



## September 2002

Monthly provisional values  
union for the co-ordination of transmission of electricity

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# 1

## Electricity supply situation of the countries

September 2002

Countries	B	D	E	F	GR	I	SLO	HR	YU <sup>4</sup>	L	NL	A	P	CH	CZ	H	PL	SK	UCTE
<b>Net production in GWh<sup>1</sup></b>																			
Hy	87	2036	1537	4324	270	3837	229	343	803	72	0	2654	324	3136	174	14	253	331	20424
Tn	3390	11383	4585	32084	-	-	477	0	0	0	185	0	0	2277	1728	1024	0	1359	58492
Tc	2374	25809	10929	2872	3246	18619	375	567	1955	190	7365	1182	2747	164	3725	1482	11075	575	95251
Total	5851 <sup>2</sup>	39228 <sup>2</sup>	17051 <sup>2</sup>	39280	3516 <sup>2</sup>	22456	1081	910 <sup>2</sup>	2758	262	7550 <sup>2</sup>	3836	3071 <sup>2</sup>	5577 <sup>2</sup>	5627 <sup>2</sup>	2520 <sup>2</sup>	11328 <sup>2</sup>	2265 <sup>2</sup>	174167 <sup>2</sup>
<b>Exchange balance in GWh</b>																			
Imp. = +	853	972	428	-6313	187	4120	-97	195	405	314	1439	240	231	-745	-1203	467	-710	-247	536
Exp. = -																			
<b>Consumption of pumps in GWh</b>																			
	105	545	598	541	81	816	0	7	88	92	0	104	49	271	42	0	197	28	3564
<b>Consumption in GWh<sup>1</sup></b>																			
monthly																			
	6599	39655	16881	32426	3622	25760	984	1098	3075	484	8989	3972	3253	4561	4382	2987	10421	1990	171139
Δ <sup>3</sup> [%]	-0,3	2,3	2,4	-1,2	-2,9	2,5	9,8	0,8	2,6	0,8	2,5	-6,4	1,3	1,2	-1,3	2,8	0,0	0,7	1,0
last 12 months																			
	83170	497424	210182	438196	47020	308748	11463	14920	45071	6051	108951	51149	40597	58413	58282	37222	133308	26023	2176190
Δ <sup>3</sup> [%]	-0,5	0,3	3,9	1,8	5,3	1,9	7,6	7,3	3,5	2,3	2,9	-3,9	3,4	1,7	0,4	2,5	-1,2	2,1	1,5
<b>Energy capability factor</b>																			
	-	1,35	-	-	2,53	0,91	1,09	2,03	1,28	-	-	-	0,74	0,92	-	-	-	0,96	1,0

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

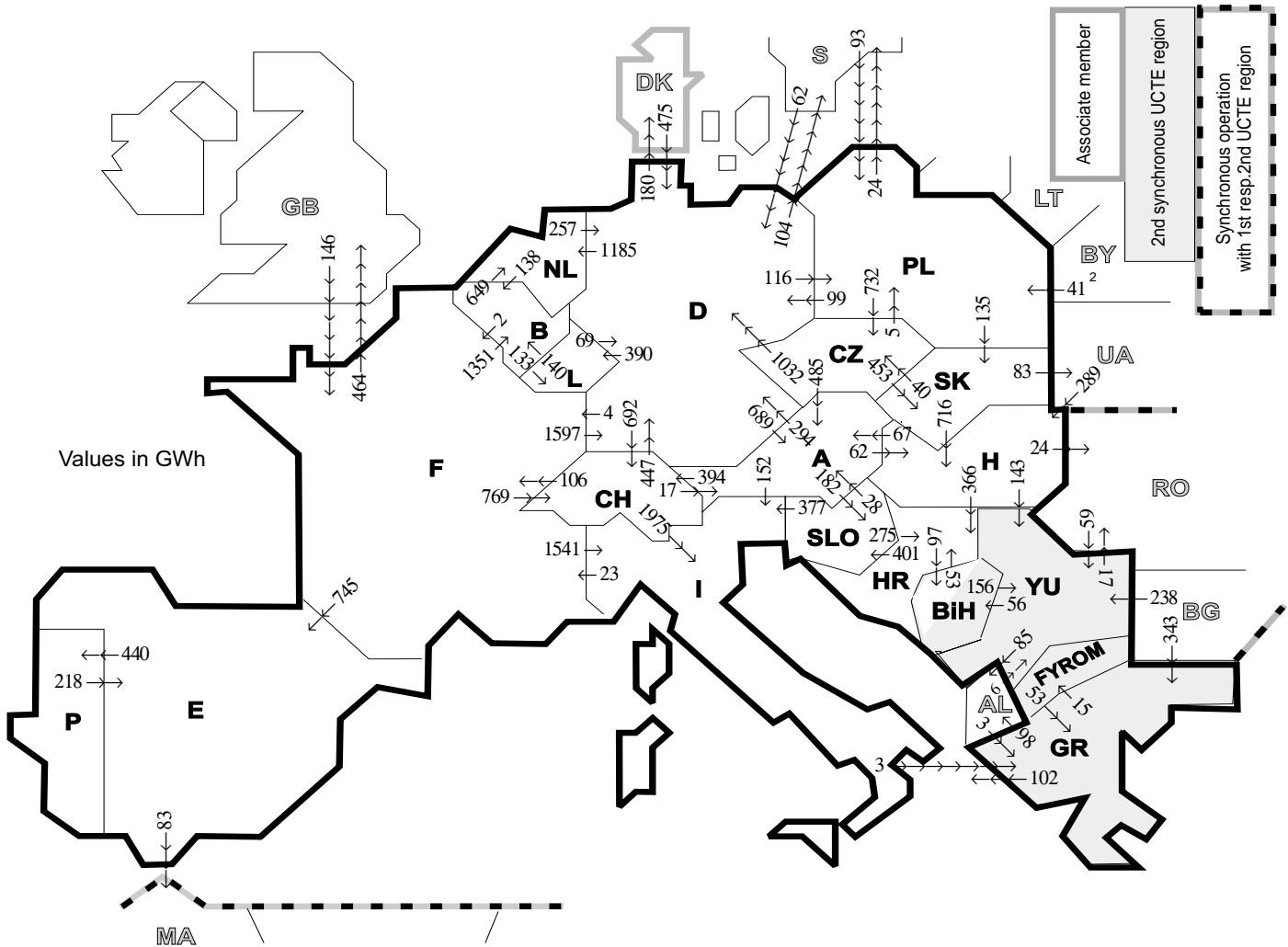
Countries	B	D	E	F	GR <sup>6</sup>	I	SLO	HR	YU <sup>4</sup>	L	NL	A	P	CH	CZ	H	PL	SK
Production	100	93	94	97	91	100	95	100	96	98	100	84	91	100	100	100	100	100
Consumption	100	93	94	97	91	100	95	100	96	99	100	90	91	100	100	100	100	100

<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%.



