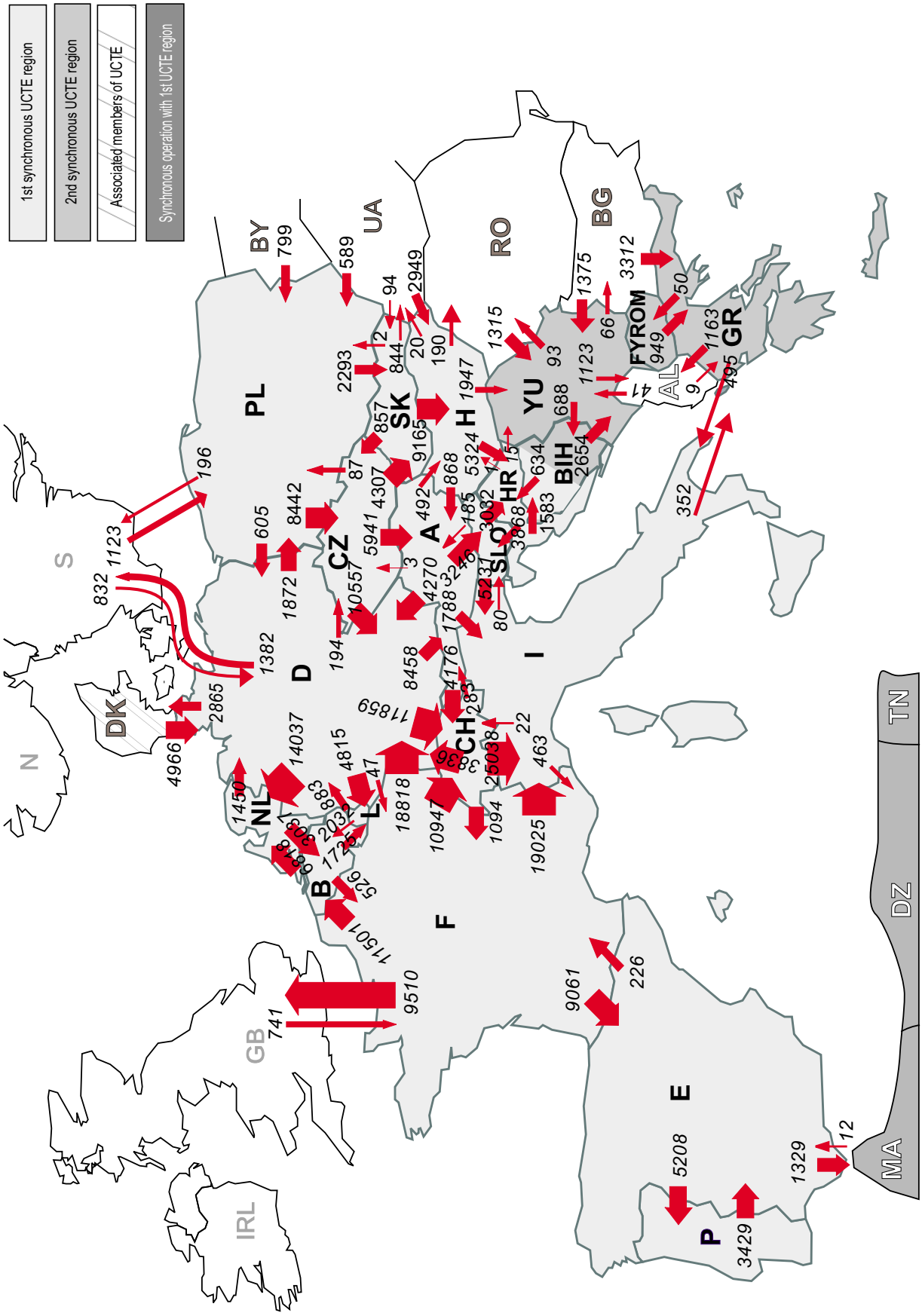
[1]JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

T4 Development of power produced in parallel operation[2]

Month	GW	Month	GW	Month	GW	Month	GW	Month	GW	Month	GW
01/1979	182,2	01/1983	187,7	**01/1987**	**231,7**	01/1991	244,3	01/1995	254,6	01/1999	307,3
02/1979	176,4	**02/1983**	**197,6**	02/1987	215,6	02/1991	242,5	02/1995	235,4	02/1999	313,8
03/1979	167,0	03/1983	180,8	03/1987	208,1	03/1991	214,9	03/1995	237,6	03/1999	291,4
04/1979	162,2	04/1983	172,1	04/1987	195,9	04/1991	216,6	04/1995	227,1	04/1999	285,7
05/1979	151,8	05/1983	167,4	05/1987	193,1	05/1991	214,0	05/1995	223,6	05/1999	273,0
06/1979	154,1	06/1983	165,2	06/1987	189,8	06/1991	211,5	06/1995	220,3	06/1999	280,1
07/1979	145,6	07/1983	158,3	07/1987	188,2	07/1991	208,4	07/1995	220,2	07/1999	277,2
08/1979	***134,7***	***08/1983***	***141,0***	***08/1987***	***167,0***	***08/1991***	***189,7***	***08/1995***	***189,6***	***08/1999***	***255,1***
09/1979	154,9	09/1983	168,3	09/1987	193,4	09/1991	208,9	09/1995	232,7	09/1999	278,0
10/1979	162,0	10/1983	170,5	10/1987	196,5	10/1991	214,5	10/1995	265,4	10/1999	296,2
11/1979	170,6	11/1983	184,3	11/1987	204,7	11/1991	237,5	11/1995	285,4	11/1999	308,5
12/1979	179,2	12/1983	188,7	12/1987	216,1	**12/1991**	**245,3**	**12/1995**	**300,4**	**12/1999**	**319,1**
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	02/1996	302,0	02/2000	312,9
03/1980	172,1	03/1984	182,5	03/1988	208,0	03/1992	219,6	03/1996	284,4	03/2000	297,4
04/1980	162,8	04/1984	174,4	04/1988	194,3	04/1992	223,0	04/1996	266,9	04/2000	293,4
05/1980	159,6	05/1984	174,4	05/1988	192,6	05/1992	208,4	05/1996	264,3	05/2000	285,5
06/1980	156,7	06/1984	169,3	06/1988	193,3	06/1992	201,7	06/1996	263,3	06/2000	296,2
07/1980	153,6	07/1984	164,0	07/1988	188,4	07/1992	205,5	07/1996	259,0	07/2000	285,4
08/1980	***139,0***	***08/1984***	***152,5***	***08/1988***	***171,3***	***08/1992***	***187,4***	***08/1996***	***241,9***	***08/2000***	***259,1***
09/1980	160,8	09/1984	175,7	09/1988	197,9	09/1992	209,3	09/1996	267,5	09/2000	290,1
10/1980	167,2	10/1984	175,2	10/1988	197,5	10/1992	226,1	10/1996	276,0	10/2000	298,7
11/1980	173,7	11/1984	187,8	11/1988	215,8	11/1992	229,5	11/1996	296,7	11/2000	316,4
12/1980	183,7	12/1984	196,6	**12/1988**	**227,7**	12/1992	235,7	12/1996	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**

[1] With CENTREL-countries from 10/1995 on and Denmark from 01/1990
[2] On the Third Wednesday at 11 a.m.
[3] as of September 1995 total German values

Physical energy flows 2002 in GWh



T5a Development of physical exchanges on tie lines

Year	Sum of electricity exchanges within the UCTE	Part of exchanges in the consumption of the UCTE	Sum of electricity exchanges with CENTREL	Part of exchanges with CENTREL in the consumption of the UCTE	Volume of exchanges with third countries[1]	Part of exchanges with third countries in the consumption of the UCTE	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	115,7	8,0			24,0	1,7	139,7	9,7
1991	116,0	7,8			28,6	1,9	144,6	9,7
1992	117,6	7,8			27,8	1,9	145,4	9,7
1993	124,6	8,3			26,1	1,7	150,6	10,0
1994	129,6	8,1			26,1	1,6	155,7	9,8
1995 [2]	137,3	8,4	11,9	0,7	23,1	1,5	172,3	10,6
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	146,5	8,4	14,0	0,8	25,4	1,5	185,9	10,7
1999	159,6	9,0	16,5	0,9	29,7	1,7	205,8	11,5
2000	173,8	9,5	22,1	1,2	29,6	1,6	225,5	13,8
2001	187,3	9,8	48,2	2,5	33,7	1,8	269,2	14,1
2002	250,9	11,5			36,9	1,7	287,8	13,2

[1] Import + export
[2] As of September 1995 total German values.

Control area	Prog_exp	Prog_imp	Prog_exp3	Prog_imp3	Prog_exp11	Prog_imp11
B	3432788	10988430	2721	12786	3868	13679
D	28865324	31477564	37528	35529	32285	75756
E	3847700	9086767	4663	13860	3682	13439
F	91850736	15943841	119844	19403	126929	19628
GR	1004066	3868782	1502	4372	897	6220
I	916864	51568812	476	70500	940	69890
SLO[1]	228927	23146	241	125	370	90
HR	1288058	9012790	2365	6549	2566	7004
JIEL[2]	2895867	7416409	4348	7627	4461	11228
NL	6515272	22973411	14775	28948	5289	34157
A	9706862	10151465	14743	10740	15056	15290
P	717253	2593948	368	3756	1833	3002
CH	31010239	27928557	34244	46023	59203	33683
CZ	17878794	5666914	26843	7790	24428	8661
H	7281815	11500868	9562	13395	10816	18415
PL	8481136	1623201	8874	919	20286	3291
SK	7218784	2731676	8439	2554	10665	4703

- 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.

- Prog_exp: Sum of all positive values of every hour of every border
- Prog_imp: Sum of all negative values of every hour of every border

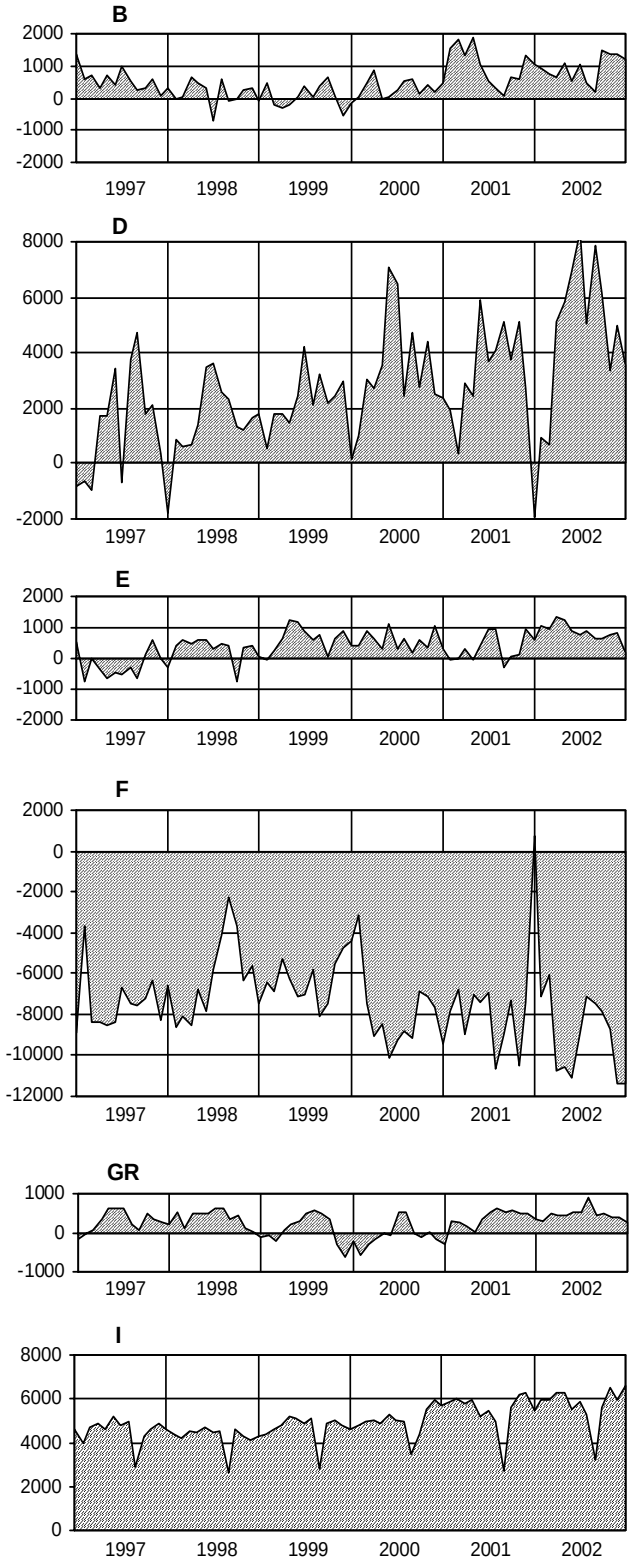
- Prog_exp3: Sum of all positive values the third Wednesday from 02:00 to 03:00 a.m.
- Prog_imp3: Sum of all negative values the third Wednesday from 02:00 to 03:00 a.m.

- Prog_exp11: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.
- Prog_imp11: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

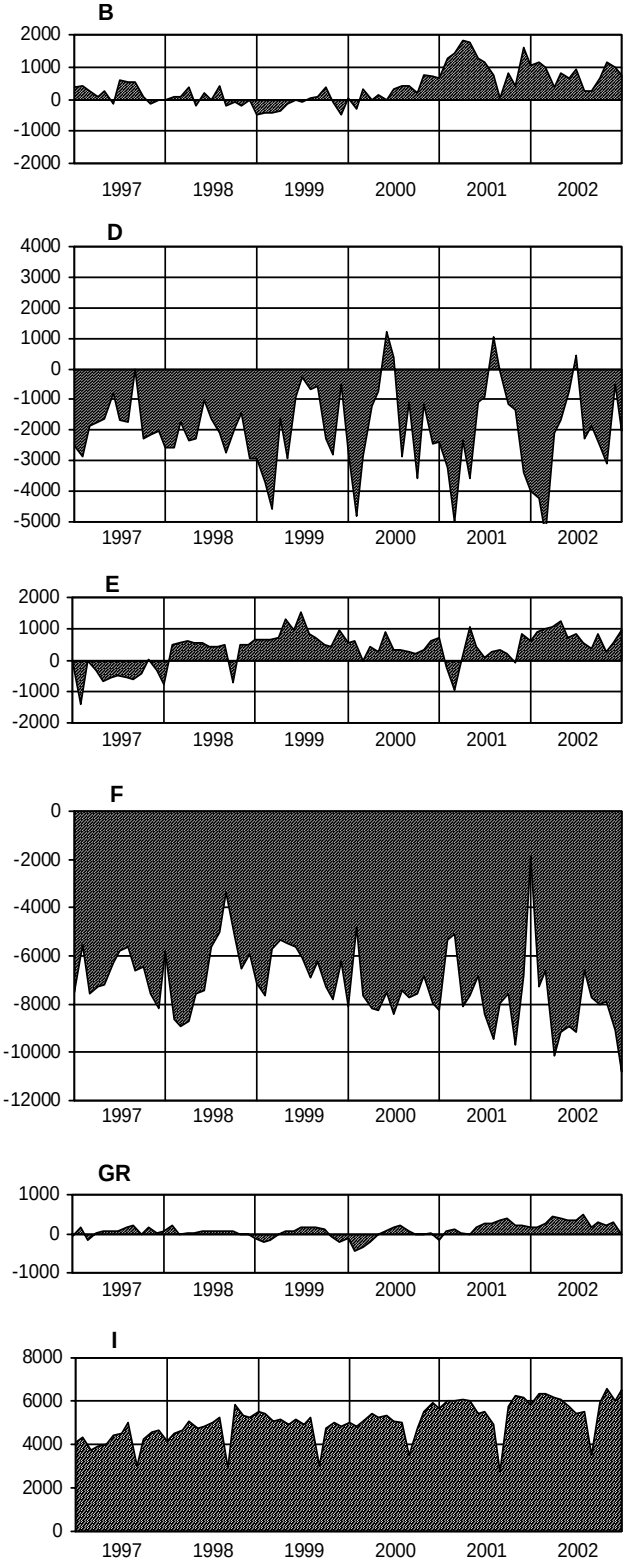
[1] Values only as of December 2002
[2] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

G3 Balance of the simultaneous power flows across the frontiers of the UCTE countries

11:00 Day load in MW [1]



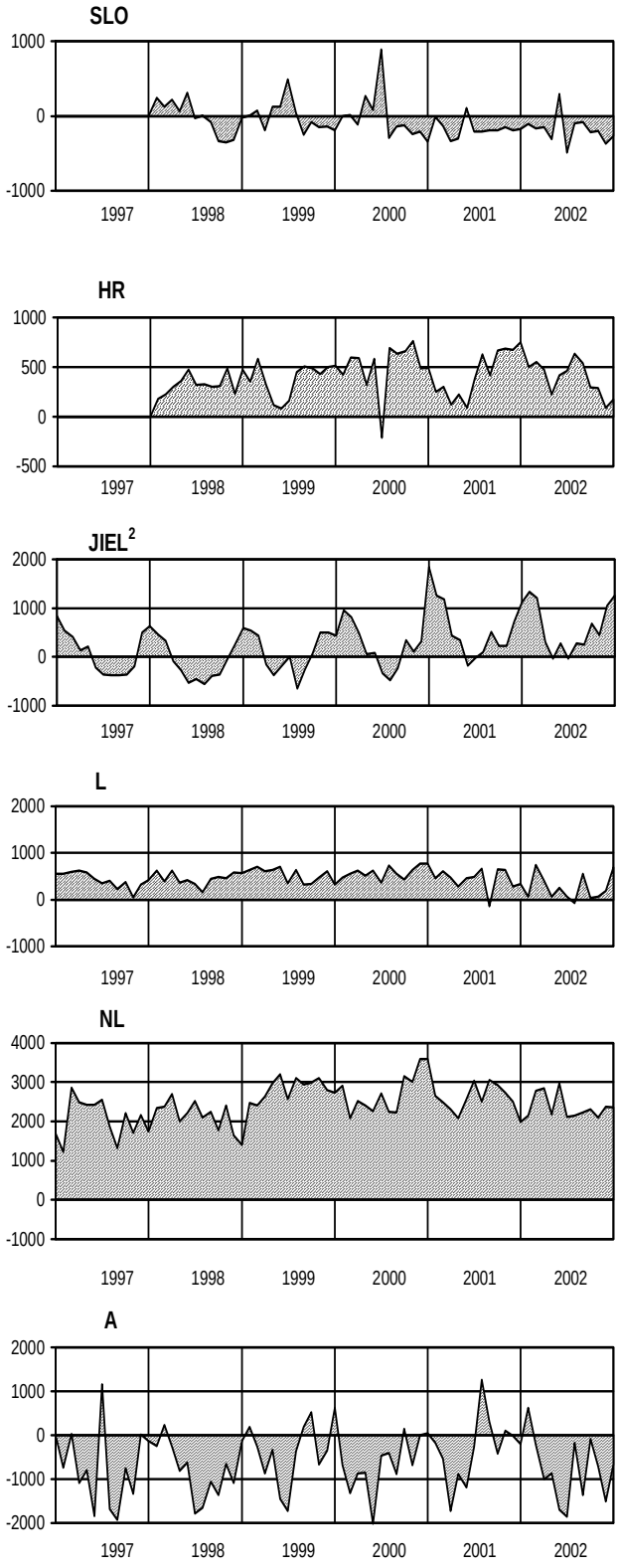
03:00 Night load in MW [1]



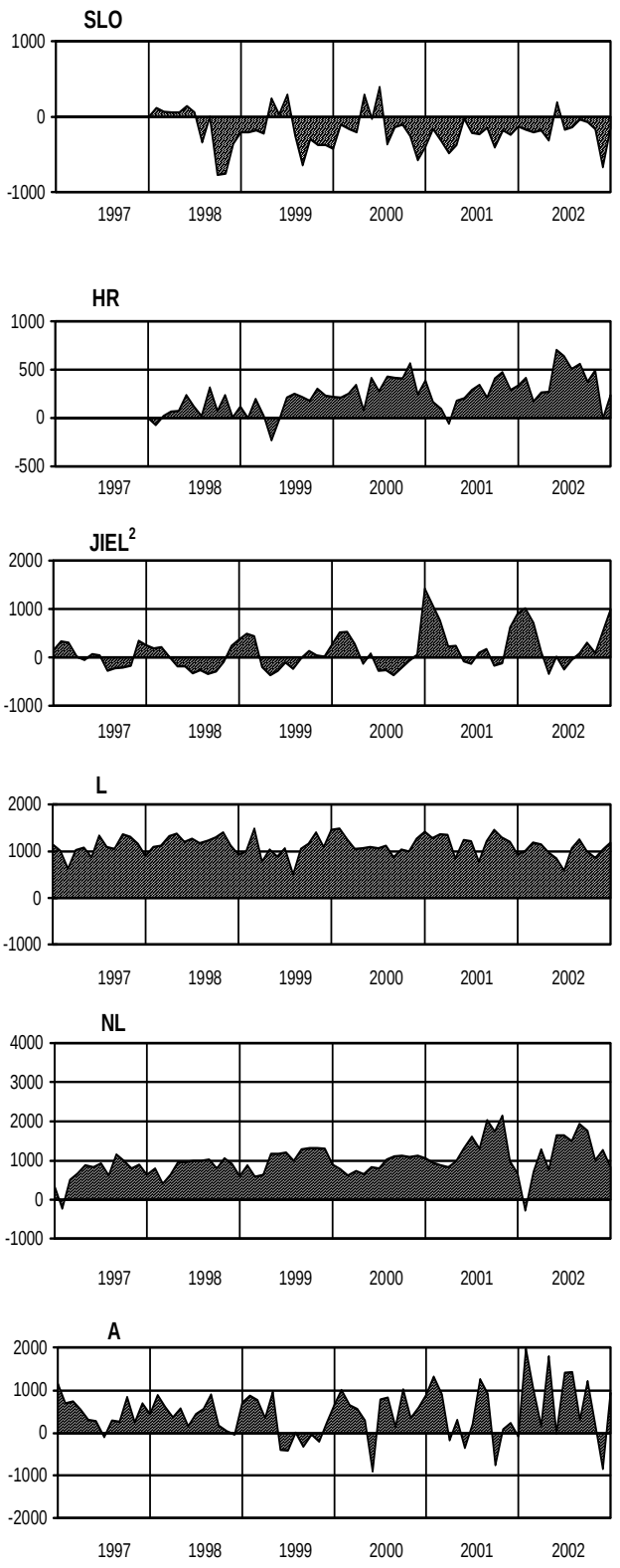
[1] On the third Wednesday of each month

