

UCTE



June 2004

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

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¹ Monthly provisional values from the UCTE database as of 28 September 2004

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Electricity supply situation of the countries

June 2004

Countries	Net production in GWh ¹				Exchange balance in GWh	Pump in GWh	Consumption in GWh ¹			
	Hy	Tn	Tc	Total			monthly	Δ ³ [%]	last 12 months	Δ ³ [%]
B	79	3709	2522	6310 ²	458	91	6677	2,1	85910	1,2
D	2047	11133	25765	38945 ²	1100	755	39290	2,6	509260	0,8
E	3068	5120	11807	19995 ²	-319	426	19250	2,3	228598	5,3
F	6036	30499	2908	39443	-5107	505	33831	0,4	466542	3,7
GR ⁴	402	0	3487	3889 ²	365	57	4197	-7,8	50007	-0,9
I	5671	0	18312	23983	3371	886	26468	-5,4	320027	1,6
SLO	410	459	296	1165	-170	0	995	-1,5	12497	2,4
HR	531	0	445	976 ²	172	12	1136	-0,9	15754	4,7
BiH	486	0	395	881	-119	0	762	-18,5	12771	n.a.
FYROM	160	0	260	420 ²	2	0	422	2,2	6211	n.a.
SCG	1194	0	1458	2652	37	20	2669	4,6	39489	n.a.
L	69	0	251	320	278	86	512	5,8	6211	2,3
NL	0	323	6930	7253 ²	1401	0	8654	1,0	110444	0,8
A	3934	0	1349	5283	-731	317	4235	14,3	54127	5,3
P	580	0	2498	3078 ²	621	49	3650	6,8	44438	5,3
CH	4034	1554	238	5826 ²	-834	308	4684	4,0	60608	2,9
CZ	269	1288	4078	5635 ²	-1198	36	4401	5,1	60827	2,1
H	23	782	1436	2241 ²	693	0	2934	-3,9	38276	0,9
PL ⁵	254	0	10271	10525 ²	-666	167	9692	-1,8	134674	-1,9
SK	432	1219	580	2231 ²	-316	5	1910	1,4	26470	0,4
RO	1415	470	1909	3794 ²	17	0	3811	-1,1	49753	n.a.
BG	490	837	1499	2826 ²	-378	8	2440	4,2	35655	n.a.
UCTE	31584	57393	98694	187671²	-1323	3728	182620	0,5	2368548	0,1
West UA ⁶	9	0	548	557 ²	-271	0	286	14,4	4287	n.a.

¹ Percentage as referred to total values in %

Countries	B	D	E	F	GR ⁴	I	SLO	HR	BiH	FY ROM	SCG	L	NL	A	P	CH	CZ	H	PL	SK	RO	BG	West UA ⁶
Production	99	94	94	100	99	100	95	100	99	100	96	98	100	84	93	100	100	100	100	100	100	100	100
Consumption	99	94	94	100	99	100	95	100	99	100	96	99	100	90	93	100	100	100	100	100	100	100	100

² Including deliveries from industry

³ Variation as compared to corresponding period of the previous year and representativity 100%

⁴ The representativity of data referring to the interconnected system is 99%
The representativity of data referring to the whole country including the isolated systems of Greek island is 91%

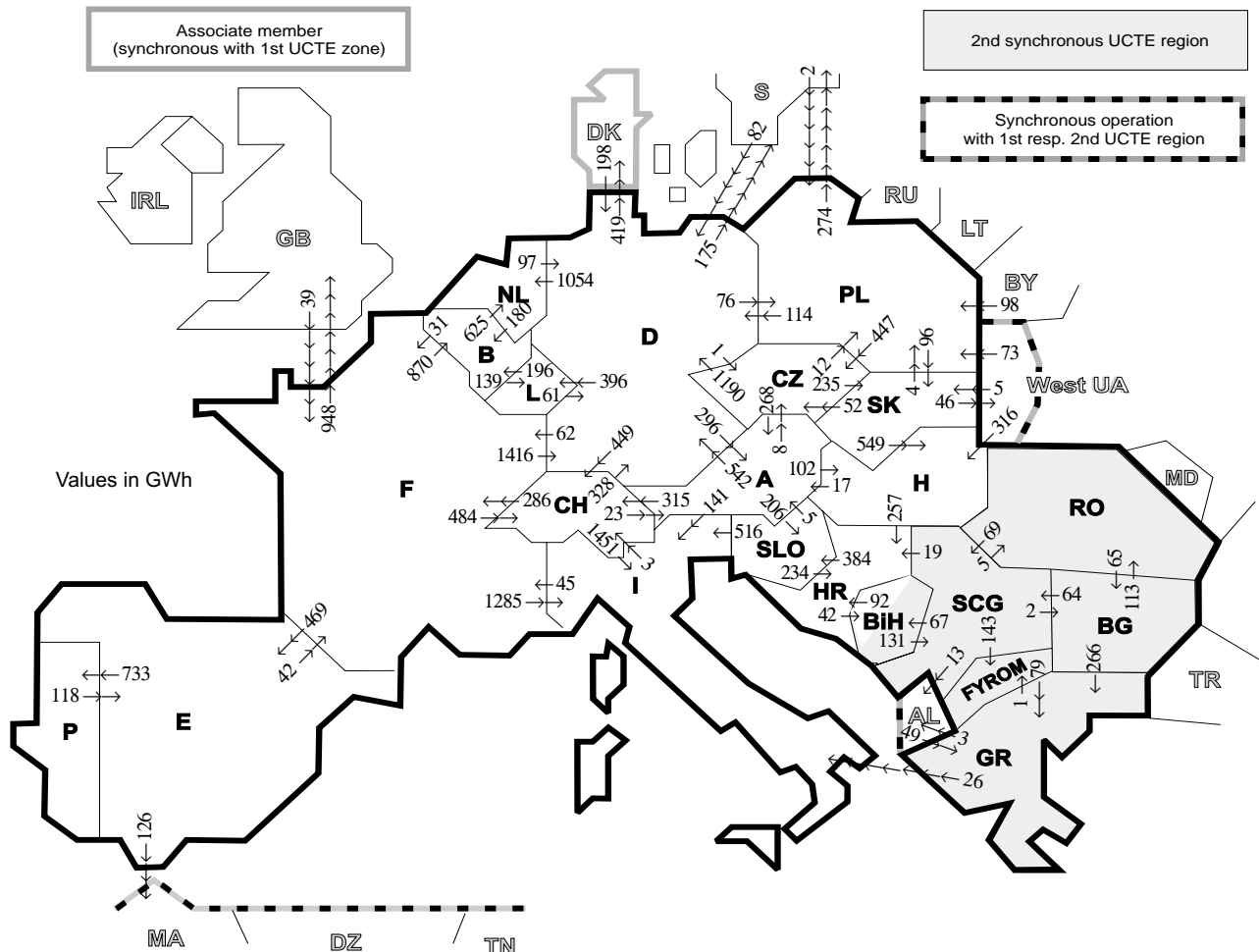
⁵ Values for 2003 are gross values, values for 2004 are net values.

