

UCTE



May 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 26 August 2004

1

Electricity supply situation of the countries

May 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	89	3695	2698	6482 ²	389	86	6785	1,5	84963	0,8
D	2125	11745	26163	40033 ²	968	731	40270	-0,2	508274	0,8
E	3613	4825	10564	19002 ²	-302	393	18307	3,7	228162	5,8
F	6391	32012	2952	41355	-5385	675	35295	3,0	465403	3,8
GR ⁴	458	0	3200	3658 ²	199	48	3809	-8,4	50087	-0,1
I	5248	0	17858	23106	3532	885	25753	-1,6	320833	2,4
SLO	381	490	333	1204	-196	0	1008	2,3	12512	2,9
HR	779	0	245	1024 ²	161	6	1179	6,7	15764	5,2
BiH	692	0	249	941	-159	0	782	-19,5	12944	n.a.
FYROM	177	0	272	449 ²	2	0	451	3,2	6202	n.a.
SCG	1482	0	1471	2953	1	83	2871	9,3	39371	n.a.
L	71	0	155	226	379	88	517	3,2	6182	1,8
NL	0	335	7154	7489 ²	1348	0	8837	1,0	110359	0,7
A	3431	0	1326	4757	-182	247	4328	15,8	53597	4,4
P	826	0	2173	2999 ²	615	27	3587	3,9	44168	5,1
CH	3126	2249	221	5596 ²	-577	246	4773	3,1	61235	3,7
CZ	250	1333	4393	5976 ²	-1194	50	4732	8,8	60613	1,9
H	21	581	1654	2256 ²	734	0	2990	-0,3	38395	1,7
PL ⁵	282	0	10401	10683 ²	-552	92	10039	-3,0	134853	-1,5
SK	362	1230	700	2292 ²	-291	3	1998	4,3	26443	0,3
RO	1675	489	1772	3936 ²	62	0	3998	4,5	49797	n.a.
BG	258	1137	1526	2921 ²	-367	25	2529	6,5	35557	n.a.
UCTE	31737	60121	97480	189338²	-815	3685	184838	1,4	2365714	2,3
West UA ⁶	18	0	591	609 ²	-290	0	319	45,0	4251	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	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	100

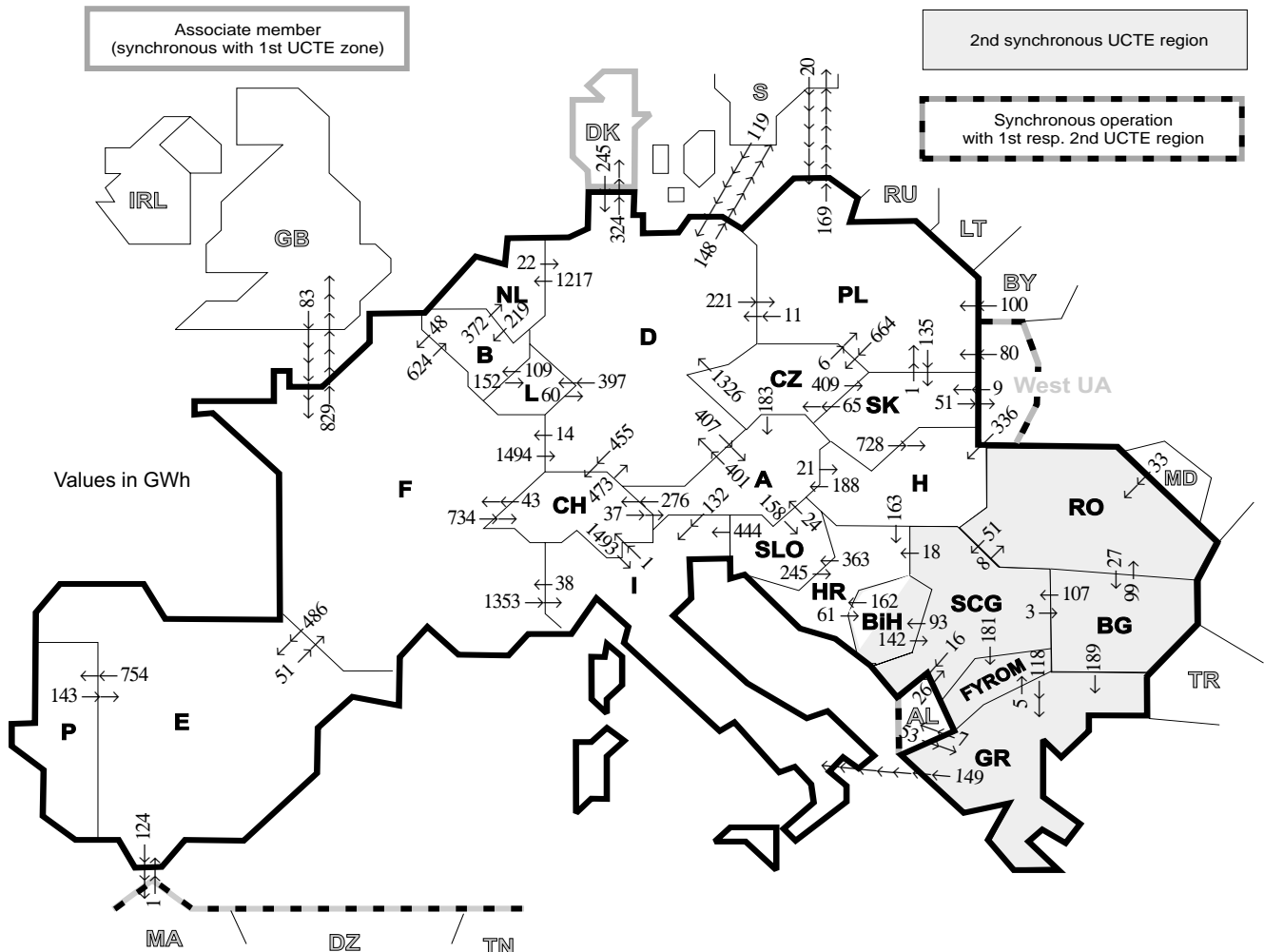
² Including deliveries from industry

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



Exporting countries	Importing countries																			Σ Export							
	B	D	E	F	GR	I	SLO	HR	BIH	FY- ROM	SCG	L	NL	A	P	CH	CZ	H	PL		SK	RO	BG	III¹	DK²	West UA³	
B	-	-	-	48	-	-	-	-	-	-	-	152	372	-	-	-	-	-	-	-	-	-	-	-	-	-	572
D	-	-	-	14	-	-	-	-	-	-	-	397	1217	407	-	455	0	-	221	-	-	-	-	472	324	-	3183
E	-	-	-	51	-	-	-	-	-	-	-	-	-	-	754	-	-	-	-	-	-	-	-	-	124	-	929
F	624	1494	486	-	1353	-	-	-	-	-	-	-	-	-	-	734	-	-	-	-	-	-	-	-	829	-	5520
GR	-	-	-	-	149	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	0	7	-	-	161
I	-	-	-	38	0	0	-	-	-	-	-	-	-	0	-	1	-	-	-	-	-	-	-	-	-	-	39
SLO	-	-	-	-	444	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	713
HR	-	-	-	-	-	363	-	245	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	424
BIH	-	-	-	-	-	-	162	61	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	304
FYROM	-	-	-	-	118	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	-	-	-	118
SCG	-	-	-	-	-	-	18	93	181	-	-	-	-	-	-	-	-	0	-	-	-	8	3	16	-	-	319
L	109	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169
NL	219	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241
A	-	401	-	-	132	158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	988
P	-	-	143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143
CH	-	473	-	43	1493	-	-	-	-	-	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2046
CZ	-	1326	-	-	-	-	-	-	-	-	-	-	-	183	-	-	-	-	6	409	-	-	-	-	-	-	1924
H	-	-	-	-	-	-	-	-	-	-	-	-	-	188	-	-	-	-	-	-	0	0	0	0	0	0	351
PL	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	664	-	-	135	-	-	-	169	-	0	979
SK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	728	1	-	-	-	-	51	-	51	845
RO	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	0	-	-	-	27	0	0	0	0	78
BG	-	-	-	-	189	-	-	-	-	0	107	-	-	-	-	-	-	-	-	-	-	99	0	0	-	-	395
III¹	-	364	1	83	53	-	-	-	-	-	26	-	-	-	-	-	-	-	336	200	9	33	0	-	-	-	425
DK²	-	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245
West UA³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	336	80	9	0	-	-	-	-	1105
Σ Import	952	4151	630	277	360	3571	521	588	154	186	326	549	1589	839	754	1466	729	1085	428	553	140	30	51	324	1668	21546	