G3 Balance of the simultaneous power flows across the frontiers of the UCTE countries

11:00 Day load in MW [1]



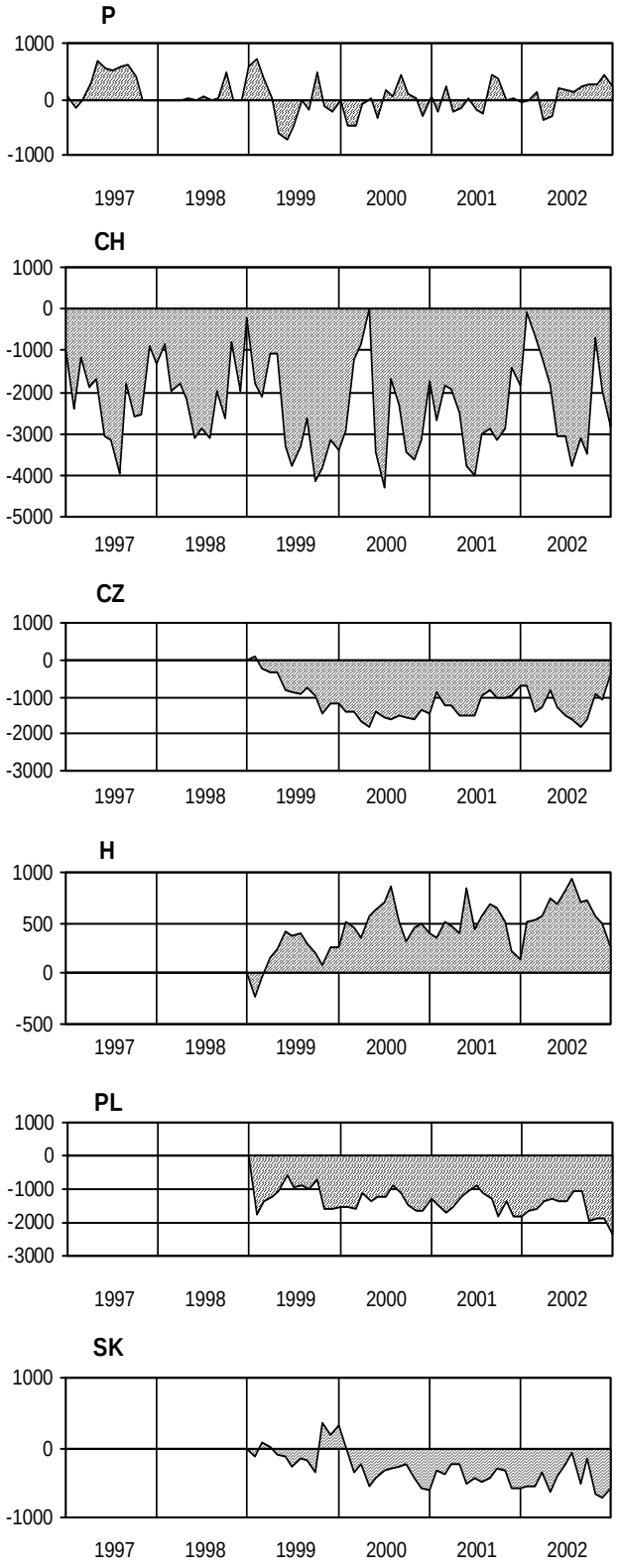
03:00 Night load in MW [1]



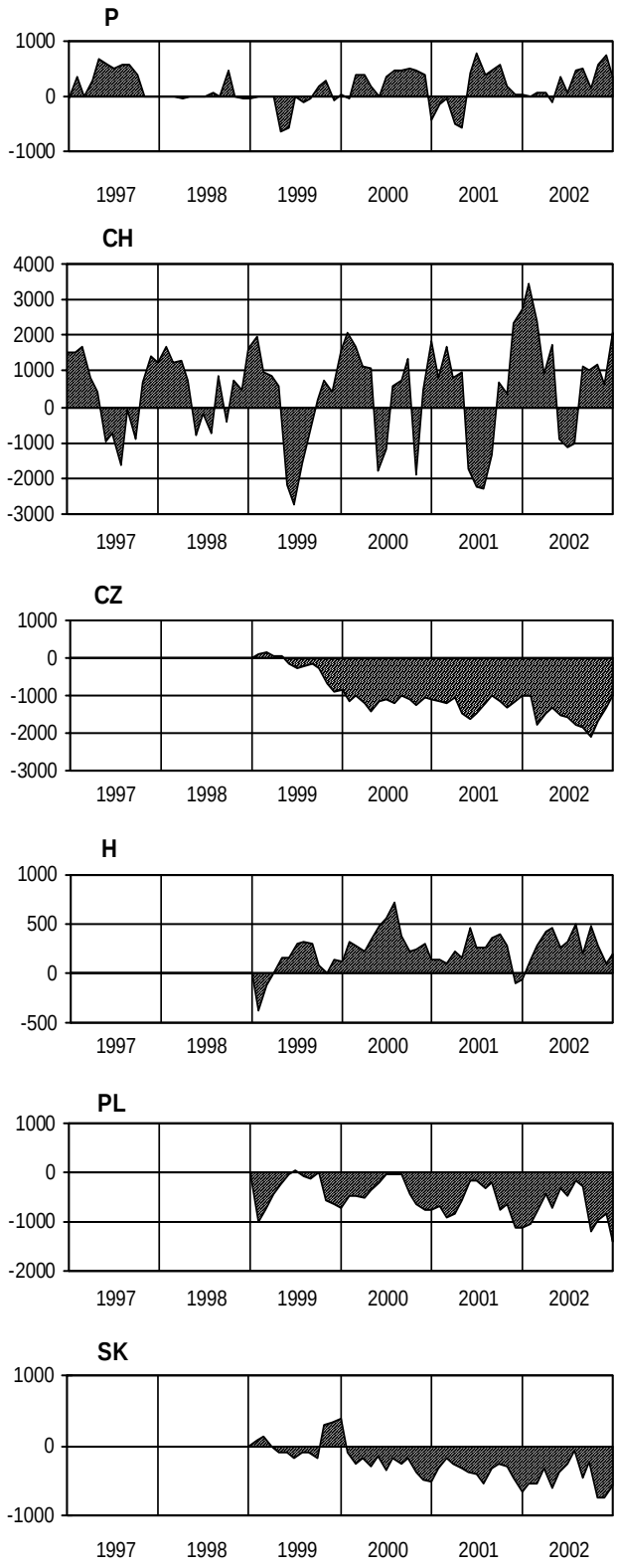
[1] On the third Wednesday of each month [2] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

G3 Balance of the simultaneous power flows across the frontiers of the UCTE countries

11:00 Day load in MW [1]



03:00 Night load in MW [1]



[1] On the third Wednesday of each month

T6 Development of the balance of the simultaneous power flows across the frontiers of the UCTE countries [1]

MW

Date	Night	Day
I.1997	13010	13793
II.1997	12783	15933
III.1997	13335	15550
IV.1997	11233	16288
V.1997	12919	15683
VI.1997	12449	16262
VII.1997	11202	13830
VIII.1997	12568	13323
IX.1997	14406	11862
X.1997	15399	14128
XI.1997	14833	11945
XII.1997	16007	14586
I.1998	15555	13722
II.1998	16940	15466
III.1998	16355	13243
IV.1998	14437	16598
V.1998	14712	15916
VI.1998	14362	14600
VII.1998	12536	12312
VIII.1998	15578	14850
IX.1998	15522	13736
X.1998	15403	12851
XI.1998	17083	14025
XII.1998	21123	17015
I.1999	21252	17534
II.1999	17417	17127
III.1999	20073	19794
IV.1999	14474	18864
V.1999	14431	20463
VI.1999	15639	20839
VII.1999	12434	19254
VIII.1999	16786	20777
IX.1999	18977	20359
X.1999	18498	19327
XI.1999	20882	16896
XII.1999	23060	19068

Date	Night	Day
I.2000	22850	21819
II.2000	22093	21531
III.2000	21157	22637
IV.2000	16876	24117
V.2000	19424	24901
VI.2000	20813	22313
VII.2000	17619	21690
VIII.2000	20759	21659
IX.2000	18545	23033
X.2000	22600	24104
XI.2000	25668	25207
XII.2000	26717	23446
I.2001	27495	24599
II.2001	23754	23337
III.2001	24153	20842
IV.2001	20325	23384
V.2001	21564	25618
VI.2001[2]	19787	26556
VII.2001	18161	23105
VIII.2001	25063	24623
IX.2001	25449	26176
X.2001	29571	25714
XI.2001	28908	22882
XII.2001	30064	25404
I.2002	29554	26445
II.2002	24245	26957
III.2002	26676	26086
IV.2002	23225	27213
V.2002	22256	25805
VI.2002	24841	26256
VII.2002	22433	24416
VIII.2002	27487	24607
IX.2002	25034	26326
X.2002	23347	27427
XI.2002	28907	27574
XII.2002	25294	21127

[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 with CENTREL values

T7 Maximum output capacity on 31.12.2002

Country	Thermal conventional MW	%	Thermal nuclear MW	%	Hydropower MW	%	Other sources[1] MW	Total MW	%
B	8226	-0.3	5761	0.4	1413	0.7	223	15623	-0.2
D	68200	0.3	20700	0.0	8500	0.0	4000	101400	0.7
E	26780	8.9	7574	0.0	17915	0.2	4924	57193	6.6
F	23533	-0.2	63273	0.1	23864	0.0	424	111094	0.0
GR	6776	7.6			3060	-1.0	174	10010	4.9
I	55100	1.0			20439	0.0	1411	76950	1.0
SLO	1074	60.3	685	-44.8	774	-0.5		2533	-5.8
HR	1631	0.0			2075	0.0		3706	0.0
JIEL[2]	6753	0.0			3893	0.0		10646	0.0
L	466	1.3			1128	0.0	20	1614	0.4
NL	17954	3.5	449	0.0	37	0.0	1901	20341	4.8
A	5900	-4.5			11700	-4.0	260	16860	-3.6
P	5095	0.6			4430	0.5	271	9796	1.3
CH	305	3.4	3220	0.6	13295	0.1	515	17335	0.1
CZ	10503	-1.2	2567	56.8	2123	-0.1	6	15199	5.6
H	5421	-3.3	1772	0.0	46	0.0	387	7626	-2.5
PL	31686	1.6			2156	-1.3	59	33901	1.5
SK	2296	0.1	2640	0.0	2430	0.1	696	8062	0.1
UCTE	**277699**	**1.6**	**108641**	**0.5**	**119278**	**- 0.5**	**15271**	**520889**	**1.3**

[1] Sum of renewable energy sources and not clearly identified energy sources
[2] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Percentage as referred to total values in %

B	D	E	F	GR	I	SLO	HR	JIEL[2]	L	NL	A	P	CH	CZ	H	PL	SK
99	91	100	97	89	100	100	100	96	99	100	100	91	100	100	100	100	100

T8a | **UCTE System Adequacy Retrospect 2002, Power Data** | **UCTE countries** | **Values in GW**

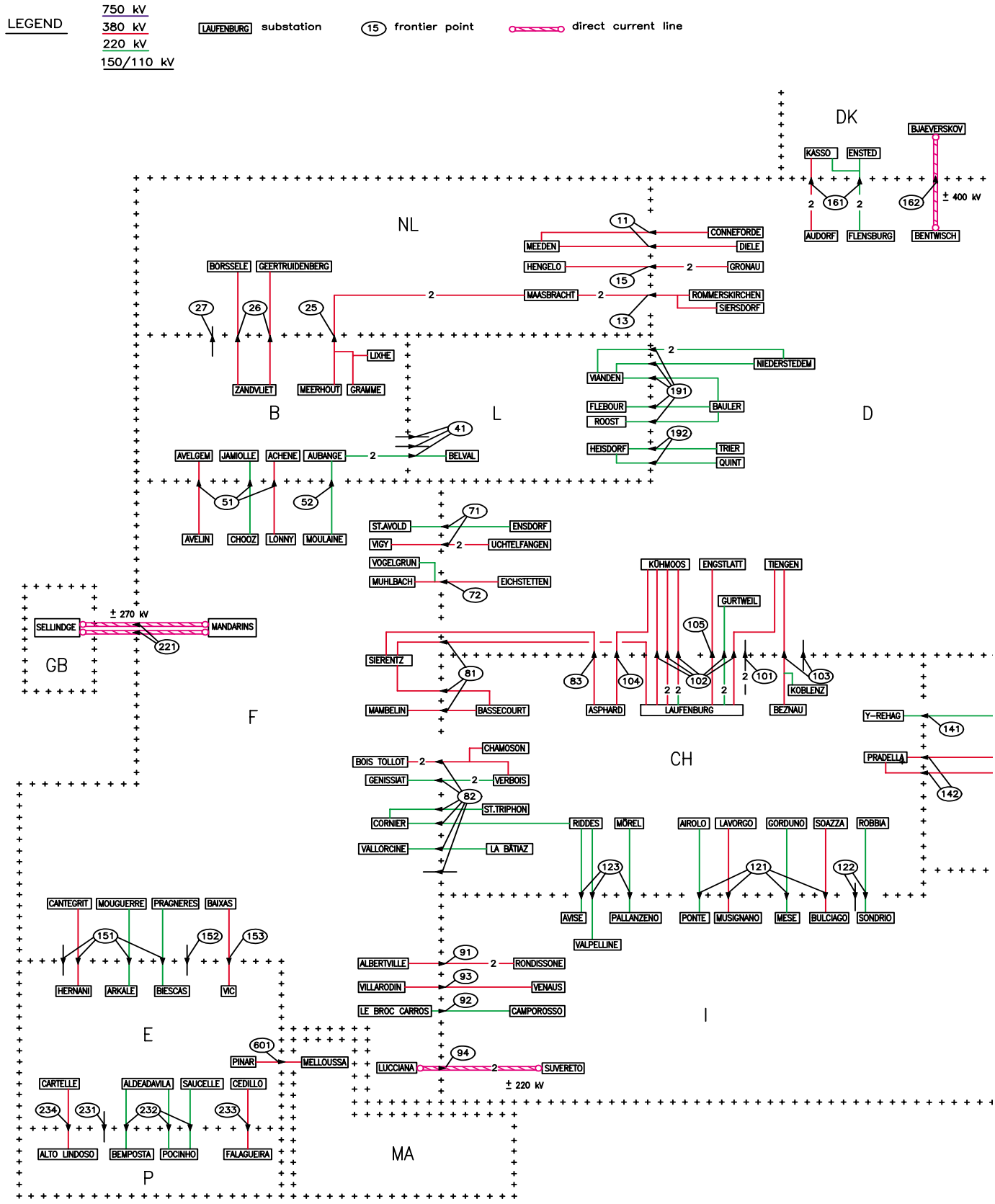
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
National generating capacity												
1. Hydro power stations	119.8	119.6	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7
2. Nuclear power stations	107.6	107.6	107.6	107.7	107.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7
3. Conventional thermal power stations	272.2	272.5	272.5	272.4	272.4	272.2	273.3	272.7	272.8	273.9	273.6	273.8
4. Renewable energy sources	15.6	15.7	15.9	16.5	16.6	17.0	17.3	17.7	18.1	18.8	19.7	20.2
5. Not clearly identifable energy sources	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
6. National generating capacity (6 = 1+2+3+4+5)	**516.9**	**517.1**	**517.4**	**517.9**	**518.1**	**519.4**	**520.7**	**520.5**	**521.1**	**522.8**	**523.5**	**524.1**
7. Non-usable capacity	75.9	77.0	87.5	79.7	78.7	76.9	82.3	100.7	84.2	87.9	78.5	74.3
8. Overhauls (thermal power stations)	15.4	24.1	29.8	43.4	50.8	58.3	52.1	53.9	44.7	36.6	24.3	16.6
9. Outages (thermal power stations)	14.2	15.5	13.7	13.4	17.1	18.2	13.3	19.4	21.4	15.9	14.7	12.2
10. System services reserve	26.6	27.0	26.8	26.5	24.1	24.7	24.0	24.0	24.5	25.8	27.5	26.4
11. Guaranteed capacity (11 = 6-(7+8+9+10))	**384.8**	**373.5**	**359.5**	**354.9**	**347.5**	**341.3**	**349.0**	**322.5**	**346.2**	**356.6**	**378.4**	**394.5**
12. Load	334.5	315.1	293.8	295.0	278.3	294.4	288.4	264.8	289.6	297.3	313.2	335.4
13. Margin against monthly peak load	22.0	16.8	28.7	18.5	18.9	11.7	16.4	27.0	20.8	23.8	28.8	30.9
14. Remaining capacity without exchanges (14 = 11-12)	**50.3**	**58.4**	**66.8**	**60.0**	**69.2**	**46.9**	**60.6**	**57.7**	**56.7**	**59.3**	**65.2**	**59.1**
Physical exchanges												
15. Import	33.5	33.6	32.3	32.1	33.0	32.6	35.2	31.2	33.5	30.6	34.1	34.6
16. Export	30.1	28.0	30.9	30.8	33.5	32.3	31.3	30.7	30.1	30.7	32.9	33.6
17. **Physical exchange balance (17=15-16)**	**3.5**	**5.6**	**1.4**	**1.3**	**- 0.5**	**0.2**	**3.9**	**0.6**	**3.4**	**0.0**	**1.2**	**1.0**
18. Remaining capacity with exchange (18=14+17)	**53.8**	**64.0**	**68.2**	**61.2**	**68.7**	**47.1**	**64.5**	**58.3**	**60.1**	**59.2**	**66.4**	**60.1**

T8b | **UCTE System Adequacy Retrospect 2002, Energy Data** | **UCTE countries** | **Values in TWh**

	B	D[9]	E	F	GR	I	SLO	HR	JIEL	L	NL	A*	P	CH*	CZ	H	PL	SK	UCTE
Generation																			
1. Hydro power stations	1.4	23.8	26.0	59.7	3.4	47.4	3.0	5.4	12.5	1.0	-	35.1	8.0	36.6	2.8	0.2	3.7	5.3	**275.4**
2. Nuclear power stations	45.0	155.0	60.3	415.5	-	-	5.3	-	-	-	3.7	-	-	25.7	17.6	13.1	-	16.5	**757.7**
3. Conventional thermal power stations	31.5	319.1	114.5	40.2	41.3	217.4	4.7	5.9	28.7	2.6	88.5	16.1	30.7	2.6	50.0	17.5	139.5	5.9	**1156.5**
4. Renewable energy sources	0.1	6.0	11.1	1.2	0.3	5.5	-	-	-	-	-	-	0.8	-	-	-	0.1	-	**25.0**
of which, wind	-	-	9.0	-	0.3	1.1	-	-	-	-	-	-	0.4	-	-	-	0.1	-	**10.9**
5. Not clearly identifable energy sources	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	2.9	**5.0**
6. Total (6=1+2+3+4+5)	**77.9**	**503.9**	**211.9**	**516.6**	**45.0**	**270.3**	**13.0**	**11.3**	**41.2**	**3.6**	**92.1**	**51.2**	**39.4**	**64.9**	**70.4**	**32.9**	**143.3**	**30.6**	**2219.7**
7. Exchanges (7 = 7a+7b)	**7.5**	**0.7**	**5.3**	**- 76.9**	**2.9**	**50.7**	**- 1.3**	**3.5**	**4.4**	**3.7**	**16.4**	**1.7**	**1.9**	**- 3.2**	**- 11.4**	**4.3**	**- 7.1**	**- 4.2**	**- 1.1**
7a.Import	16.6	46.2	12.5	3.0	4.6	51.6	7.2	3.9	7.4	6.6	20.9	15.6	5.3	27.0	9.5	12.6	4.5	6.7	**261.7**
7b.Export	9.1	45.5	7.2	79.9	1.7	0.9	8.4	0.4	2.9	2.9	4.5	14.5	3.4	30.3	20.9	8.3	11.5	10.9	**262.8**
8. Pumped storage	1.5	6.0	7.0	7.4	0.9	10.6	-	0.1	1.0	1.2	-	1.0	0.7	2.4	0.5	-	2.2	0.3	**42.7**
9. Consumption (9 = 6+7-8)	**83.9**	**498.6**	**210.3**	**432.4**	**47.0**	**310.4**	**11.7**	**14.7**	**44.6**	**6.1**	**108.5**	**51.9**	**40.7**	**59.2**	**58.5**	**37.2**	**134.0**	**26.1**	**2175.9**

* estimeted values

[9] For the interpretation of value, account must be taken of the fact official statistics usually comprise only values of units 1 MW or more. Consequently, the major part of generation from renewable energy sources is not included in line 4. Waste which by definition belongs to renewable energy sources has a predominant share indicated in the Table for generation from renewables. Wind energy supplies are estimated at about 17 TWh in 2002 (11 TWh in 2001).