⁶ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

2

Physical energy flows

June 2004



Exporting countries	Importing countries																			Export							
	B	D	E	F	GR	I	SLO	HR	BIH	FY-ROM	SCG	L	NL	A	P	CH	CZ	H	PL		SK	RO	BG	III ¹	DK ²	West UA ³	
B	-	-	-	31	-	-	-	-	-	-	-	139	625	-	-	-	-	-	-	-	-	-	-	-	-	-	795
D	-	-	-	62	-	-	-	-	-	-	-	396	1054	296	-	449	1	-	76	-	-	-	-	594	419	-	2928
E	-	-	-	42	-	-	-	-	-	-	-	-	-	-	733	-	-	-	-	-	-	-	-	-	126	-	901
F	870	1416	469	-	-	1285	-	-	-	-	-	-	-	-	-	484	-	-	-	-	-	-	-	-	-	948	5472
GR	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	3	-	30	
I	-	-	-	45	0	0	-	-	-	-	-	-	-	0	3	-	-	-	-	-	-	-	-	-	-	48	
SLO	-	-	-	-	516	-	234	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	755	
HR	-	-	-	-	-	384	-	42	-	0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	426	
BIH	-	-	-	-	-	92	-	-	-	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223	
FYROM	-	-	-	-	79	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	79	
SCG	-	-	-	-	-	-	-	19	67	143	-	-	-	-	-	-	-	0	-	-	-	5	2	13	-	249	
L	196	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	
NL	180	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	277	
A	-	542	-	-	141	206	-	-	-	-	-	-	-	-	315	8	102	-	-	-	-	-	-	-	-	1314	
P	-	-	118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	
CH	-	328	-	286	-	1451	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	2088	
CZ	-	1190	-	-	-	-	-	-	-	-	-	-	-	268	-	-	-	-	12	235	-	-	-	-	-	1705	
H	-	-	-	-	-	-	257	-	-	0	-	-	-	17	-	-	-	-	-	0	0	-	0	0	0	274	
PL	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	447	-	-	96	-	-	-	274	-	0	931	
SK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	549	4	-	-	-	46	-	46	651	
RO	-	-	-	-	-	-	-	-	-	-	69	-	-	-	-	-	-	0	-	-	-	65	0	0	0	134	
BG	-	-	-	-	266	-	-	-	-	0	64	-	-	-	-	-	-	-	-	-	113	-	0	-	-	443	
III ¹	-	280	0	39	49	-	-	-	-	0	-	-	-	-	-	-	-	316	173	5	0	0	0	-	-	394	
DK ²	-	198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	
West UA ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	316	73	5	0	-	-	-	-	862	
Σ Import	1246	4028	587	505	394	3419	590	602	109	144	264	535	1679	609	733	1251	508	967	265	336	118	67	2004	419	46	20960	

Sum of physical energy flows between UCTE countries = 18094 GWh Total physical energy flows = 20960 GWh

¹ III = Third countries: Albania, Belarus, Denmark, Great Britain, Morocco, Republic of Moldavia, Sweden, Republic of Turkey and West Ukraina

² Denmark (Jutland)

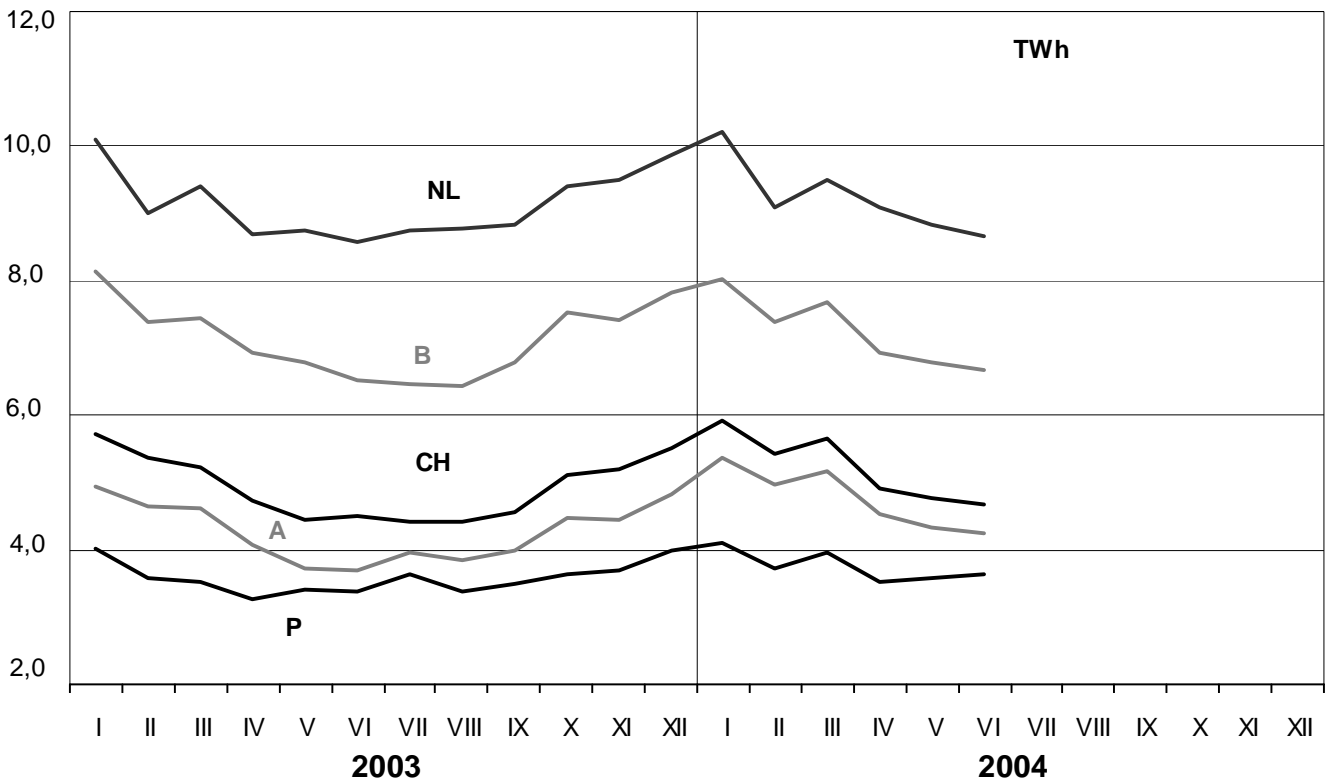
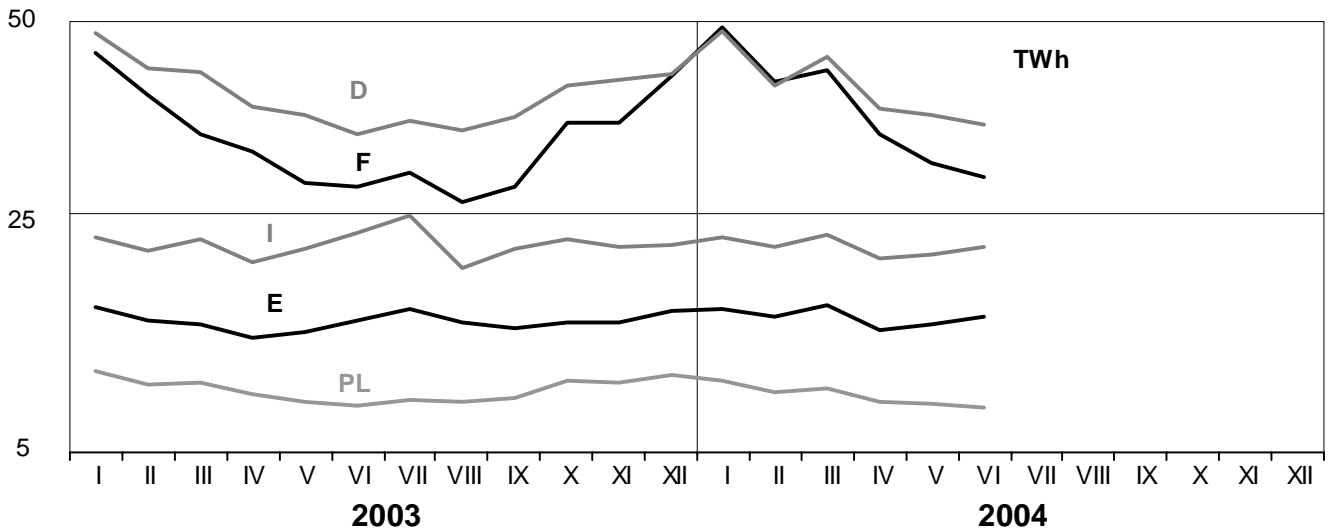
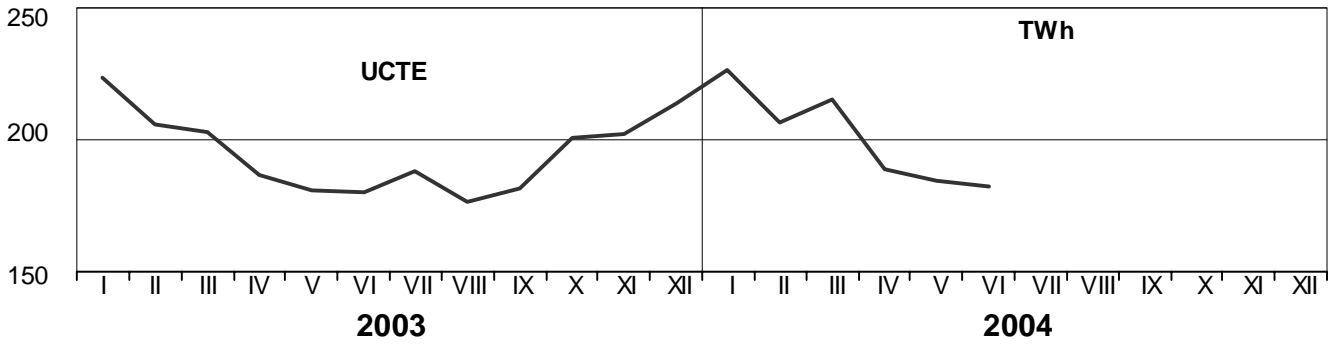
³ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