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	-	-	-	2	-	-	-	-	-	-	133	649	-	-	-	-	-	-	-	-	784
D	-	-	-	4	-	-	-	-	-	-	390	1185	689	-	692	0	-	116	-	284	3360
E	-	-	-	0	-	-	-	-	-	-	-	-	440	-	-	-	-	-	-	83	523
F	1351	1597	745	-	-	1541	-	-	-	-	-	-	-	-	769	-	-	-	-	464	6467
GR	-	-	-	-	-	102	-	-	-	15	-	-	-	-	-	-	-	-	-	98	215
I	-	-	-	23	3	-	0	-	-	-	-	-	0	-	0	-	-	-	-	-	26
SLO	-	-	-	-	-	377	-	275	-	-	-	-	28	-	-	-	-	-	-	-	680
HR	-	-	-	-	-	-	401	-	97	0	-	-	-	-	-	-	0	-	-	-	498
BiH	-	-	-	-	-	-	-	53	-	156	-	-	-	-	-	-	-	-	-	-	209
YU	-	-	-	-	53	-	-	0	56	-	-	-	-	-	-	-	-	0	-	102	211
L	140	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209
NL	138	257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395
A	-	294	-	-	-	152	182	-	-	-	-	-	-	-	394	0	62	-	-	-	1084
P	-	-	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218
CH	-	447	-	106	-	1975	-	-	-	-	-	17	-	-	-	-	-	-	-	-	2545
CZ	-	1032	-	-	-	-	-	-	-	-	-	-	485	-	-	-	-	5	453	-	1975
H	-	-	-	-	-	-	-	366	-	143	-	-	67	-	-	-	-	-	0	24	600
PL	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	732	-	-	135	24	990
SK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	716	0	-	83	839
III <sup>1</sup>	-	537	0	146	346	-	-	-	-	303	-	-	-	-	-	-	289	134	0	-	1755
<b>Σ Import</b>	<b>1629</b>	<b>4332</b>	<b>963</b>	<b>281</b>	<b>402</b>	<b>4147</b>	<b>583</b>	<b>694</b>	<b>153</b>	<b>617</b>	<b>523</b>	<b>1834</b>	<b>1286</b>	<b>440</b>	<b>1855</b>	<b>772</b>	<b>1067</b>	<b>255</b>	<b>588</b>	<b>1162</b>	<b>23583</b>

Sum of physical energy flows between UCTE countries = 20666 GWh

Total physical energy flows = 23583 GWh

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

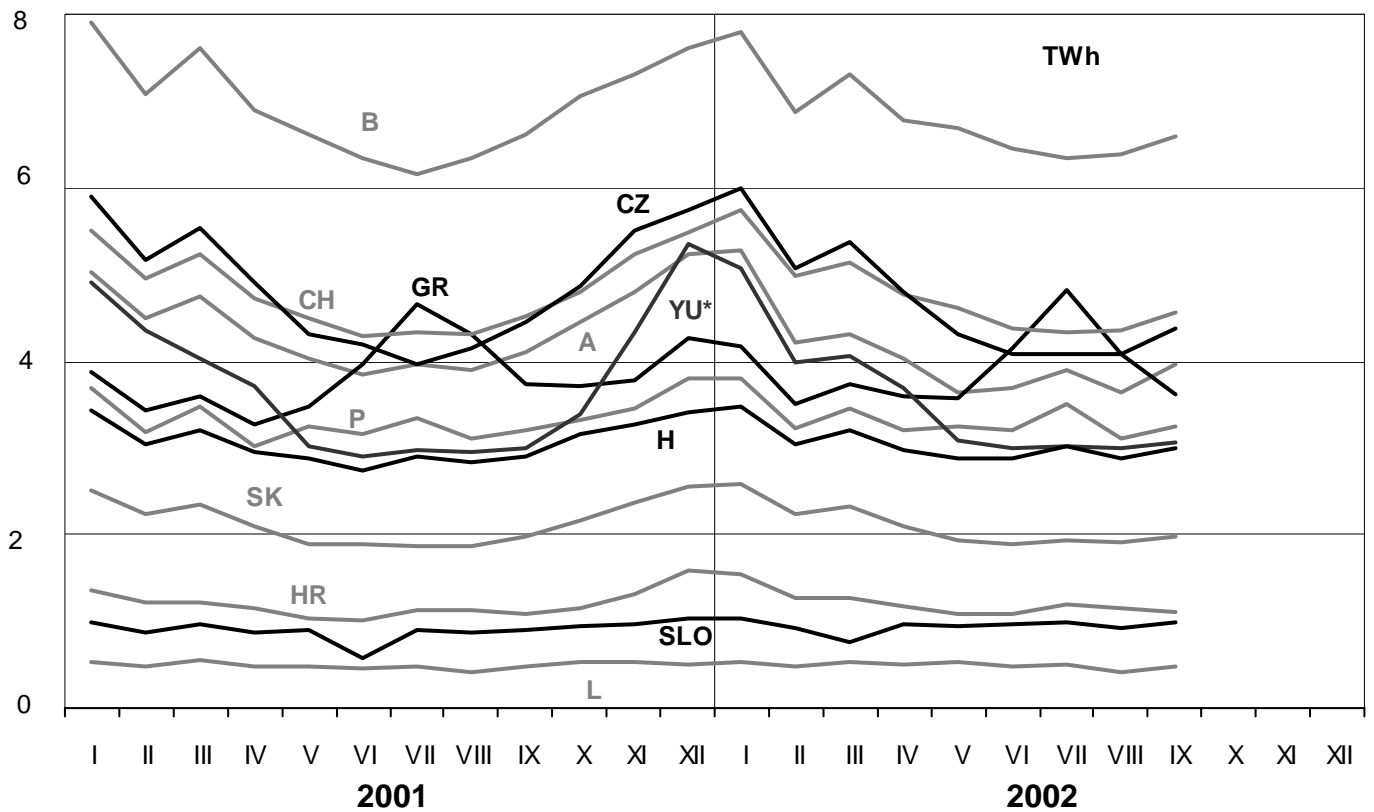
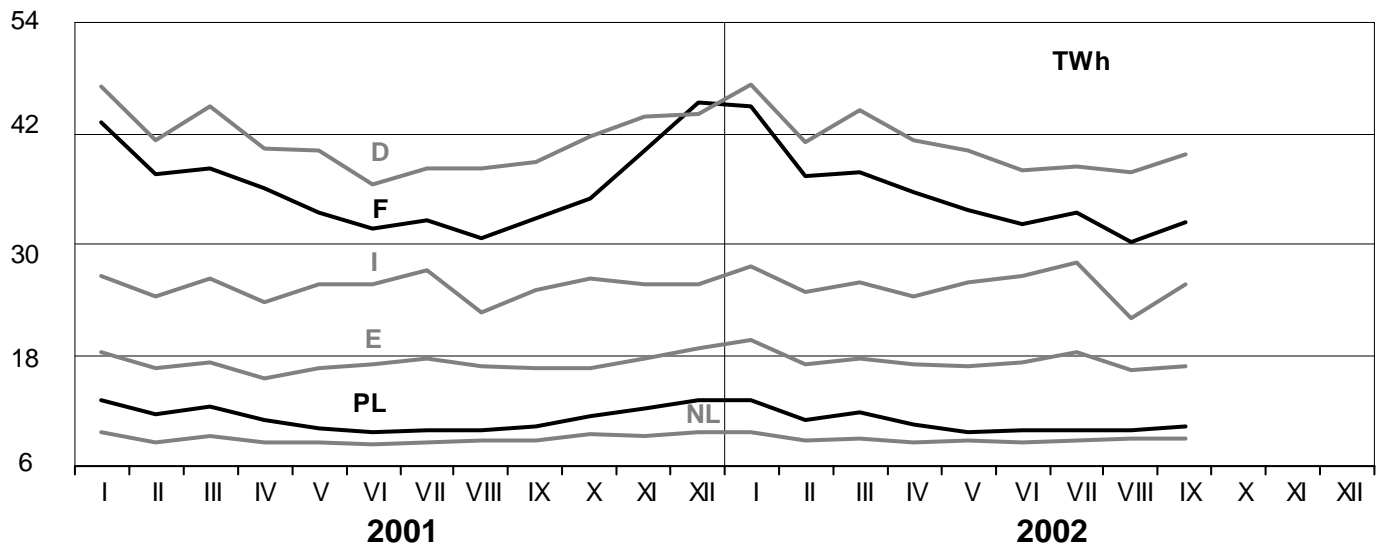
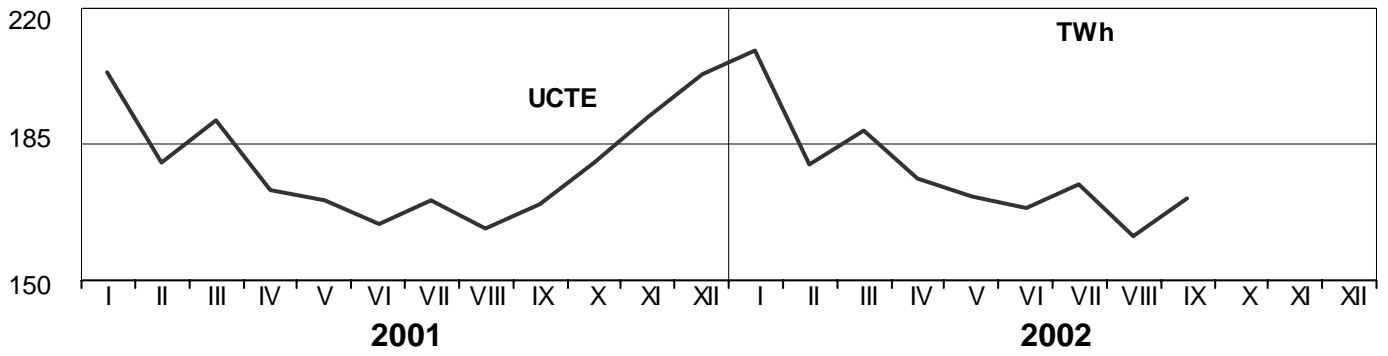
<sup>2</sup> Corresponds to the supply of a passive island in Poland with BY.