LEGEND
750 kV
380 kV
220 kV
150/110 kV
LAUFENBURG substation
15 frontier point
direct current line
DK
NL
B
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D
GB
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CH
E
P
I
MA
BJAEVERSKOV
KASSO
ENSTED
AUDORF
FLENSBURG
BENTWISCH
± 400 kV
CONNEFORDE
DIELE
MEEDEN
HENGELO
GRONAU
MAASBRACHT
ROMMERSKIRCHEN
SIERSDORF
BORSSELE
GEERTRUIDENBERG
ZANDVLIET
MEERHOUT
GRAMME
LIXHE
NIEDERSTEDEM
VIANDEN
FLEBOUR
BAULER
ROOST
HEISDORF
TRIER
QUINT
AVELGEM
JAMIOLLE
ACHENE
AUBANGE
BELVAL
AVELIN
CHOOZ
LONNY
MOULAINE
ST.AVOLD
ENSDORF
VIGY
UCHTELFANGEN
VOGELGRUN
MUHLBACH
EICHSTETTEN
SELLINDGE
± 270 kV
MANDARINS
SIERENTZ
MAMBELIN
BASSECOURT
KÜHMOOS
ENGSTLATT
TIENGEN
GURTWEIL
ASPHARD
LAUFENBURG
BEZNAU
KOBLENZ
Y-REHAG
PRADELLA
CHAMOSON
BOIS TOLLOT
GENISSIAT
VERBOIS
ST.TRIPHON
CORNIER
VALLORCINE
LA BÂTIAZ
RIDDES
MÖREL
AVISE
PALLANZENO
VALPELLINE
AIROLO
LAVORGO
GORDUNO
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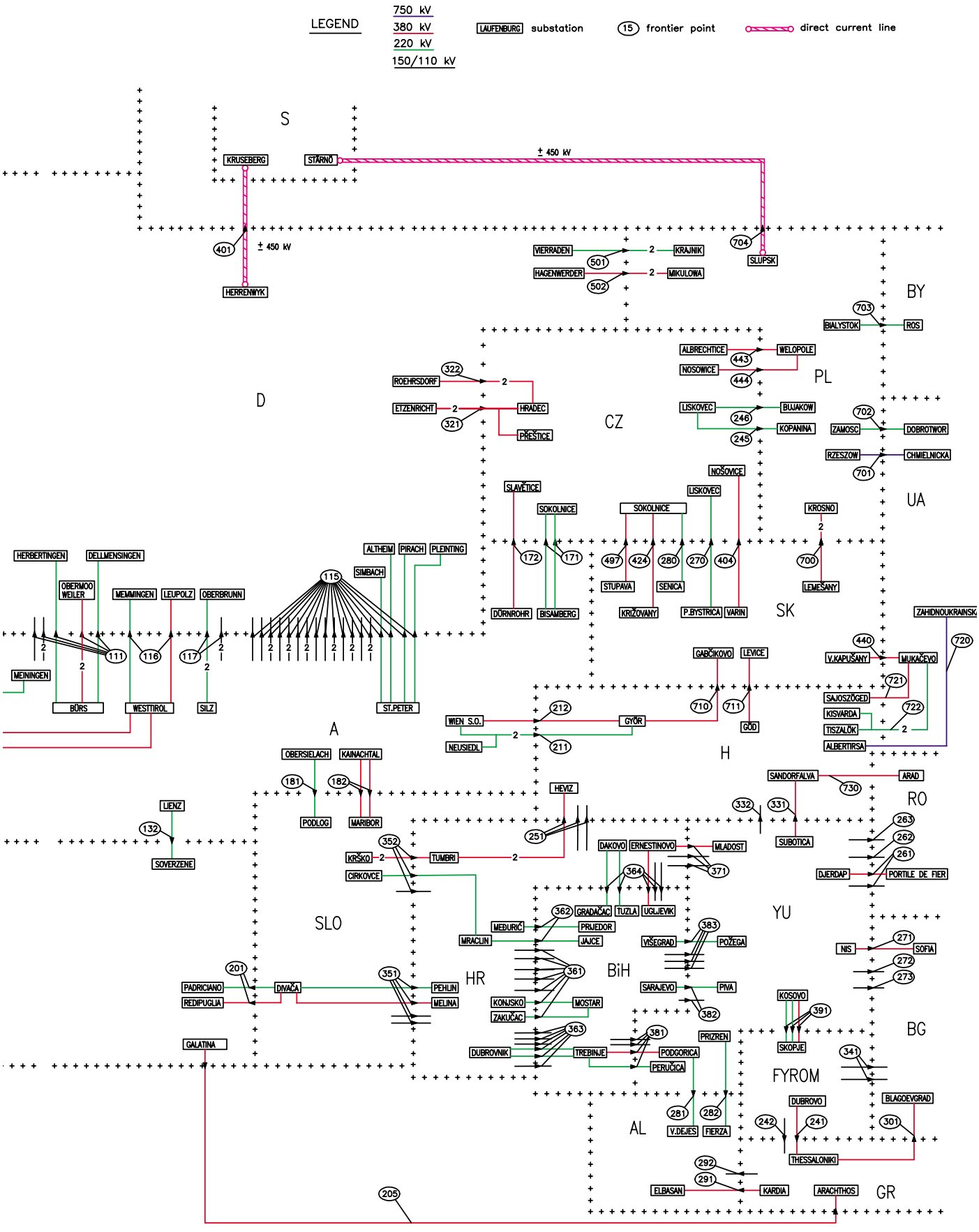
MESE
BULCIAGO
SONDRIO
CANTEGRIT
MOUGUERRE
PRAGNERES
BAIXAS
HERNANI
ARKALE
BIESCAS
VIC
ALBERTVILLE
RONDISSONE
VILLARODIN
VENAUS
LE BROC CARROS
CAMPOROSSO
PINAR
MELLOUSSA
LUCCIANA
SUVERETO
± 220 kV
CARTELLE
ALDEADAVILA
SAUCELLE
CEDILLO
ALTO LINDOSO
BEMPOSTA
POCINHO
FALAGUEIRA


LEGEND
750 kV
380 kV
220 kV
150/110 kV
LAUFENBURG substation
15 frontier point
direct current line
S
KRUSEBERG
STÄRNÖ
± 450 kV
401
HERRENWYK
VIERRADEN
HAGENWERDER
501
502
KRAJNIK
MIKULOWA
704
SLUPSK
BY
BIALYSTOK
703
ROS
ALBRECHTICE
NOSOWICE
443
444
WELOPOLE
PL
D
ROEHRSDORF
ETZENRICHT
322
321
HRADEC
PŘEŠTICE
CZ
LISKOVEC
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245
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KOPANINA
702
ZAMOSC
DOBROTWOR
RZESZOW
CHMIELNICKA
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LISKOVEC
SLAVĚTICE
SOKOLNICE
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KROSNO
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171
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270
404
700
STUPAVA
SENICA
LEMEŠANY
DÜRNROHR
BISAMBERG
KRIŽOVANY
P.BYSTRICA
VARIN
SK
HERBERTINGEN
DELLMENSINGEN
OBERMOOWEILER
MEMMINGEN
LEUPOLZ
OBERBRUNN
ALTHEIM
PIRACH
PLEINTING
SIMBACH
115
111
116
117
MEININGEN
BÜRS
WESTTIROL
SILZ
ST.PETER
ZAHIDNOUKRAINSK
720
GABČIKOVO
LEVICE
440
V.KAPUŠANY
MUKAČEVO
721
SAJOSZÖGED
722
KISVARDA
TISZALÖK
ALBERTIRSA
710
711
GÖD
WIEN S.O.
NEUSIEDL
212
211
GYÖR
A
H
OBERSIELACH
KAINACHTAL
181
182
PODLOG
MARIBOR
HEVIZ
251
SANDORFALVA
ARAD
730
RO
332
331
SUBOTICA
LIENZ
132
SOVERZENE
352
KRŠKO
TUMBRI
CIRKOVCE
DAKOVO
ERNESTINOVO
MLADOST
364
371
263
262
261
DJERDAP
PORTILE DE FIER
SLO
362
GRADAČAC
TUZLA
UGLJEVIK
YU
MEĐURIĆ
PRIJEDOR
MRACLIN
JAJCE
383
VIŠEGRAD
POŽEGA
NIS
271
SOFIA
272
273
201
PADRICIANO
REDIPUGLIA
DIVAČA
351
PEHLIN
MELINA
HR
361
BiH
SARAJEVO
PIVA
KONJSKO
MOSTAR
ZAKUČAC
382
KOSOVO
391
SKOPJE
BG
GALATINA
363
DUBROVNIK
TREBINJE
381
PODGORICA
PERUČICA
PRIZREN
341
FYROM
DUBROVO
BLAGOEVGRAD
242
241
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FIERZA
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THESSALONIKI
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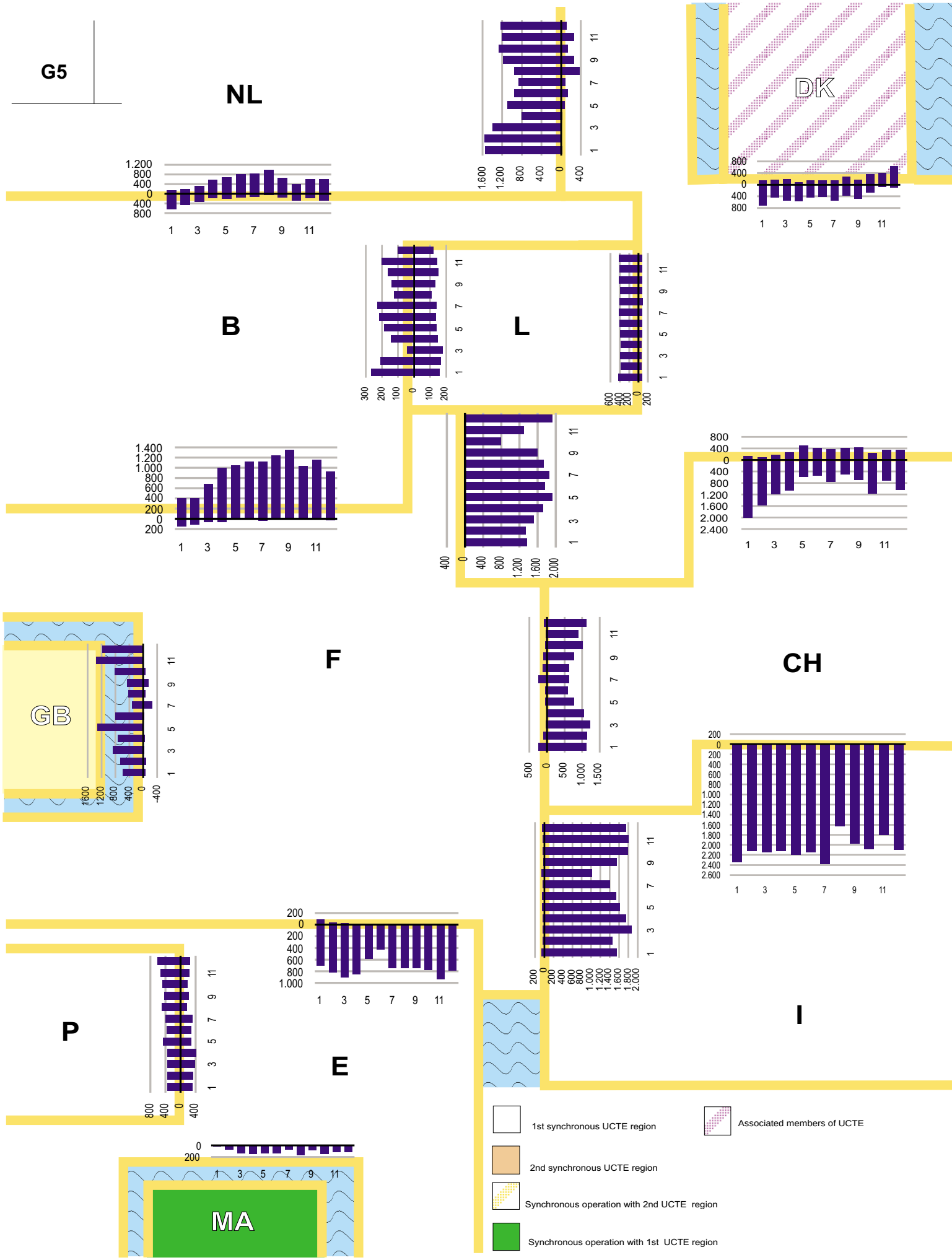
291
ELBASAN
KARDIA
ARACHTHOS
GR
205


G5
NL
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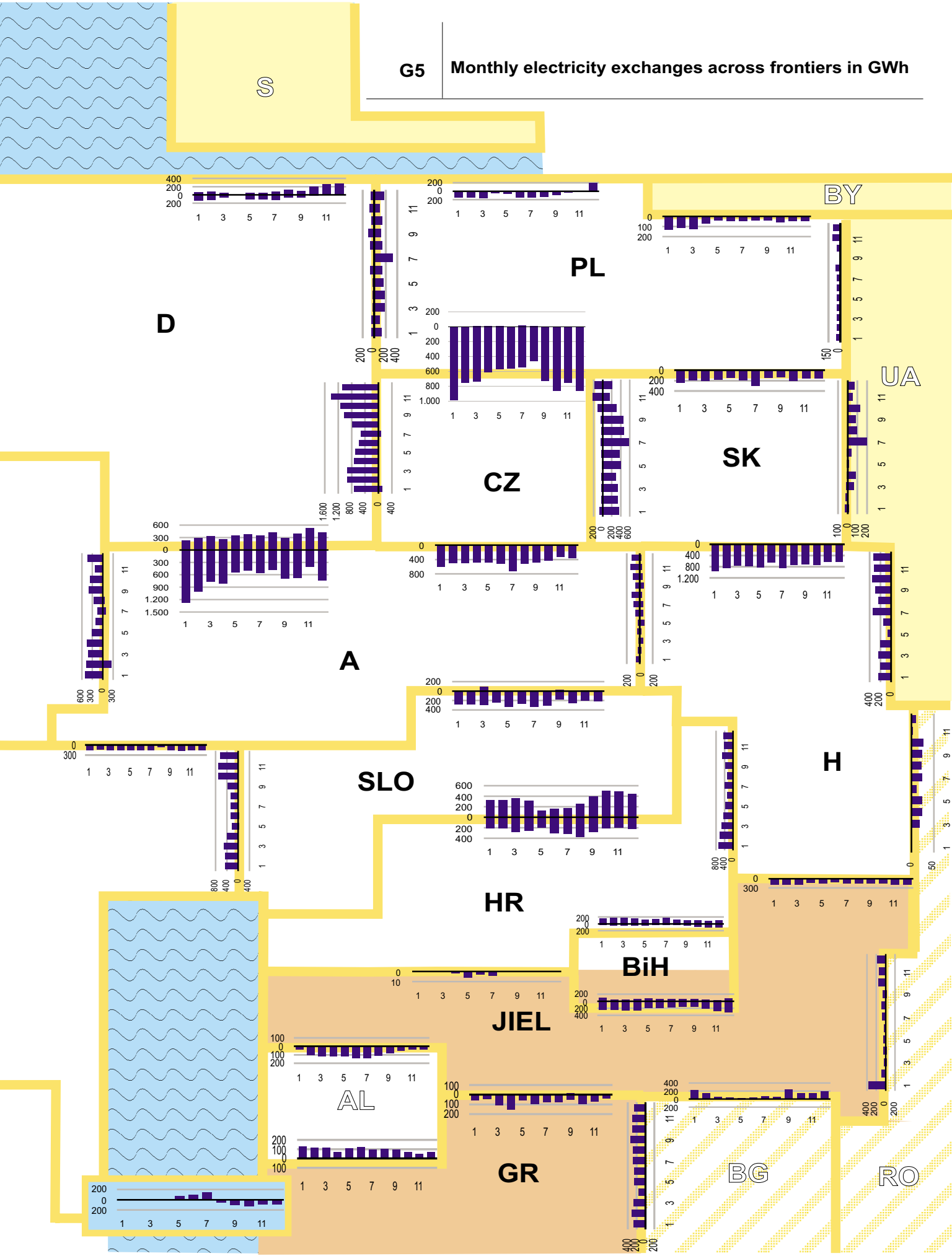
1st synchronous UCTE region
2nd synchronous UCTE region
Synchronous operation with 2nd UCTE region
Synchronous operation with 1st UCTE region
Associated members of UCTE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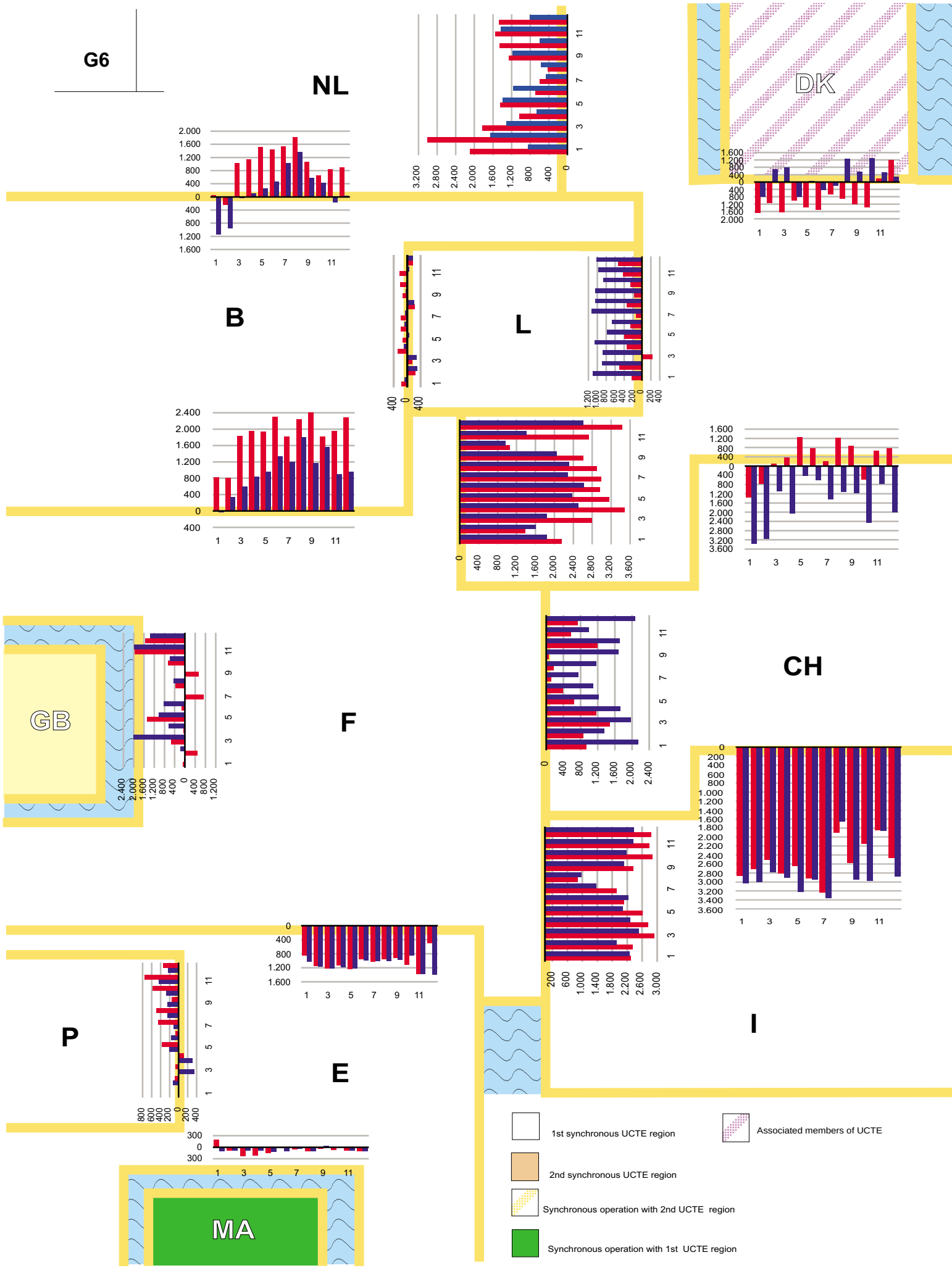
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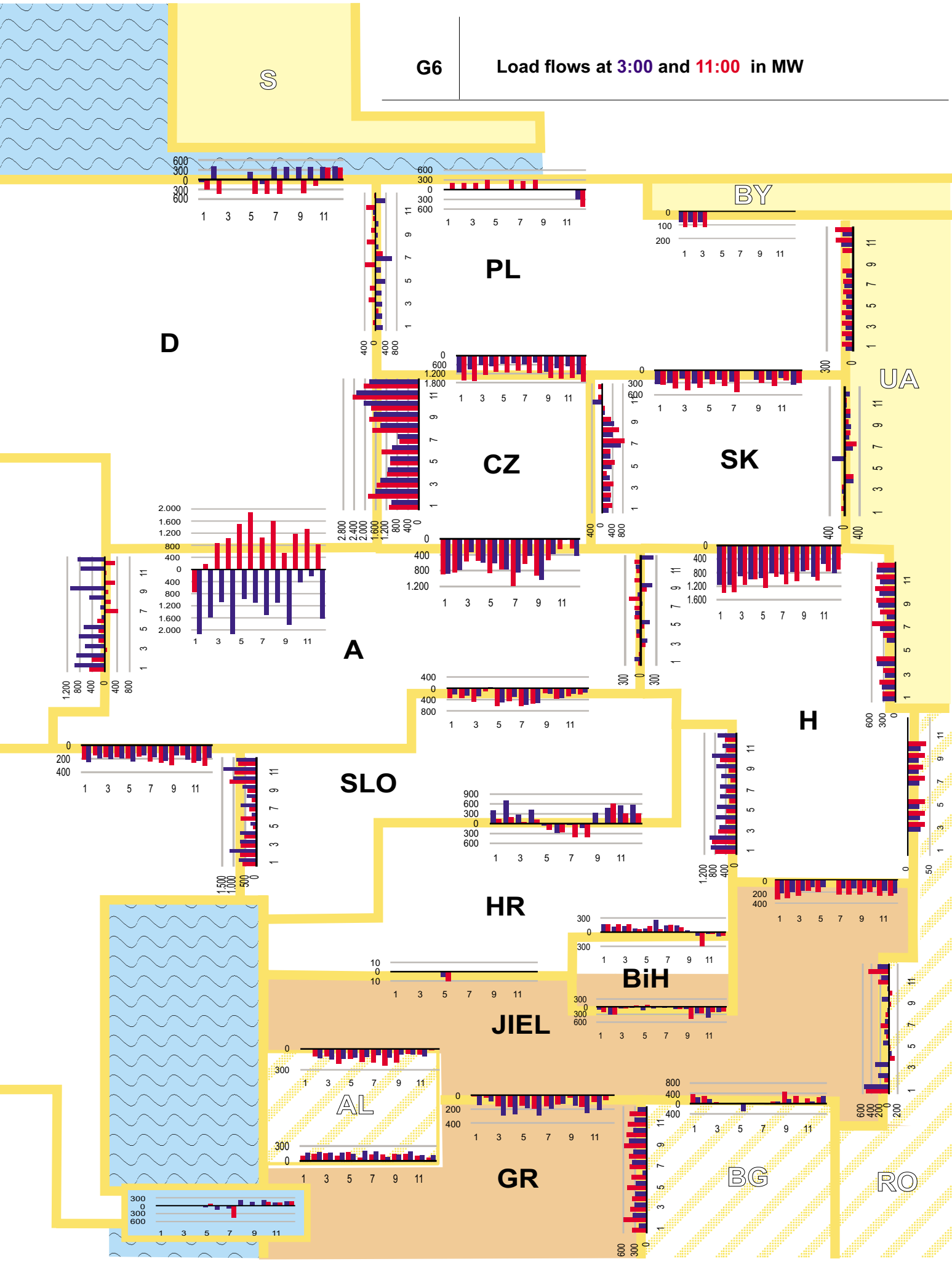
1st synchronous UCTE region
2nd synchronous UCTE region
Synchronous operation with 2nd UCTE region
Synchronous operation with 1st UCTE region
Associated members of UCTE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	Observations
[1]	Limited by transformer with regulation in quadrature in Meeden
[2]	Limited by transformer with regulation in quadrature in Meeden
[3]	Limited by transformer with regulation in quadrature in Gronau
[4]	Limited by transformer with regulation in quadrature in Gronau
[5]	Transformer in Borssele
[6]	Transformer in Jamiolle
[7]	(220/150)
[8]	Installed in Verbois
[9]	(380/220)
[10]	Cross-border power station
[11]	(220/130)
[12]	Cross-border power station
[13]	(220/130)
[14]	Cross-border power station
[15]	(220/130)
[16]	Line property EnBW Netz in Germany Partially on the same tower as line Asphard-Kühmoos or Sierentz-Laufenburg
[17]	DC link with three connections
[18]	Transforming station of Lucciana in Corsica
[19]	DC link with three connections
[20]	Transforming station of Lucciana in Corsica
[21]	Partially on the same tower as the Laufenbourg-Engstlatt line (No. 105.1)
[22]	Transducer
[23]	Transducer
[24]	On the same tower as line No. 81 Laufenbourg-Sierentz 380 kV
[25]	Sag of conductor taken into consideration
[26]	From Kühmoos to Laufenbourg on the same tower
[27]	Disconnector
[28]	Limited by protection device
[29]	From Kühmoos to Laufenbourg on the same tower
[30]	On the same tower as line Sierentz-Laufenburg
[31]	Limited by switching devices in Austria