Sum of physical energy flows between UCTE countries = 18773 GWh Total physical energy flows = 21546 GWh

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

² Denmark (Jutland)

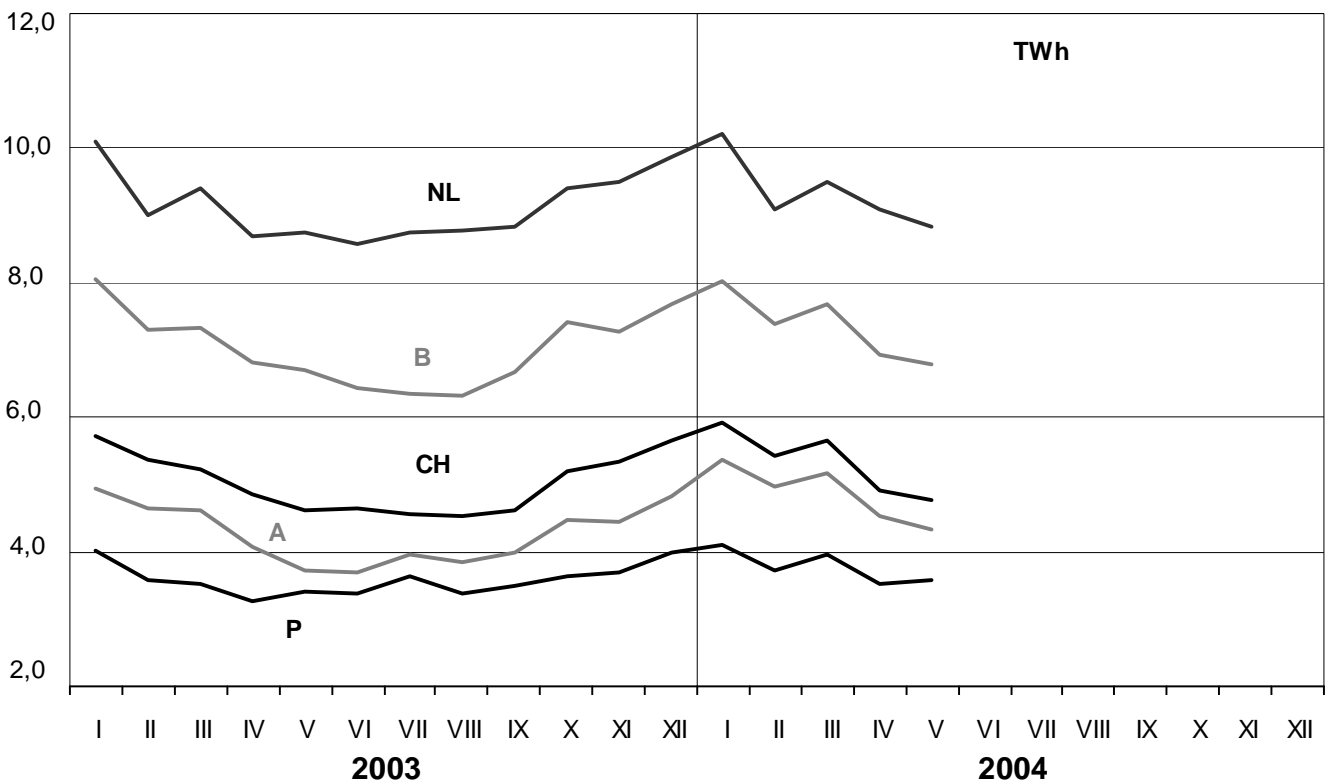
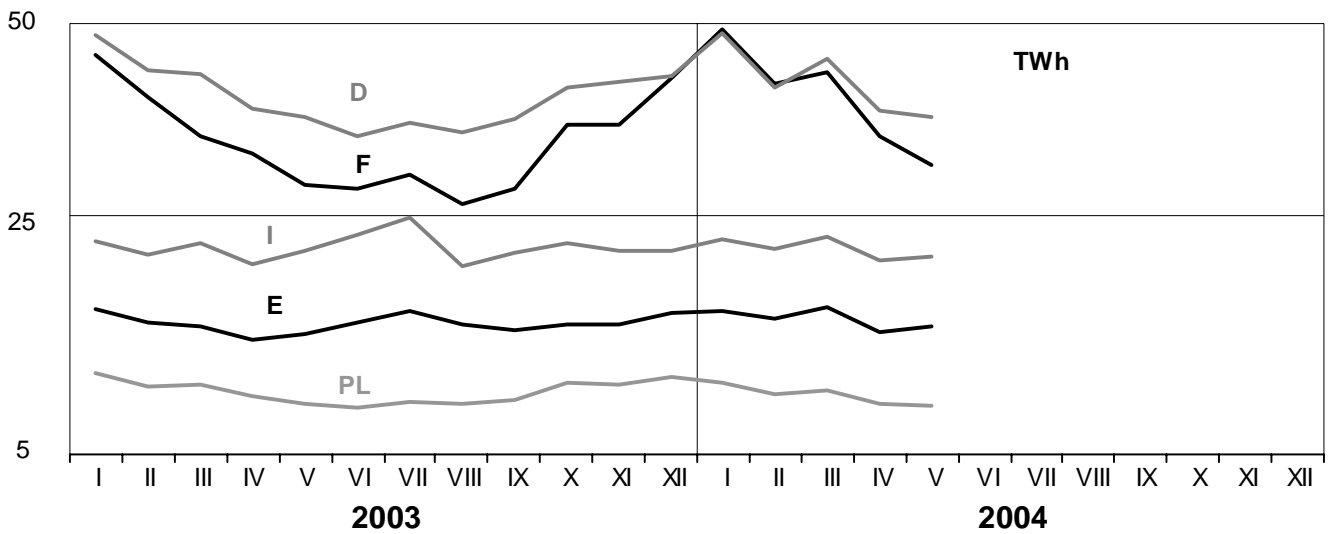
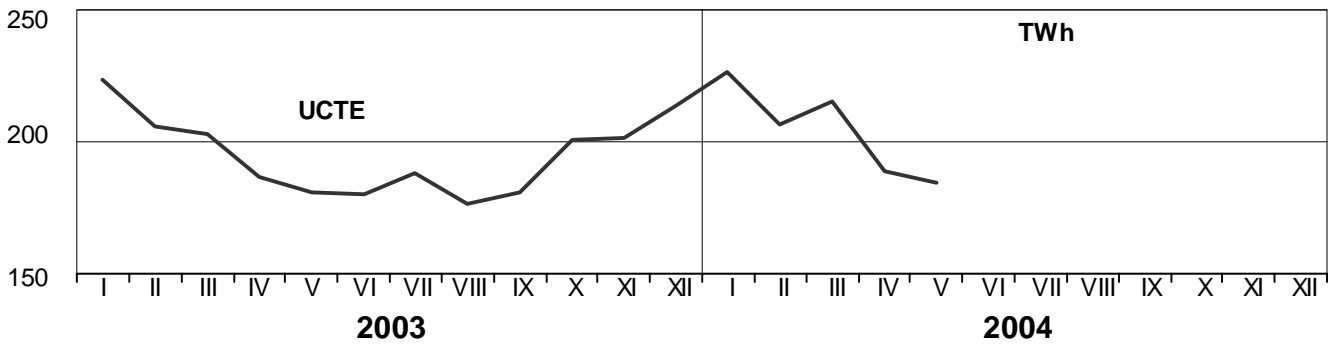
³ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