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.

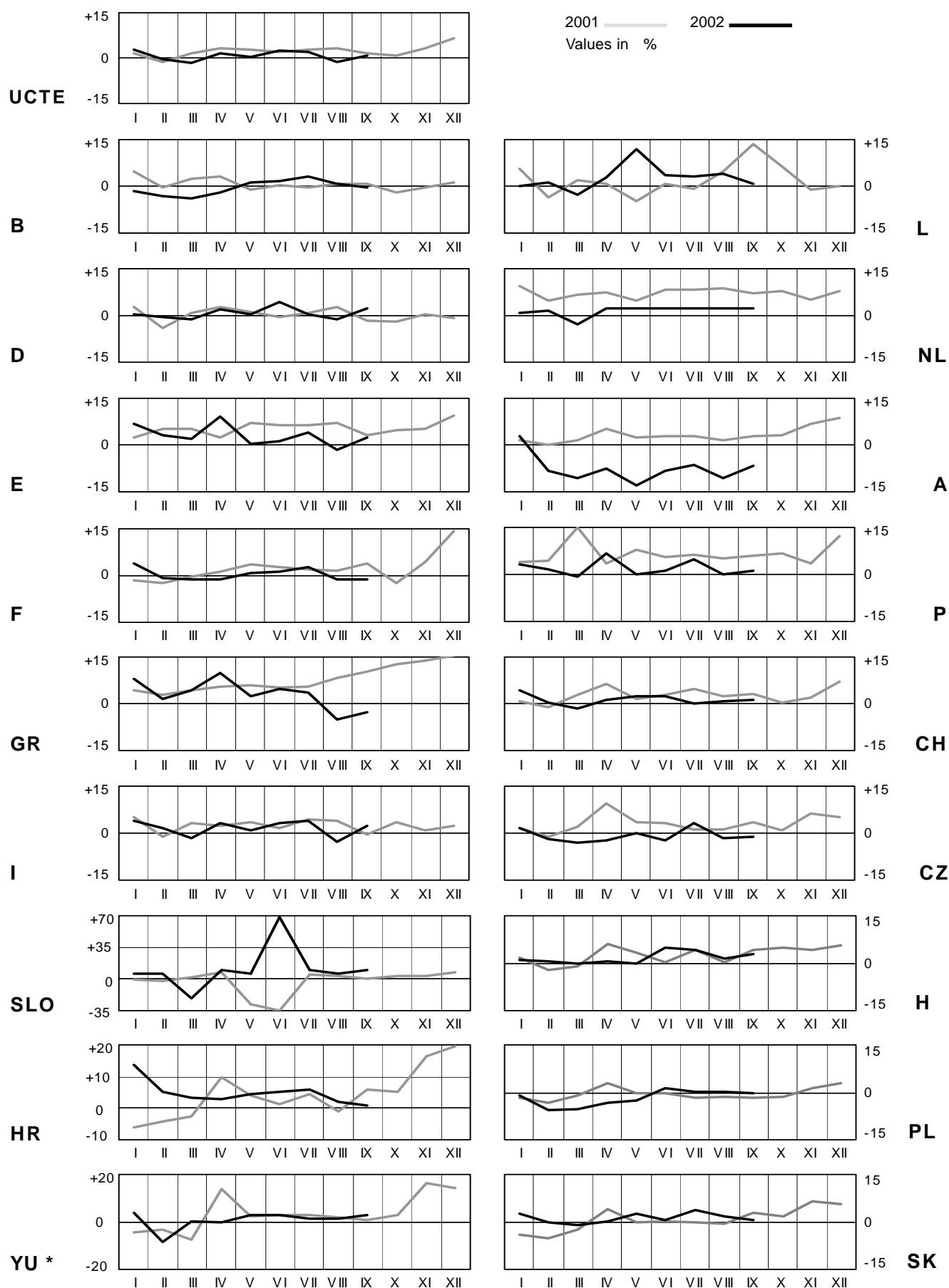
# 3

## Monthly consumption

