



## December 2002

---

---

<b>Table of contents</b>		<b>Page</b>
1	Electricity supply situation of the countries	2
2	Physical energy flows	3
3	Monthly consumption	4
4	Monthly consumption variation	5
5	Consumption of last 12 months	6
6	Variation of the last 12 months' consumption	7
7	Load flows (night)	8
8	Load flows (day)	9
9	Unavailability of international tie lines ( major events )	10
10	Network reliability ( major events )	12
11	Scheduled exchanges	13
12	Load on the 3 <sup>rd</sup> Wednesday	14

# 1

## Electricity supply situation of the countries

December 2002

Countries	B	D	E	F	GR	I	SLO	HR	YU <sup>4</sup>	L	NL	A	P	CH	CZ	H	PL <sup>6</sup>	SK	UCTE
<b>Net production in GWh<sup>1</sup></b>																			
Hy	144	1813	4569	7114	525	4598	357	697	1399	90	0	3190	2092	2982	216	19	268	468	30541
Tn	4321	14017	5579	39410	-	-	488	0	0	0	338	0	0	2413	1238	1259	0	1680	70743
Tc	2700	30007	8538	3934	3622	17678	408	560	2831	151	8059	1858	1278	239	5062	1879	14432	950	104186
Total	7165 <sup>2</sup>	45837 <sup>2</sup>	18686 <sup>2</sup>	50458	4147 <sup>2</sup>	22276	1253	1257 <sup>2</sup>	4230	241	8397 <sup>2</sup>	5048	3370 <sup>2</sup>	5634 <sup>2</sup>	6516 <sup>2</sup>	3157 <sup>2</sup>	14700 <sup>2</sup>	3098 <sup>2</sup>	205470 <sup>2</sup>
<b>Exchange balance in GWh</b>																			
Imp. = +	579	-376	246	-7555	128	4682	-200	217	745	360	1432	-241	375	-30	-631	199	-963	-508	-1541
Exp. = -																			
<b>Consumption of pumps in GWh</b>																			
	131	567	684	595	14	914	0	16	56	104	0	63	51	198	53	0	208	18	3672
<b>Consumption in GWh<sup>1</sup></b>																			
monthly																			
	7613	44894	18248	42308	4261	26044	1053	1458	4919	497	9829	4744	3694	5406	5832	3356	13529	2572	200257
Δ <sup>3</sup> [%]	0,1	2,1	-2,9	-6,9	-0,2	1,6	2,6	-8,0	-8,0	-3,1	2,5	-10,4	-2,8	-1,6	1,4	-1,9	2,9	0,2	-1,5
last 12 months																			
	83243	498622	210275	432349	46992	310143	11727	14734	44624	6053	109661	50679	40677	58453	58522	37190	133917	26138	2173999
Δ <sup>3</sup> [%]	-0,4	0,8	2,3	-1,1	2,0	1,7	8,7	2,3	-0,7	1,9	1,8	-6,9	1,6	1,0	-0,3	1,1	-1,0	1,3	0,4
<b>Energy capability factor</b>																			
	-	1,23	-	-	1,27	1,37	1,49	1,00	1,09	-	-	-	1,78	1,39	-	-	-	1,35	1,4

<sup>1</sup> Percentage as referred to total values in %

Countries	B	D	E	F	GR <sup>5</sup>	I	SLO	HR	YU <sup>4</sup>	L	NL	A	P	CH	CZ	H	PL	SK
Production	100	94	94	97	91	100	95	100	96	98	100	84	91	100	100	100	100	100
Consumption	100	94	94	97	91	100	95	100	96	99	100	90	91	100	100	100	100	100

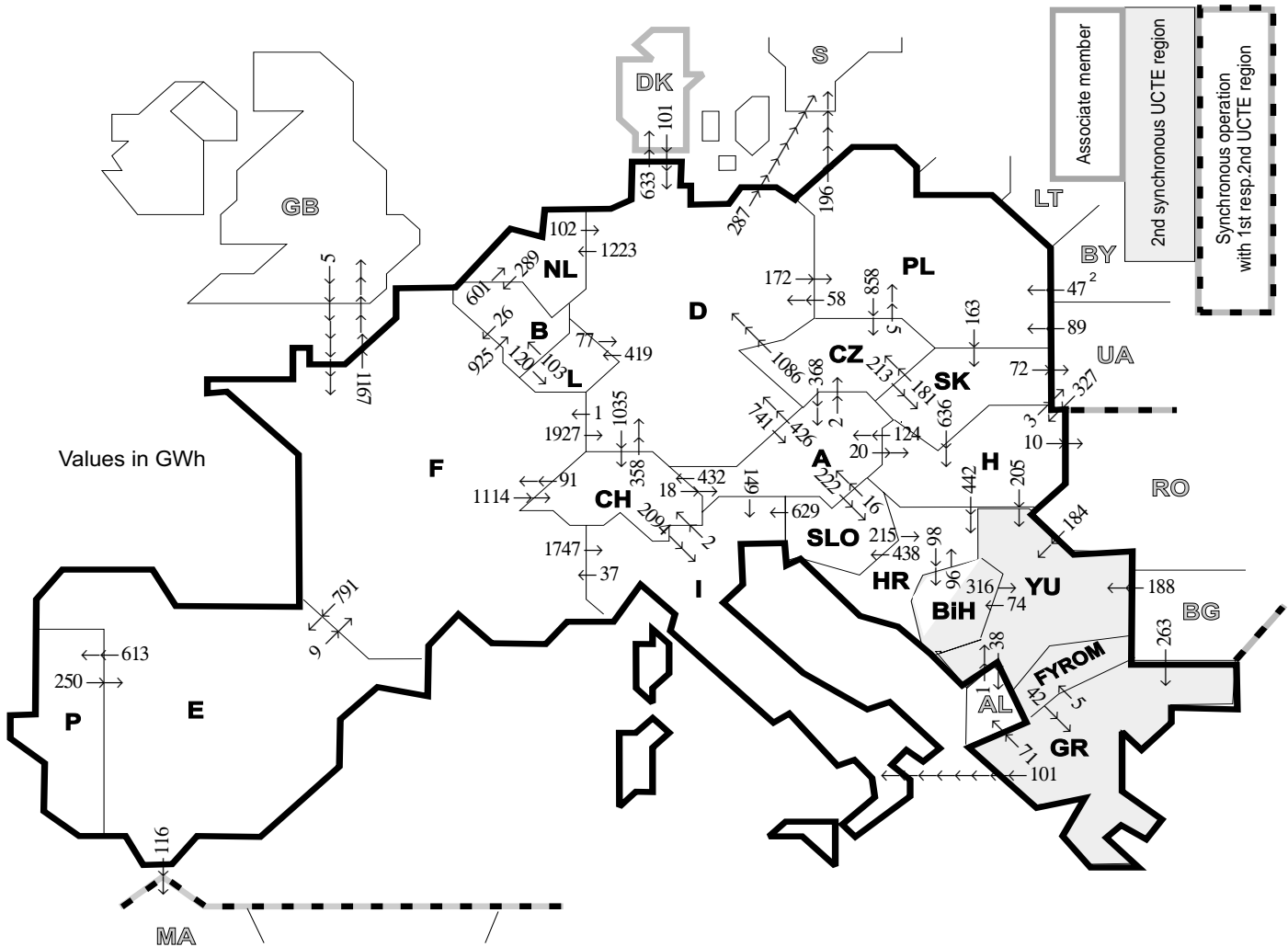
<sup>2</sup> Including deliveries from industry

<sup>3</sup> Variation as compared to corresponding period of the previous year and representativity 100%

<sup>4</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

<sup>5</sup> The representativity of data referring to the whole country including the isolated systems of the Greek island is 91%. The representativity of data referring to the mainland interconnected system is 98%.