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

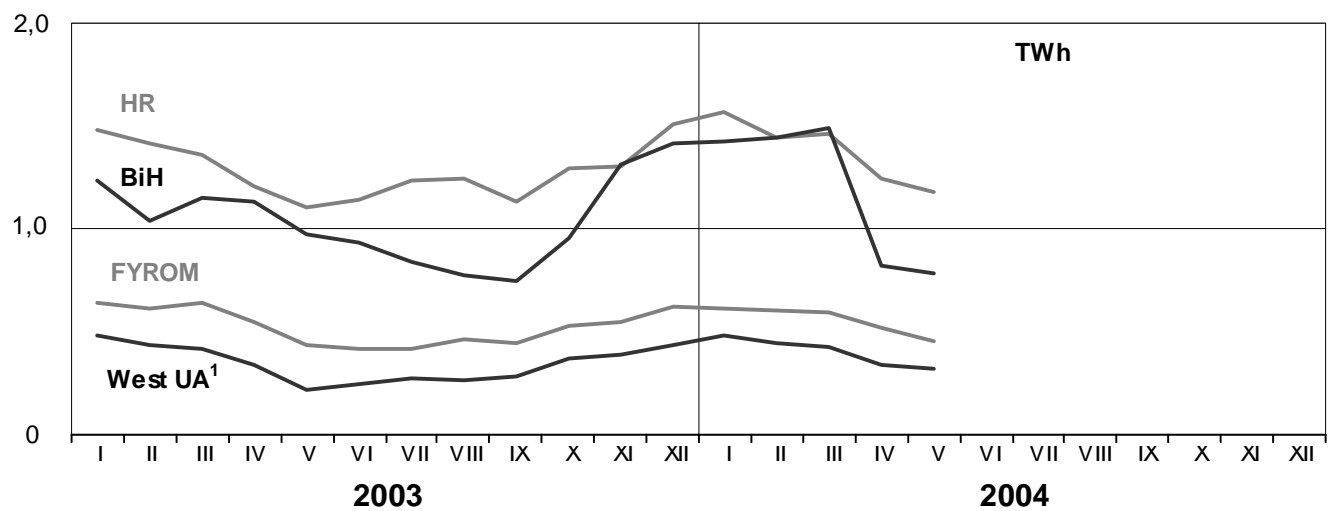
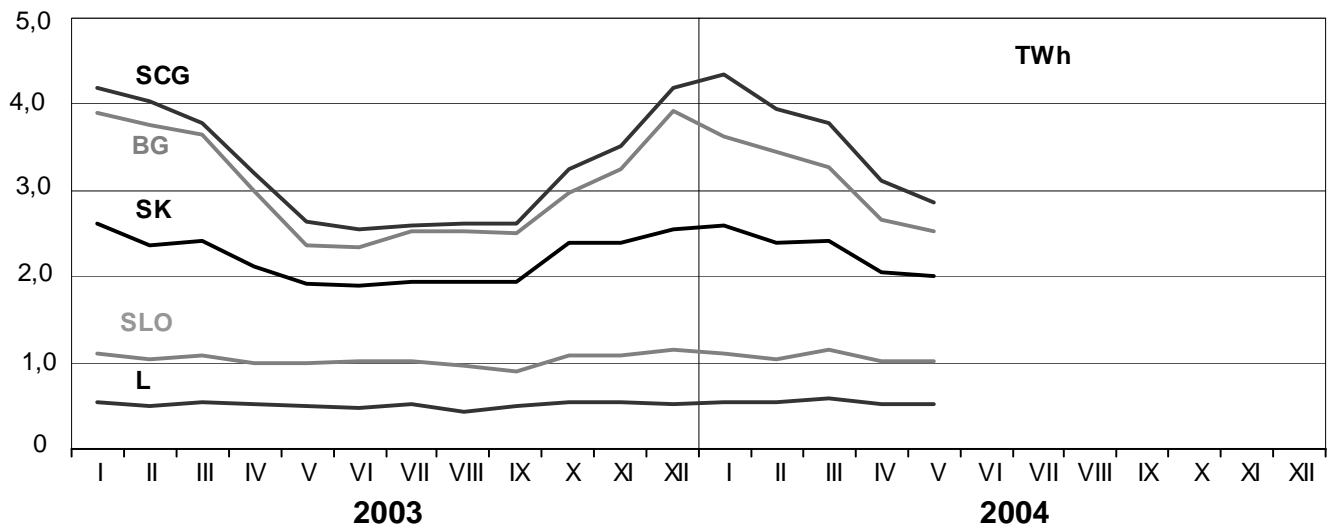
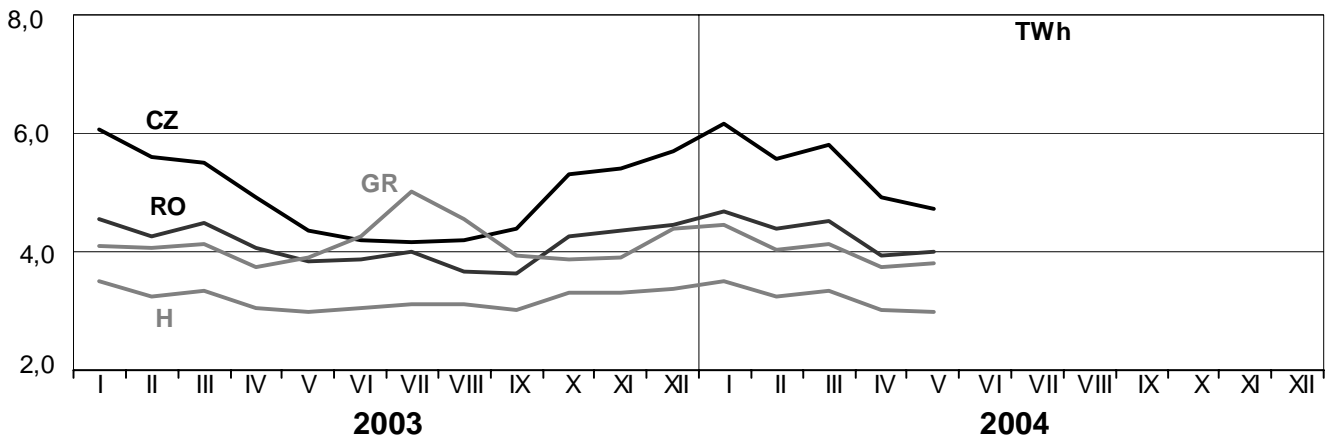
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3