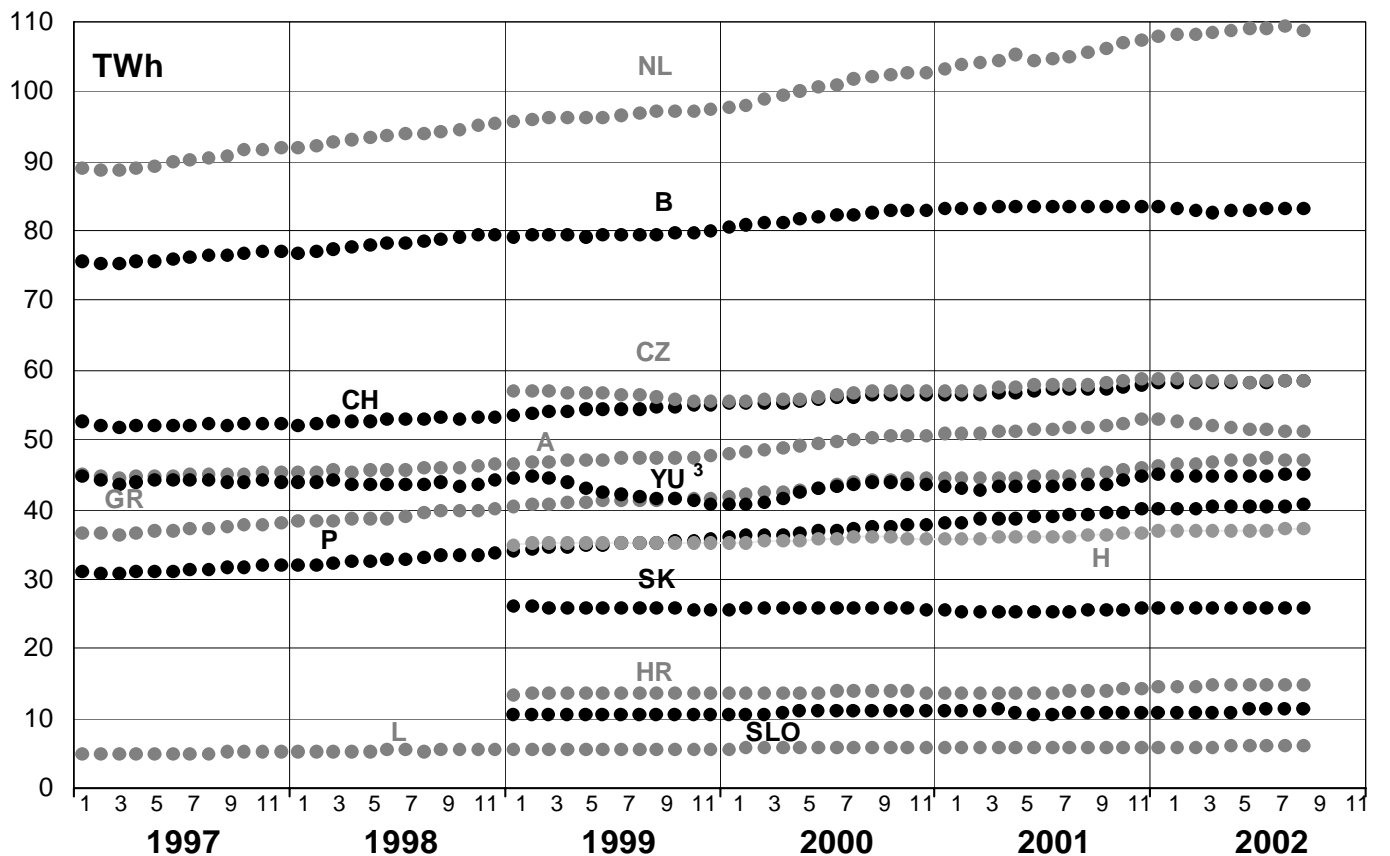
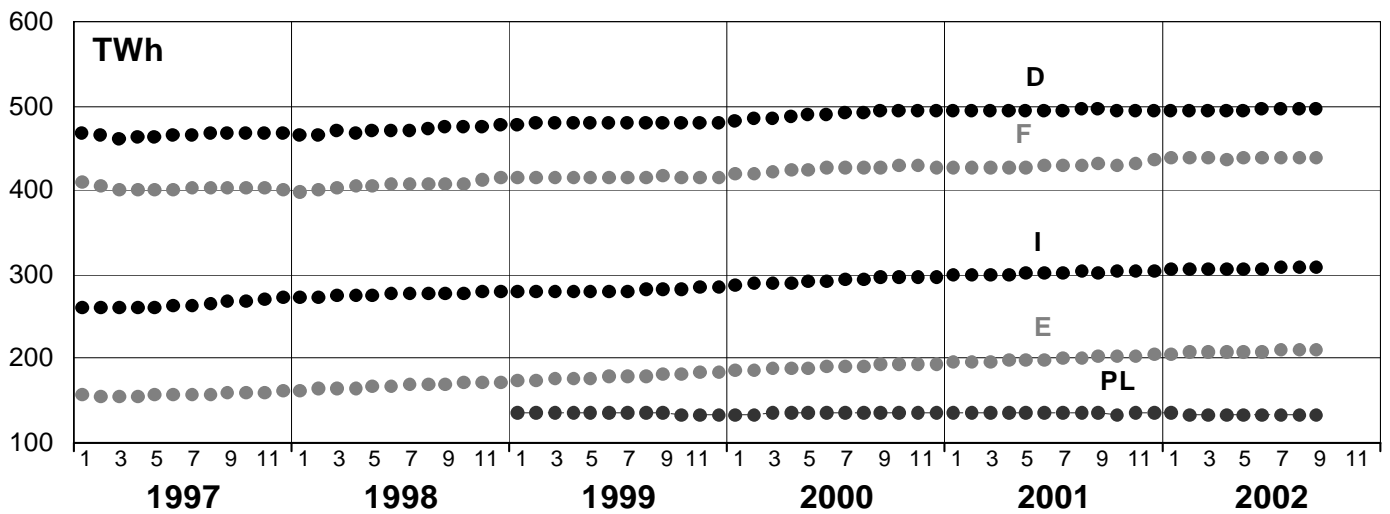
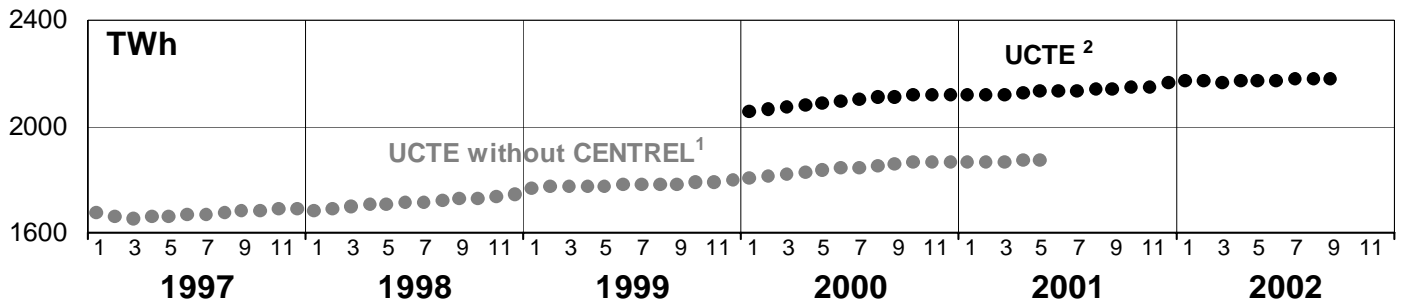
September 2002