<sup>6</sup> Production values PL are gross values



Exporting countries	Importing countries																				Σ Export
	B	D	E	F	GR	I	SLO	HR	BiH	YU	L	NL	A	P	CH	CZ	H	PL	SK	III <sup>1</sup>	
B	-	-	-	26	-	-	-	-	-	-	120	601	-	-	-	-	-	-	-	-	747
D	-	-	-	1	-	-	-	-	-	-	419	1223	741	-	1035	0	-	172	-	920	4511
E	-	-	-	9	-	-	-	-	-	-	-	-	613	-	-	-	-	-	-	116	738
F	925	1927	791	-	1747	-	-	-	-	-	-	-	-	613	-	-	-	-	-	1167	7671
GR	-	-	-	-	101	-	-	-	-	5	-	-	-	-	-	-	-	-	-	71	177
I	-	-	-	37	0	0	-	-	-	-	-	-	0	-	2	-	-	-	-	-	39
SLO	-	-	-	-	-	629	-	215	-	-	-	-	16	-	-	-	-	-	-	-	860
HR	-	-	-	-	-	-	438	-	98	0	-	-	-	-	-	-	0	-	-	-	536
BiH	-	-	-	-	-	-	-	96	-	316	-	-	-	-	-	-	-	-	-	-	412
YU	-	-	-	-	42	-	-	0	74	-	-	-	-	-	-	-	0	-	-	38	154
L	103	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180
NL	289	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	391
A	-	426	-	-	149	222	-	-	-	-	-	-	-	-	432	2	20	-	-	-	1251
P	-	-	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250
CH	-	358	-	91	2094	-	-	18	-	-	-	18	-	-	-	-	-	-	-	-	2561
CZ	-	1086	-	-	-	-	-	-	-	-	-	-	368	-	-	-	-	5	213	-	1672
H	-	-	-	-	-	-	442	-	-	205	-	-	124	-	-	-	-	-	0	13	784
PL	-	58	-	-	-	-	-	-	-	-	-	-	-	-	-	858	-	-	163	196	1275
SK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181	636	0	-	72	889
III <sup>1</sup>	-	101	-	5	263	-	-	-	-	373	-	-	-	-	-	-	327	136	0	-	1205
Σ Import	1317	4135	1041	169	305	4720	660	753	172	899	539	1824	1267	613	2583	1041	983	313	376	2593	26303

Sum of physical energy flows between UCTE countries = 22505 GWh

Total physical energy flows = 26303 GWh

<sup>1</sup> III = Third countries: Albania, Belarus, Bulgaria, Denmark, Great Britain, Morocco, Rumania, Sweden and Ukraine

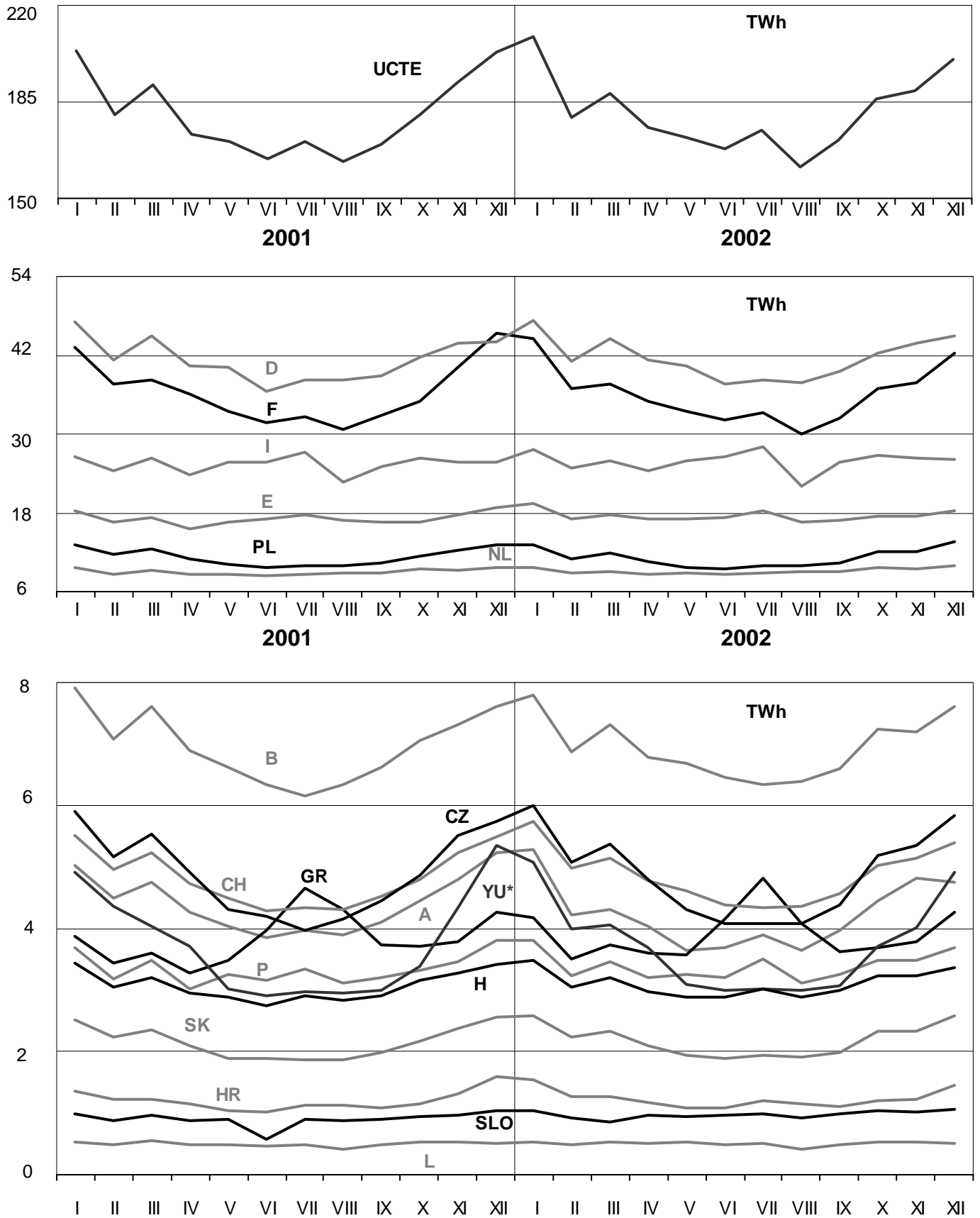
<sup>2</sup> Corresponds to the supply of a passive island in Poland with BY.