Monthly consumption

May 2004

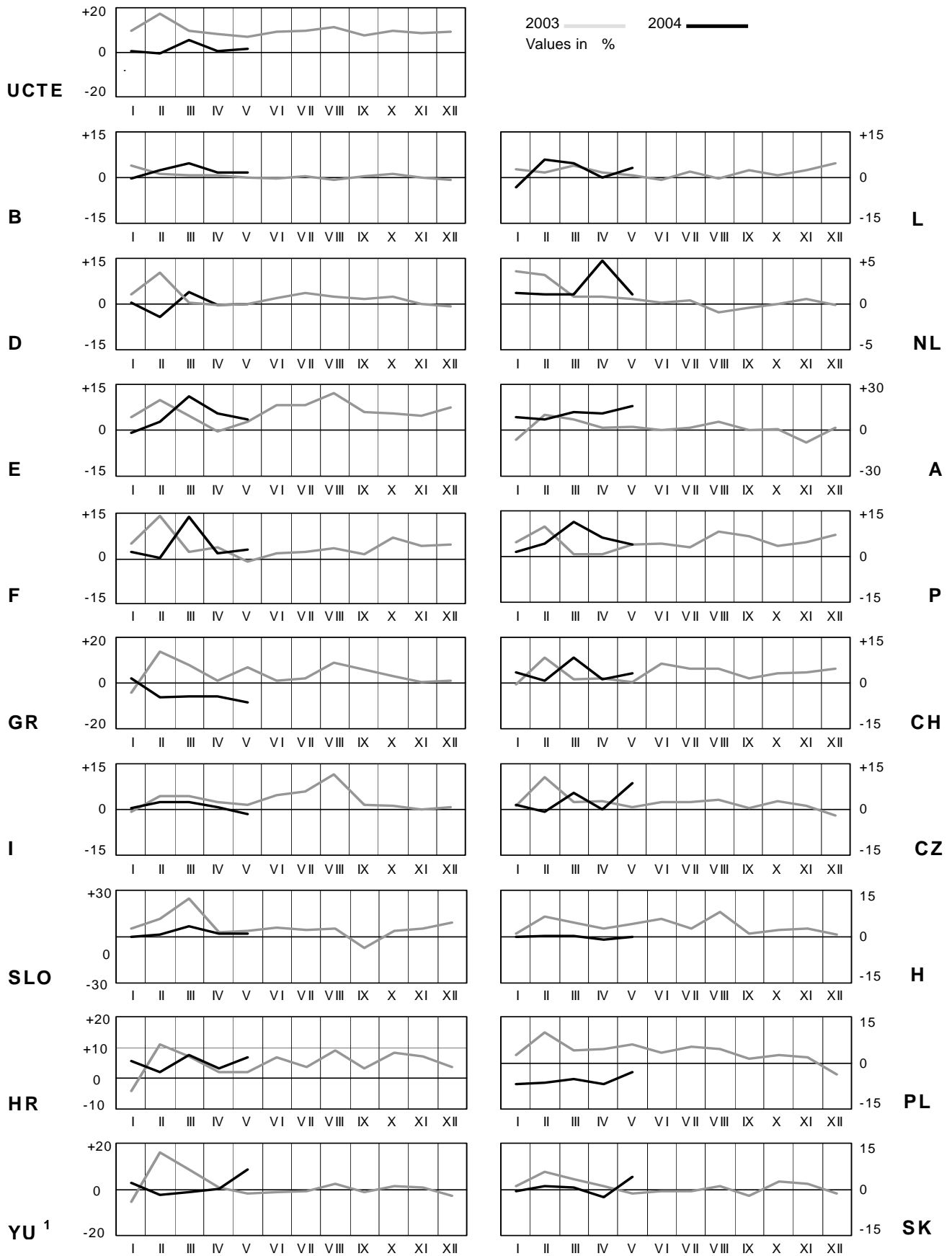


¹ West UA represents the so-called Burshtyn Island synchronously interconnected with UCTE

