

# UCTE



## March 2005

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

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<sup>1</sup> Monthly provisional values from the UCTE database as of 12 July 2005

# 1

## Electricity supply situation of the countries

March 2005

All values are calculated to represent 100% of the national values

Countries	Net production in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh			
	Therm. nuclear	Fossil fuel	Hydro prod	Other renew.	Of which wind	Not identify	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	2507	2572	0	0	0	5079	381	242	5218	-14,8	64715	4,6
BA	0	592	670	0	0	0	1262	-274	0	988	4,9	10773	-10,5
BE	3857	3114	154	193	10	0	7318 <sup>1</sup>	741	142	7917	0,7	88496	1,8
BG	1804	1873	541	0	0	0	4218	-761	39	3418	4,6	35080	-1,8
CH	2292	183	2606	78	1	0	5159 <sup>1</sup>	598	145	5612	-0,9	62093	3,6
CS	0	2622	1361	0	0	0	3983 <sup>1</sup>	191	111	4063	3,1	41432	1,6
CZ	2235	4570	337	3	2	0	7145 <sup>1</sup>	-1163	69	5913	2,0	61895	2,8
DE	14735	32467	2016	3425	2758	0	52643 <sup>1</sup>	-2601	753	49289	-0,6	550592	1,2
ES	4380	11282	2115	2167	1845	0	19944 <sup>1</sup>	51	427	19568	-10,9	245938	1,6
FR	36780	7313	5119	340	57	0	49552	3828	616	52764	16,7	493146	4,3
GR	0	3369	802	78	68	0	4249 <sup>1</sup>	46	23	4272	2,9	51525	-2,8
HR	0	483	609	2	1	0	1094 <sup>1</sup>	407	4	1497	2,7	16065	2,7
HU	1008	1755	5	0	0	0	2768 <sup>1</sup>	579	0	3347	0,0	38141	-0,7
IT	0	20329	3319	556	144	0	24204	4535	879	27860	0,3	322389	0,1
LU	0	298	82	9	5	0	389	247	97	539	-7,4	6260	3,5
MK	0	472	187	0	0	0	659 <sup>1</sup>	97	0	756	11,2	7558	0,2
NL	337	7631	0	583	205	0	8551 <sup>1</sup>	1581	0	10077	2,3	111254	0,7
PL	0	12670	362	n.a.	n.a.	n.a.	13032 <sup>1</sup>	-1102	180	11750	0,5	129744	-4,6
PT	0	3112	477	277	140	0	3866 <sup>1</sup>	474	62	4278	3,1	48321	3,0
RO	487	2966	1560	0	0	0	5013 <sup>1</sup>	170	0	5183	14,8	51701	4,0
SI	494	428	166	0	0	0	1088	54	0	1142	-5,4	13206	0,7
SK	1282	533	471	1	1	261	2548 <sup>1</sup>	-121	8	2419	0,1	26164	-1,0
<b>UCTE</b>	<b>69691</b>	<b>120569</b>	<b>25531</b>	<b>7712</b>	<b>5237</b>	<b>261</b>	<b>223764<sup>1</sup></b>	<b>7958</b>	<b>3797</b>	<b>227870</b>	<b>2,5</b>	<b>2476488</b>	<b>1,4</b>
DK_W	0	1736	3	559	435	0	2298 <sup>1</sup>	-420	0	1878	-0,3	21069	n.a.
UA_W <sup>2</sup>	0	735	11	0	0	0	746 <sup>1</sup>	-310	0	436	3,8	4428	6,6