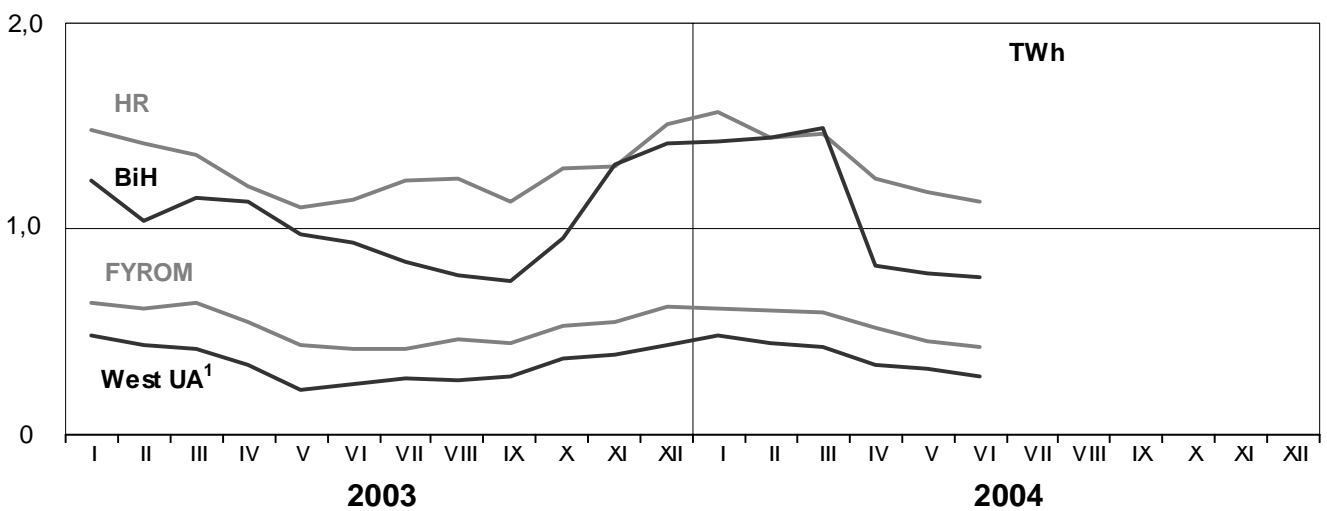
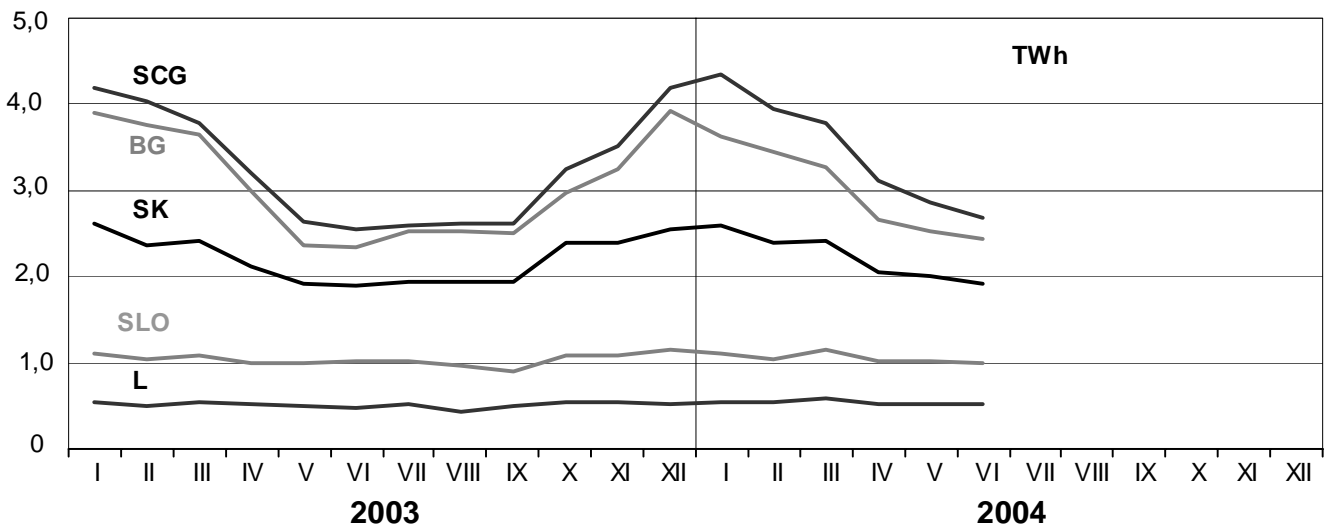
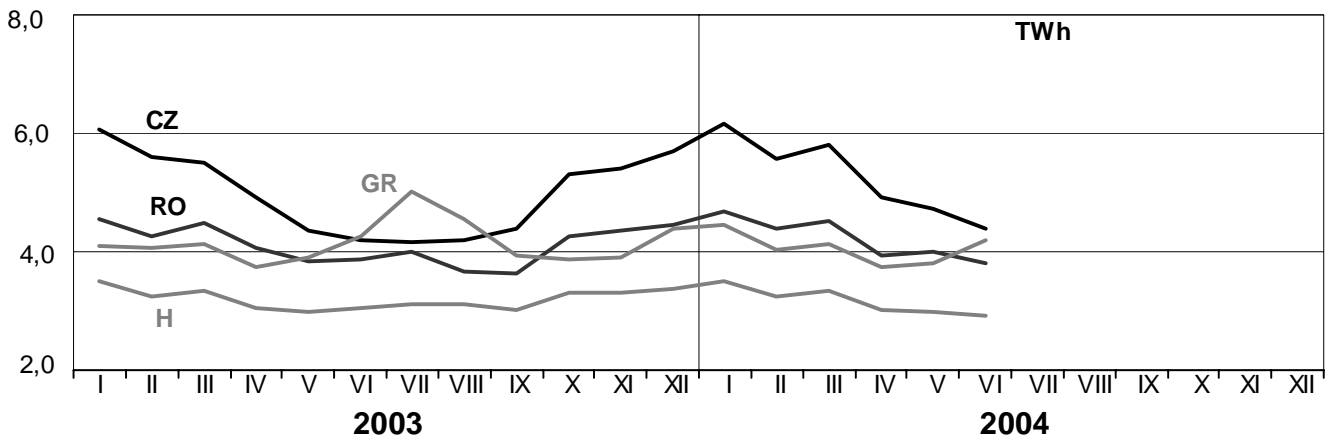
These physical energy flows were measured on the cross-frontier transmission lines (≥ 110 kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