4

Monthly consumption variation

May 2004

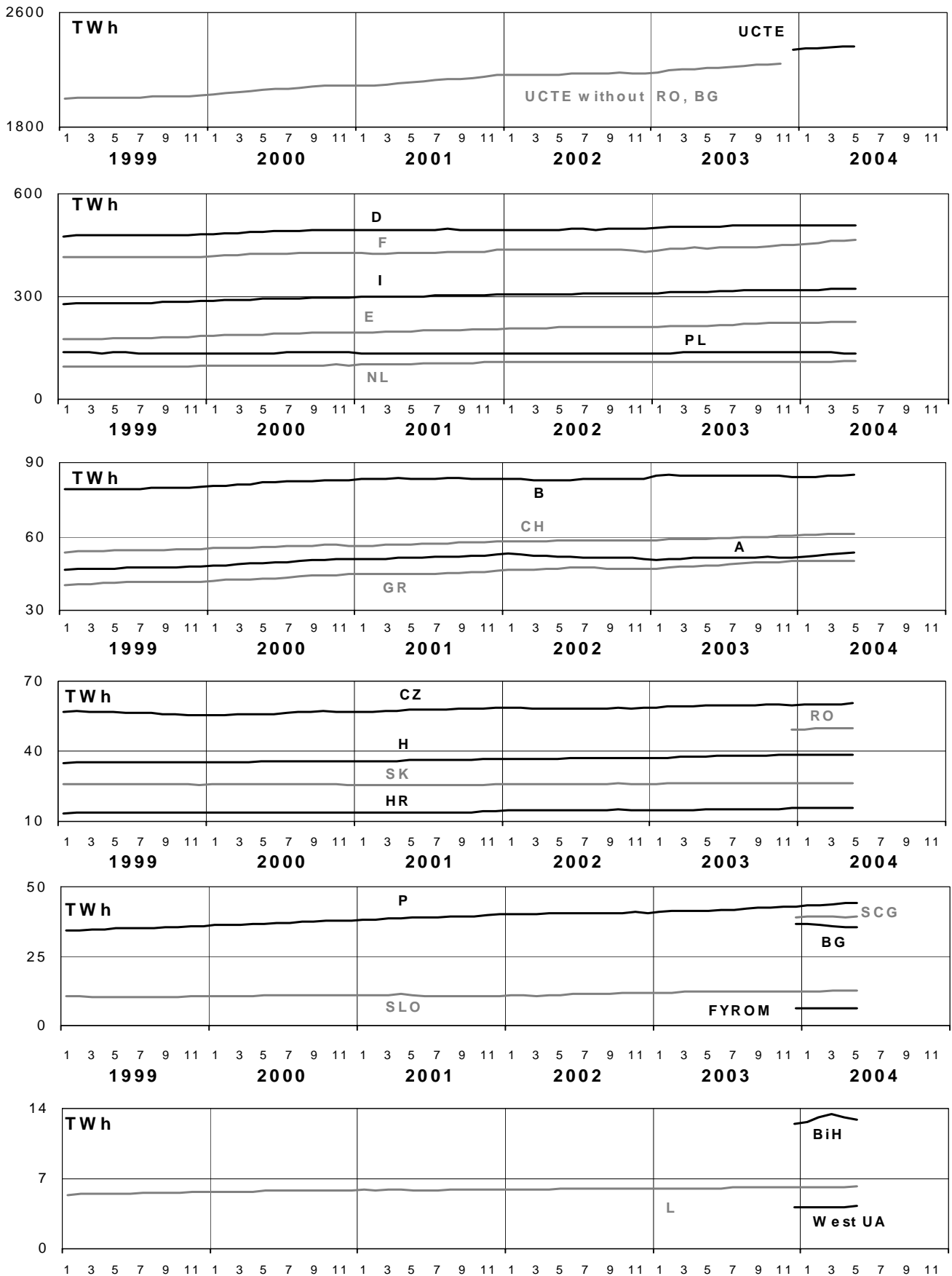


¹YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

5

Consumption of the last 12 months

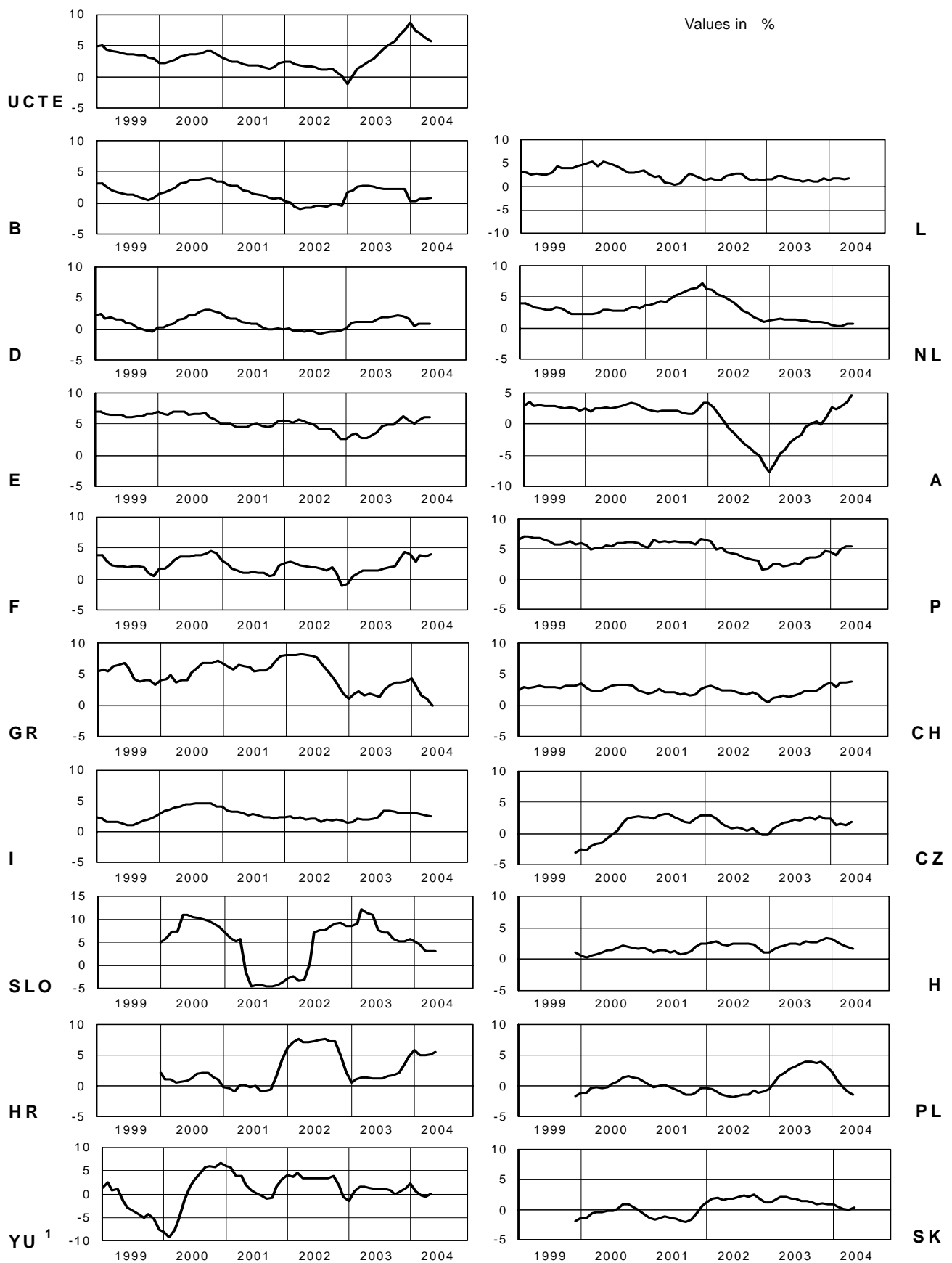
May 2004



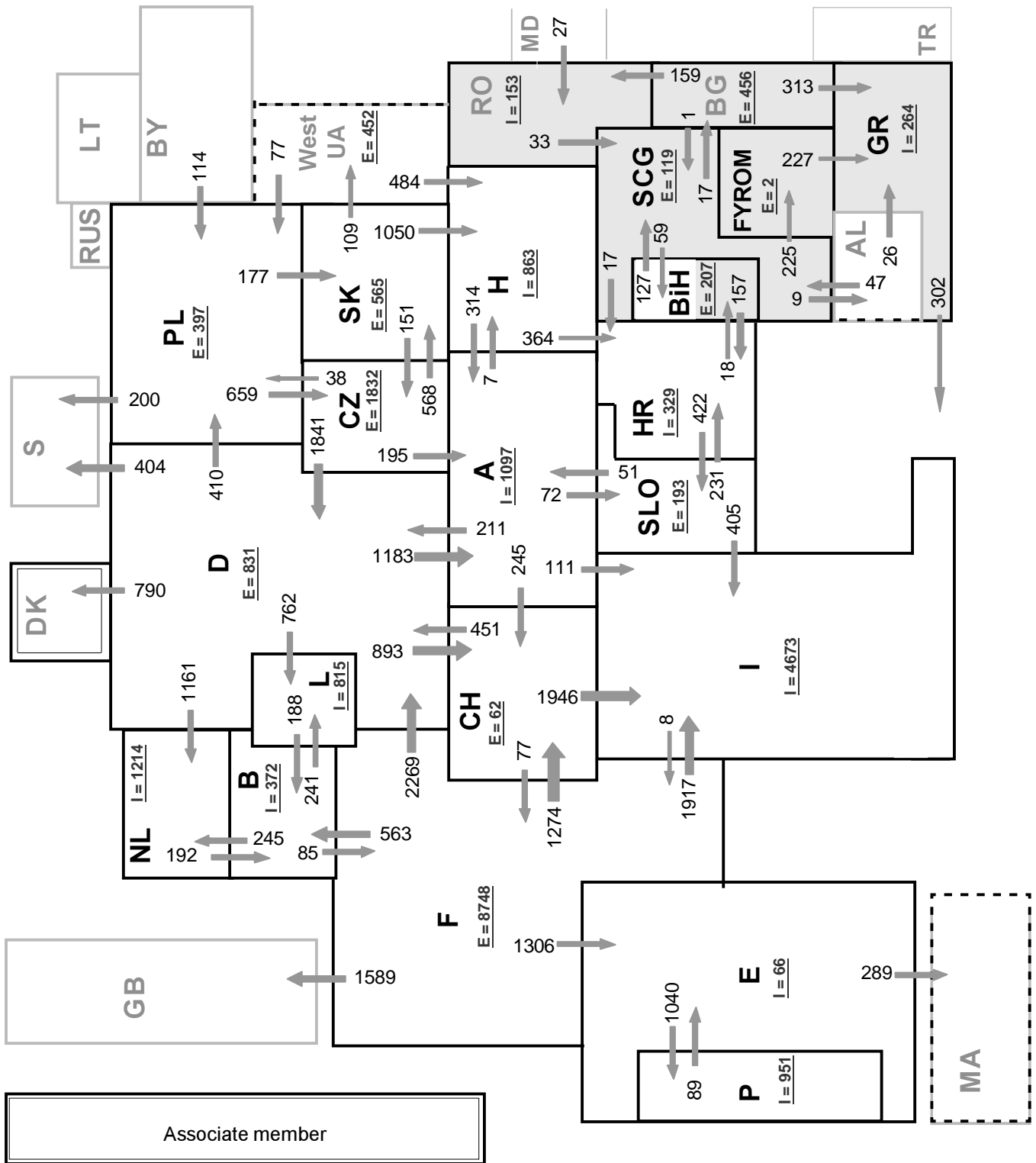
6

Variation of the last 12 months' consumption