These physical energy flows were measured on the cross-frontier transmission lines (≥ 110 kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

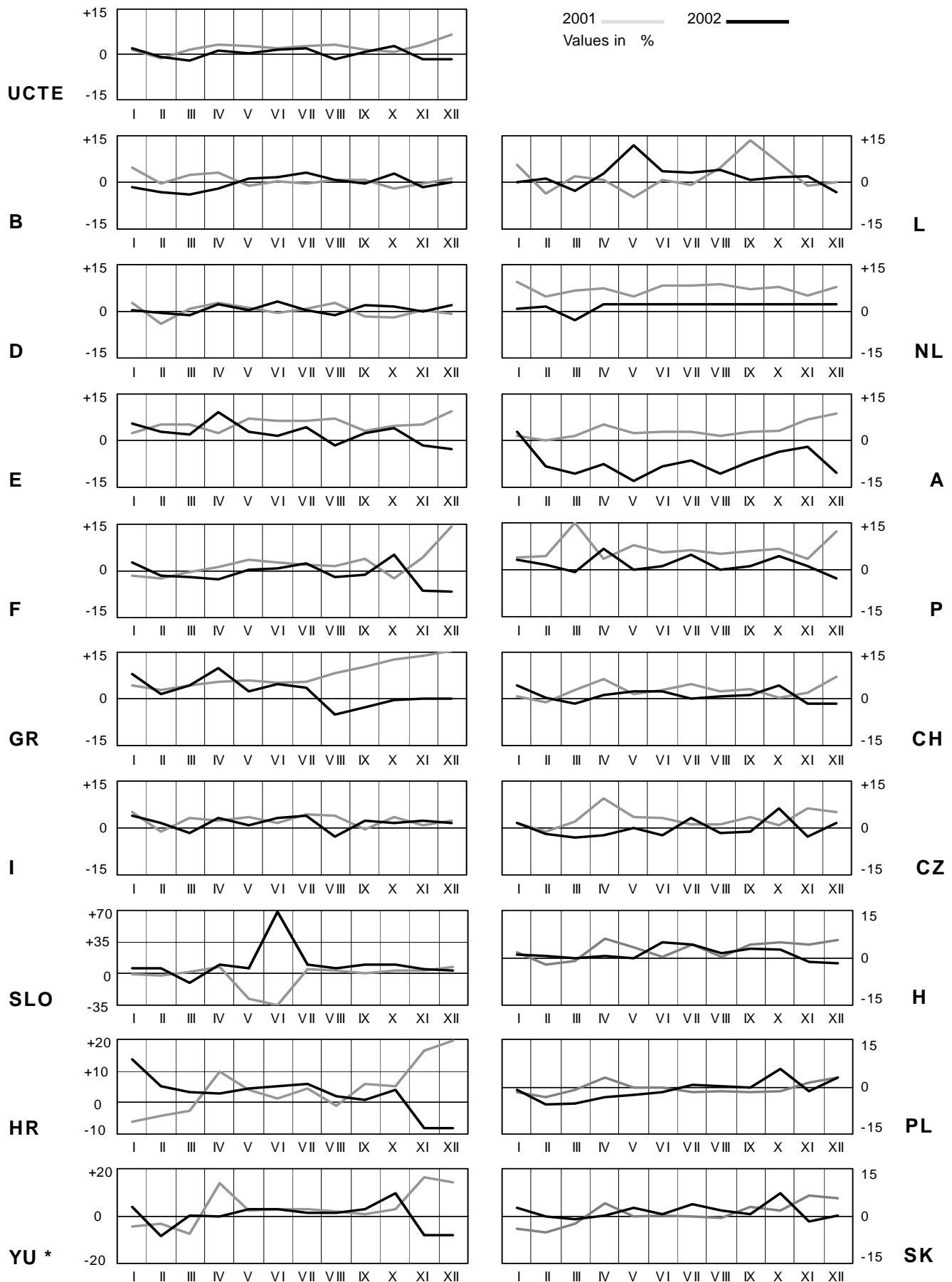
# 3

## Monthly consumption

December 2002



\* YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

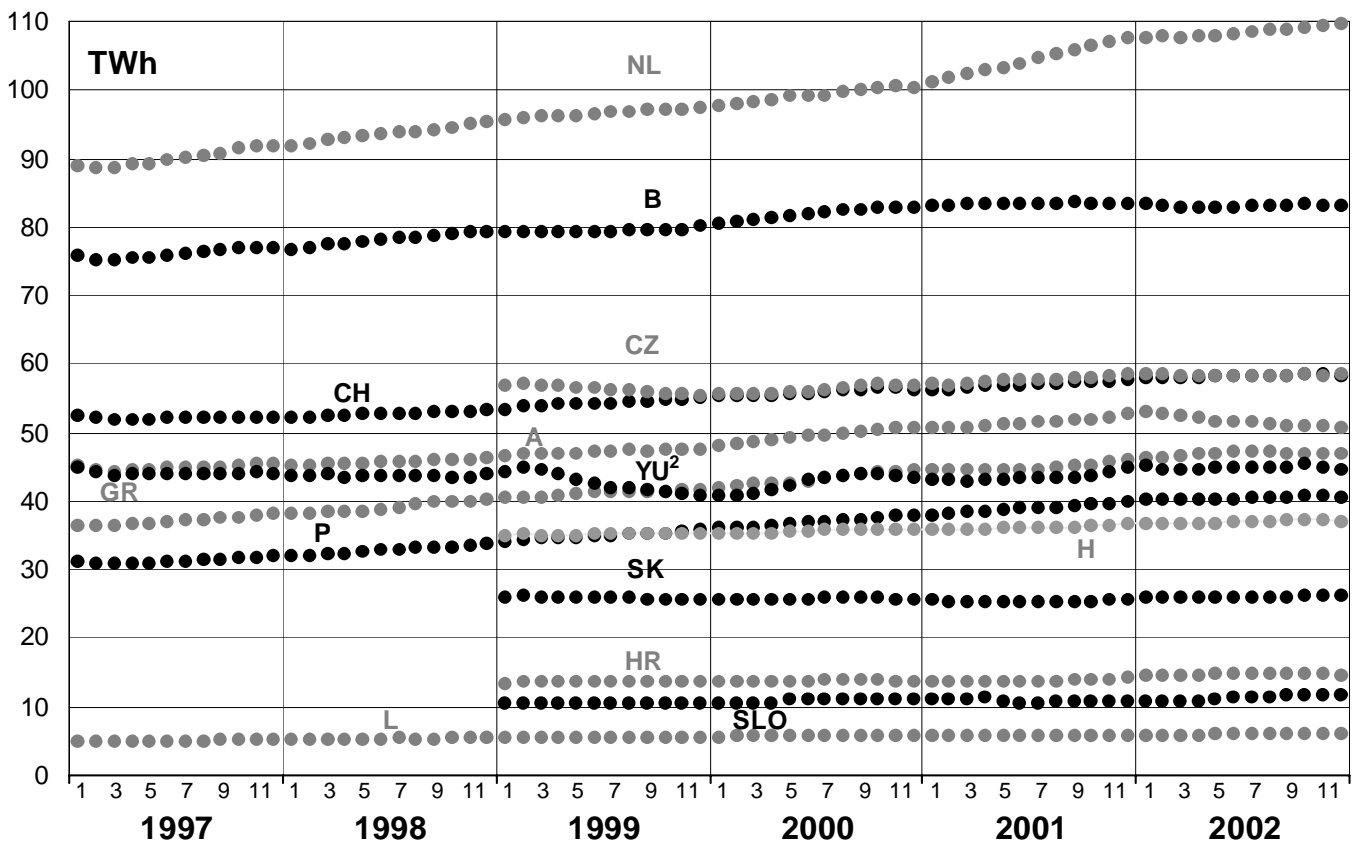
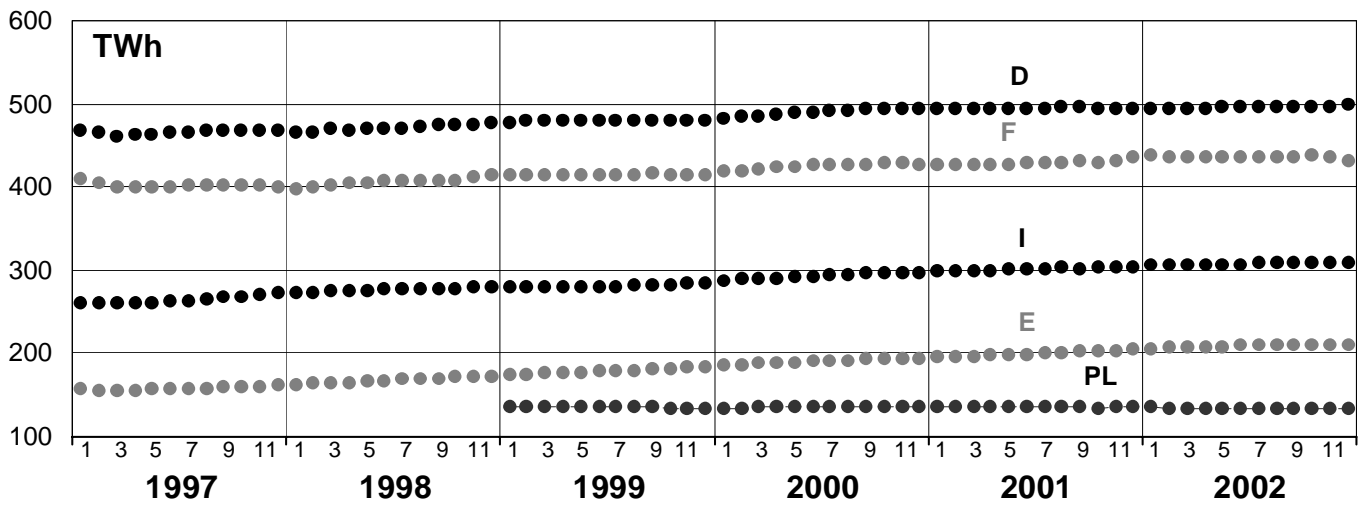
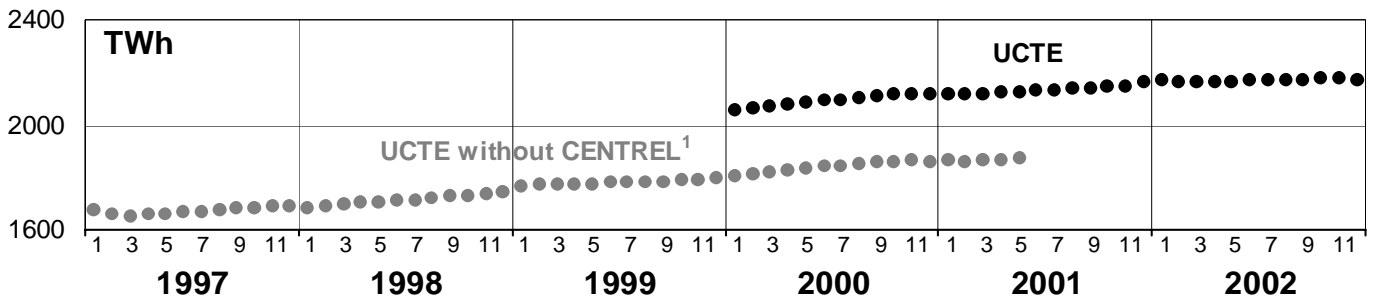


\* YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

# 5

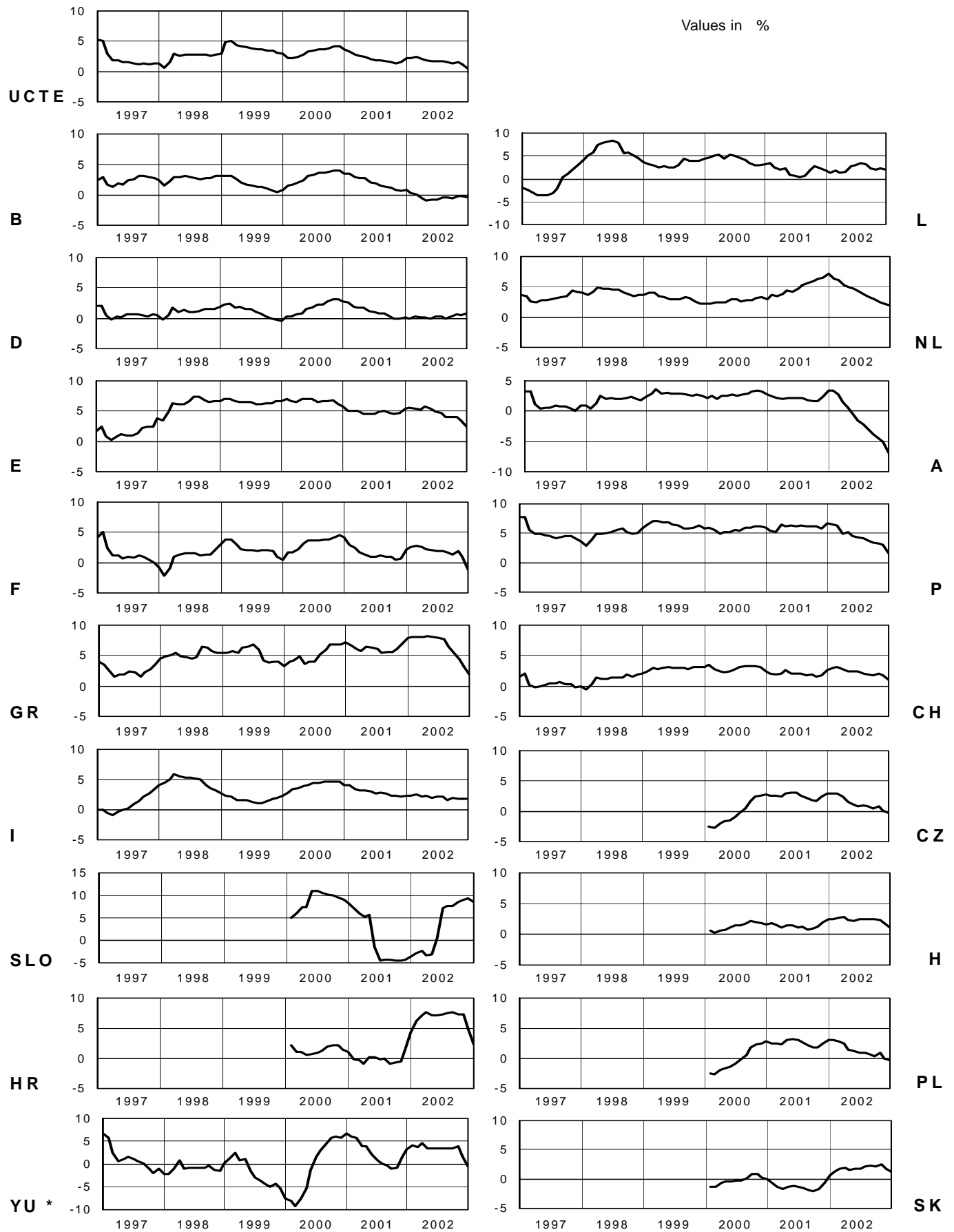
## Consumption of last 12 months

December 2002



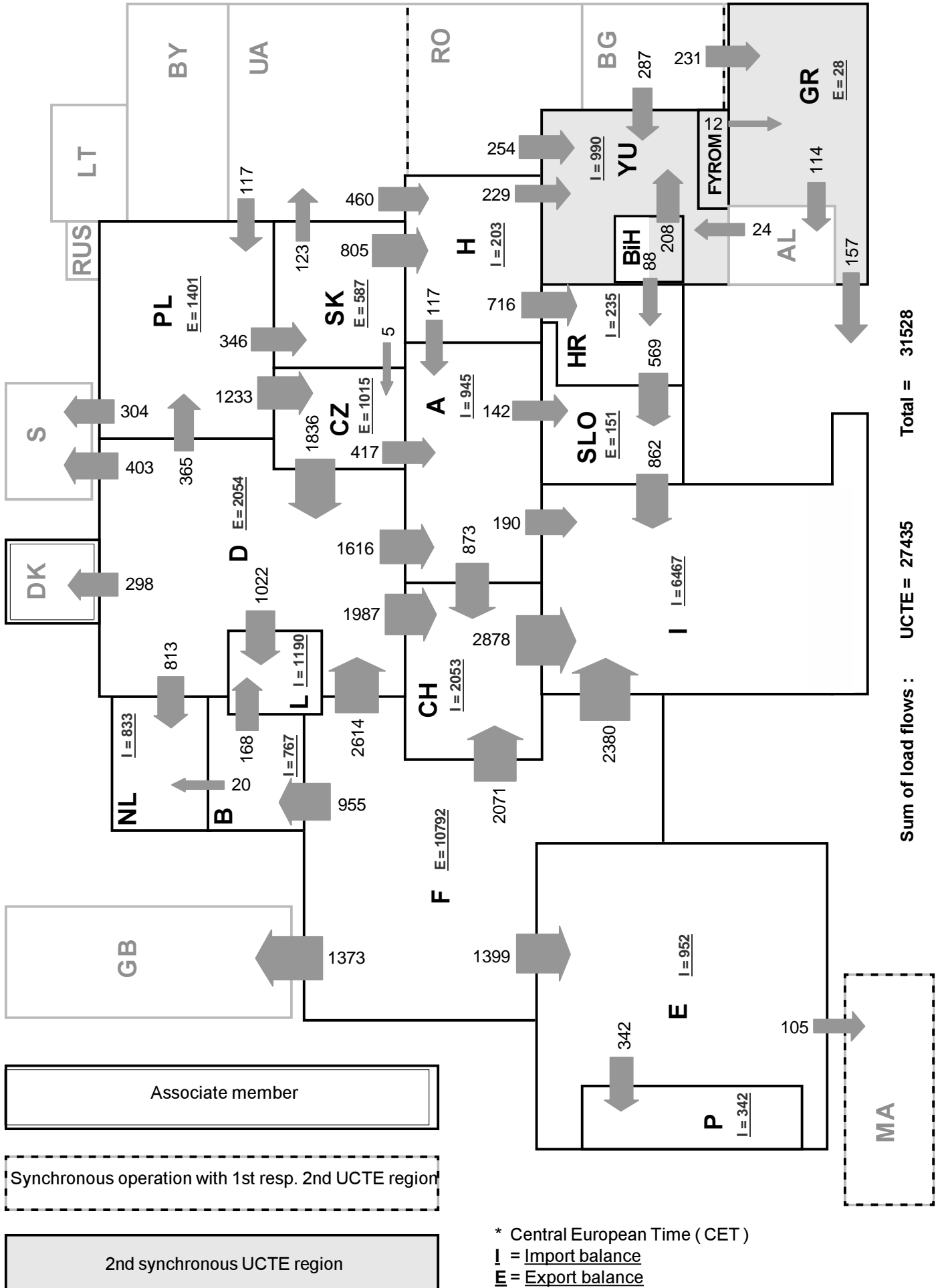