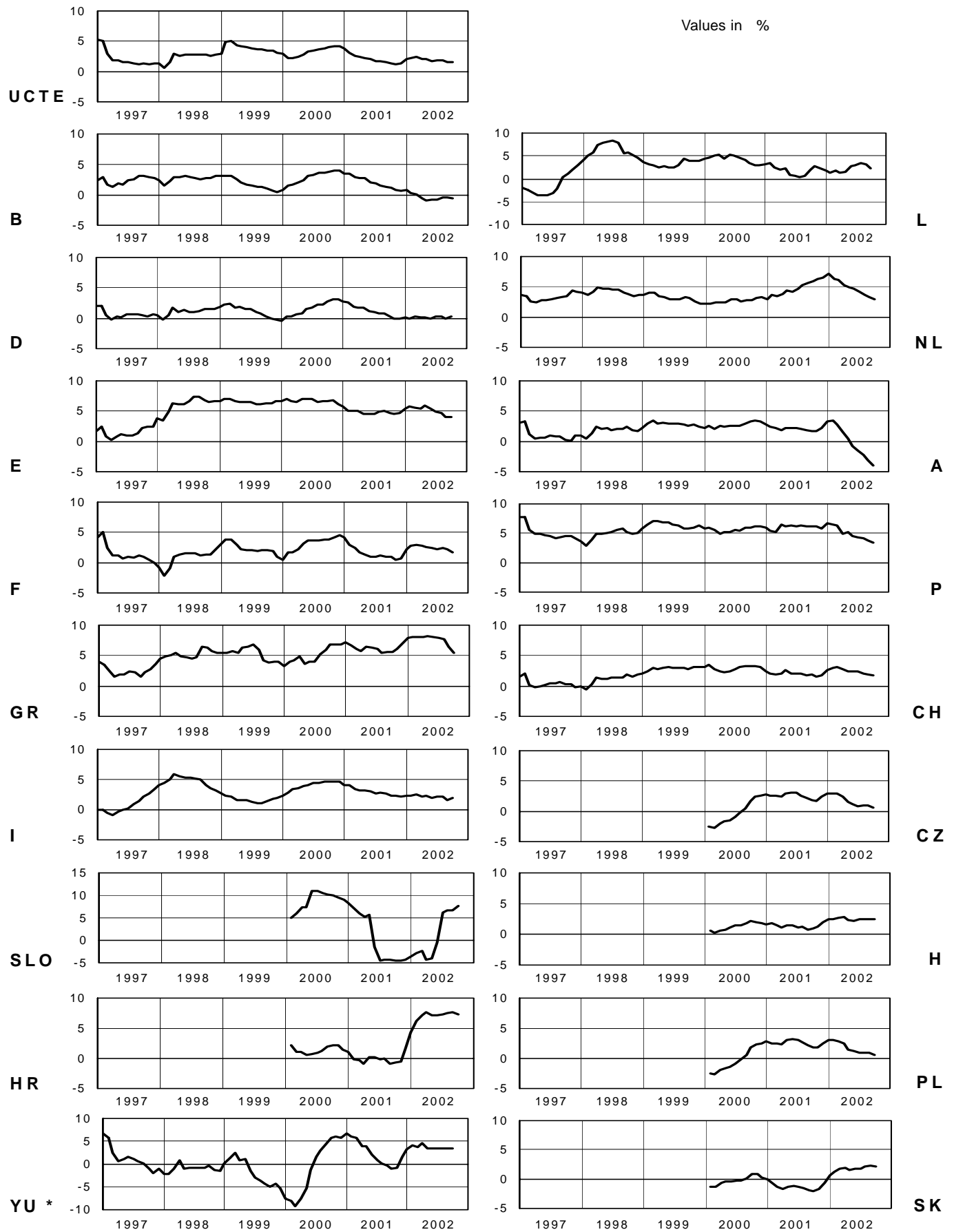


\* YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)



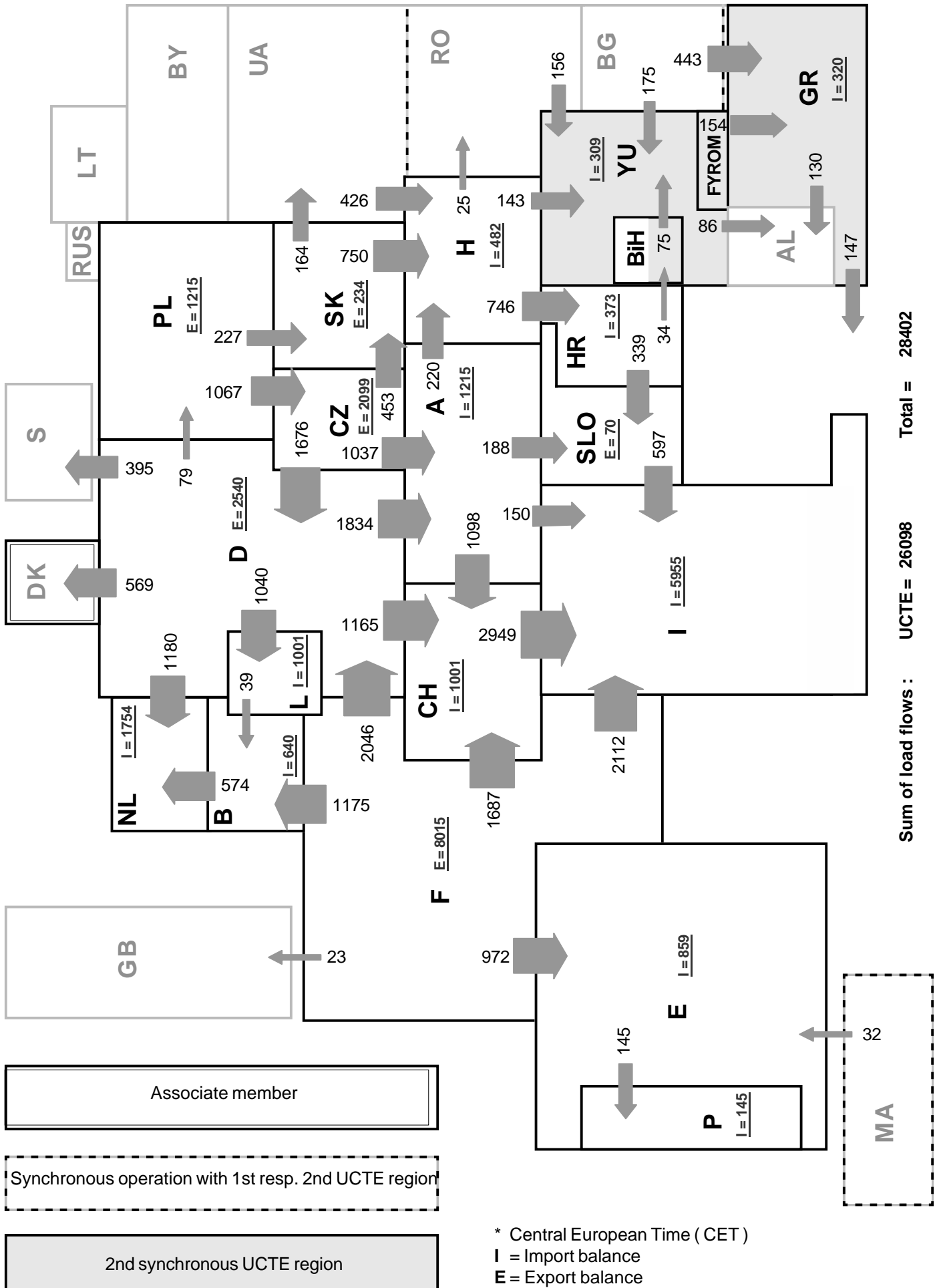
\* YU = FRY + FYROM (Federal Republic of Yugoslavia and Former Yugoslav Republic of Macedonia)