May 2004



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



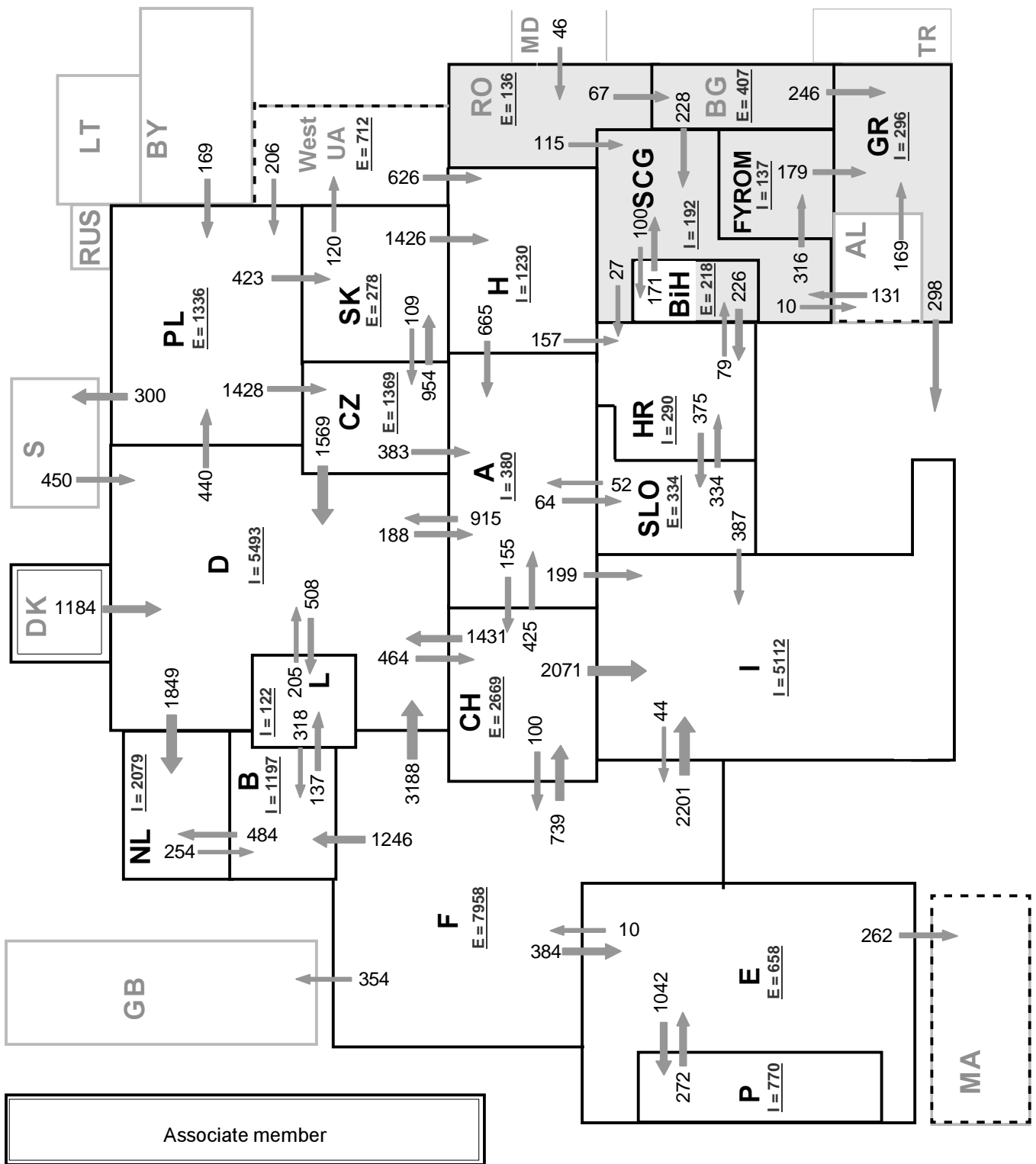
Sum of load flows in MW:

UCTE = 25067MW Total = 29232MW

* Central European Time (CET)

I = Import balance

E = Export balance



Sum of load flows in MW:

UCTE = 29647MW Total = 33674MW

* Central European Time (CET)