<sup>1</sup> CENTREL countries CZ, H, PL, SK member of UCTE from May 2001

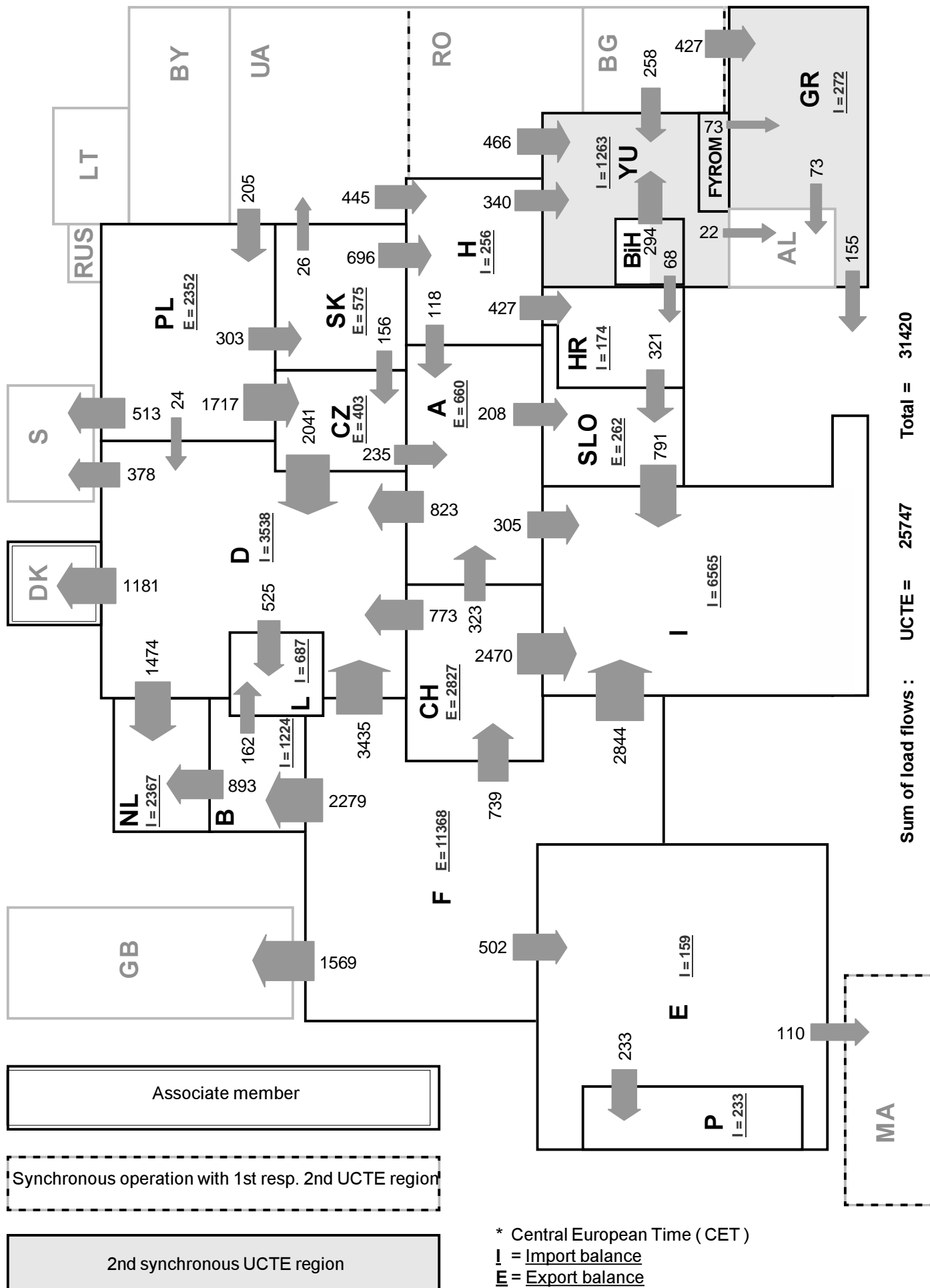
<sup>2</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