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
11	1	1	D	Diele	E.ON Netz	NL	Meeden	TenneT
11	2	1	D	Conneforde	E.ON Netz	NL	Meeden	TenneT
13	1	1	D	Siersdorf	RWE Net	NL	Maasbracht	TenneT
13	1	2	D	Rommerskirchen	RWE Net	NL	Maasbracht	TenneT
15	1	1	D	Gronau W	RWE Net	NL	Hengelo	TenneT
15	1	2	D	Gronau Z	RWE Net	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 Net	F	Vigy	RTE
71	1	2	D	Uchtelfangen	RWE Net	F	Vigy	RTE
71	2	1	D	Ensdorf	RWE Net	F	St-Avold	RTE
72	1	1	D	Eichstetten	EnBW	F	Vogelgrün	RTE
72	1	2	D	Eichstetten	EnBW	F	Muhlbach	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 Bâtiaz	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 [16]	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	Villarodin	RTE	I	Venaus	GRTN
94	1	1 [17]	F	Lucciana	RTE	I	Suvereto	GRTN
94	1	2 [19]	F	Lucciana	RTE	I	Suvereto	GRTN
102	1 [21]	1	CH	Laufenburg	EGL	D	Gurtweil	EnBW
102	1	2	CH	Laufenburg	EGL	D	Gurtweil	EnBW
102	2	1 [24]	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	3 [26]	1	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	3	2	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	4	1	CH	Laufenburg	EGL	D	Kühmoos	EnBW
102	4	2	CH	Laufenburg	EGL	D	Kühmoos	RWE Net
102	5 [29]	1	CH	Laufenburg	EGL	D	Tiengen	RWE Net
103	1	1	CH	Beznau	NOK	D	Tiengen	RWE Net
103	1	2	CH	Koblenz	NOK	D	Tiengen	RWE Net
103	1	3	CH	Klingnau	AWAG	D	Tiengen	RWE Net
104	1	1 [30]	CH	Asphard	Atel/NOK	D	Kühmoos	EnBW
105	1	1	CH	Laufenburg	EGL	D	Engstlatt	EnBW
111	1	1	A	Bürs	VIW	D	Obermooweiler	EnBW
111	1	2	A	Bürs	VIW	D	Obermooweiler	EnBW
111	2	1	A	Bürs	VIW	D	Herbertingen	RWE Net
111	3	1	A	Bürs	VIW	D	Dellmensingen	RWE Net
111	4	1	A	Rieden	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 ea
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 7 or 8. The co
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 tra
Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system ope

T 9

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				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 [6,7]		
	380		1109				
	380		1229				
	220		286				
	380		1167				
	380		1167				
	220		261				
380	220		338				
	380		1751				
	380		1186				
	380		1167				
	380		789				
	380		1211	800	220 [8,9]		
	380		1409	600			
	220		280				11 [10,11]
	220		280				11 [12,13]
	130		52	42			11 [14,15]
	220		266				
	220		275				
	220		275				
	380		1167				
	380		1150				
	380		1150				
	220		335				
	380		879				
	220 [18]		300			50	
	220 [20]		300			50	
	220		485	457[22]	220		
	220		485	457[23]	220		
	220		295[25]				
380	220		485	476 [25]	220		
	380		1620				
	380		1620				
	380		1580	984 [28]			
	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 [31]			
	110		84				
	110		84				
	110		141				

ch line.

nditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of ansmission 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.

eration.

	Observations
[32]	Cable at Braunau
[33]	Cable at Braunau
[34]	Normally no electricity exchange across this line/ electricity loop at pylon 32 open, circuit grounded
[35]	Transducer at Ering
[36]	Transducer at Ering
[37]	Isolator in St. Peter
[38]	Isolator in St. Peter
[39]	Normally no electricity exchange across this line
[40]	Line section national border-tower 62 owned by E.ON Netz
[41]	Normally no electricity exchange across this line
[42]	Line section national border-tower 62 owned by E.ON Netz
[43]	No international interconnector
[44]	CFT blocker at St. Peter
[45]	No international interconnector
[46]	CFT blocker at St. Peter
[47]	Switching device at Oberbrunn
[48]	Switching device at Oberbrunn
[49]	Possible to lay a second circuit
[50]	(130/150)
[51]	Possible to lay a second circuit
[52]	New substation with 400kV near spanish frontier : replace Cantegrit
[53]	New substation with 225 kV near spanish frontier : replace Mouguerre
[54]	Limited by transformer
[55]	Limited by transformer
[56]	Transducer at Kassø
[57]	Transducer at Kassø
[58]	Monopol
[59]	DC submarine and underground cable
[60]	Limited by high-frequency coil
[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]	Generator line in radial operation - interconnected operation impossible
[66]	Installed at Vianden
[67]	Generator line in radial operation - interconnected operation impossible
[68]	Installed at Vianden
[69]	Limited by transformer
[70]	Limited by pumped storage power station at Bauler
[71]	520 MW in total because of the use of pumps in the power station of Vianden
[72]	520 MW in total because of the use of pumps in the power station of Vianden
[73]	The 400kV 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	ÖBK	D	Neuötting	E.ON Netz
115	2	1	A	Braunau	ÖBK	D	Stammham	E.ON Netz
115	3	1	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz
115	3	2 [34]	A	Ranshofen	Verbund - APG	D	Neuötting	E.ON Netz
115	4	1	A	Antiesenhofen	Verbund - APG	D	Egglfing	BWK
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	Egglfing	BWK
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 [39,40]	E.ON Netz
115	11	2	A	Ranna	EAGOÖ	D	Passau [41,42]	E.ON Netz
115	12	1	A	Oberaudorf	ÖBK	D	Rosenheim	E.ON Netz
115	13	1	A	Oberaudorf	ÖBK	D	Kiefersfelden	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	ÖBK
115	16 [43]	1	A	St. Peter	Verbund - APG	D	Schärding	ÖBK
115	16 [45]	2	A	St. Peter	Verbund - APG	D	Schärding	ÖBK
115	17	1	A	Kufstein	TIRAG	D	Oberaudorf	ÖBK
115	17	2	A	Ebbs	TIRAG	D	Oberaudorf	ÖBK
116	1	1	A	Westtirol	Verbund - APG	D	Leupolz	RWE Net
116	2	1	A	Westtirol	Verbund - APG	D	Memmingen	RWE Net
117	1	1	A	Silz	TIRAG	D	Oberbrunn	E.ON Netz
117	1	2	A	Silz	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	Soazza	EGL	I	Bulciago	GRTN
121	4	1	CH	Lavorgo	Atel	I	Musignano	GRTN
122	1	1 [49]	CH	Campocologno	RE	I	Poschiavino	GRTN
122	2	1	CH	Robbia	RE	I	Sondrio	GRTN
123	1	1	CH	Riddes	EGL	I	Avise	GRTN
123	2	1	CH	Riddes	EGL	I	Valpelline	GRTN
123	3	1	CH	Mörel	RHOWAG	I	Pallanzeno	GRTN
132	1	1	A	Lienz	Verbund - APG	I	Soverzene	GRTN
141	1	1 [51]	A	Meiningen	VKW-ÜN	CH	Y-Rehag	NOK
141	2	1	A	Meinigen	VKW-ÜN	CH	Winkeln	NOK
142	1	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL
142	2	1	A	Westtirol	Verbund - APG	CH	Pradella	EGL
151	1	1	E	Hernani	REE	F	Argia [52]	RTE
151	2	1	E	Irún	REE	F	Errondenia	RTE
151	3	1	E	Arkale	REE	F	Argia [53]	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	ELSAM
161	2	1	D	Flensburg	E.ON Netz	DK	Kassø	ELSAM
161	3	1	D	Audorf	E.ON Netz	DK	Kassø	ELSAM
161	3	2	D	Audorf	E.ON Netz	DK	Kassø	ELSAM
162	1 [58]	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	Slavetice	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 Net	L	Vianden	SEO
191	2	1	D	Niederstedem	RWE Net	L	Vianden	SEO
191	2	2	D	Niederstedem	RWE Net	L	Vianden	SEO
191	3	1	D	Bauler	RWE Net	L	Vianden	SEO
191	4	1	D	Bauler	RWE Net	L	Flebour	CEGEDEL
191	4	2	D	Bauler	RWE Net	L	Roost	CEGEDEL
192	1	1	D	Trier	RWE Net	L	Heisdorf	CEGEDEL
192	2	1	D	Quint	RWE Net	L	Heisdorf	CEGEDEL
201	1	1	I	Redipuglia	GRTN	SLO	Divača	ELES
201	2	1	I	Padriciano	GRTN	SLO	Divača	ELES
205	1 [73]	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 ea
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 7 or 8. The co
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 tra
Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system ope

T 9

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				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 [32]	
	110		102			82 [33]	
	110		90				
	110		90				
	110		102				
	220		301				
	220		301				
	110		152	137		114 [35]	
	110		152	137		114 [36]	
	110		105				
	220		518	457 [37]			
	220		518	457 [38]			
	110		90				
	110		90				
	110		93				
	110		102				
	110		130				
	110		130				
	110		102				
	220		301			229 [44]	
	220		301			229 [46]	
	110		90				
	110		127				
	380		1316				
380	220		762				
	220		793	762 [47]			
	220		793	762 [48]			
	110		127				
	110		127				
	220		257				
	220		257	250			
	380		1142				
	380		1118				
	150		103	55	130 [50]		
	220		257				
	220		290				
	220		290				
	220		257				
	220		257				
	220		501				
	220		776				
	380		1340				
	380		1340				
	380		1136				
	132		59				
	220		340				
	220		247				
	110		76				
	380		1105				
	220		332	305 [54]			
	220		332	305 [55]			
	380		1382	658 [56]			
	380		1382	658 [57]			
	400		600 [59]				
	220		269				
	220		269				
	380		1711	1386 [60]			
	220		351				
	380		1514	450			
	380		1514	450			
	220		730	460	220 [61,62]		
	220		365		220 [63,64]	345	
	220		365		220 [65,66]	345	
	220		730	460	220 [67,68]	345[69]	
	220		490	358[70]		520 [71]	
	220		490			520 [72]	
	220		490				
	220		490				
	380		1712				
	220		330				
	400		500				

ach line.

onditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of ansmission 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.

eration.

Observations	
[74]	In Hungary 2 systems in parallel operation
[75]	DC submarine cable
[76]	DC submarine cable
[77]	Limited by the connected network
[78]	Nominal voltage in Croatia
[79]	Limited by the connected network
[80]	Nominal voltage in Croatia
[81]	Substation under construction
[82]	Limited by the measuring transformer of current in SK
[83]	Built for 750 kV
[84]	4500 MVA at 750 kV
[85]	Limited by the measuring transformer of current in SK
[86]	Capacity of current transformers at Bistrica
[87]	Limitating installations in CZ
[88]	Limitating installations in Etzenricht
[89]	Limited by disconnector / CEPS
[90]	Limited by disconnector / CEPS
[91]	Disconnected in Yugoslavia
[92]	Limeted by lower voltage
[93]	Limitation by measuring transducer
[94]	Destroied line
[95]	Destroied line
[96]	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 [74]	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	Amynteo	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	Tumbri [81]	HEP
251	3	2	H	Héviz	MAVIR	HR	Tumbri	HEP
261	1	1	YU	Djerdap	EPS	RO	Portile de Fier	TRANSELECTRICA
261	2	1	YU	Sip	EPS	RO	Guravai	TRANSELECTRICA
262	1	1	YU	Kikinda 1	EPS	RO	Temisvar	TRANSELECTRICA
263	1	1	YU	Kusijak	EPS	RO	Ostrvo Mare	TRANSELECTRICA
270	1	1	CZ	Liskovec	CEPS	SK	Pov. Bystrica	SEPS
271	1	1	BG	Sofija Zapad	NEK	YU	Niš	EPS
272	1	1	BG	Breznik	NEK	YU	HE Vrla 1	EPS
273	1	1	BG	Kula	NEK	YU	Zaječar	EPS
275	1	1	RO	Isaccea	TRANSELECTRICA	BG	Dobrodja Varna)	NEK
276	1	1	RO	Işalniţa	TRANSELECTRICA	BG	Kozlodui	NEK
277	1	1	RO	Ţânţăreni	TRANSELECTRICA	BG	Kozlodui	NEK
277	1	2	RO	Ţânţăreni	TRANSELECTRICA	BG	Kozlodui	NEK
280	1	1	CZ	Sokolnice	CEPS	SK	Senica	SEPS
281	1	1	AL	Vau i Dejës	KESH	YU	Podgorica	EP CG
282	1	1	AL	Fierza	KESH	YU	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	Sándorfalva	MAVIR	YU	Subotica 3	EPS
332	1	1	H	Szeged	MAVIR	YU	Subotica	EPS
341	1	1	BG	Petric	NEK	FYROM	Sušica	ESM
341	2	1	BG	Skakavica	NEK	FYROM	Kriva Palaka	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	Tumbri	HEP	SLO	Krško	ELES
352	1	2	HR	Tumbri	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	Grahovo	JPCC	HR	Knin	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	Međurić	HEP
363	1	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP
363	2	1	BiH	Trebinje	JPCC	HR	Dubrovnik	HEP
363	3	1	BiH	Čaplјina	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 ea
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 7 or 8. The co
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 tra
Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system ope

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations			
				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 [75]						
	270 [76]						
	132		90				
	220		268				
	220		268				
	220		268				
	380		707				
	380		1036				
	400		1300	700			
	150		120	100			
	220		400				
	220		400				
	120		82	50 [77]	110 [78]		
	120		114	50 [79]	110 [80]		
	400		1246				
	400		1246				
	380		1264				
	110		90				
	110		90				
	110		257				
	220		269		229[82]		
	380		1264				
	110		90				
	110		90				
750	400 [83]	500	2400 [84]				
	220		360				
	400		1450				
	400		1450				
	220		318		305 [85]		
	220		311				
	220		311				
	400		1300				
	150		120	40 [86]			
	400		1300	700			
	380		1639	1316 [87]			
	380		1645	1579 [88]			
	380		1476	1320 [89]		2630	
	380		1476	1320 [90]		2630	
	380		1246	1050			
	120		86 [91]				
	110		123				
	110		123				
	380		1264				
	220		366				
	110		89				
	110		53				
	380		1316				
	380		1316				
	220		297				
	110		115				
	400		1316	311 [92]	220		
	220		311				
	110		90				
	110		115				
	110		90				
	110		72				
	110		120	101 [93]			
	220		297[94]				
	220		297[95]				
	220		460[96]				
	220		460				
	110		84				
	110		84				
	110		76				
	110		84				

ch line.

nditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of ansmission 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.