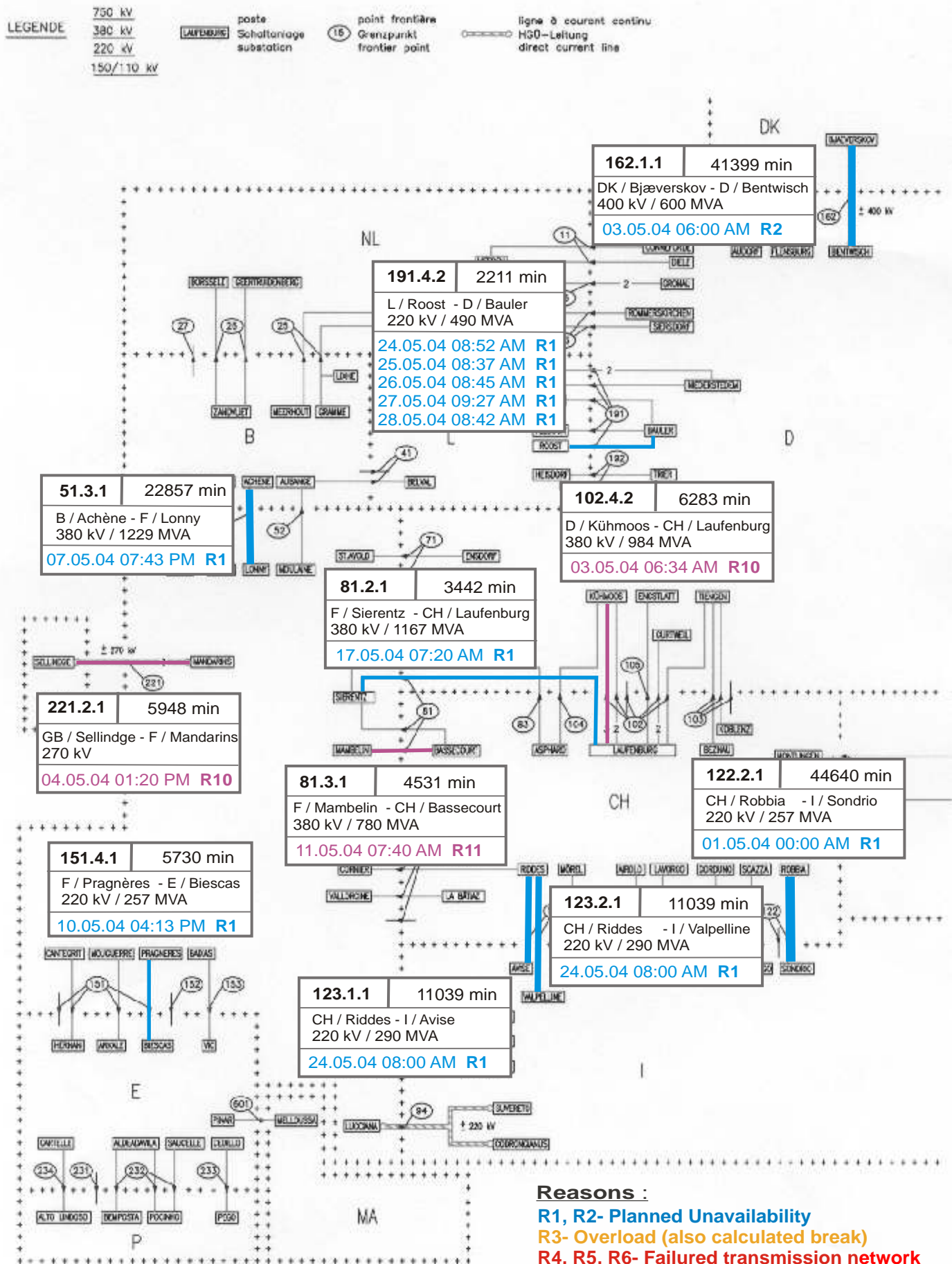
I = Import balance

E = Export balance

9

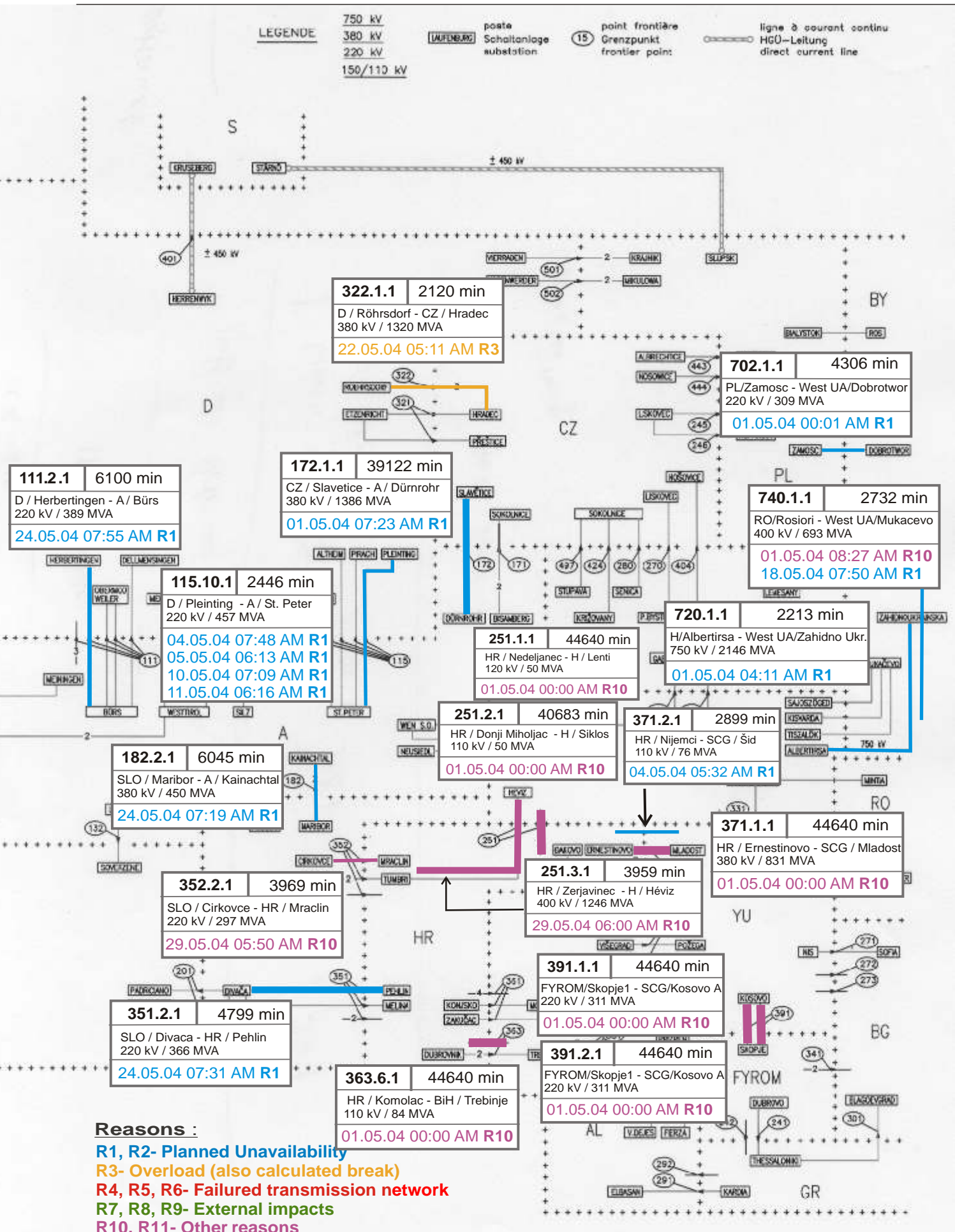
Unavailability of international tie lines (major events with sum over 2000 minutes)