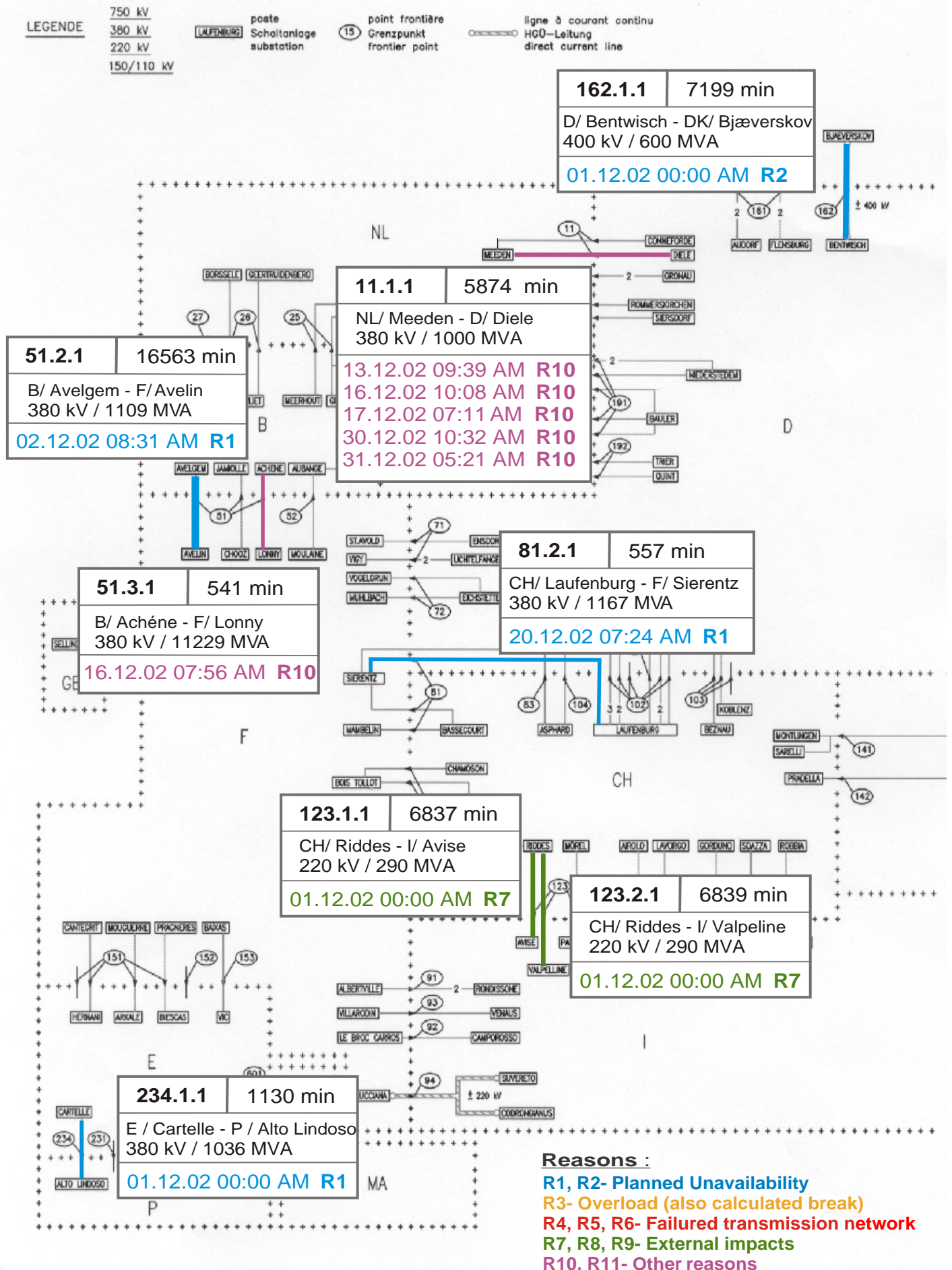


\* YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

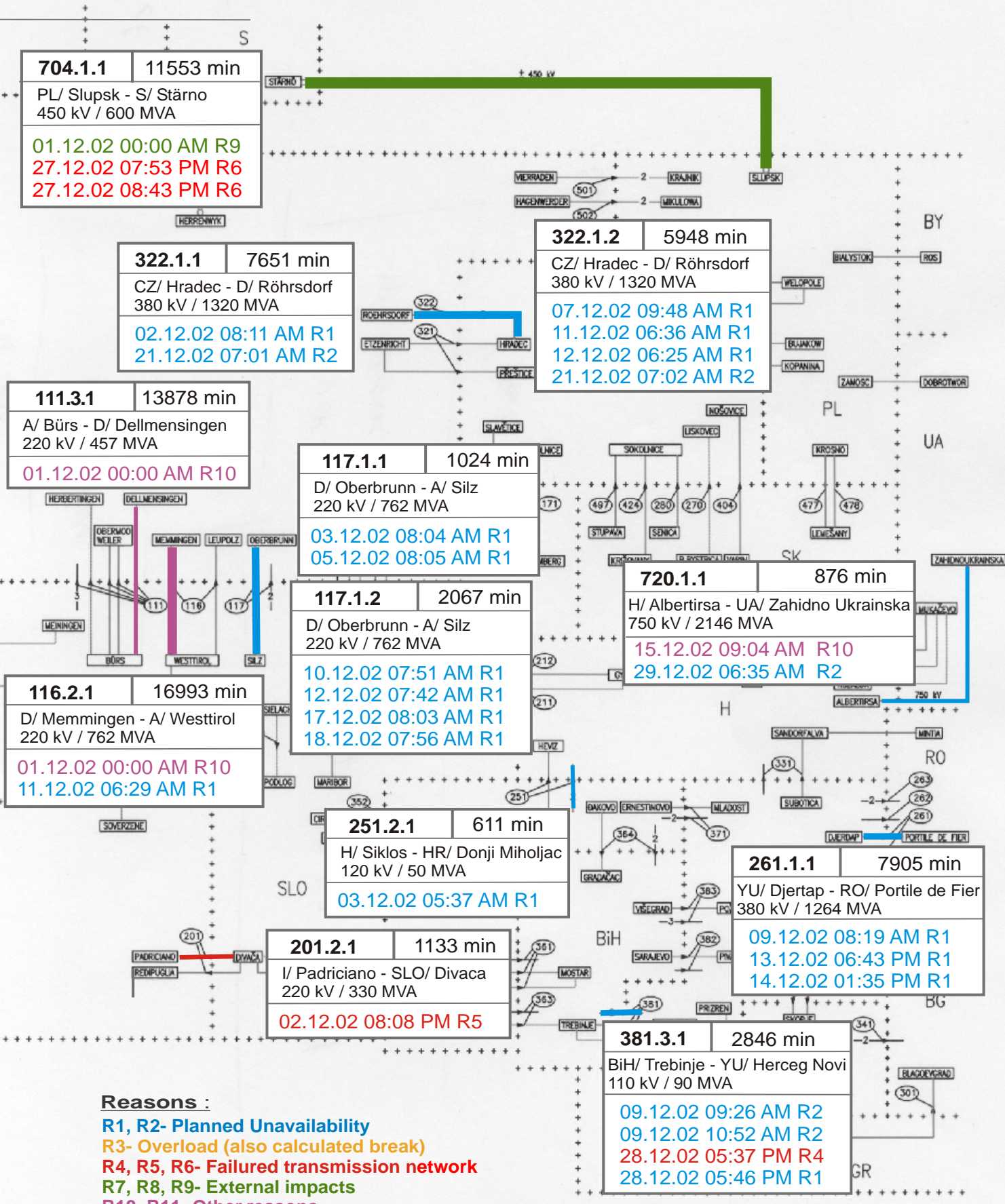






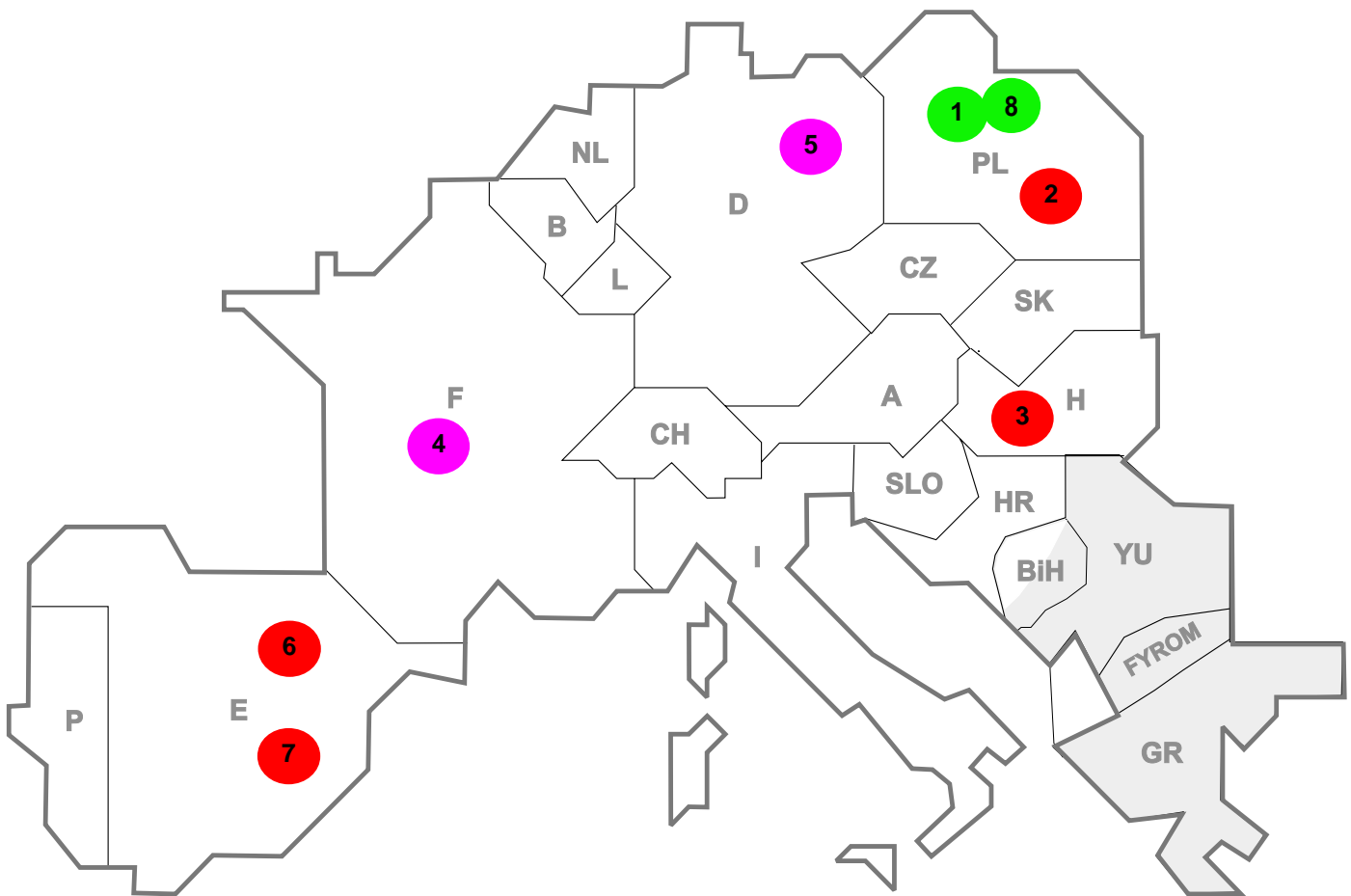


LEGENDE  
 750 kV  
 380 kV  
 220 kV  
 150/110 kV  
 LAUFENBURG  
 poste Schaltanlage substation  
 point frontière Grenzpunkt frontier point  
 ligne à courant continu HGO-Leitung direct current line



**Reasons :**

- R1, R2- Planned Unavailability
- R3- Overload (also calculated break)
- R4, R5, R6- Failed transmission network
- R7, R8, R9- External impacts
- R10, R11- Other reasons



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	Energie not supplied [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	PL	Slupsk	R8	733	500	88	1,96
2	PL	Polaniec	R6	540	140	233	0,55
3	H	Mezotur 120 kV	R6	9	8	60	0,11
4	F	Serrières	R10	1	8	5	0,01
5	D	UW Mitte (Berlin)	R10	0	0	23	0,00
6	E	Carrio	R4	0	550	15	1,37
7	E	Castejon	R4	0	392	68	0,98
8	PL	Slupsk	R9	0	200	10637	0,78