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Observations	
[97]	Destroied line and substation
[98]	Destroied line
[99]	Destroied line
[100]	Destroied line
[101]	Destroied line
[102]	Monopol
[103]	Temporarily limited by 380/110 kV transformer at Herrenwyk (456 MW towards south, 372/396 MW towards north)
[104]	Limited by the measuring transformer of current
[105]	Limited by the connections among equipments
[106]	Limited by the measuring transformer of current
[107]	Limited by the measuring transformer of current
[108]	Limited by the sag of line
[109]	Limited by the sag of line
[110]	Transformer PPGC
[111]	Transformer PPGC
[112]	Submarine cable
[113]	Limited by current transformer at Krosna and Lemešany
[114]	Limited by current transformer at Krosno and Lemešany
[115]	Out of operation/ substation local automatic equipment
[116]	Radial operation
[117]	Isolated operation
[118]	Submarine cable
[119]	Limited by HF attenuator
[120]	Limited by the measuring transformer of current
[121]	Limited by HF attenuator
[122]	Limited by HF attenuator
[123]	Out of operation/ substation local automatic equipment
[124]	Limited by the measuring transformer of current

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
364	1	1	BiH	Ugljevik	JPCC	HR	Ernestinovo	HEP
364	2	1	BiH	Gradačac	JPCC	HR	Đakovo	HEP
364	3	1	BiH	Tuzla	JPCC	HR	Đakovo	HEP
364	4	1	BiH	Bosanski Brod	JPCC	HR	Bjelis	HEP
364	5	1	BiH	Orasje	JPCC	HR	Županja	HEP
371	1	1	HR	Ernestinovo	HEP	YU	Mladost	EPS
371	2	1	HR	Nijemci	HEP	YU	Šid	EPS
371	3	1	HR	Beli Manastir	HEP	YU	Apatin	EPS
381	1	1	BiH	Trebinje	JPCC	YU	Podgorica	EP CG
381	2	1	BiH	Trebinje	JPCC	YU	Peručica	EP CG
381	3	1	BiH	Trebinje	JPCC	YU	Herceg Novi	EP CG
381	4	1	BiH	Bileča	JPCC	YU	Vilusi	EP CG
382	1	1	BiH	Sarajevo 20	JPCC	YU	Piva	EP CG
382	2	1	BiH	Goražde	JPCC	YU	Pljevlja	EP CG
383	1	1	BiH	Višegrad	JPCC	YU	Požega	EPS
383	2	1	BiH	Bijeljina	JPCC	YU	Lešnica	EPS
383	3	1	BiH	Zvornik	JPCC	YU	HE Zvornik	EPS
383	4	1	BiH	Višegrad	JPCC	YU	Potpeć	EPS
391	1	1	FYROM	Skopje 1	ESM	YU	Kosovo A	EPS
391	2	1	FYROM	Skopje 1	ESM	YU	Kosovo A	EPS
391	3	1	FYROM	Skopje 4	ESM	YU	Kosovo B	EPS
401	1 [94]	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	UA	Mukachevo	NPC Ukrenergo
443	1	1	CZ	Albrechtice	CEPS	PL	Wielopole	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	Krajnik	PSE SA
501	1	2	D	Vierraden	VE Transmission	PL	Krajnik	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 [112]	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	UA	Chmielnicka	NPC Ukrenergo
702	1	1	PL	Zamość	PSE SA	UA	Dobrotwor	NPC Ukrenergo
703	1	1	PL	Bialystok	PSE SA	BY	Roś	Grodnoenergo
704	1	1	PL	Slupsk	PSE SA	S	Stärno	SvK
710	1	1	H	Györ	MAVIR	SK	Gabcikovo	SEPS
711	1	1	H	Göd	MAVIR	SK	Levice	SEPS
720	1	1	H	Albertirsa	MAVIR	UA	Zahidno Ukrainska	NPC Ukrenergo
721	1	1	H	Sajószöged	MAVIR	UA	Mukacevo	NPC Ukrenergo
722	1	1	H	Kisvárda	MAVIR	UA	Mukacevo	NPC Ukrenergo
722	1	2	H	Tiszalök	MAVIR	UA	Mukacevo	NPC Ukrenergo
730	1	1	H	Sándorfalva	MAVIR	RO	Arad	TRANSELECTRICA
740	1	1	RO	Roşiori	TRANSELECTRICA	UA	Mukacevo	NPC Ukrenergo
741	1	1	RO	Isaccea	TRANSELECTRICA	UA	Niwnitschnoi Ukrainska	NPC Ukrenergo
750	1	1	RO	Stânca	TRANSELECTRICA	MD	Costeşti	Moldenergo
751	1	1	RO	Huşi	TRANSELECTRICA	MD	Cioara	Moldenergo
752	1	1	RO	Huşi	TRANSELECTRICA	MD	Ungheni	Moldenergo

*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 ea
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 7 or 8. The co
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 tra
Adding together the conventional transmission capacity of several tie-lines does not allow to infer on the real total transmission capability and leads to irrelevant results from the point of view of system ope

Voltage of the circuit		Conventional transmission capacity of the connection (thermal)*		Limited by the transformers or by the substations of circuits		of lines		T 9
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 [97]					
	220		229 [98]					
	220		229					
	110		115 [99]					
	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 [100]					
	220		311 [101]					
	380		1264					
	450		600	372 [103]				
	400		1465	1386 [104]				
	400		1503	1323 [105]				
	400		1186	639 [106]				
	400		1212					
	400		1212					
	400		1711	831 [107]				
	220		392	196[108]				
	220		392	196[109]				
	380		1427	1320[110]				
	380		1427	1320[111]				
	380		730					
	400		1434	831 [113]				
	400		1434	831 [114]				
	750		2676	1300 [115]				
	220		168[116]					
	220		154 [117]					
	450		600 [118]					
	400		1246	830				
	400		1246	830				
	750		4000	2146[119]				
	400		1635	1385 [120]				
	220		275	381 [121]				
	220		275	381 [122]				
	400		1246					
	400		1400 [123]	693 [124]				
	750		4000					
	110		90					
	110		90					
	110		90					

ch line.

nditions relevant to system operation in various countries at various time of the year can strongly differ from those above. Because the real allowable load capability of ansmission 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. eration.

Abbreviations used of grid operators

BELGIQUE	ELIA	- Elia System Operator SA/NV
DEUTSCHLAND	E.ON Netz	- E.ON Netz, Bayreuth
	EnBW	- EnBW Transportnetze AG, Karlsruhe
	RWE Net	- RWE Net AG, Dortmund
	Vattenfall Europe	- Vattenfall Europe Transmission GmbH, Berlin
ESPAÑA	REE	- Red Eléctrica de España S.A., Madrid
FRANCE	RTE	- Gestionnaire du Réseau de Transport d'Electricité, Paris
HELLAS	HTSO	- Hellenic Transmission System Operator
ITALIA	GRTN	- Gestore della Rete di Trasmissione Nazionale S.p.A., Roma
SLOVENIJA	ELES	- Elektro-Slovenija, Ljubljana
HRVATSKA	HEP	- Hrvatska Elektroprivreda d.d., Zagreb
S.R. JUGOSLAVIJA	EPCG	- Elektroprivreda Crne Gore, Niksic
	EPS	- Elektroprivreda Srbije, Beograd
FYROM	ESM	- Elektrostopanstvo na Makedonija, Skopje
BOSNA i HERCEGOVINA	JPCC	- Joint Power Coordination Center
LUXEMBOURG	CEGEDEL	- Compagnie Grand Ducale d'Electricité du Luxembourg, Luxembourg
NEDERLAND	TenneT bV	- TenneT bV Transmission System Operator
ÖSTERREICH	TIRAG	- Tiroler Regelzone AG
	Verbund-APG	- Verbund - Austria Power Grid GmbH, Wien
	VKW-ÜN	- Vorarlberger Kraftwerke Übertragungsnetz AG, Bregenz
PORTUGAL	REN	- Rede Eléctrica Nacional, S.A., Lisboa
SCHWEIZ	Atel	- Aare-Tessin AG für Elektrizität, Olten (Aar et Tessin Société Anony me d'Electricité)
	BKW UTN	- BKW Übertragungsnetz AG, Bern
	EGL Grid	- Elektrizitäts-Gesellschaft Laufenburg AG, Laufenburg (Electricité de Laufenbourg S.A.)
	ETRANS	- Etrans Ltd.
	EOS	- Energie Ouest Suisse S.A., Lausanne
	NOK	- Nordostschweizerische Kraftwerke AG, Baden (Forces Motrices du Nord-Est de la Suisse)

CESKA REPUBLIKA	CEPS	- CEPS a.s., Praha
MAGYARORSZÁG	MAVIR Rt	- Magyar Villamosenergia - ipari Rendszerirányitó Rt., Budapest
POLSKA	PSE SA	- Polskie Sieci Elektroenergetyczne SA
SLOVENSKO	SEPS, a.s.	- Slovenska Elektrizacna Prenosova Sustava, a.s.
BULGARIJA	NEK	- Nationalna Elektricheska Kompania EAD, Sofia
DANMARK	ELTRA	- ELTRA , Fredericia
GREAT BRITAIN	National Grid	- The National Grid Company plc, London
MAROC	ONE	- Office National de l'Electricité, Casablanca
ROMANIA	TRANSELECTRICA	- Transelectrica S.A., National Power Grid Company, Bucaresti
SHQIPËRIA	KESH	- Albanian Electroenergetic Corporation
SVERIGE	SYDKRAFT VATTENFALL	- Sydkraft AB, Malmö - Vattenfall AB, Stockholm
UKRAINA	NPC Ukrenergo	- NPC Ukrenergo

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]
11.1.1	D - Diele (E.ON Netz)	NL - Meeden (TenneT)	380	1382	R10	83433
11.2.1	D - Conneforde (E.ON Netz)	NL - Meeden (TenneT)	380	1382	R10	145813
13.1.1	D - Siersdorf (RWE Net)	NL - Maasbracht (TenneT)	380	1645	R1	826
13.1.2	D - Rommerskirchen (RWE Net)	NL - Maasbracht (TenneT)	380	1698	R1	17254
15.1.1	D - Gronau W+Z (RWE Net)	NL - Hengelo (TenneT)	380	1790	R1	1033
15.1.2	D - Gronau W+Z (RWE Net)	NL - Hengelo (TenneT)	380	1790	R1	2321
25.1.1	B - Gramme (Elia)	NL - Maasbracht (TenneT)	380	1207	R2	228
25.1.2	B - Meerhout (Elia)	NL - Maasbracht (TenneT)	380	1270	R1	1524
26.1.1	B - Zandvliet (Elia)	NL - Geertruidenberg (TenneT)	380	1476	R1	625
41.1.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	220	358	R1	631
41.1.2	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	220	358	R1	1070
41.2.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	150	157	R1	751
41.3.1	B - Aubange (ELECTRABEL)	L - Belval (SOTEL)	150	157	R1	506
51.1.1	B - Jamiolle (ELECTRABEL)	F - Chooz (RTE)	220	356	R1	5081
51.2.1	B - Avelgem (Elia)	F - Avelin (RTE)	380	1109	R1	16938
51.3.1	B - Achène (Elia)	F - Lonny (RTE)	380	1229	R10	541
52.1.1	B - Aubange (ELECTRABEL)	F - Moulaine (RTE)	220	286	R10	3118
71.1.1	D - Uchtelfangen (RWE Net)	F - Vigy (RTE)	380	1167	R10	36759
71.1.2	D - Uchtelfangen (RWE Net)	F - Vigy (RTE)	380	1167	R10	37202
71.2.1	D - Ensdorf (RWE Net)	F - St-Avold (RTE)	220	261	R1	14389
72.1.1	D - Eichstetten (EnBW)	F - Vogelgrün (RTE)	220	338	R1	3658
72.1.2	D - Eichstetten (EnBW)	F - Muhlbach (RTE)	380	1751	R1	6807
81.1.1	CH - Bassecourt (BKW)	F - Sierentz (RTE)	380	1186	R1	5164
81.2.1	CH - Laufenburg (EGL)	F - Sierentz (RTE)	380	1167	R1	6100
81.3.1	CH - Bassecourt (BKW)	F - Mambelin (RTE)	380	789	R1	7000
82.1.1	CH - Verbois (EOS)	F - Bois-Tollot (RTE)	380	1211	R1	16555
82.1.2	CH - Chamoson (EOS)	F - Bois-Tollot (RTE)	380	1409	R1	42802
82.2.1	CH - Verbois (EOS)	F - Génissiat (RTE)	220	280	R1	1901
82.2.2	CH - Verbois (EOS)	F - Génissiat (RTE)	220	280	R1	3947
82.4.1	CH - La Bâtiaz (Atel)	F - Vallorcine (RTE)	220	266	R1	3368
82.5.1	CH - Riddes (EGL)	F - Cornier (RTE)	220	275	R1	6934
82.6.1	CH - St.-Triphon (EOS)	F - Cornier (RTE)	220	275	R10	16228
83.1.1	CH/D - Asphard (Atel/NOK/EnBW)	F - Sierentz (RTE)	380	1167	R1	20550
91.1.1	F - Albertville (RTE)	I - Rondissone (GRTN)	380	1150	R1	15480
91.1.2	F - Albertville (RTE)	I - Rondissone (GRTN)	380	1150	R1	24060
92.1.1	F - Le Broc Carros (RTE)	I - Camporosso (GRTN)	220	335	R1	757
93.1.1	F - Villarodin (RTE)	I - Venaus (GRTN)	380	879	R1	14640
94.1.1	F - Lucciana (RTE)	I - Suvereto (GRTN)	220	300	R1	11100
94.1.2	F - Lucciana (RTE)	I - Suvereto (GRTN)	220	300	R1	11100
102.1.1	CH - Laufenburg (EGL)	D - Gurtweil (EnBW)	220	485	R1	4971
102.1.2	CH - Laufenburg (EGL)	D - Gurtweil (EnBW)	220	485	R1	3919
102.2.1	CH - Laufenburg (EGL)	D - Kühmoos (EnBW)	220	295	R11	24265
102.3.1	CH - Laufenburg (EGL)	D - Kühmoos (EnBW)	220	485	R1	25108
102.3.2	CH - Laufenburg (EGL)	D - Kühmoos (EnBW)	380	1620	R1	32677
102.4.1	CH - Laufenburg (EGL)	D - Kühmoos (EnBW)	380	1620	R1	34459
102.4.2	CH - Laufenburg (EGL)	D - Kühmoos (EnBW)	380	1580	R1	869
102.5.1	CH - Laufenburg (EGL)	D - Tiengen (RWE Net)	380	1158	R1	825
103.1.1	CH - Beznau (NOK)	D - Tiengen (RWE Net)	380	1158	R2	620
104.1.1	CH - Asphard (Atel/NOK)	D - Kühmoos (EnBW)	380	1340	R1	11847
105.1.1	CH - Laufenburg (EGL)	D - Engstlatt (EnBW)	380	1675	R1	33441
111.1.1	A - Bürs (VIW)	D - Obermooweiler (EnBW)	380	1369	R1	3131
111.1.2	A - Bürs (VIW)	D - Obermooweiler (EnBW)	380	1369	R1	15815
111.2.1	A - Bürs (VIW)	D - Herbertingen (RWE Net)	220	389	R1	12482
111.3.1	A - Bürs (VIW)	D - Dellmensingen (RWE Net)	220	492	R10	37383

Reasons: R1, R2 - Planned unavailability R3 - Overload R4, R5, R6 - Failured 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]
	3934	16072		6908		133	1007	7442	20887	21176	5874
5248	21523	6345	23970	15958	43139	22614		2119	4643	254	
							452				374
							17254				
								1033			
				2321							
											228
				60			1464				
					625						
		631									
		1070									
460			151					140			
355			151								
			412							4669	
						375					16563
											541
				3118							
									25597	11162	
452									25588	11162	
			3337	1614		3859	2168		3411		
		1234	1107		1317						
		5780			1011			16			
			4599			565					
	723	4820									557
		12	6988								
			1967							14588	
3502		1108	1624		642			16816	5301	13809	
					1901						
					3411					536	
								3368			
	585							989	5360		
									16228		
	8394		669			5023				6464	
							420		15060		
							9000		15060		
		157	600								
							14640				
								11100			
								11100			
	470								4501		
			3389				530				
332			3190	20743							
331			4032	20745							
			636		1955		5072	25014			
			2280		2092		5072	25015			
			230			639					
			98				550	177			
			61				559				
	3348	2154								6345	
							29900			3541	
			3065					66			
		6339	6109	3367							
			3335	7565		1582					
			7200	3538		1061	3606			8100	13878

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]
115.5.1	A - St. Peter (Verbund-APG)	D - Altheim (E.ON Netz)	220	301	R1	21481
115.6.1	A - St. Peter (Verbund-APG)	D - Simbach (E.ON Netz)	220	301	R1	337
115.9.1	A - St. Peter (Verbund-APG)	D - Pirach (E.ON Netz)	220	518	R1	624
115.10.1	A - St. Peter (Verbund-APG)	D - Pleinting (E.ON Netz)	220	518	R10	103
116.1.1	A - Westtirol (Verbund-APG)	D - Leupolz (RWE Net)	380	1316	R1	5373
116.2.1	A - Westtirol (Verbund-APG)	D - Memmingen (RWE Net)	220	762	R10	90759
117.1.1	A - Silz (TIRAG)	D - Oberbrunn (E.ON Netz)	220	793	R1	6863
117.1.2	A - Silz (TIRAG)	D - Oberbrunn (E.ON Netz)	220	793	R1	4623
121.1.1	CH - Airolo (Atel)	I - Ponte (GRTN)	220	257	R1	6528
121.2.1	CH - Gorduno (Atel)	I - Mese (GRTN)	220	257	R1	8043
121.3.1	CH - Soazza (EGL)	I - Bulciago (GRTN)	380	1142	R1	3591
121.4.1	CH - Lavorgo (Atel)	I - Musignano (GRTN)	380	1118	R1	747
122.2.1	CH - Robbia (RE)	I - Sondrio (GRTN)	220	257	R1	30062
123.1.1	CH - Riddes (EGL)	I - Avise (GRTN)	220	290	R7	33499
123.2.1	CH - Riddes (EGL)	I - Valpelline (GRTN)	220	290	R7	20089
123.3.1	CH - Mörel (RHOWAG)	I - Pallanzeno (GRTN)	220	257	R1	15501
132.1.1	A - Lienz (Verbund-APG)	I - Soverzene (GRTN)	220	257	R1	24969
141.1.1	A - Meiningen (VKW-ÜN)	CH - Y-Rehag (NOK)	220	501	R1 , R10	37539
142.1.1	A - Westtirol (Verbund-APG)	CH - Pradella (EGL)	380	1340	R1	19096
142.2.1	A - Westtirol (Verbund-APG)	CH - Pradella (EGL)	380	1340	R1	11323
151.1.1	E - Hernani (REE)	F - Argia (RTE)	380	1136	R1 , R10	46729
151.3.1	E - Arkale (REE)	F - Argia (RTE)	220	340	R1	46854
151.4.1	E - Biescas (REE)	F - Pragnères (RTE)	220	247	R1	5632
152.1.1	E - Benós (REE)	F - Lac d'Oo (RTE)	110	76	R1	29865
153.1.1	E - Vic (REE)	F - Baixas (RTE)	380	1105	R2	1264
161.1.1	D - Flensburg (E.ON Netz)	DK - Ensted (ELSAM)	220	332	R1	4004
161.2.1	D - Flensburg (E.ON Netz)	DK - Kassø (ELSAM)	220	332	R1	4037
161.3.1	D - Audorf (E.ON Netz)	DK - Kassø (ELSAM)	380	1382	R1	340
161.3.2	D - Audorf (E.ON Netz)	DK - Kassø (ELSAM)	380	1382	R1 , R7	2020
162.1.1	D - Bentwisch (VE Transmission)	DK - Bjæverskov (ELKRAFT)	400	600	R2	71980
171.1.1	A - Bisamberg (Verbund-APG)	CZ - Sokolnice (CEPS)	220	269	R1	12639
171.2.1	A - Bisamberg (Verbund-APG)	CZ - Sokolnice (CEPS)	220	269	R1	17509
172.1.1	A - Dürnrohr (Verbund-APG)	CZ - Slavetice (CEPS)	380	1711	R1	7468
181.1.1	A - Obersielach (Verbund-APG)	SLO - Podlog (ELES)	220	351	R1	19196
182.1.1	A - Kainachtal (Verbund-APG)	SLO - Maribor (ELES)	380	1514	R1	6189
182.2.1	A - Kainachtal (Verbund-APG)	SLO - Maribor (ELES)	380	1514	R1	5983
191.4.1	D - Bauler (RWE Net)	L - Flebour (CEGEDEL)	220	490	R8	216
191.4.2	D - Bauler (RWE Net)	L - Roost (CEGEDEL)	220	490	R1 , R10	2071
192.1.1	D - Trier (RWE Net)	L - Heisdorf (CEGEDEL)	220	490	R1	4371
192.2.1	D - Quint (RWE Net)	L - Heisdorf (CEGEDEL)	220	490	R1	3568
201.1.1	I - Redipuglia (GRTN)	SLO - Divača (ELES)	380	1712	R1	6120
201.2.1	I - Padriciano (GRTN)	SLO - Divača (ELES)	220	330	R1	4793
205.1.1	I - Galatina (GRTN)	GR - Arachthos (HTSO)	380	500	R6	714
211.1.1	A - Wien Süd-Ost (Verbund-APG)	H - Györ (MAVIR)	220	305	R2 , R7	38316
211.1.2	A - Neusiedl (Verbund-APG)	H - Györ (MAVIR)	220	305	R11	4984
212.1.1	A - Wien Süd-Ost (Verbund-APG)	H - Györ (MAVIR)	380	1514	R1	16937
221.1.1	F - Mandarins (RTE)	GB - Sellindge (National Grid)	270		R8 , R10	1879
221.2.1	F - Mandarins (RTE)	GB - Sellindge (National Grid)	270		R1, R8, R10	5772
231.1.1	E - Las Conchas (REE)	P - Lindoso (REN)	132	90	R1	995
232.1.1	E - Aldeadávila (REE)	P - Bemposta (REN)	220	268	R1	44545
232.2.1	E - Aldeadávila (REE)	P - Pocinho (REN)	220	268	R1	89790
232.3.1	E - Saucelle (REE)	P - Pocinho (REN)	220	268	R7	385
233.1.1	E - Cedillo (REE)	P - Falagueira (REN)	380	707	R7	251
234.1.1	E - Cartelle (REE)	P - Alto Lindoso (REN)	380	1036	R1	2241
241.1.1	FYROM - Dubrovo (ESM)	GR - Thessaloniki (HTSO)	380	1300	R1	3409
242.1.1	FYROM - Bitola (ESM)	GR - Amyndeo (HTSO)	150	120	R1	1088

Reasons: R1, R2 - Planned unavailability R3 - Overload R4, R5, R6 - Failured 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]
3793		199		87	877	2198	5635	4962	3582		148
		67			270						
	557	67									
							38		65		
					5047					326	
		117			5009				25440	43200	16993
		814	153	102	3549					1221	1024
		404			2140	12					2067
					6208						320
		1740	292					840	5171		
		120					3368				103
							747				
			19260		8555			2247			
								19737		6925	6837
								6325		6925	6839
			14917		110				232		242
							24960	9			
	3473	13375		414			169		14149	5959	
					5596		1562	11938			
					4799		556	5968			
				21169	25560						
			46175			679					
			954					4678			
						224	29448	14			179
	3	1125						136			
						1712			2292		
						1940			2097		
									340		
		1035			581				404		
					402			20160	1019	43200	7199
3618	1948		574			6410		89			
	3061	487	574			6469	6414	89	415		
								7468			
519				620			64	2054	15939		
		6189									
		5983									
216											
173		539	434			698					227
			1190		2581	107			493		
	378		690			2500					
							6120				
600		2400			660						1133
			93	357		264					
	129		2547			4177	30658	99	706		
				3424		528	1032				
	132			6783	9455	187	380				
80	120	78	79			301	232	133	856		
356	138	89	233		4009	19	44		884		
					383	612					
33885	5337	3545			1721	44	13				
12353	40320	37117									
							385				
										251	
									167	944	1130
				2405	1004						
		171		554			35			328	