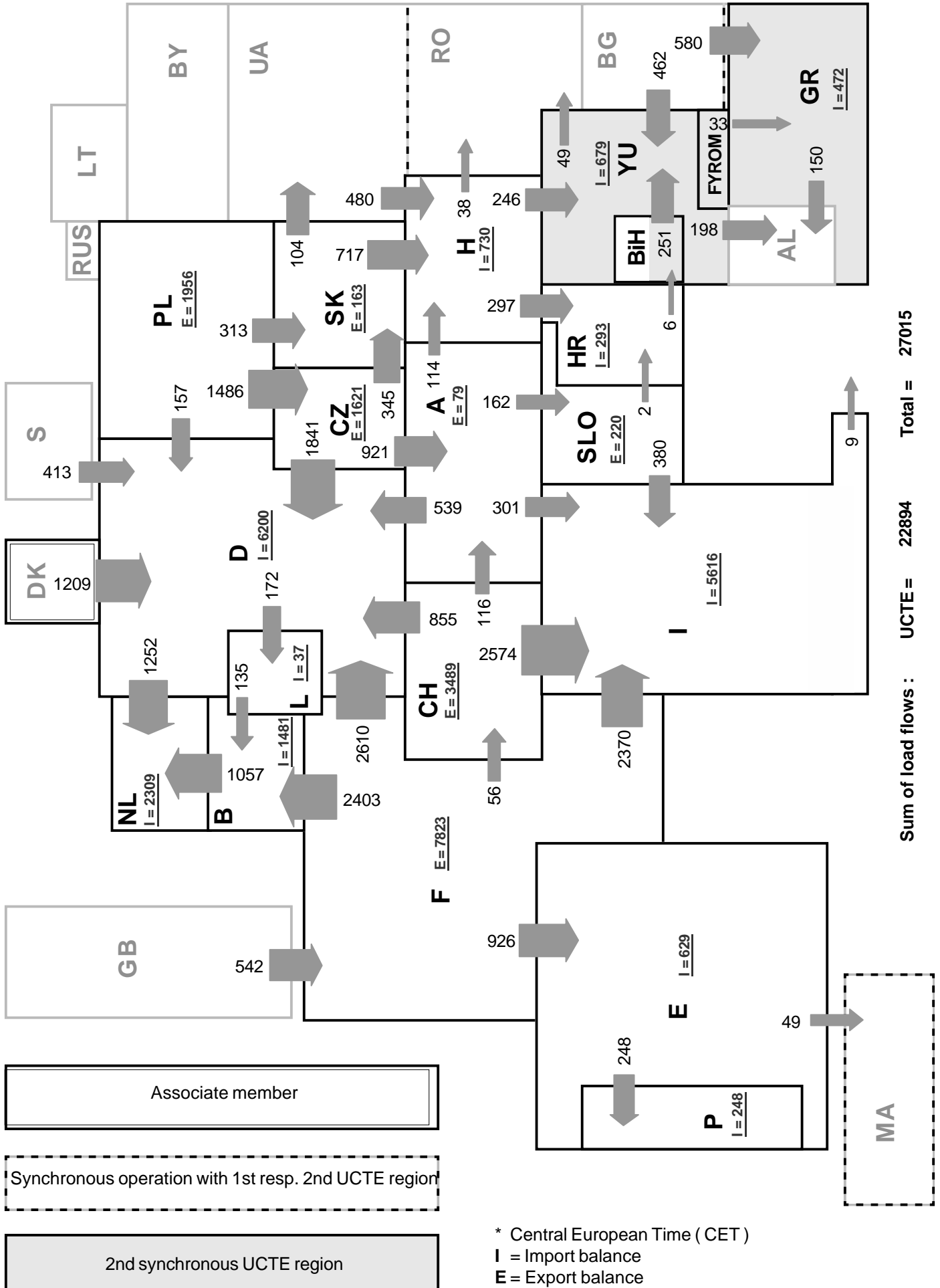


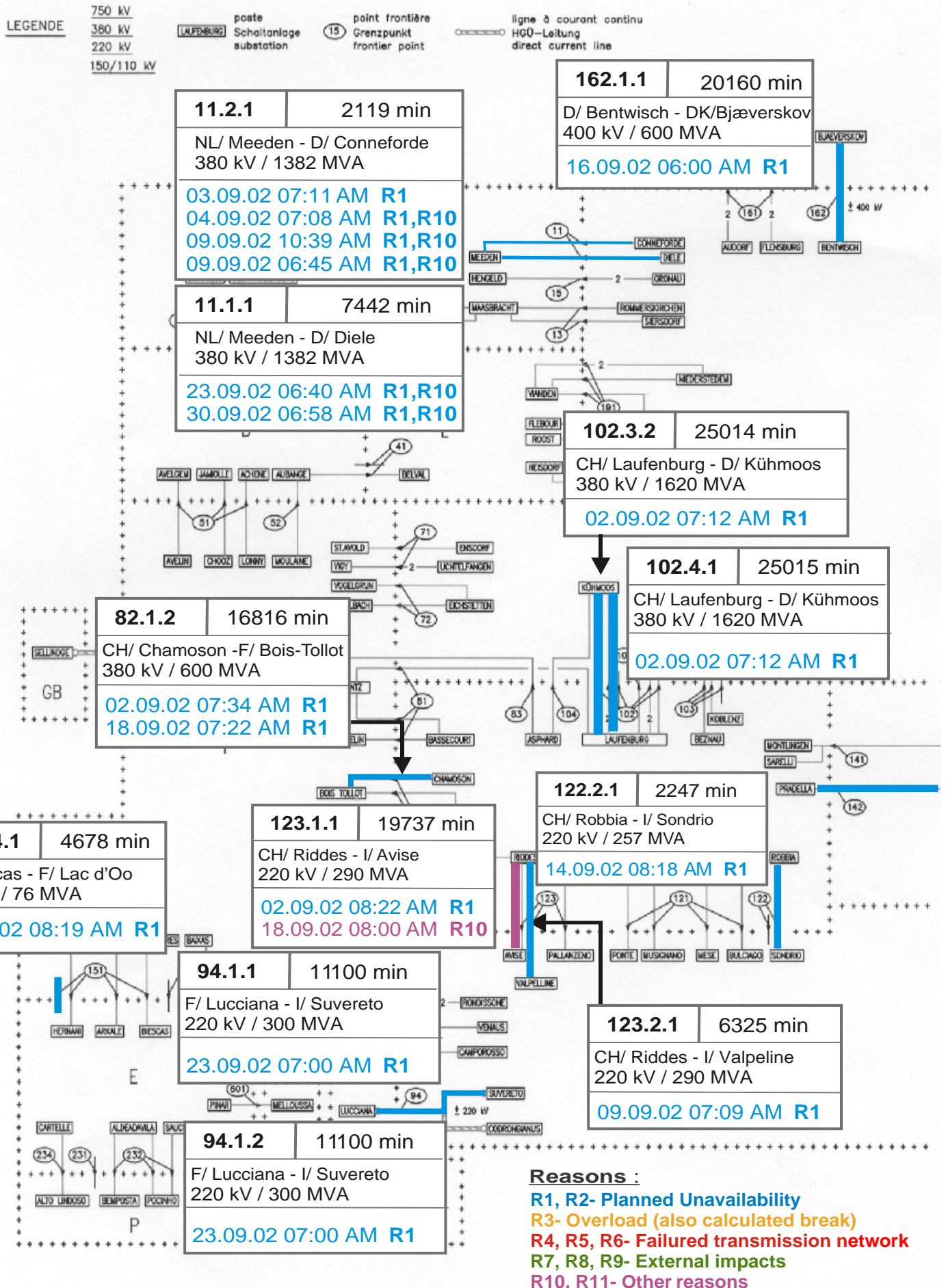


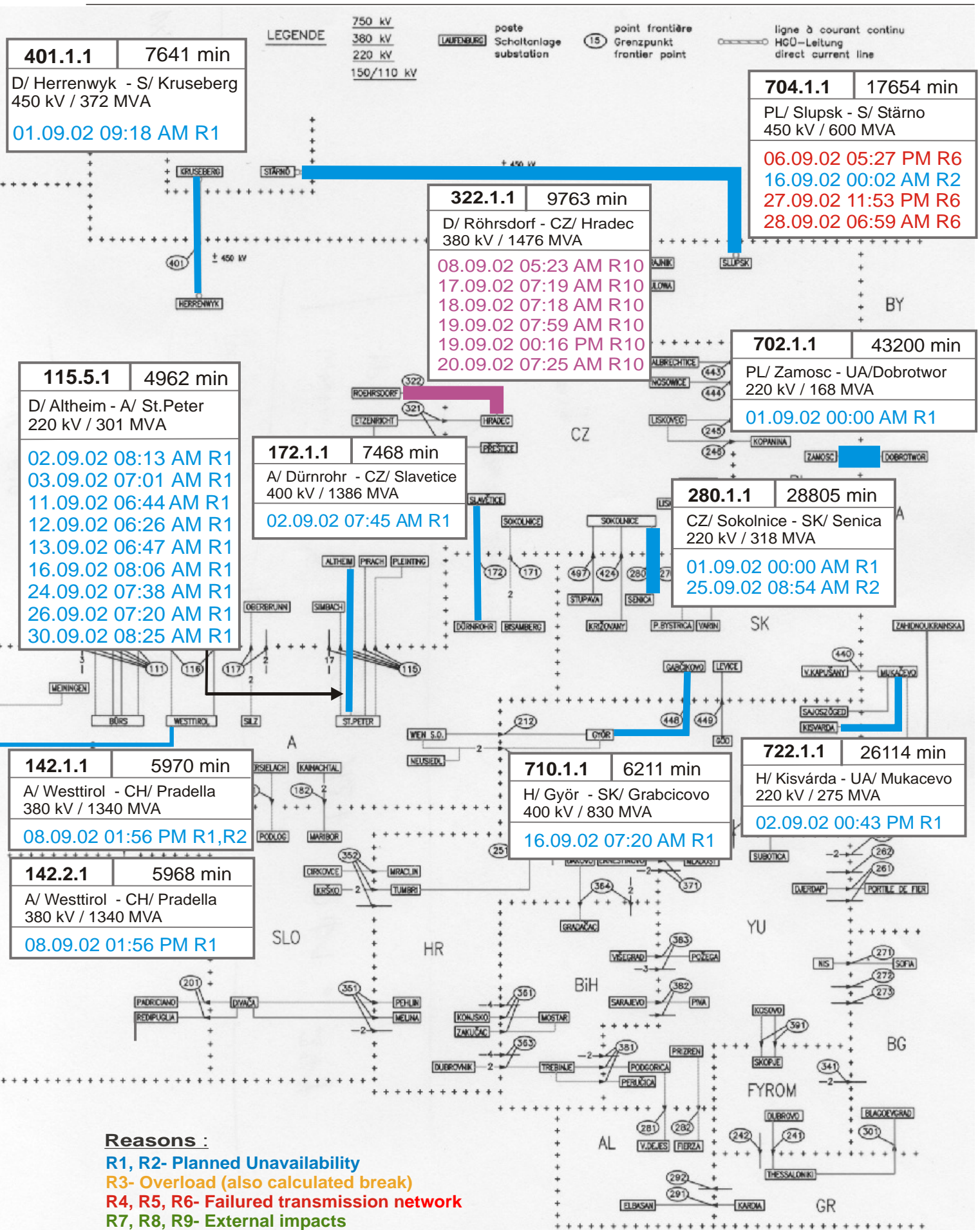