3

Monthly consumption

June 2004



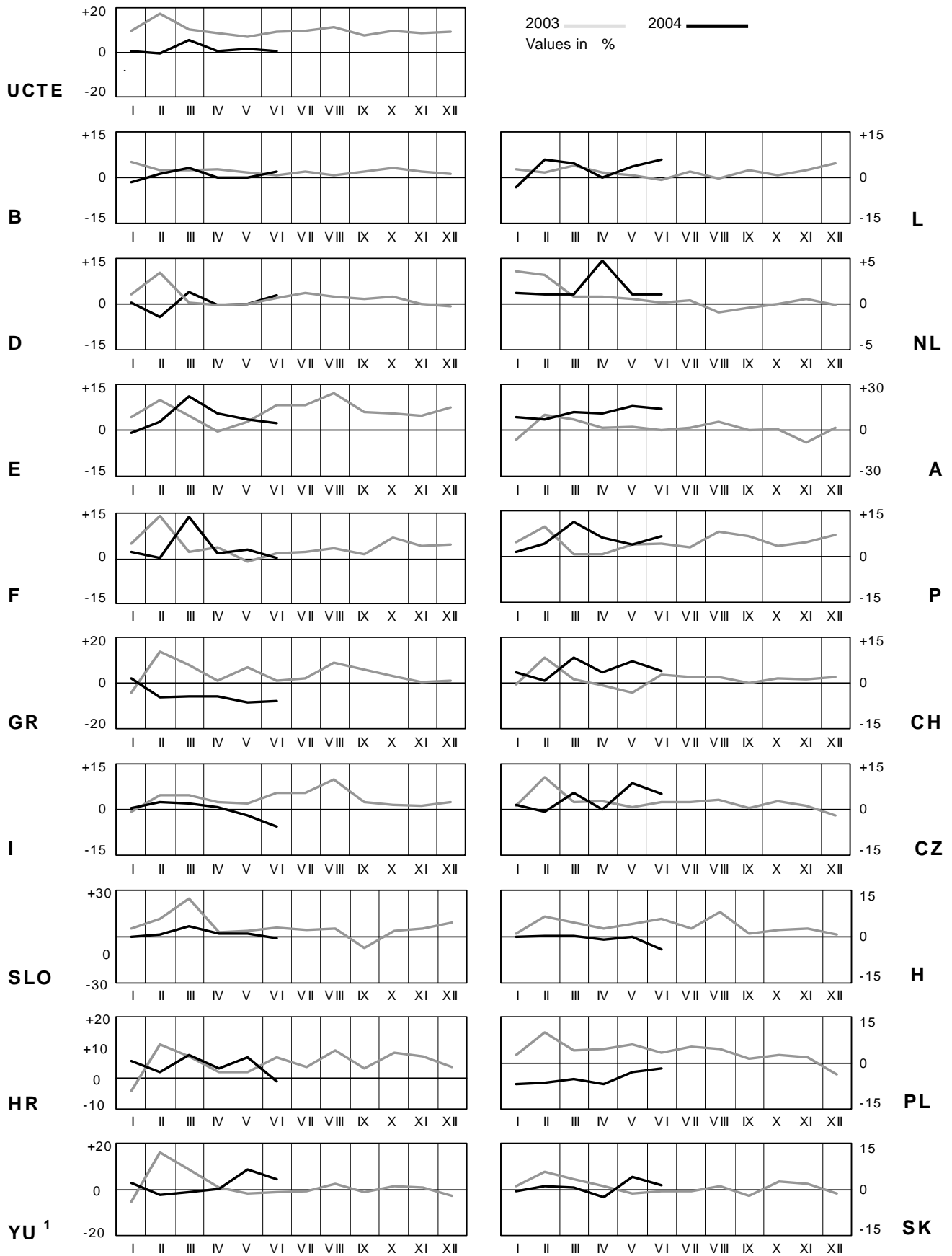


¹ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

4

Monthly consumption variation

June 2004

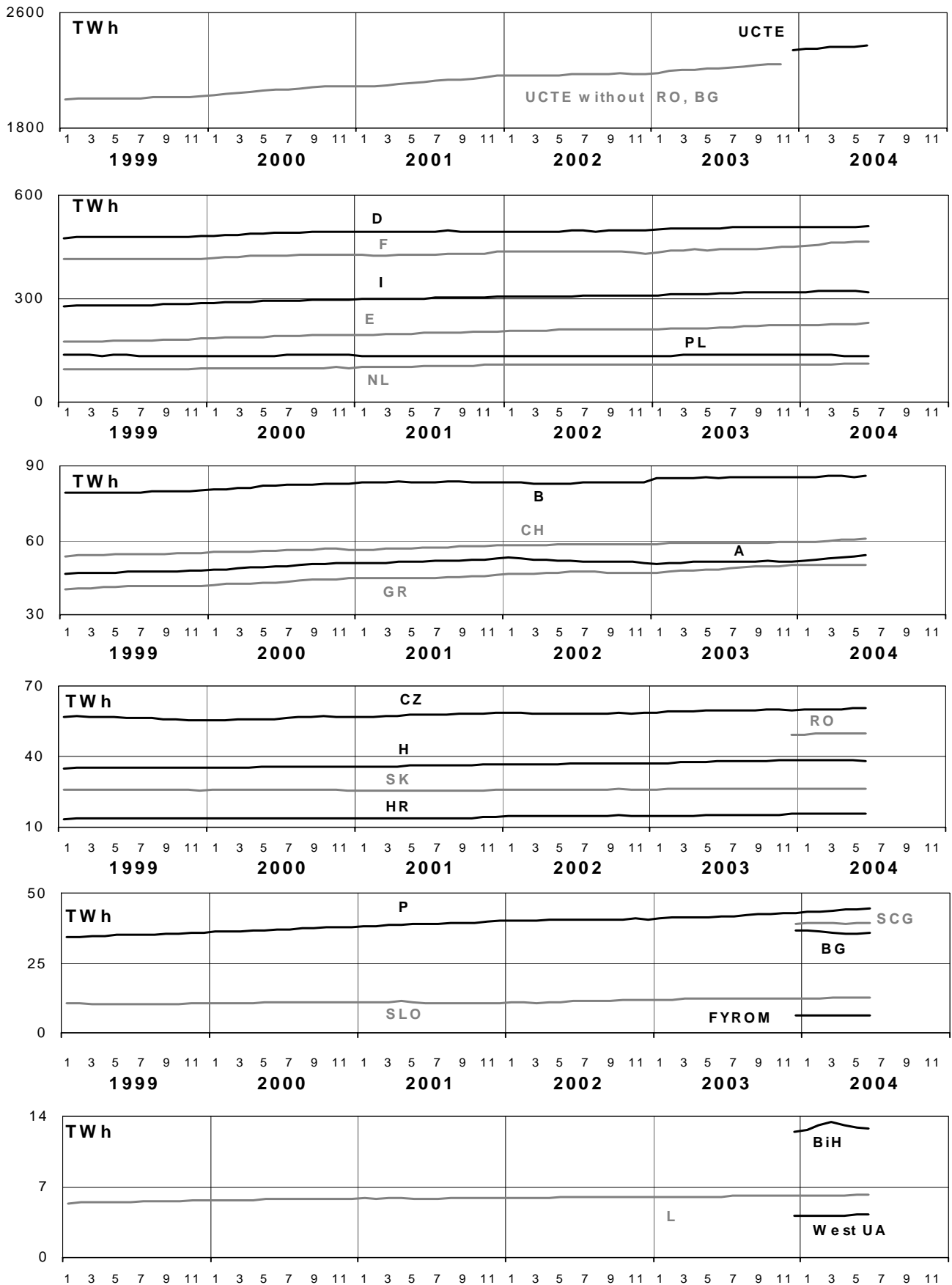


¹YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

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Consumption of the last 12 months