R7, R8, R9 - External impacts

R10, R11 - Other reasons

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]
245.1.1	CZ - Lieskovec (CEPS)	PL - Kopanina (PSE SA)	220	400	R1	7575
246.1.1	CZ - Lieskovec (CEPS)	PL - Bujaków (PSE SA)	220	400	R1	7969
251.1.1	H - Lenti (MAVIR)	HR - Nedeljanec (HEP)	120	82	R10	41301
251.2.1	H - Siklos (MAVIR)	HR - Donji Miholjac (HEP)	120	114	R10	18669
261.1.1	YU - Djerdap (EPS)	RO - Portile de Fier (TRANSELECTRICA)	380	1264	R1	8535
261.2.1	YU - Sip (EPS)	RO - Guravai (TRANSELECTRICA)	110	90	R10	525600
262.1.1	YU - Kikinda 1 (EPS)	RO - Temisvar (TRANSELECTRICA)	110	90	R10	525600
263.1.1	YU - Kusijak (EPS)	RO - Ostrvo Mare (TRANSELECTRICA)	110	257	R10	525600
270.1.1	CZ - Lieskovec (CEPS)	SK - Pov. Bystrica (SEPS)	220	269	R1	11075
271.1.1	BG - Sofija Zapad (NEK)	YU - Niš (EPS)	380	1264	R2	1760
272.1.1	BG - Breznik (NEK)	YU - HE Vrla 1 (EPS)	110	90	R10	525600
273.1.1	BG - Kula (NEK)	YU - Zaječar (EPS)	110	90	R10	525600
280.1.1	CZ - Sokolnice (CEPS)	SK - Senica (SEPS)	220	318	R1	37012
281.1.1	AL - Vau i Dejës (KESH)	YU - Podgorica (EP CG)	220	311	R2	317
282.1.1	AL - Fierza (KESH)	YU - Prizren (EPS)	220	311	R4	122
291.1.1	AL - Elbassan (KESH)	GR - Kardia (HTSO)	380	1300	R6	72
301.1.1	BG - Blagoevgrad (NEK)	GR - Thessaloniki (HTSO)	380	1300	R1	11325
321.1.1	CZ - Hradec (CEPS)	D - Etzenricht (E.ON Netz)	380	1639	R1	28057
321.1.2	CZ - Prestice (CEPS)	D - Etzenricht (E.ON Netz)	380	1645	R1	17684
322.1.1	CZ - Hradec (CEPS)	D - Röhrsdorf (VE Transmission)	400	1476	R1 , R10	21588
322.1.2	CZ - Hradec (CEPS)	D - Röhrsdorf (VE Transmission)	400	1476	R10	23822
331.1.1	H - Sandorfalva (MAVIR)	YU - Subotica 3 (EPS)	380	1246	R10	21101
371.1.1	HR - Ernestinovo (HEP)	YU - Mladost (EPS)	380	831	R10	525600
371.2.1	HR - Nijemci (HEP)	YU - Šid (EPS)	110	76	R10	413303
371.3.1	HR - Beli Manastir (HEP)	YU - Apatin (EPS)	110	78	R10	525600
381.1.1	BiH - Trebinje (JPCC)	YU - Podgorica (EP CG)	380	1264	R1	825
381.2.1	BiH - Trebinje (JPCC)	YU - Peručica (EP CG)	220	311	R1 , R2	5972
381.3.1	BiH - Trebinje (JPCC)	YU - Herceg Novi (EP CG)	110	90	R1	4530
381.4.1	BiH - Bileča (JPCC)	YU - Vilusi (EP CG)	110	84	R1 , R4	3258
382.1.1	BiH - Sarajevo 20 (JPCC)	YU - Piva (EP CG)	220	366	R1	2374
383.1.1	BiH - Višegrad (JPCC)	YU - Požega (EPS)	220	311	R2	1637
383.2.1	BiH - Bijeljina (JPCC)	YU - Lešnica (EPS)	110	123	R1 , R2	1022
383.3.1	BiH - Zvornik (JPCC)	YU - HE Zvornik (EPS)	110	123	R1 , R2	2340
383.4.1	BiH - Višegrad (JPCC)	YU - Potpeć (EPS)	110	123	R1	388
401.1.1	D - Herrenwyk (E.ON Netz)	S - Kruseberg (Sydkraft/Vattenfall)	450	600	R7	81303
404.1.1	CZ - Nosovice (CEPS)	SK - Varin (SEPS)	400	1465	R1	26884
424.1.1	CZ - Sokolnice (CEPS)	SK - Krizovany (SEPS)	400	1503	R1	17257
440.1.1	SK - V.Kapusany (SEPS)	UA - Mukacevo (NPC Ukrenergo)	400	1186	R1	41061
443.1.1	CZ - Albrechtice (CEPS)	PL - Wielopole (PSE SA)	400	1212	R1	46790
444.1.1	CZ - Nošovice (CEPS)	PL - Wielopole (PSE SA)	400	1212	R1	22016
497.1.1	CZ - Sokolnice (CEPS)	SK - Stupava (SEPS)	400	1711	R1	30572
501.1.1	D - Vierraden (VE Transmission)	PL - Krajnik (PSE SA)	220	392	R1 , R9	4915
501.1.2	D - Vierraden (VE Transmission)	PL - Krajnik (PSE SA)	220	392	R10	18620
502.1.1	D - Hagenwerder (VE Transmission)	PL - Mikulowa (PSE SA)	380	1427	R1	4003
502.1.2	D - Hagenwerder (VE Transmission)	PL - Mikulowa (PSE SA)	380	1427	R1	4266
601.1.1	E - Pinar del Rey (REE)	MA - Melloussa (ONE)	380	730	R1	2826
700.1.1	PL - Krosno Iskrzynia (PSE SA)	SK - Lemešany (SEPS)	400	1434	R1	17605
700.1.2	PL - Krosno Iskrzynia (PSE SA)	SK - Lemešany (SEPS)	400	1434	R1	16935
702.1.1	PL - Zamosc (PSE SA)	UA - Dobrotwor (NPC Ukrenergo)	220	168	R1	65526
703.1.1	PL - Bialystok (PSE SA)	BY - Ros (Grodnoenergo)	220	154	R2 , R11	8112
704.1.1	PL - Slupsk (PSE SA)	S - Stärno (SvK)	450	600	R2, R9, R11	136851
710.1.1	H - Györ (MAVIR)	SK - Gabcikova (SEPS)	400	1246	R1	6720
711.1.1	H - Göd (MAVIR)	SK - Levice (SEPS)	400	1246	R1	13799
720.1.1	H - Albertirsa (MAVIR)	UA - Zahidno Ukrainska (NPC Ukrenergo)	750	4000	R10	243335
721.1.1	H - Sajoszöged (MAVIR)	UA - Mukacevo (NPC Ukrenergo)	380	1635	R11	37082
722.1.1	H - Kisvárda (MAVIR)	UA - Mukacevo (NPC Ukrenergo)	220	275	R1	39206
722.1.2	H - Tiszalök (MAVIR)	UA - Mukacevo (NPC Ukrenergo)	220	275	R7	126
730.1.1	H - Sándorfalva (MAVIR)	RO - Arad (TRANSELECTRICA)	400	1246	R10	18881

Reasons: **R1, R2 - Planned unavailability** **R3 - Overload** **R4, R5, R6 - Failured 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]
		130	6462			983					
			6325			986	658				
		199		41102							
891						17167					611
	203				427						7905
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
		4290				6240	373			172	
					1760						
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
							8207	28805			
173		32					14	30	24		44
					122						
			50				22				
			10814			511					
		1736	174			4006	22116		25		
		3222					14462				
517					3657			9763			7651
513		1149				16212					5948
262		28	16		19431	1165				23	176
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
44640	40320	44640	18719			44664	44640	43200	44640	43200	44640
44640	40320	44640	43200	44640	43200	44640	44640	43200	44640	43200	44640
				8	1	699		41	76		
	13	98	22	2797	709	14	196	1998		125	
	14			351			20	1285	10	4	2846
5	1142			525			56	1347	163	9	11
343				23					2008		
			34	85	1518						
						26			551	445	
		6				30			508	1796	
						15				373	
		21979	43200	8389			38	7641	56		
	293				26331		140		110	10	
								1004	16253		
	2239	2736	1685	25483	6305				2613		
		569				28349	13723			4149	
		576			2355	5284	13801				
275			29503		424				316	54	
1046	600	3111									158
1173	676	3590				13181					
			4003								
			4007	259							
617				629	54	49	654	823			
		1089			110		15880			526	
282		563			206		15884				
		360						43200	21966		
	883	575				1428		3637		1589	
279	521	632	12546	13081	26	1019	21	17654	36319	43200	11553
			8					6211		501	
		13415			31				353		
44640	40320	44640	23079	44640	43200	1376			285	279	876
		2735	1674	25480	6305				301	587	
		12106		986				26114			
											126
					18714	126				41	

R7, R8, R9 - External impacts

R10, R11 - Other reasons

	Circuit length (km)				Transformers 400kV → 220kV		
					in the network		
Country	220 kV	of which cable	400 kV	of which cable	Number	Capacity GVA	
B	388	0	1476	0	6	2,1	
D[1]	20000	35	18600	65	87	51,8	
E[1]	16179	114	15197	15	83	35,5	
F	26289	899	20866	2	208	106,0	
GR	8146	166	2623	160	35	9,3	
I	12883	859	9978	204	51	20,5	
SLO	328	0	510	0	3	1,2	
HR[2]	1224	0	1157	0	0	0,0	
JIEL[4]	2723	0	2143	0	12	4,8	
L	236	6	0	0	0	0,0	
NL	683	6	2003	0,4	4	2,5	
A[3]	3765	5	2474	56	17	10,8	
P	2705	11	1301	0	6	2,7	
CH	5047	20	1597	0	19	10,6	
CZ	1904	0	3367	0	4	2,0	
H[3]	1488	0	1956	0	3	1,5	
PL	8112	0	4660	245	16	7,2	
SK	962	0	1753	0	3	1,4	
UCTE	**113062**	**2121**	**91661**	**747**	**557**	**269,9**	

[1] Transformers of power units as of December 31, 2001
[2] Values as of December 31, 2001
[3] Values as of December 31, 2000
[4] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

	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	2,8	14	8,4	24	11,8
	111	31,0	435	81,9	100	62,0	188	54,6
	155	18,6	506	48,3	56	22,5	31	11,8
	263	31,0	1156	106,0	211	86,0	55	13,0
	69	7,1	360	15,1	16	5,0	0	0,0
	112	23,0	150	24,7	116	34,8	206	52,9
	0	0,0	10	1,1	0	0,0	4	1,2
	5	0,8	10	2,4	1	0,3	3	2,5
	20	3,8	53	8,0	16	6,6	17	5,0
	11	1,8	18	2,6	0	0,0	0	0,0
	9	3,2	25	4,6	6	3,6	33	15,1
	64	7,1	67	11,5	3	1,2	13	3,9
	60	3,6	61	7,2	15	3,2	13	3,7
	101	4,7	149	13,9	8	4,3	1	0,2
	5	1,1	20	4,0	33	11,3	41	11,1
	n.a.	n.a.	26	4,2	n.a.	n.a.	20	4,2
	57	13,4	108	17,3	24	8,2	34	9,1
	8	1,5	13	2,6	20	4,1	18	4,7
	65	**14,9**	**3184**	**358,2**	**639**	**261,5**	**701**	**204,8**

	F	I	SLO	HR	FY-ROM	BiH	JIEL[1]	L	NL	A	P	CH	CZ	H	PL	SK
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				
	3											5				
	3											5				
GR	-			1												
	-			-												
	1			1												
I	-									-		1				
	1									1		6				
	1									-		2				
SLO	3									-						
	2									1						
	3									2						
HR					11	2								2		
					7	-								-		
					2	1								2		
JIEL[1]	0				6									1		
	2				2									-		
	1				1									1		
A												-	-	-		
												1	2	2		
												2	1	1		
CZ															-	5
															2	2
															2	3
H																-
																-
																2
PL																-
																-
																2

<220 kV
220 kV
380 kV

As of 31.12.2002

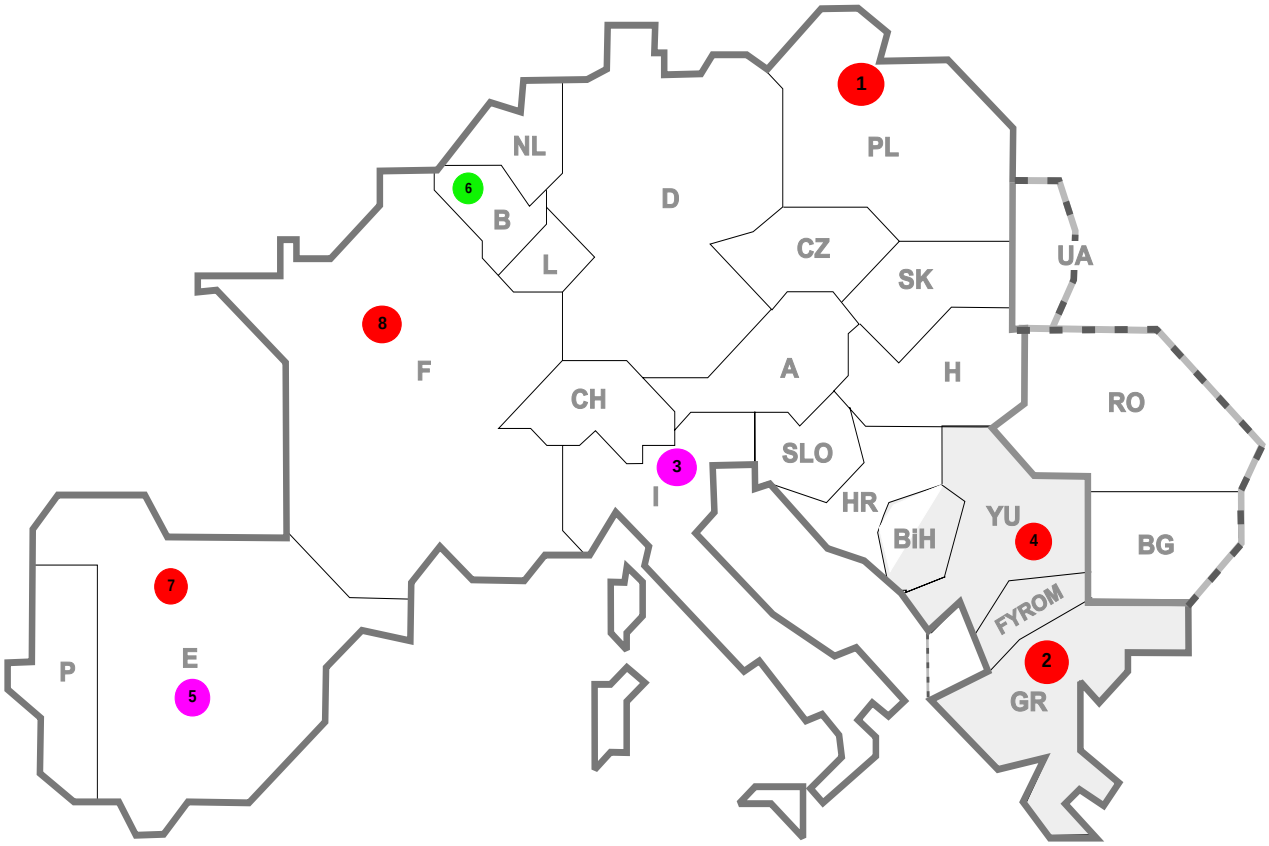
[1] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

T12 Commissioning of new transmission installations

Country	Name of line	Designed for	Equipped for	Operated with
Deutschland	Goldisthal - Altenfeld	2 x 380 kV	2 x 380 kV	2 x 380 kV
	Röhrsdorf - Hradec	2 x 380 kV	2 x 380 kV	2 x 380 kV
	Zukunft - Verlautenheide	2 x 380 kV	2 x 380 kV	2 x 380 kV
		2 x 110 kV	2 x 110 kV	2 x 110 kV
	Anschluss Trossingen [1]	2 x 380 kV	2 x 380 kV	1 x 380 kV
Hellas	Florina - Amyndeo	1 x 400 kV	1 x 400 kV	1 x 400 kV
Schweiz	T-Rehag - Austrian Border [2]	1 x 400 kV	1 x 220 kV	1 x 220 kV

[1] In the year 2002 new constructions took place in the area of Engstlatt and Trossingen. A new 380 kV substation was built in Trossingen. For the additional support of this substation a new 380 kV line has been built between Engstlatt, Kühmoos and Villingen, using the existing 380 kV line between Kühmoos and Villingen.

[2] This line is the second 220 kV circuit of the existing line between T-Rehag and Meiningen in Austria

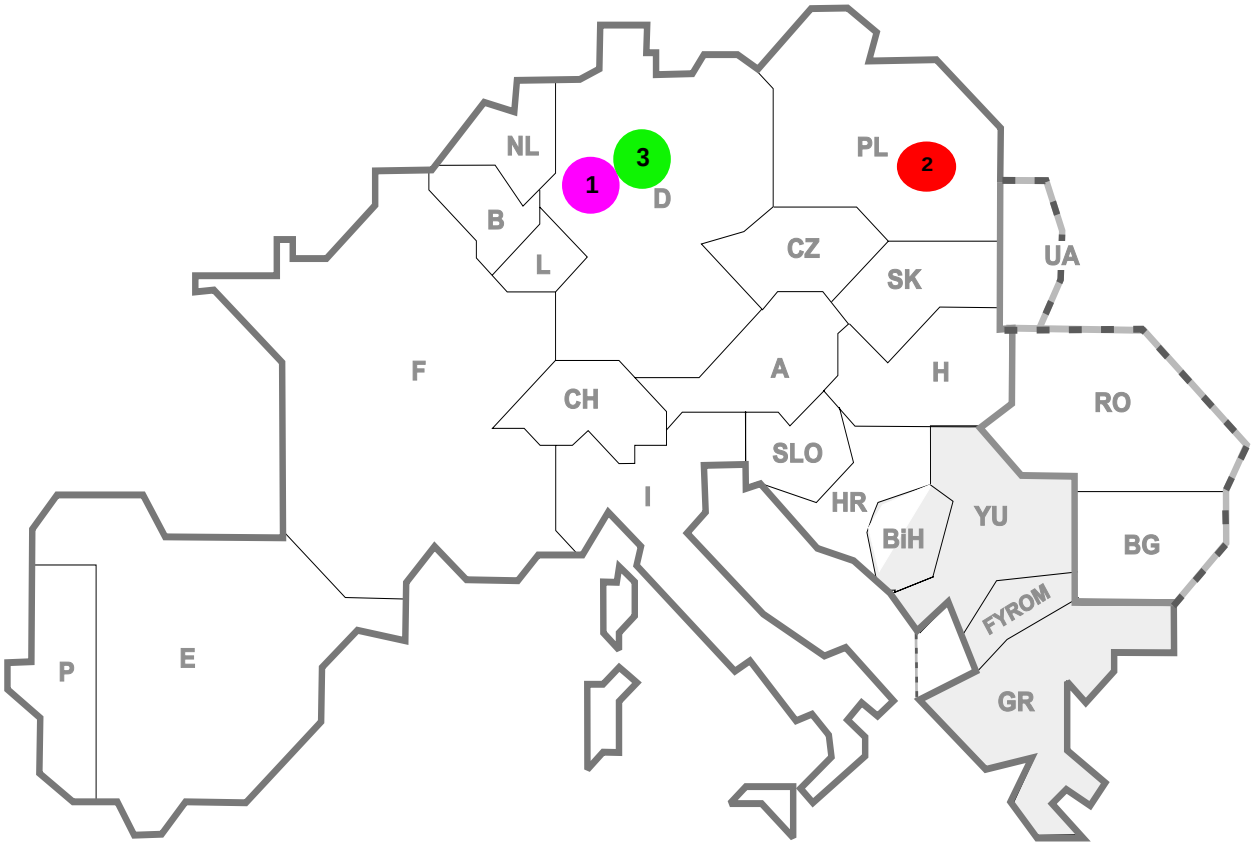


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	R10, R11	Other reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption1
1	PL	Starno	R6	546	600	82	2,33
2	GR	Pallini	R6	190	370	40	4,19
3	I	Scandale	R10	48	270	39	0,46
4	YU	Subotica	R4	40	0	10	0,00
5	E	Andujar	R11	16	0	12	0,00
6	B	Villeroux	R8	16	47	21	0,30
7	E	Ormaiztegui (Ichaso)	R6	13	0	21	0,00
8	F	Moulineaux	R5	13	38	46	0,05