<sup>1</sup> Including deliveries from industry

<sup>2</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

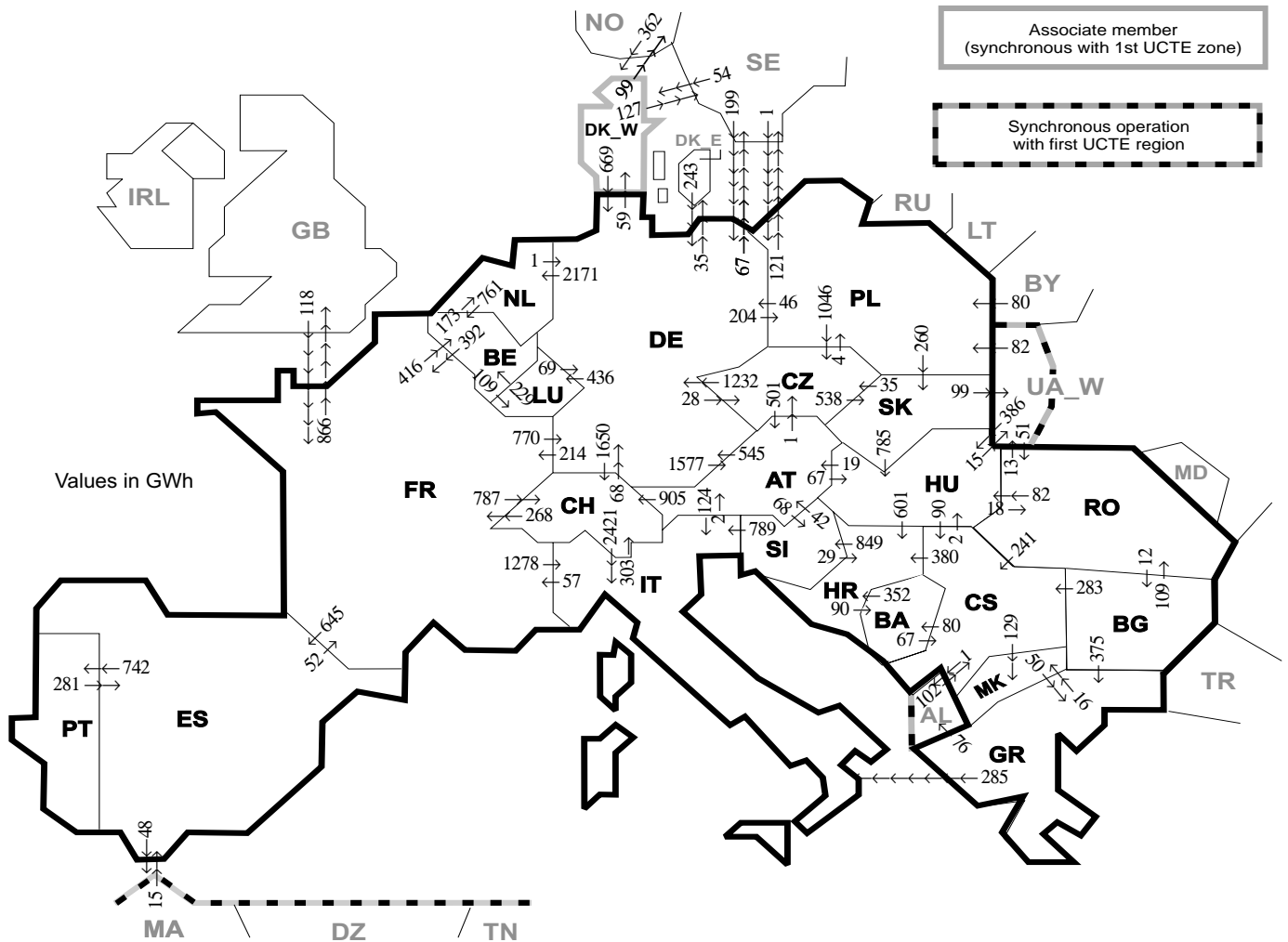
All representativities of the national production and consumption values used to calculate values at a representativity of 100% as stated in the table above