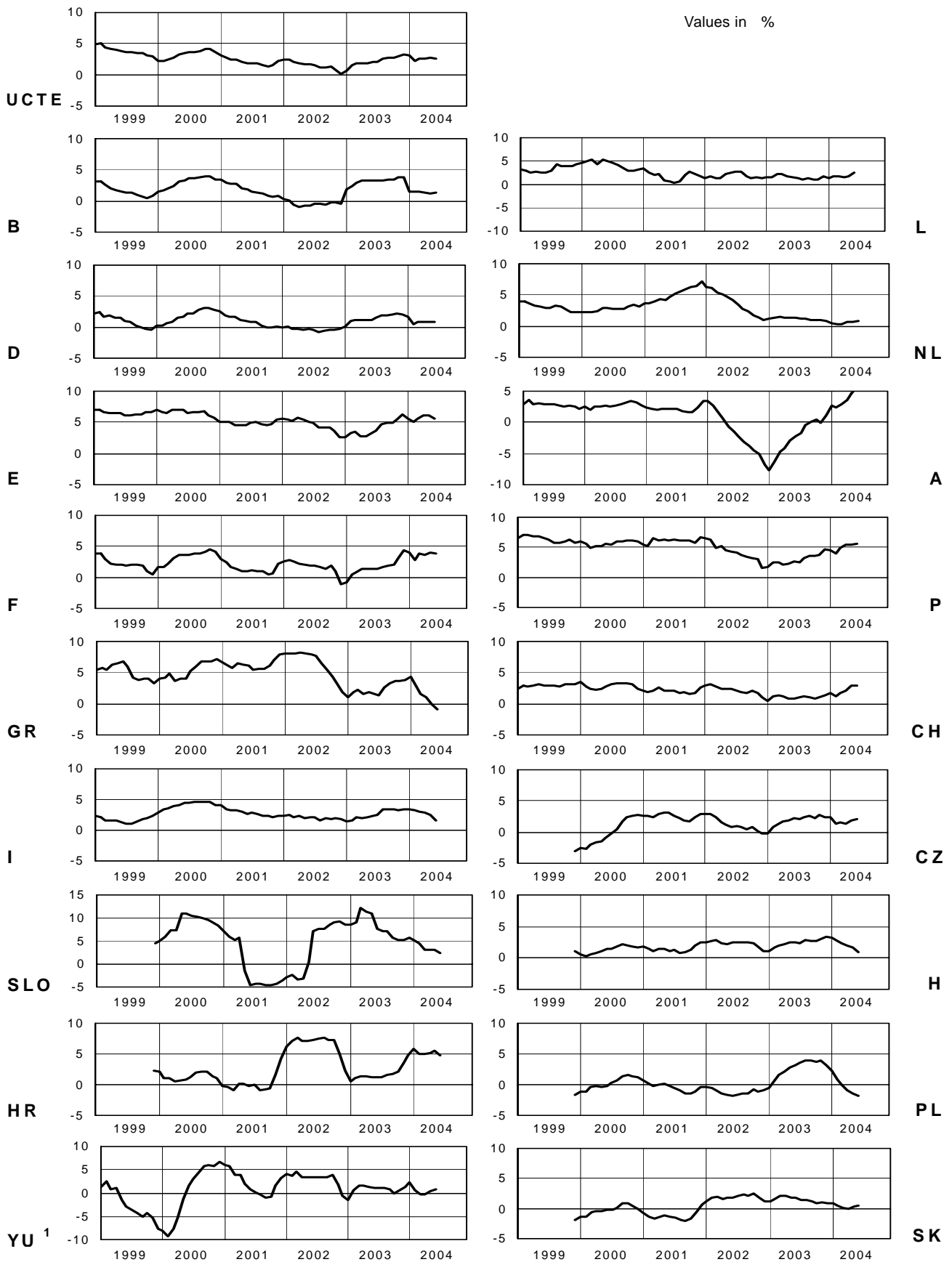
June 2004



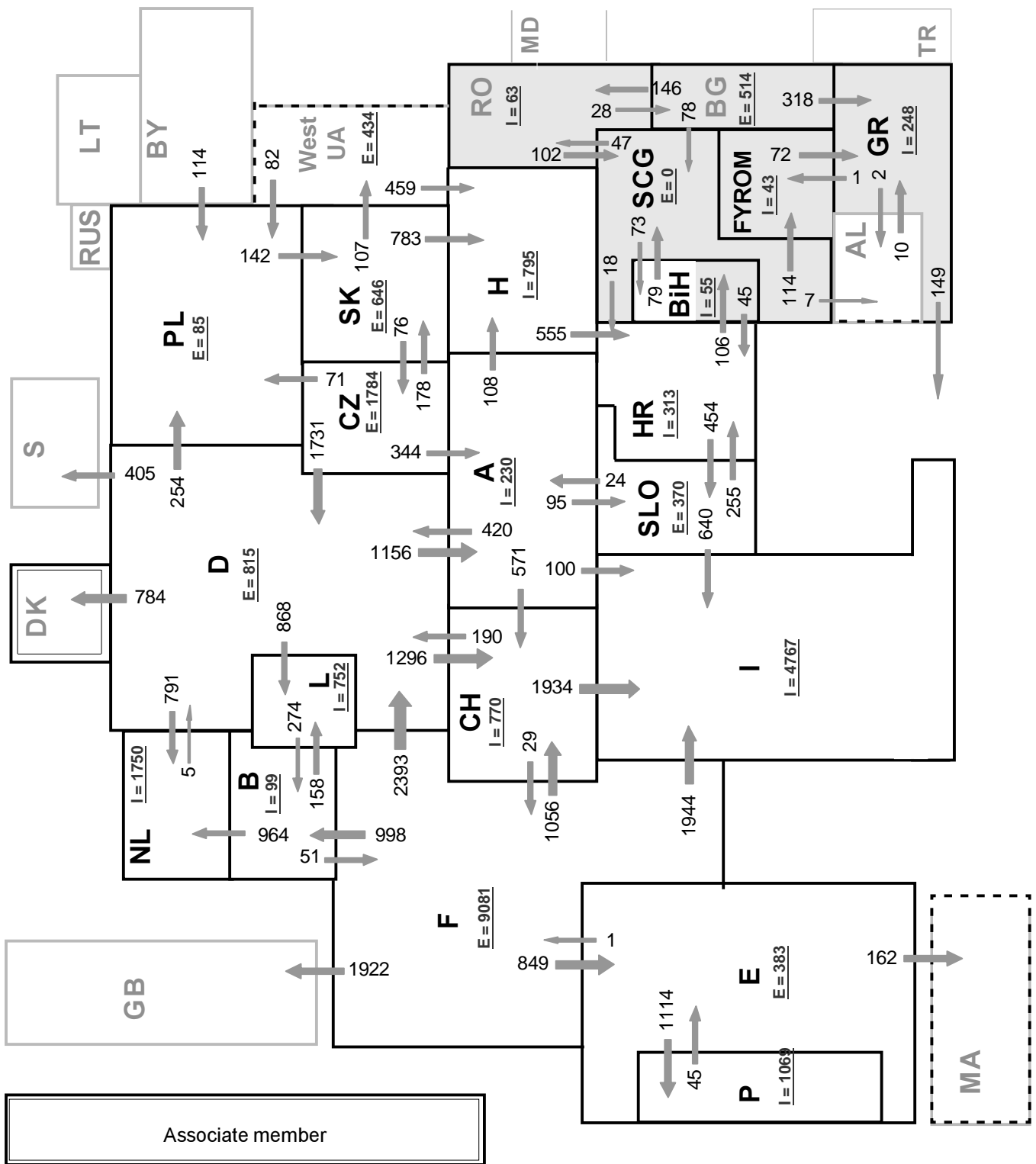
6

Variation of the last 12 months' consumption

June 2004



¹ YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



Associate member

Synchronous operation with 1st resp. 2nd UCTE region

2nd synchronous UCTE region

Sum of load flows in MW:

UCTE = 24757MW Total = 28811MW

* Central European Time (CET)