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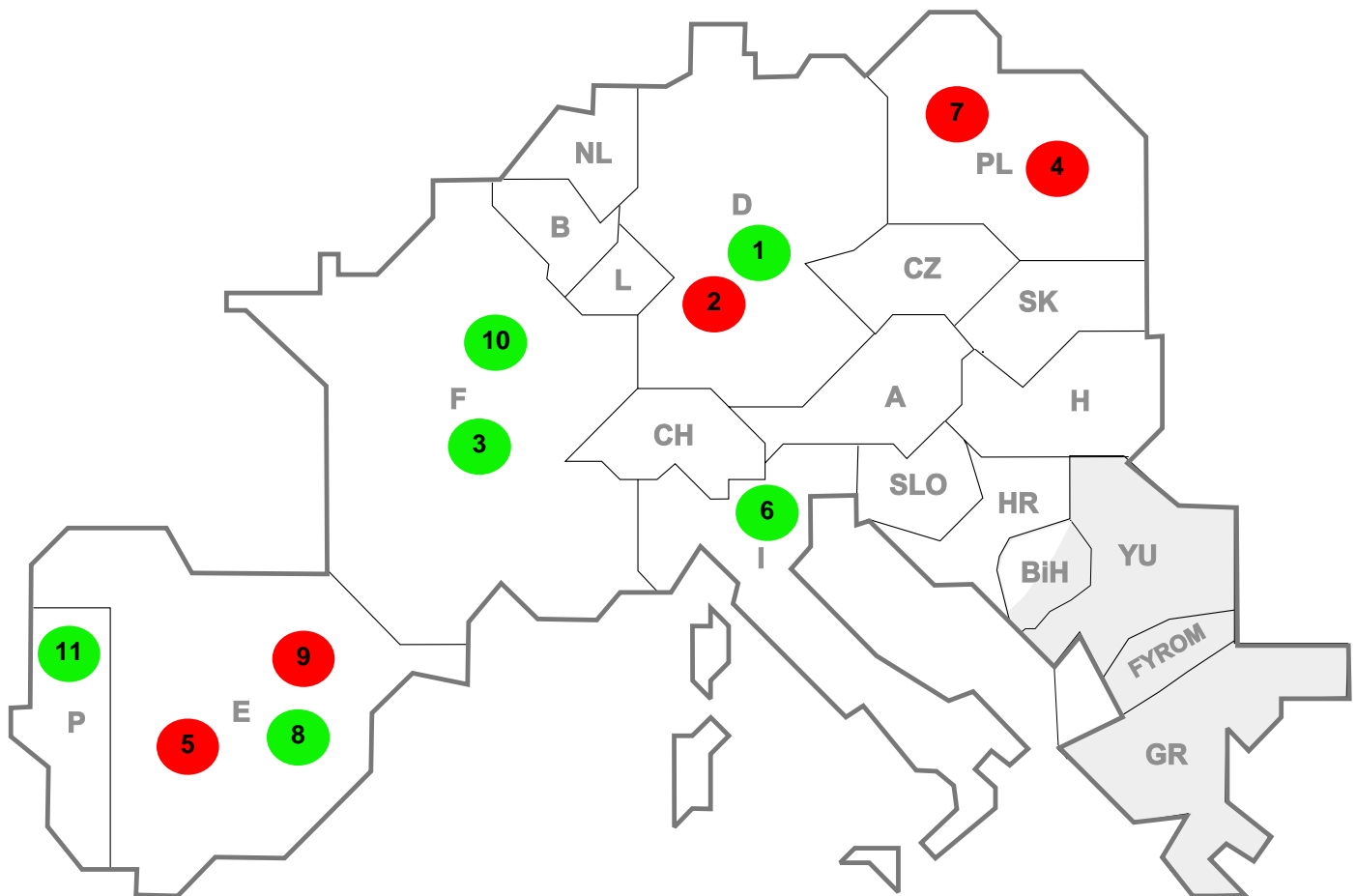