Countries	AT	BA	BE	BG	CH	CS	CZ	DE	ES	FR	GR	HR	HU	IT	LU	MK	NL	PL	PT	RO	SI	SK	DK_W	UA_W <sup>2</sup>
Production																								
Therm.nuclear	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Fossil fuel	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98	100	100	100	96	100	100	100	100	100
Hydro prod	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100
Other renew.	n.a.	100	100	100	100	100	100	100	100	100	100	100	n.a.	100	100	100	n.a.	100	100	100	100	100	100	100
Not identify	n.a.	100	100	100	100	100	100	100	100	100	100	100	n.a.	100	n.a.	100	100	n.a.	100	100	100	100	100	100
Consumption	90	100	100	100	100	100	100	100	98	100	100	100	100	100	99	100	100	100	97	100	95	100	100	100

# 2

## Physical energy flows

March 2005



Exporting countries	Importing countries																	Sum export									
	AT	BA	BE	BG	CH	CS	CZ	DE	ES	FR	GR	HR	HU	IT	LU	MK	NL		PL	PT	RO	SI	SK	DK_W	UA_W <sup>2</sup>	Other III <sup>1</sup>	
AT	-	-	-	-	905	-	1	545	-	-	-	-	67	124	-	-	-	-	-	-	68	-	-	-	-	-	1710
BA	-	-	-	-	-	67	-	-	-	-	-	352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	419
BE	-	-	-	-	-	-	-	-	-	392	-	-	-	-	109	-	173	-	-	-	-	-	-	-	-	-	674
BG	-	-	-	-	-	-	-	-	-	-	375	-	-	-	-	0	-	-	-	109	-	-	-	-	-	0	767
CH	0	-	-	-	-	-	-	68	-	268	-	-	-	2421	-	-	-	-	-	-	-	-	-	-	-	-	2757
CS	-	80	-	0	-	-	-	-	-	-	-	-	-	-	-	129	-	-	-	0	-	-	-	-	-	1	592
CZ	501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	538	-	-	-	-	2275
DE	1577	-	-	-	1650	-	28	-	-	214	-	-	-	-	436	-	204	-	-	-	-	-	59	-	102	6441	
ES	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	742	-	-	-	-	-	-	842	
FR	-	-	416	-	787	-	-	770	645	-	-	-	-	1278	-	-	-	-	-	-	-	-	-	-	-	866	4762
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	285	16	-	-	-	-	-	-	-	-	-	-	76	377
HR	-	90	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	849	-	-	-	-	939	
HU	19	-	-	-	90	-	-	-	-	-	-	601	-	-	-	-	-	-	-	18	0	-	15	-	-	743	
IT	2	-	-	-	303	-	-	-	-	57	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	362	
LU	-	-	229	-	-	-	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298	
MK	-	-	-	0	-	0	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	
NL	-	-	761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	762	
PL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1473	
PT	-	-	-	-	-	-	-	-	-	281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	281	
RO	-	-	-	12	-	241	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	13	348	
SI	42	-	-	-	-	-	-	-	-	-	-	29	789	-	-	-	-	-	-	-	-	-	-	-	-	860	
SK	-	-	-	-	-	35	-	-	-	-	-	-	785	-	-	-	-	0	-	-	-	-	-	-	99	919	
DK_W	-	-	-	-	-	-	-	669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	226	895	
UA_W <sup>2</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	51	0	-	-	-	-	519	
Other III <sup>1</sup>	-	-	-	0	102	-	-	442	15	118	0	-	-	-	-	-	-	81	-	0	-	-	416	-	-	1174	
<b>Sum imp</b>	<b>2141</b>	<b>170</b>	<b>1406</b>	<b>12</b>	<b>3645</b>	<b>783</b>	<b>1110</b>	<b>3842</b>	<b>941</b>	<b>1101</b>	<b>425</b>	<b>1362</b>	<b>1322</b>	<b>4897</b>	<b>545</b>	<b>145</b>	<b>2344</b>	<b>371</b>	<b>742</b>	<b>178</b>	<b>917</b>	<b>798</b>	<b>475</b>	<b>127</b>	<b>1440</b>	<b>31239</b>	