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

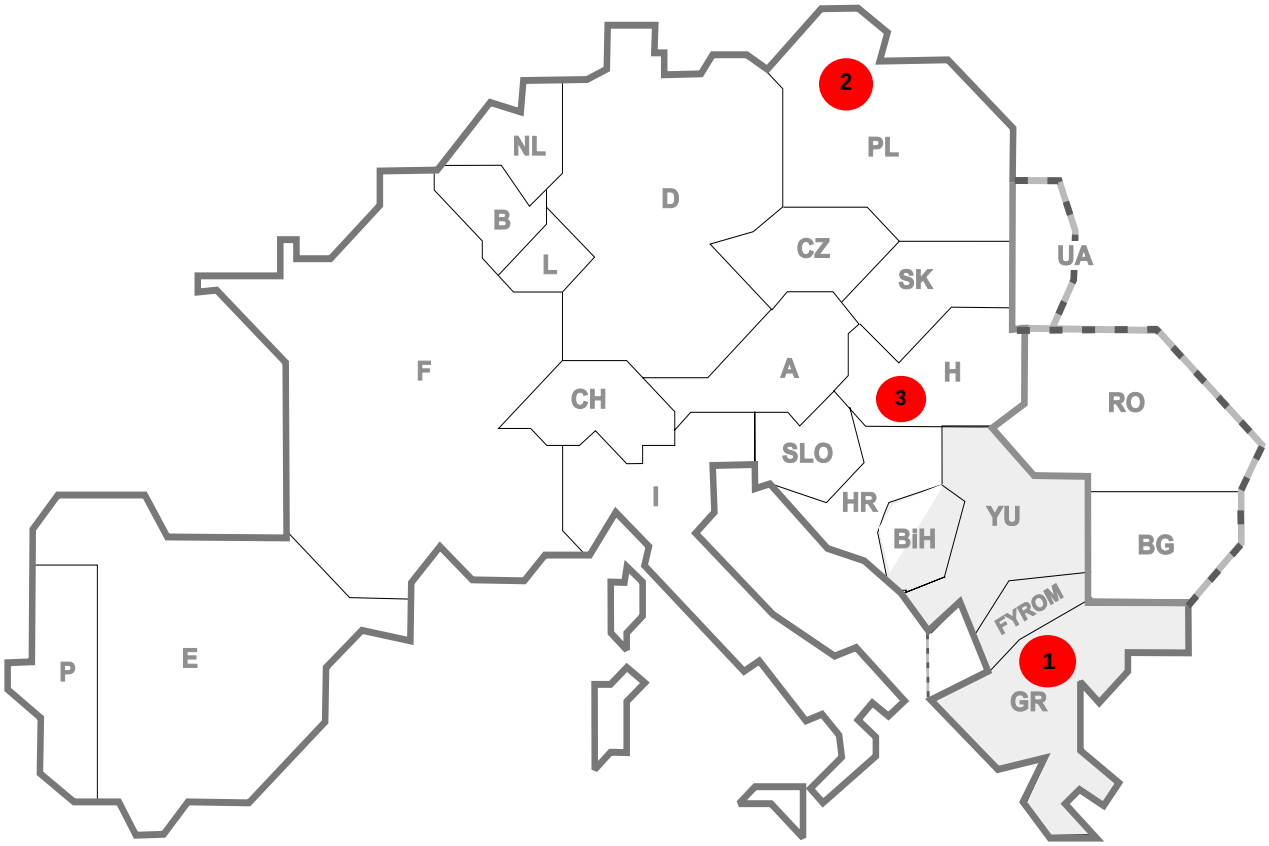


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	D	Rommerskirchen	R11	758	278	165	0,30
2	PL	Starno	R6	240	600	48	2,35
3	D	Witten	R8	51	150	34	0,16

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

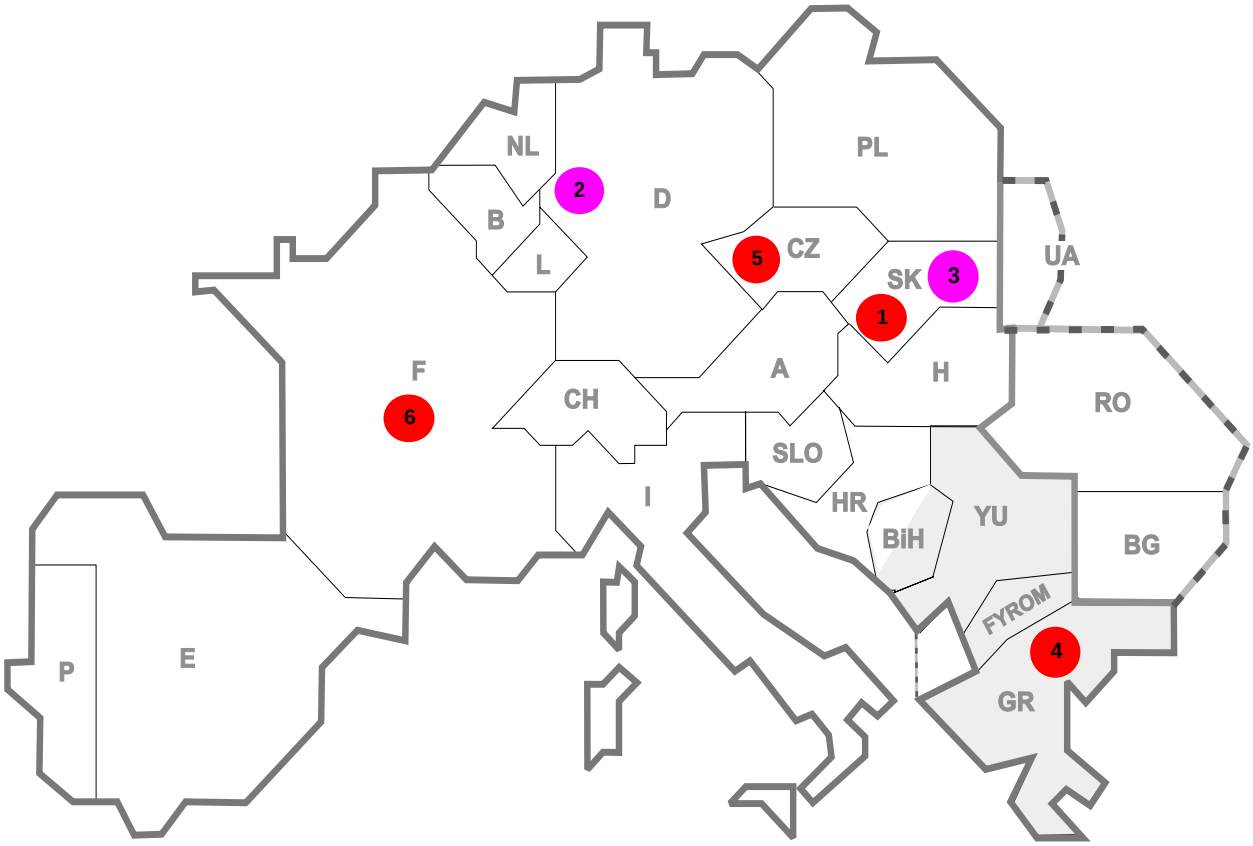


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	GR	Ag.Demetrios	R5, R6	900	900	30	10,15
2	PL	Starno	R6	340	600	102	2,36
3	H	Sajoszöged	R5	150	150	60	2,14

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

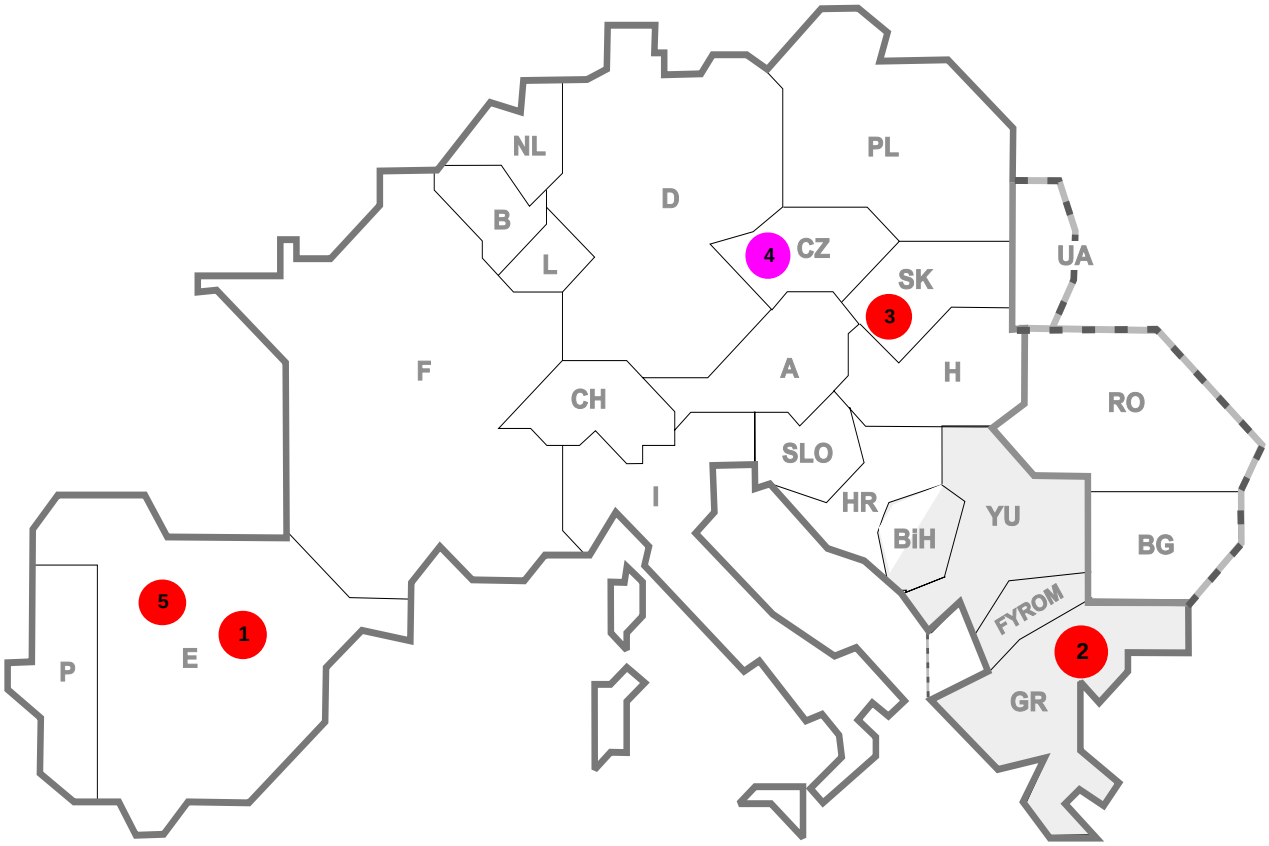


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	Bohunice (V1)	R5	3407	324	631	6,59
2	D	Weisweiler	R10	1409	278	304	0,30
3	SK	Gabcikovo	R10	238	197	70	4,01
4	GR	Ag.Demetrios	R6	225	900	15	10,08
5	CZ	Cechy Stred	R4	21	0	16	0,00
6	F	Pasquier	R6	10	146	8	0,18

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

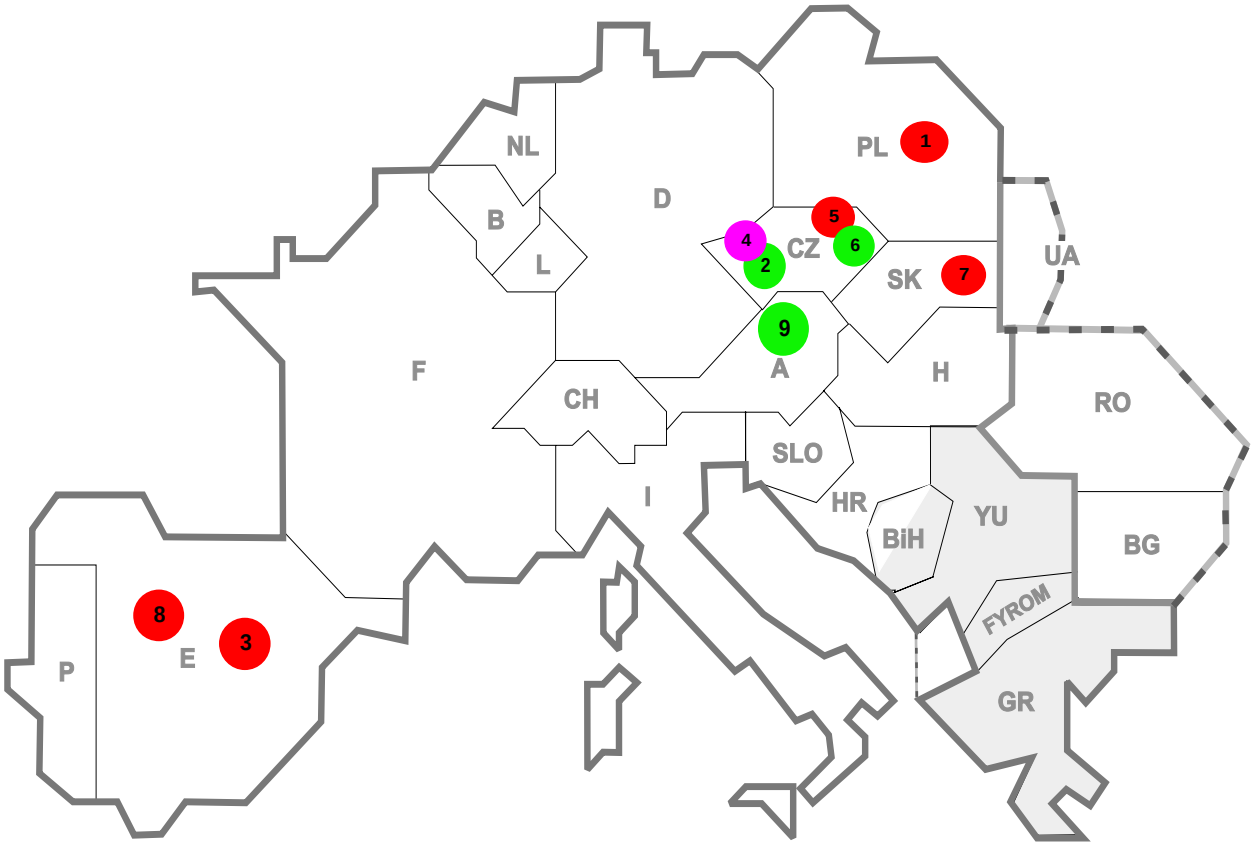


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	E	Zumarraga	R6	149	0	71	0,00
2	GR	Ag.Stefanos	R4	130	370	10	4,14
3	SK	Sucany	R6	46	75	23	1,52
4	CZ	Chotejovice	R10	45	123	236	1,11
5	E	Los Ramos	R5	18	0	9	0,00

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

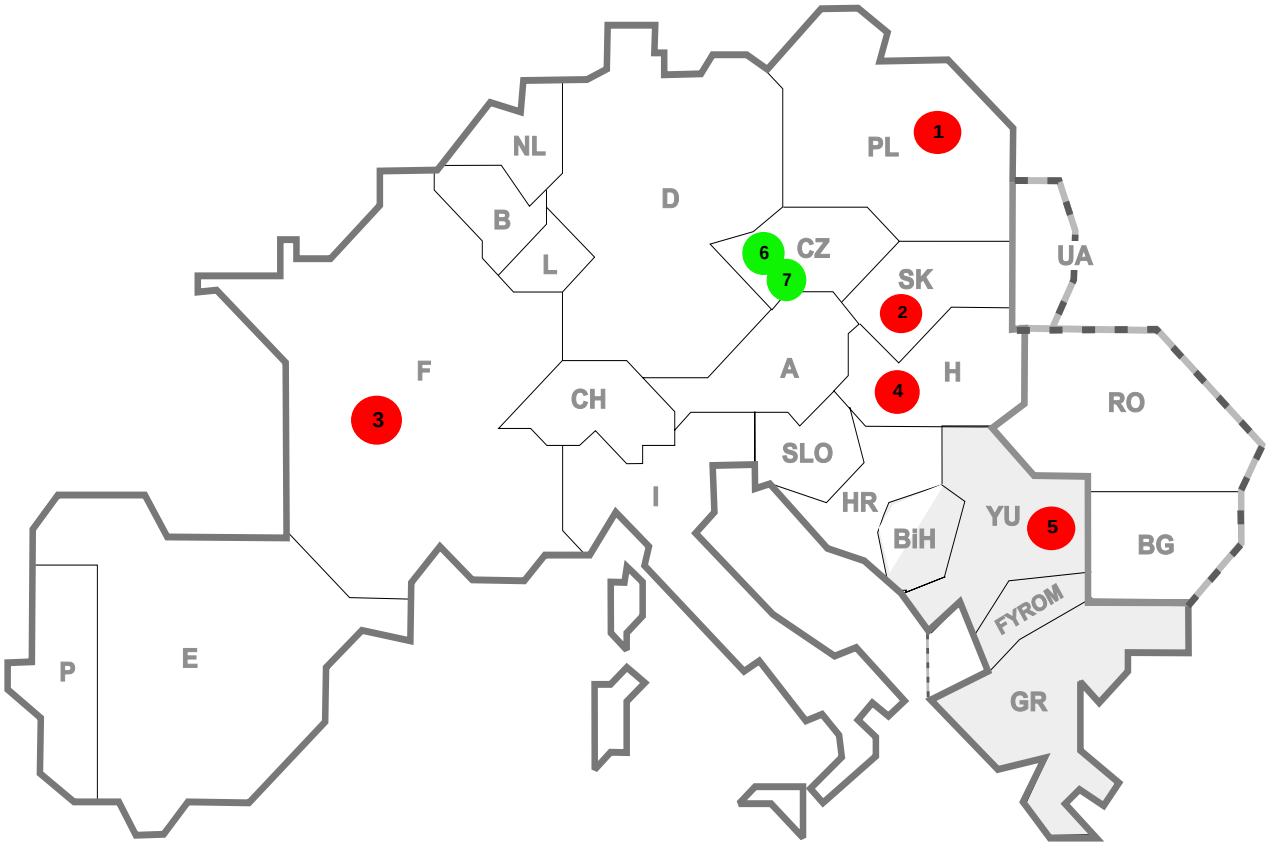


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	Slupsk	R6	130	600	26	2,37
2	CZ	Hradec	R8	85	294	93	2,65
3	E	Loeches	R6	58	0	19	0,00
4	CZ	Cechy Stred	R10	51	167	24	1,51
5	CZ	Mrovka	R6	37	0	20	0,00
6	CZ	Tynec	R8	36	0	19	0,00
7	SK	Sucany	R6	34	218	44	4,42
8	E	Tordesillas	R6	29	0	20	0,00
9	A	St. Peter	R7	26	0	1486	0,00

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

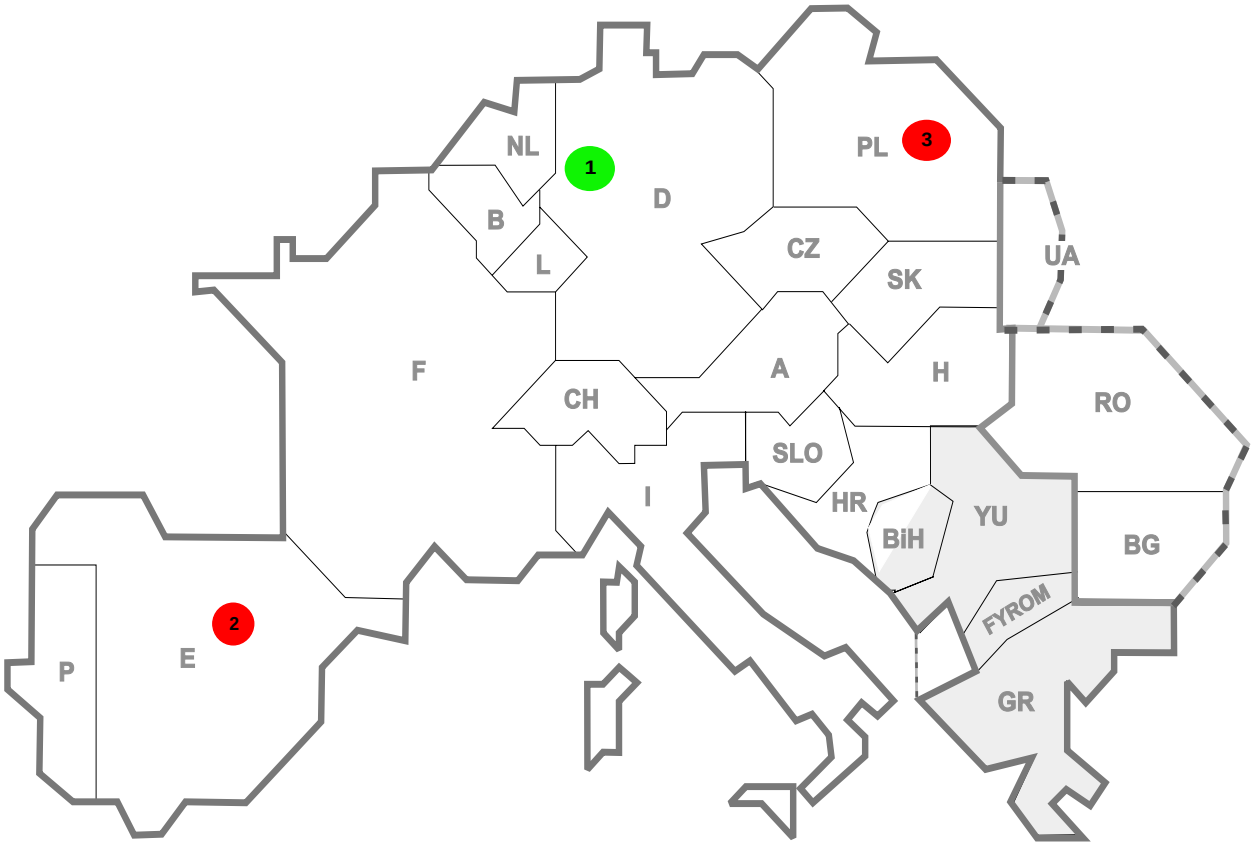


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	Slupsk	R6	347	1673	514	6,61
2	SK	L. Mara	R6	237	185	2	3,74
3	F	Villevaude	R4	105	460	27	0,55
4	H	Paks	R5	42	43	45	0,61
5	YU	Subotica	R4	35	0	9	0,00
6	CZ	Sokolnice	R8	14	0	8	0,00
7	CZ	Krasikov	R8	13	0	8	0,00