**Reasons :**

- 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	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	Staro	R6	123	473	37	1,86
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
10	F	Chesnoy	R8	2	21	6	0,03
11	P	Seixal	R7	0	0	3	0,00

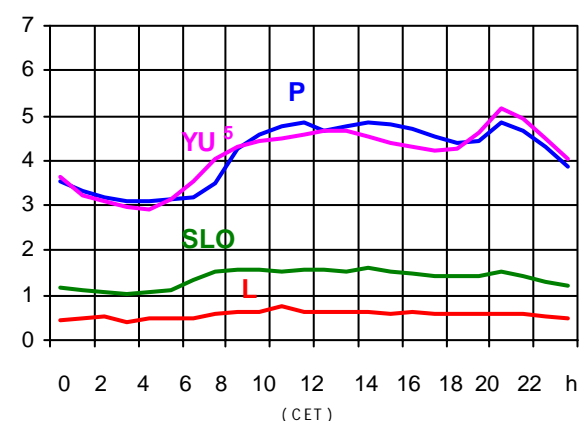
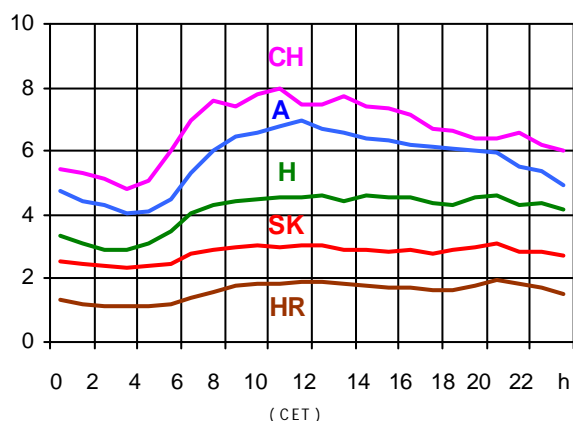
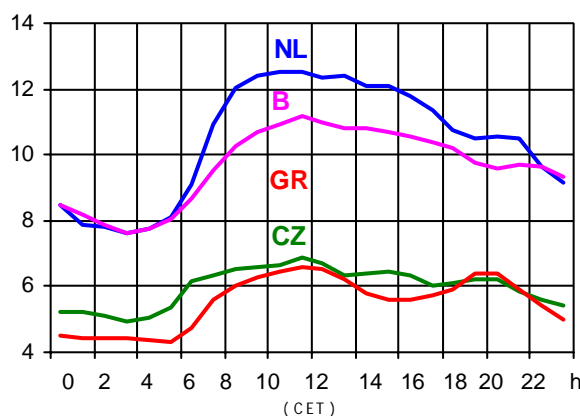
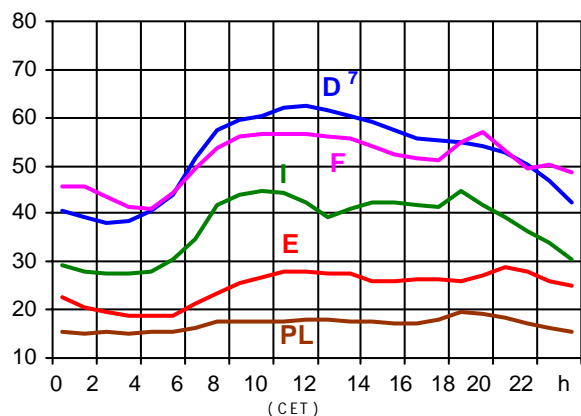
<sup>1</sup> ( year [in min] \* power loss) / consumption last 12 months

Control area	Prog_exp	Prog_imp	Prog_exp3	Prog_imp3	Prog_exp11	Prog_imp11
B	193614	729322	473	591	401	1041
D	2294668	3185351	3578	3239	2763	7319
E	319929	741376	195	1030	296	900
F	6906489	722945	8774	857	8775	1037
GR	175359	338376	246	425	100	559
I	25738	4145946	0	5955	21	5625
SLO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
HR	48937	2440774	42	360	55	360
YU	164832	571328	227	490	312	1038
NL	493569	1941456	1056	2823	416	2761
A	534787	772843	1503	579	790	901
P	5275	237068	0	191	0	261
CH	2750042	2073681	2733	3753	6118	2626
CZ	1481640	234437	2381	267	2020	342
H	471715	949535	537	1000	802	1557
PL	758511	95900	1043	0	1737	0
SK	572684	278862	632	327	777	542

- 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 21.08.02

Values in GW



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

21.08.02	B	D	E	F	GR	I	SLO	HR	YU <sup>5</sup>	L	NL	A	P	CH	CZ	H	PL	SK	UCTE
MW	11234	62300	27396	49766	6687	34195	1595	1923	5149	741	12589	7227	4864	8122	6856	4648	16164	3072	260925
Δ % <sup>2</sup>	31,7	1,0	-2,1	21,4	21,1	22,5	47,0	19,4	6,5	64,7	-2,0	25,1	15,9	9,7	0,1	-2,3	18,7	-2,5	16,9

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

21.08.02	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	10793	63900	25109	57347	6009	29978	1605	1852	4000	746	10309	6180	4349	11267	8820	3872	16710	3516	1600	266362

<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	-548	1231	325	1728	140	180	-694	828	3125	-7384	-3851	-3273
2008	4203	108	4787	-42843	180	4428	1348	807	-105	3115	3677	1819	-175	822	-5722	-10316	488	-8115	-3271	-8528

	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	-/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
													PL	-/2



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