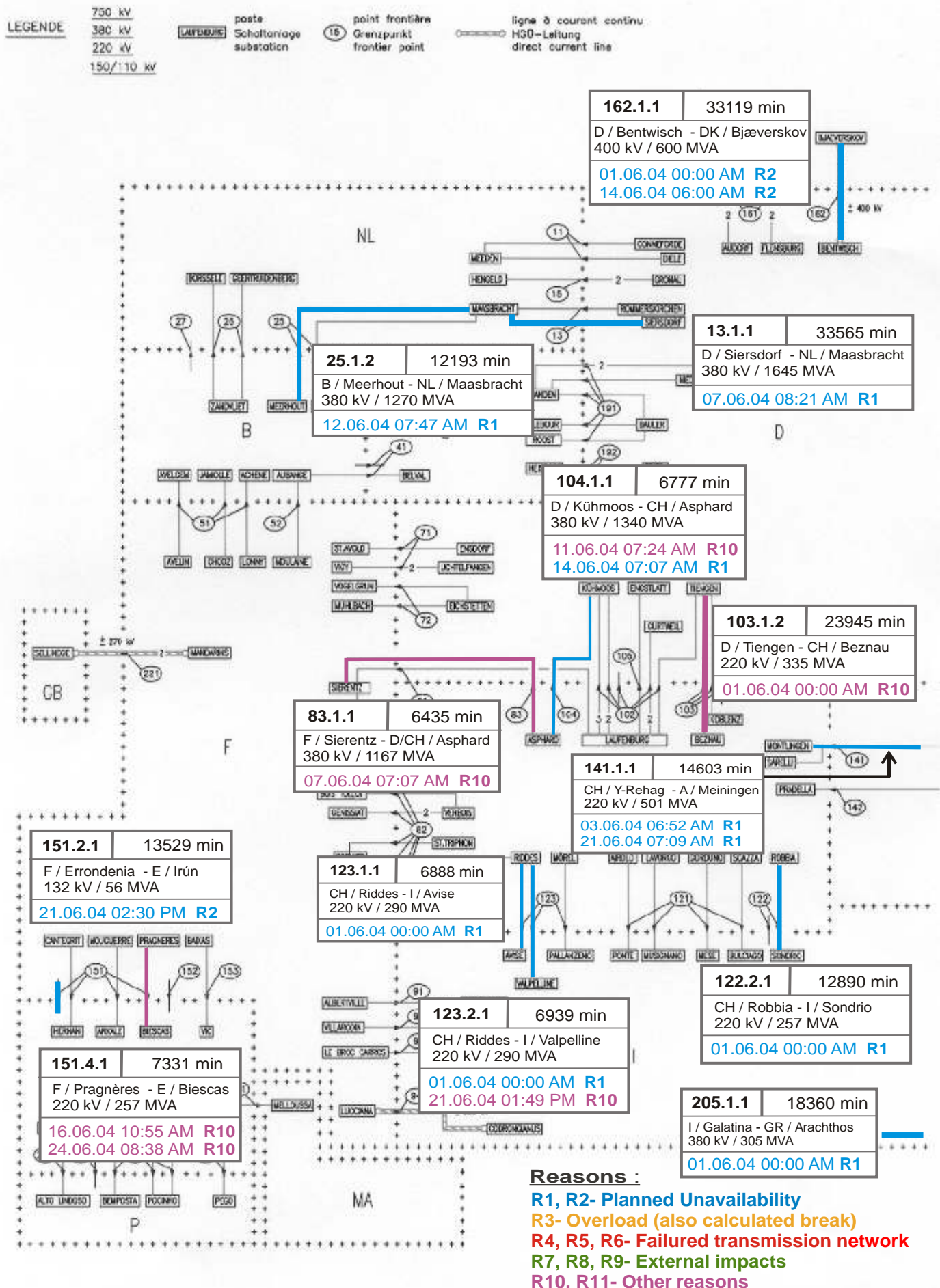
I = Import balance

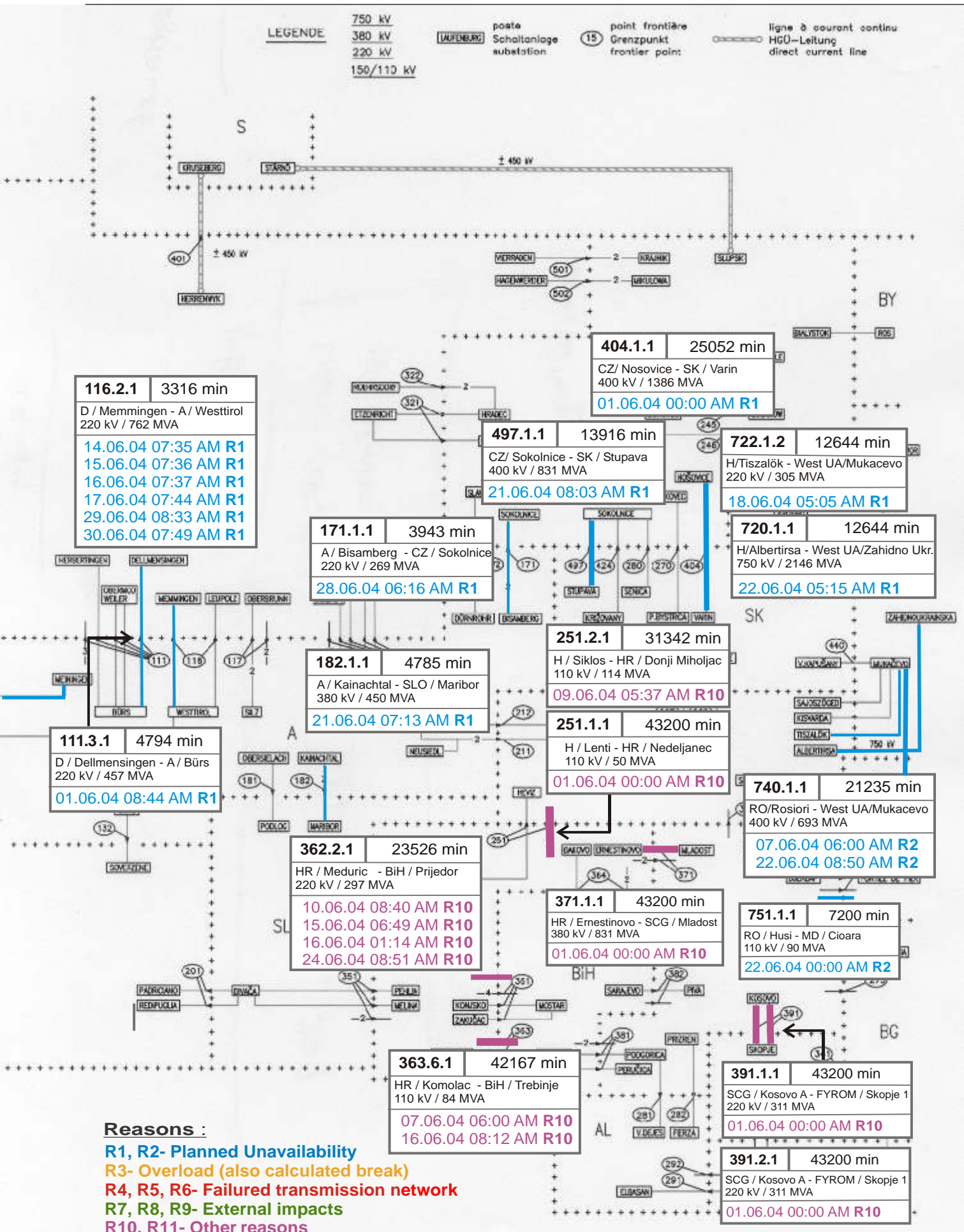
E = Export balance