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

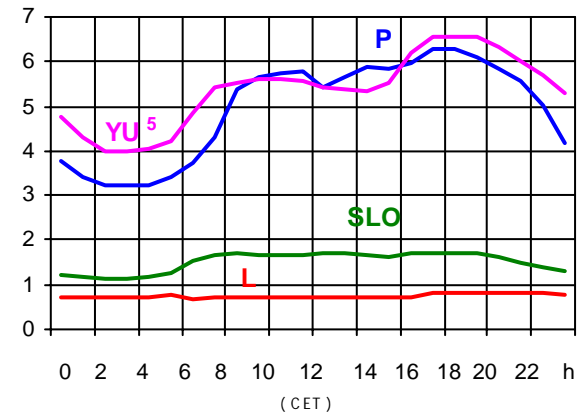
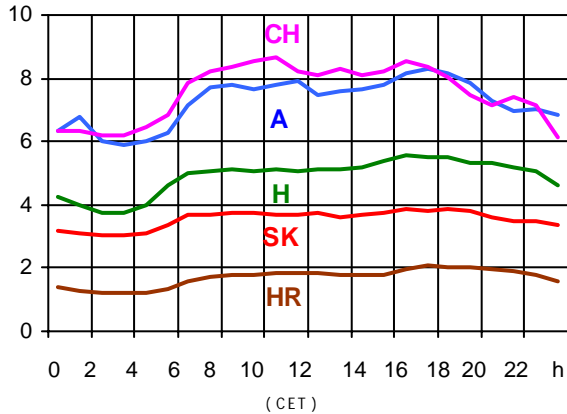
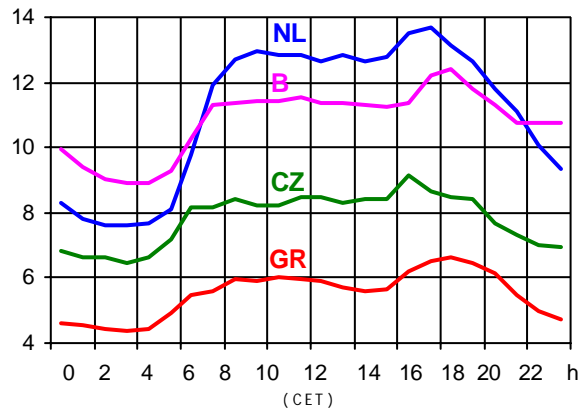
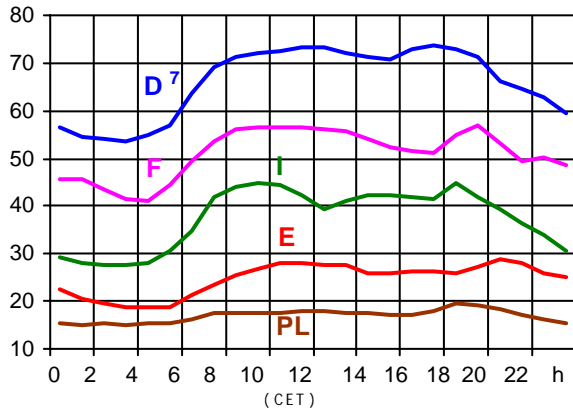
Control area	Prog_exp	Prog_imp	Prog_exp3	Prog_imp3	Prog_exp11	Prog_imp11
B	393301	1005380	355	1403	475	1631
D	2337447	3203412	3198	3416	2730	8455
E	551266	773625	575	1400	462	499
F	8515563	977971	11778	1116	12443	1105
GR	200742	336706	350	317	250	480
I	38960	4719652	0	6467	0	6565
SLO	228927	23146	241	125	370	90
HR	65012	2271230	297	526	425	585
YU	41570	784753	20	1017	40	1309
NL	677455	2109844	1882	2737	735	3125
A	1013333	768922	951	893	2105	991
P	86129	462918	50	485	387	650
CH	2616189	2666973	2840	4933	5824	2995
CZ	1492406	792354	2302	1240	1927	1214
H	772173	985735	845	1083	1080	1483
PL	975733	88811	1342	120	2364	215
SK	683236	119705	712	50	910	258

- 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.
- YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)



### Consumption hourly load curves<sup>1</sup> on 20.11.02

Values in GW



### Peak load on 3<sup>rd</sup> Wednesday<sup>1</sup>

20.11.02	B	D	E	F	GR	I	SLO	HR	YU <sup>5</sup>	L	NL	A	P	CH	CZ	H	PL	SK	UCTE
MW	12473	73900	32251	66027	6915	49465	1722	2056	6566	827	13847	8584	6290	8741	9161	5581	20913	3877	321896
$\Delta$ % <sup>2</sup>	2,9	1,0	-15,5	-3,5	0,6	0,4	7,6	-13,6	-8,5	3,1	3,6	8,5	-3,7	-3,2	-0,1	-2,2	-1,2	-5,1	-1,3

### Power produced in parallel operation<sup>3</sup>

20.11.02	B	D	E	F	GR	I	SLO	HR	YU <sup>5</sup>	L	NL	A	P	CH	CZ	H	PL	SK	Others <sup>4</sup>	UCTE
MW	10120	80100	28807	74409	5621	42599	2015	1820	4294	718	10475	6640	5199	11328	10511	4639	21101	4357	2530	324753

<sup>1</sup> Percentage as referred to total values in %

B	D	E	F	GR <sup>6</sup>	I	SLO	HR	YU <sup>5</sup>	L	NL	A	P	CH	CZ	H	PL	SK
100	91	94	97	91	100	95	100	96	99	90	82	87	100	100	100	100	100

<sup>2</sup> Variation as compared to corresponding month of the previous year

<sup>3</sup> Including autoproduction

<sup>4</sup> Denmark (Jutland)

<sup>5</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

<sup>6</sup> The representativity of data referring to the whole country including the isolated systems of the Greek island is 91%

The representativity of data referring to the mainland interconnected system is 98%

<sup>7</sup> Values estimated on the basis of former data from the German Federal Office for Statistics

## Existing lines with towers for lines with 2 circuits mounted

	B	D	E	F	GR	I	SLO	HR	JIEL	L	NL	A	P	CH	CZ	H	PL	SK	CX	
2011	8940	52	3880	67511	228	4845	1757	258	158	121	225	1728	140	18	694	828	312	734	381	323
2008	420	158	4787	4283	18	4428	134	807	105	115	3677	1819	175	82	522	10316	438	411	321	458

	F	I	SLO	HR	JIEL	L	NL	A	P	CH	CZ	H	PL	SK
B	2/2					2/-	-/4							
D	2/4					8/-	-/8	9/3		5/7	2/4			
E	2/2								3/2					
	F	3/3								5/5				
	GR	-/1			-/1									
		I	1/1					1/-		6/2				
			SLO	2/3				1/2						
				HR	7/3									
									JIEL					
									A	1/2	2/1	2/1		
													CZ	2/2
													H	2/2
													PL	2/2



## Contact

Boulevard Saint-Michel, 15  
 B-1040 Brussels – Belgium  
 Tel +32 2 741 69 40 – Fax +32 2 741 69 49

info@ucte.org  
 www.ucte.org