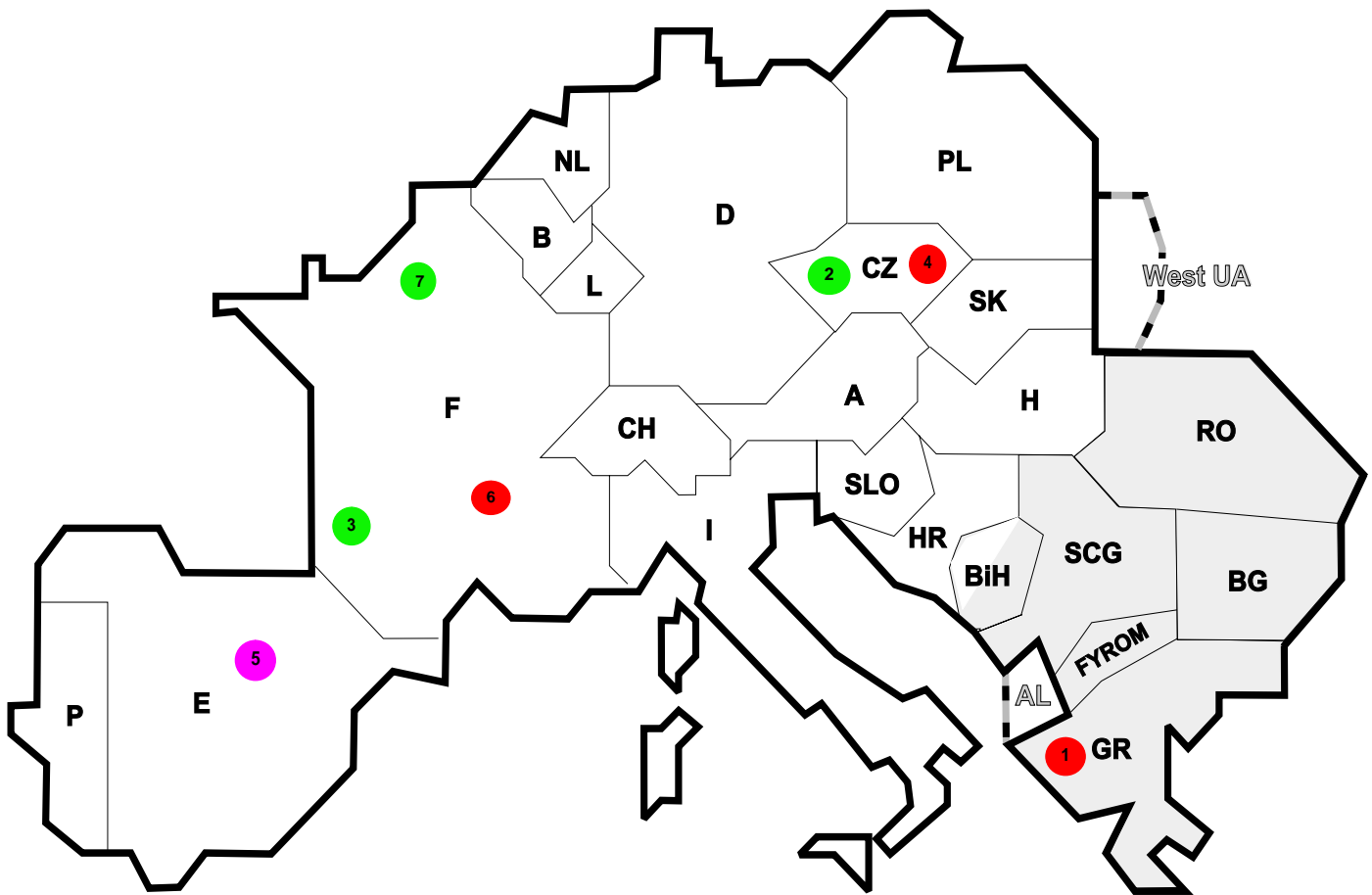
May 2004



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:

- 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	GR	Kardia	R6	40	600	15	0,42
2	CZ	Cebin	R8	24	0	9	0,21
3	F	Marsillon	R8	22	31	44	0,02
4	CZ	Prestice	R5	13	0	5	0,11
5	E	Franqueses	R9	5	0	19	0,01
6	F	Vaise	R6	5	25	12	0,01
7	F	Cergy	R8	5	55	8	0,01

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

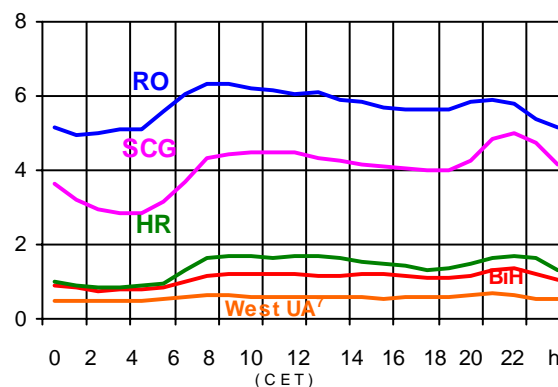
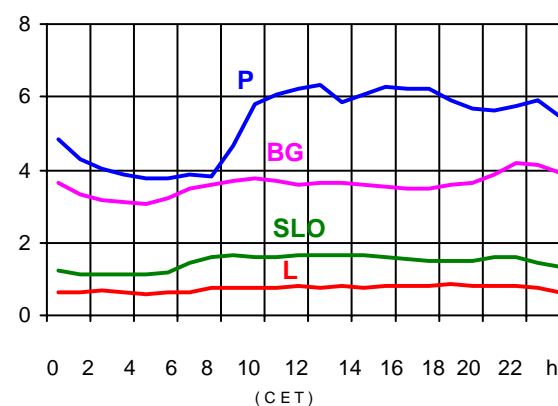
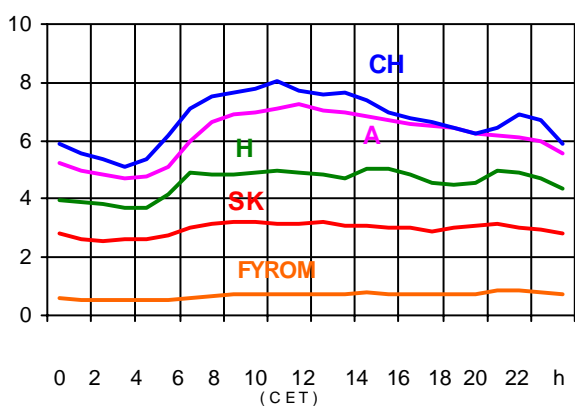
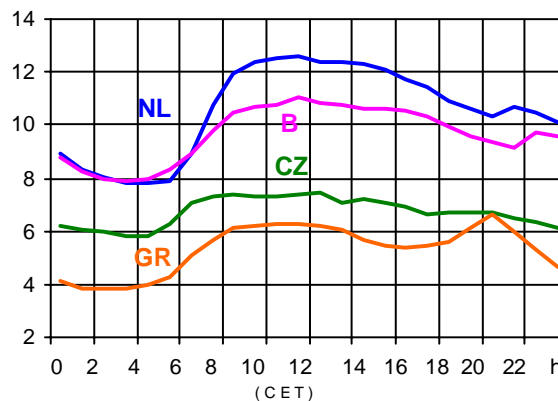
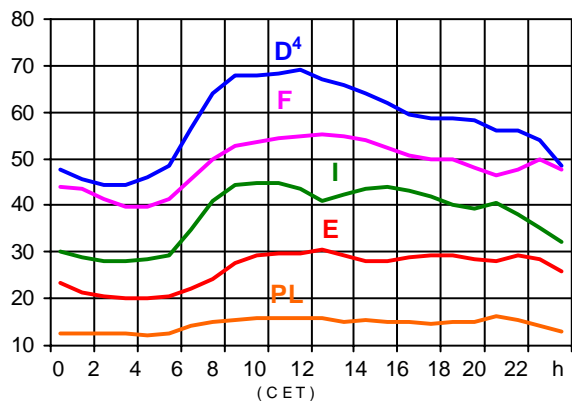
Control area	Export Programs	Import Programs	Export Programs at 03:00	Import Programs at 03:00	Export Programs at 11:00	Import Programs at 11:00
B	412316	834174	536	945	0	1224
D	2124986	3400250	2078	3811	2752	6564
E	975968	653143	1159	1300	1673	960
F	6909101	1649308	9757	756	8701	747
GR	152200	354013	300	468	300	601
I	39325	3570518	8	4681	44	5156
SLO	721951	533897	863	656	985	679
HR	376730	544457	442	445	436	354
BiH	213673	53154	241	50	306	100
FYROM	117800	187100	338	353	401	521
SCG	353929	350192	403	266	581	756
NL	412408	1755971	361	1583	628	2692
A	251336	339437	163	403	757	275
P	60931	674934	0	995	385	1150
CH	2326705	1747536	2547	2500	5541	2857
CZ	1708560	495310	2322	450	2309	934
H	144567	877705	197	1074	192	1393
PL	640820	123168	592	266	1612	220
SK	593977	250144	794	172	836	476
RO	513360	293512	690	383	690	408
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
West UA ¹	290130	0	373	0	500	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 curves ' on 19.05.04

Values in GW



	Peak load MW	Δ % ²	Load representativity ¹ %	Parallel power ³ MW
B	11049	-0,8	100	9706
D	69100	-1,1	91	74900
E	30554	2,1	94	30554
F	55245	-4,1	100	62673
GR ⁶	6636	-8,5	99	5944
I	44984	-1,7	100	39167
SLO	1667	0,0	95	1952
HR	1710	-6,8	100	1861
BIH	1358	9,7	99	1429
FYROM	892	11,4	100	631
SCG	5012	14,8	96	4294
L	839	9,4	99	747
NL	12628	2,9	90	10468
A	7280	1,4	82	6110
P	6336	3,0	93	5025
CH	8067	-2,5	100	10566
CZ	7472	2,8	100	9431
H	5021	1,2	100	3699
PL	16092	-4,4	100	17026
SK	3219	-1,8	100	3421
RO	6318	6,0	100	6156
BG	4162	8,1	100	4099
UCTE	299956	-1,3		309859
DK ⁵				1515
West UA ⁷	684	38,7	100	1098

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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