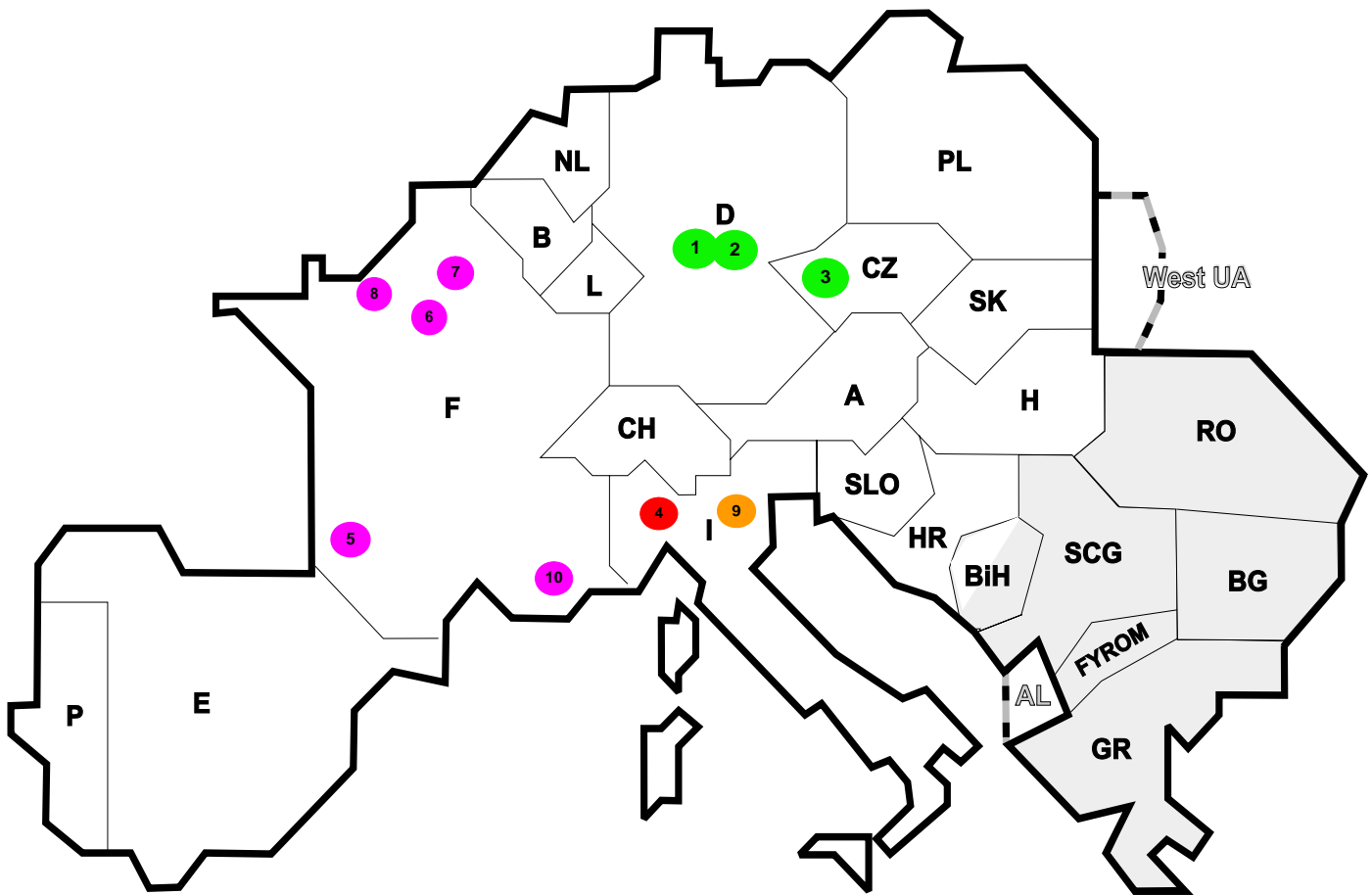
9

Unavailability of international tie lines (major events with sum over 3300 minutes)

June 2004







Reasons:

- R4** Overload (also calculated brake)
- R5** False operation
- R6** Failure in protection device or other element
- R7** Outside impacts (animals, fire, avalanches,...)
- R8** Very exceptional conditions (weather, natural disaster,...)
- R9** Other reasons
- R10** Unknown reasons

Nbr	Country	Substation	Reason	Energy not supplied [MWh]	Total loss of power [MW]	Restoration time [min]	Equivalent time of interruption ¹
1	D	Altenfeld	R8	280	160	105	0,28
2	D	Altenfeld	R8	212	795	16	0,21
3	CZ	Krasikov	R7	156	0	31	1,35
4	I	Nave	R6	146	108	81	0,24
5	FR	Mboguere	R9	124	20	371	0,14
6	FR	Bourget	R9	122	14	522	0,14
7	FR	Ampere	R9	86	97	103	0,10
8	FR	Ranville	R9	28	17	203	0,03
9	I	Sanlux	R4	24	142	10	0,04
10	FR	Enco de Botle	R9	16	22	88	0,02

¹ (year [in min] * energy not supplied) / consumption last 12 months

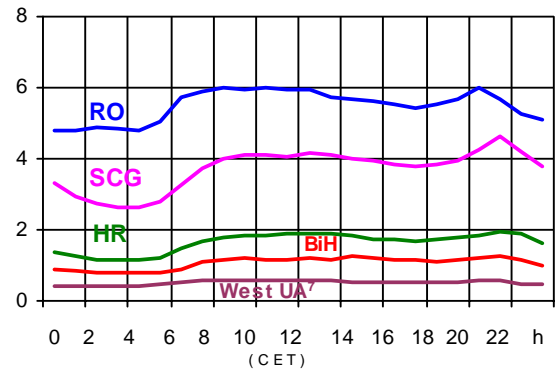
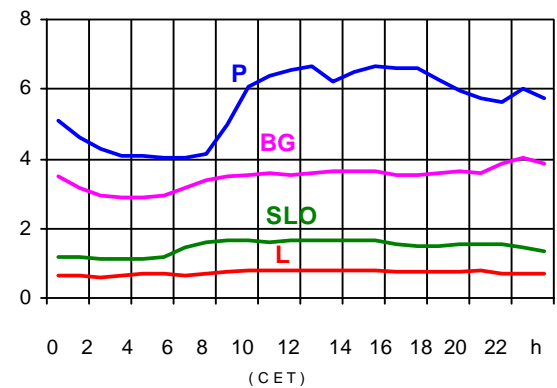
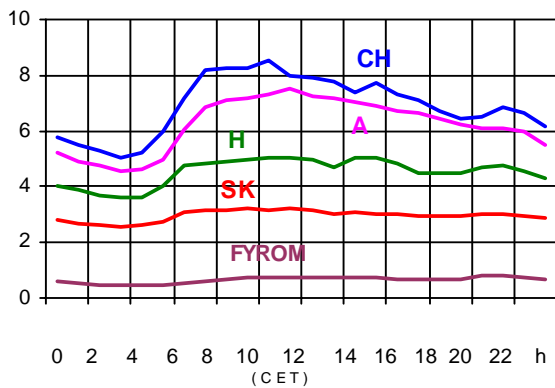
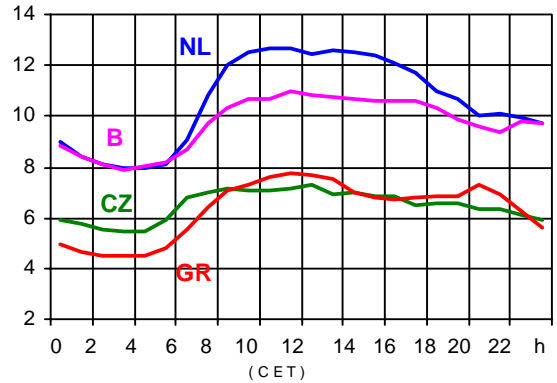
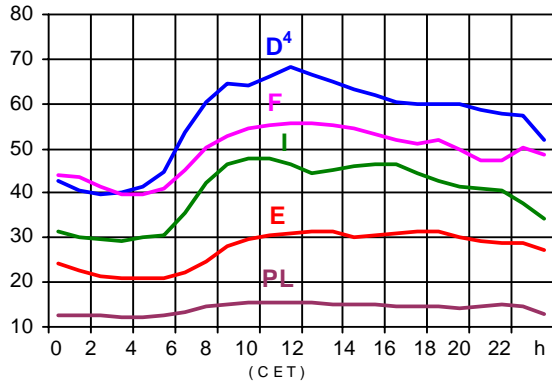
Control area	Export Programs	Import Programs	Export Programs at 03:00	Import Programs at 03:00	Export Programs at 11:00	Import Programs at 11:00
B	608165	1001817	952	926	630	1563
D	2104148	3650316	1843	3523	3445	4944
E	920476	585561	1291	928	1921	582
F	7161304	2176277	10323	1258	9528	3985
GR	50400	415941	300	539	300	729
I	48195	3419682	27	4767	43	5005
SLO	611813	445844	829	430	718	531
HR	279583	455512	218	238	316	254
BiH	209467	94772	275	150	255	150
FYROM	78700	144500	187	206	387	437
SCG	360620	377454	325	262	567	557
NL	396044	1793409	571	2331	75	2872
A	366019	332461	528	329	794	694
P	28111	651448	0	1101	0	800
CH	2332609	1501473	1775	2562	3992	1738
CZ	1747043	530572	2497	673	2250	1214
H	122708	816187	162	977	215	1368
PL	914686	217900	805	428	1915	180
SK	596972	231710	816	123	905	552
RO	496800	288288	690	388	690	413
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
West UA ¹	271278	0	372	0	498	0

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

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

Consumption hourly load curves¹ on 16.06.04

Values in GW



	Peak load MW	Δ % ²	Load representativity ¹ %	Parallel power ³ MW
B	10961	0,1	100	9894
D	68200	0,9	91	72700
E	31536	-5,7	94	31536
F	55841	-3,1	100	60882
GR ⁶	7712	-7,9	99	7081
I	47635	-5,8	100	41821
SLO	1683	-3,7	95	1814
HR	1940	-0,5	100	1880
BIH	1287	8,2	99	1165
FYROM	827	-0,2	100	610
SCG	4627	4,0	96	3970
L	807	1,4	99	804
NL	12679	-0,2	90	10343
A	7538	1,8	82	7983
P	6673	2,3	93	5269
CH	8490	3,6	100	11040
CZ	7297	2,6	100	8717
H	5028	-3,7	100	3875
PL	15641	-4,0	100	16945
SK	3192	1,8	100	3420
RO	6017	-3,4	100	6003
BG	4012	1,0	100	4152
UCTE	305942	-1,1		311904
DK ⁵				1775
West UA ⁷	600	18,8	100	1087

¹ Percentage as referred to total values in %

² Variation as compared to corresponding month of the previous year

³ Power produced in parallel operation (including autoproduction)

⁴ Values estimated on the basis of the vertical load. The vertical load is the total amount of the power flows out of the transmission network into distribution and large consumer networks.

⁵ Denmark (Jutland)

⁶ The representativity of data referring to the interconnected system is 99%
The representativity of data referring to the whole country including the isolated systems of the Greek island is 91%

⁷ West UA represents the so-called Burshtyn Island synchronously with the UCTE



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