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

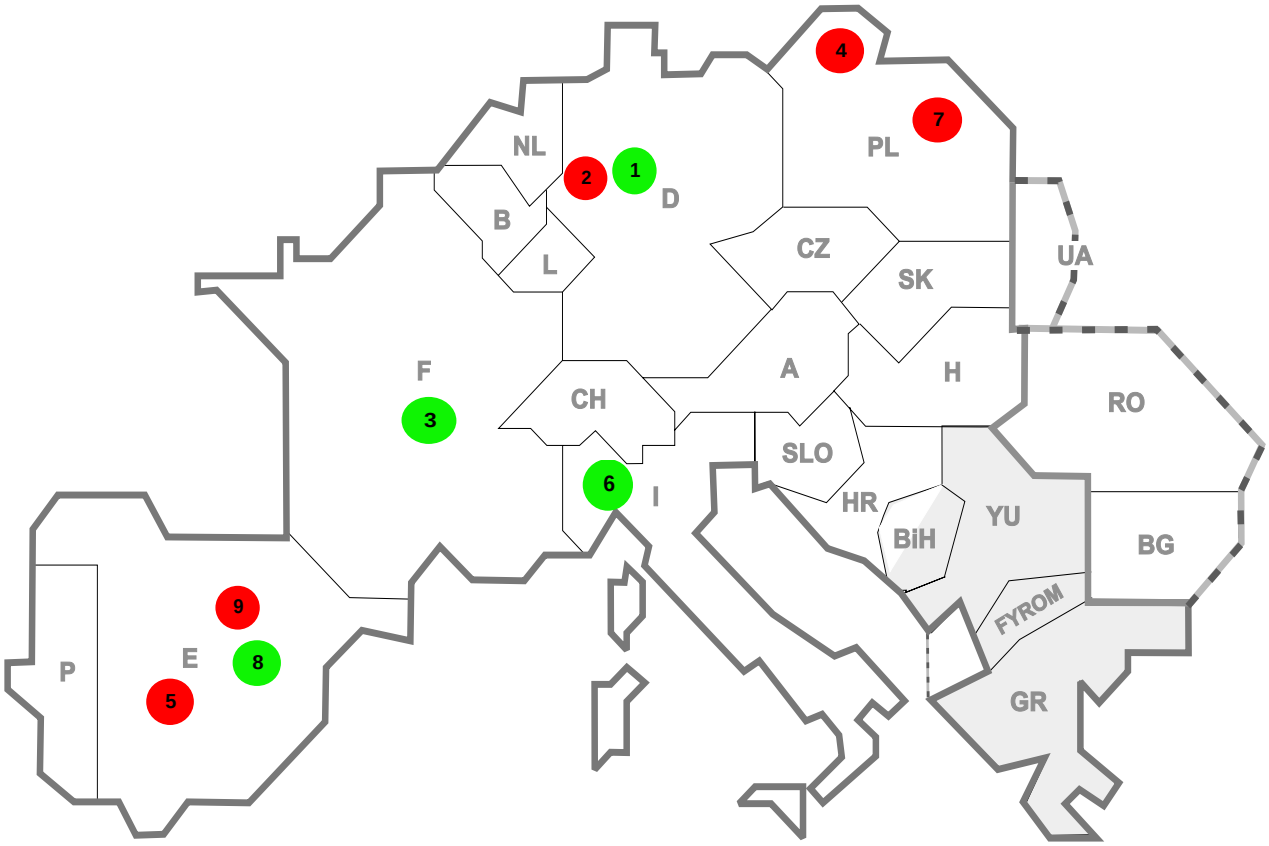


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	D	Gersteinwerk	R8	1200	610	118	0,65
2	E	Badalona	R6	398	0	43	0,00
3	PL	Slupsk	R6	105	473	21	1,87

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

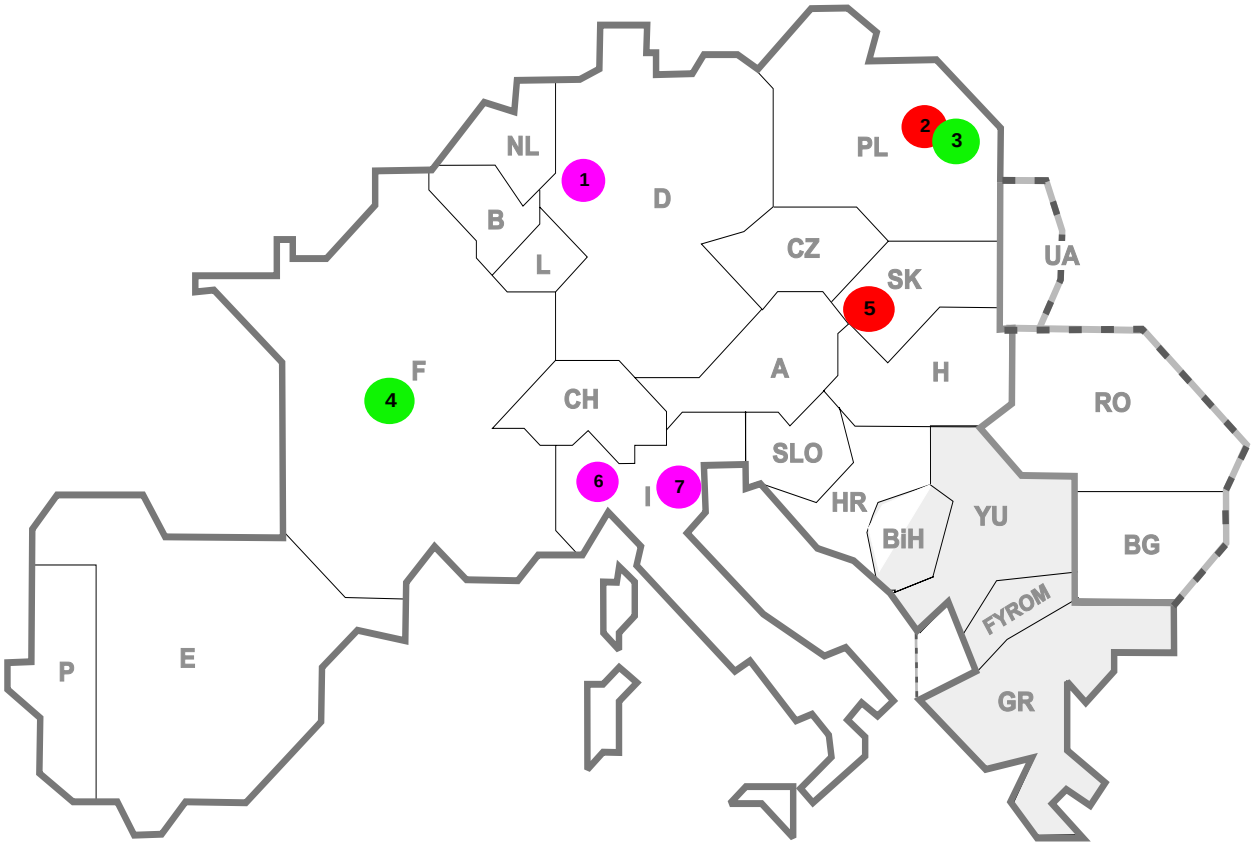


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	D	Knepper	R7	352	320	66	0,34
2	D	Neurath	R4	257	615	25	0,65
3	F	Cern	R7	133	120	77	0,14
4	PL	Starno	R6	123	473	37	1,87
5	E	Begues	R6	43	0	2	0,00
6	I	Biella	R7	31	27	70	0,05
7	PL	Adamow	R4	21	120	81	0,47
8	E	Meson	R8	19	0	10	0,00
9	E	Morata	R6	17	0	32	0,00

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

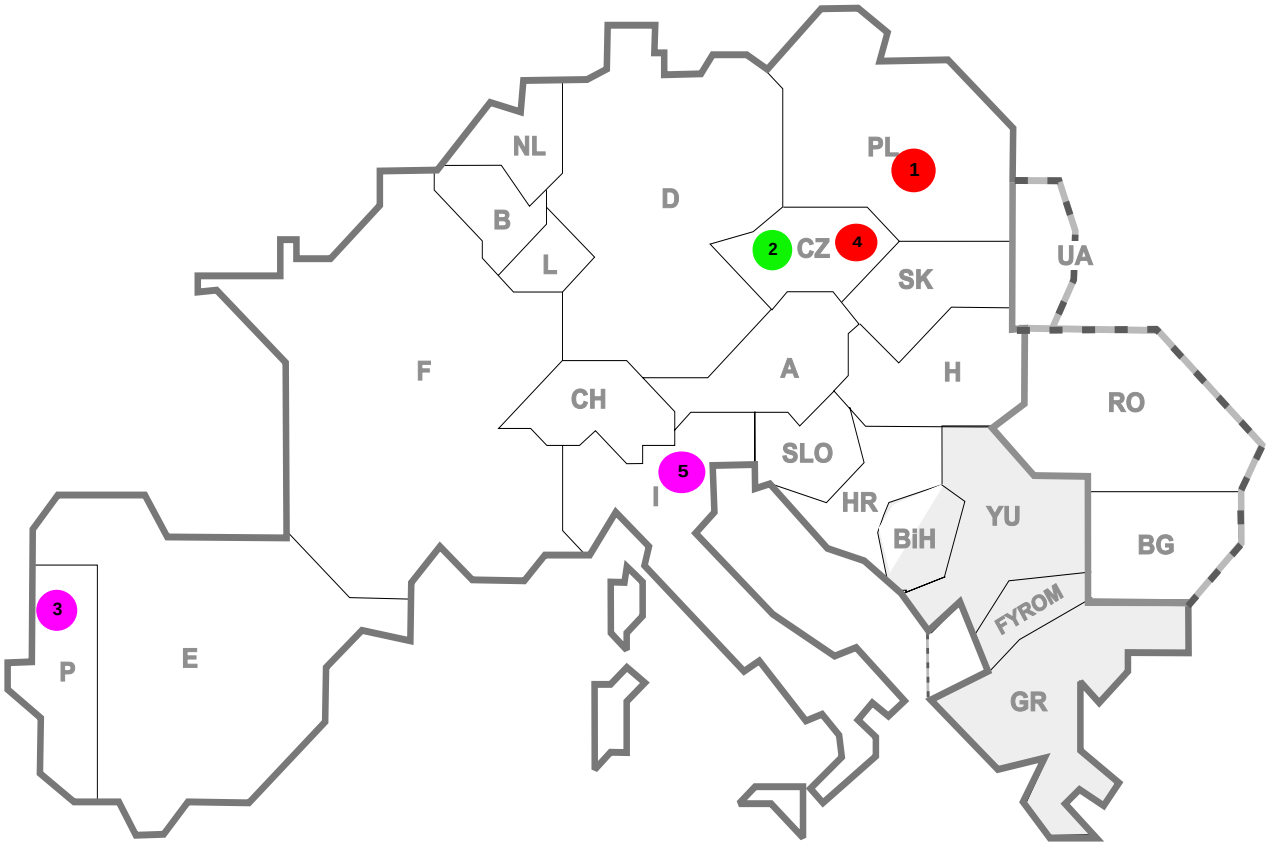


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	D	Frimmersdorf	R10	1344	284	73	0,30
2	PL	Slupsk	R6	600	100	882	0,39
3	PL	Slupsk	R9	600	200	32126	0,79
4	F	Grande Synthe	R8	418	77	998	0,09
5	SK	Medzibrod	R5	58	116	2	2,33
6	I	Corriolo	R10	48	160	71	0,27
7	I	Partinico	R10	12	117	6	0,20

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

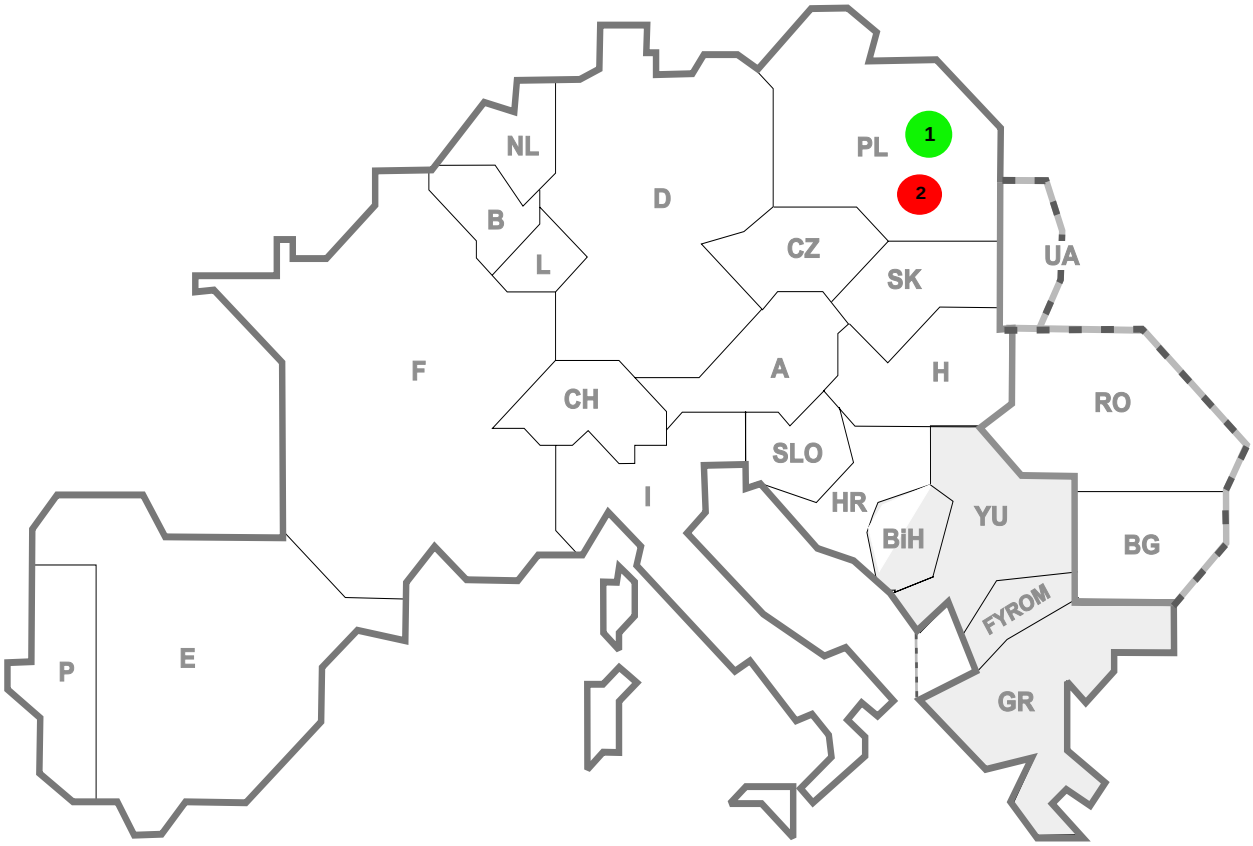


Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	Dobrzen	R4	380	756	26	2,98
2	CZ	Nosovice	R7	70	0	60	0,00
3	P	Vermoim	R10	46	0	7	0,00
4	CZ	Tynec	R4	37	603	63	5,42
5	I	Castelluccia	R10	10	38	39	0,06

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



Reasons:

R3	Overload	R7, R8, R9	External impacts (animals...)
R4, R5, R6	Failure in the transmission network	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	Slupsk	R8	733	500	88	1,96
2	PL	Polaniec	R6	540	140	233	0,55

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

Inventory										
	Conventional thermal units								Nuclear thermal units	
Country	10 MW ≤ x < 200 MW		200 MW ≤ x < 400 MW		≥ 400 MW		Total			
	Number	MW	Number	MW	Number	MW	Number	MW	Number	MW
B	73	3209	11	3335	3	1380	87	7924	7	5713
D[1]	403	23572	66	20178	47	27749	516	71499	20	22246
E	319	9817	34	10695	10	5345	363	25857	9	7488
F	167	5385	31	7668	16	9640	214	22693	59	63183
GR	18	1854	16	4443	0	0	34	6297	0	0
I	1066	17532	64	18820	27	16196	1157	52548	0	0
SLO	2	267	1	312	1	662	4	1241	1	670
HR[1]	14	1126	1	303	0	0	15	1429	0	0
JIEL[2]	27	2585	11	3008	2	1160	40	6753	0	0
L	0	0	1	385	0	0	1	385	0	0
NL	95	3887	19	5783	13	7367	127	17037	1	449
A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0
P	19	1142	13	3712	0	0	32	4854	0	0
CH	16	273	0	0	0	0	16	273	5	3200
CZ	168	9552	0	0	1	460	169	10012	4	1637
H	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PL	241	11323	79	19121	2	1095	322	31539	0	0
SK	24	2068	1	218	0	0	25	2286	6	2640
UCTE	**2652**	**93592**	**348**	**97981**	**122**	**71054**	**3122**	**262627**	**112**	**107226**

[1] Values conventional thermal units as of December 31, 2000

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

Country	Commissioning				Decommissioning			
	Tc		Tn		Tc		Tn	
	Number	MW	Number	MW	Number	MW	Number	MW
B	1	385	0	0	6	400	0	0
D	n.a.	n.a.	0	67	n.a.	n.a.	0	0
E	58	1274	0	0	0	0	0	0
F	9	333	0	0	4	105	0	0
GR	0	0	0	0	2	27	0	0
I	10	936	0	0	0	0	0	0
SLO	0	0	0	0	0	0	0	0
HR	0	0	0	0	0	0	0	0
JIEL[1]	0	0	0	0	0	0	0	0
L	1	385	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0
A	n.a.	n.a.	0	0	n.a.	n.a.	0	0
P	n.a.	n.a.	0	0	n.a.	n.a.	0	0
CH	0	0	0	0	0	0	0	0
CZ	0	0	0	0	0	0	0	0
H	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PL	n.a.	n.a.	0	0	n.a.	n.a.	0	0
SK	0	0	0	0	0	0	0	0
UCTE	**79**	**3313**	**0**	**67**	**12**	**532**	**0**	**0**

[1] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Country	Inventory of hydro power units								Total	
	1 MW ≤ x < 10 MW		10 MW ≤ x < 50 MW		50 MW ≤ x < 100 MW		≥ 100 MW			
	Number	MW	Number	MW	Number	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	431	1394	128	2884	38	2583	40	10779	637	17640
F	187	880	170	4170	41	3027	58	16012	456	24089
GR	6	31	3	63	2	120	11	2846	22	3060
I	542	1795	231	5371	29	1913	39	10900	841	19979
SLO	2	18	8	222	5	296	2	242	17	778
HR	13	30	7	224	5	390	5	1431	30	2075
JIEL[4]	6	45	20	1251	3	583	3	2014	32	3893
L	3	20	1	11	0	0	1	1096	5	1127
NL	0	0	3	35	0	0	0	0	3	35
A[2]	161	475	99	2346	19	1389	26	6698	305	10908
P	12	45	14	322	6	421	15	3394	47	4182
CH	173	603	102	2441	39	2586	37	7527	351	13157
CZ	46	135	7	168	0	0	5	1711	58	2014
H[2]	9	44	0	0	0	0	0	0	9	44
PL[3]	54	1157	5	90	3	228	5	1669	67	3144
SK	29	179	36	734	10	820	6	734	81	2467
UCTE	**1955**	**7835**	**917**	**22144**	**214**	**15382**	**274**	**73058**	**3360**	**118419**

[1] Values as of December 31, 2000
[2] Values as of December 31, 1999
[3] Data for hydro power plants and not for hydro power units
[4] JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

Country	Commissioning		Decommissioning	
	Number	MW	Number	MW
B	0	0	0	0
D	n.a.	n.a.	n.a.	n.a.
E	9	27	0	0
F	1	8	1	2
GR	0	0	0	0
I	29	268	5	325
SLO	0	0	0	0
HR	0	0	0	0
JIEL[1]	0	0	0	0
L	0	0	0	0
NL	0	0	0	0
A	n.a.	n.a.	n.a.	n.a.
P	1	12	0	0
CH	0	0	0	0
CZ	0	0	0	0
H	n.a.	n.a.	n.a.	n.a.
PL	n.a.	n.a.	n.a.	n.a.
SK	0	0	0	0
UCTE	**40**	**315**	**6**	**327**

[1] JIEL = FRY + FYROM

(Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

UCTE – TERMINOLOGY

4

Terminology

All explanations concerning the terms used in the UCTE statistics are available on our online terminology on the UCTE web site, www.ucte.org. Please take also a look at the Terminology Index (Statistical Yearbook 2002, page 5) for the corresponding chapters.

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

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