Sum of physical energy flows between UCTE countries = 27251GWh

Total physical energy flows = 31239GWh

<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden and Republic of Turkey

<sup>2</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

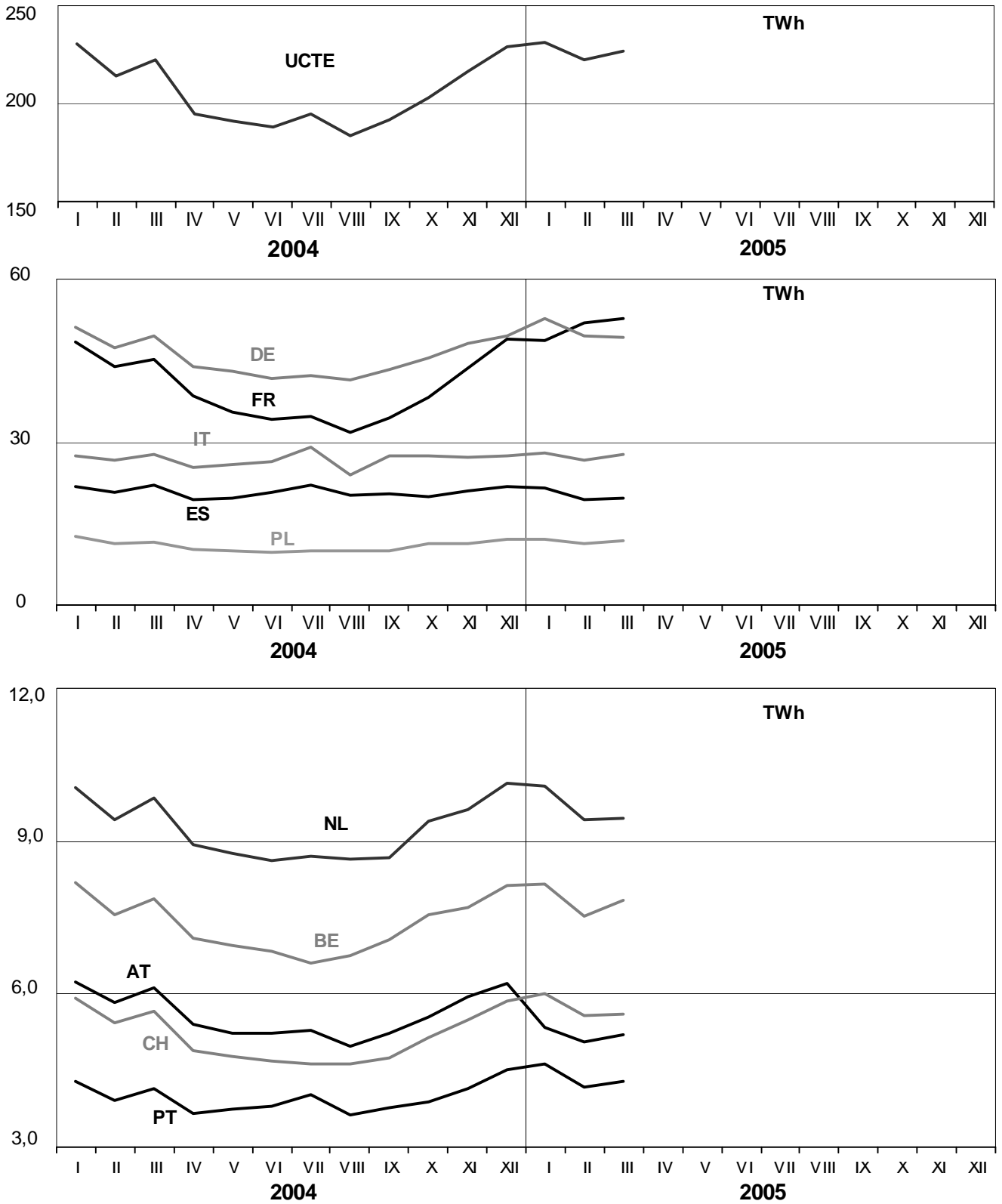
These physical energy flows were measured on the cross-frontier transmission lines ( $\leq 110$  kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

# 3

## Monthly consumption

March 2005

All values are calculated to represent 100% of the national values

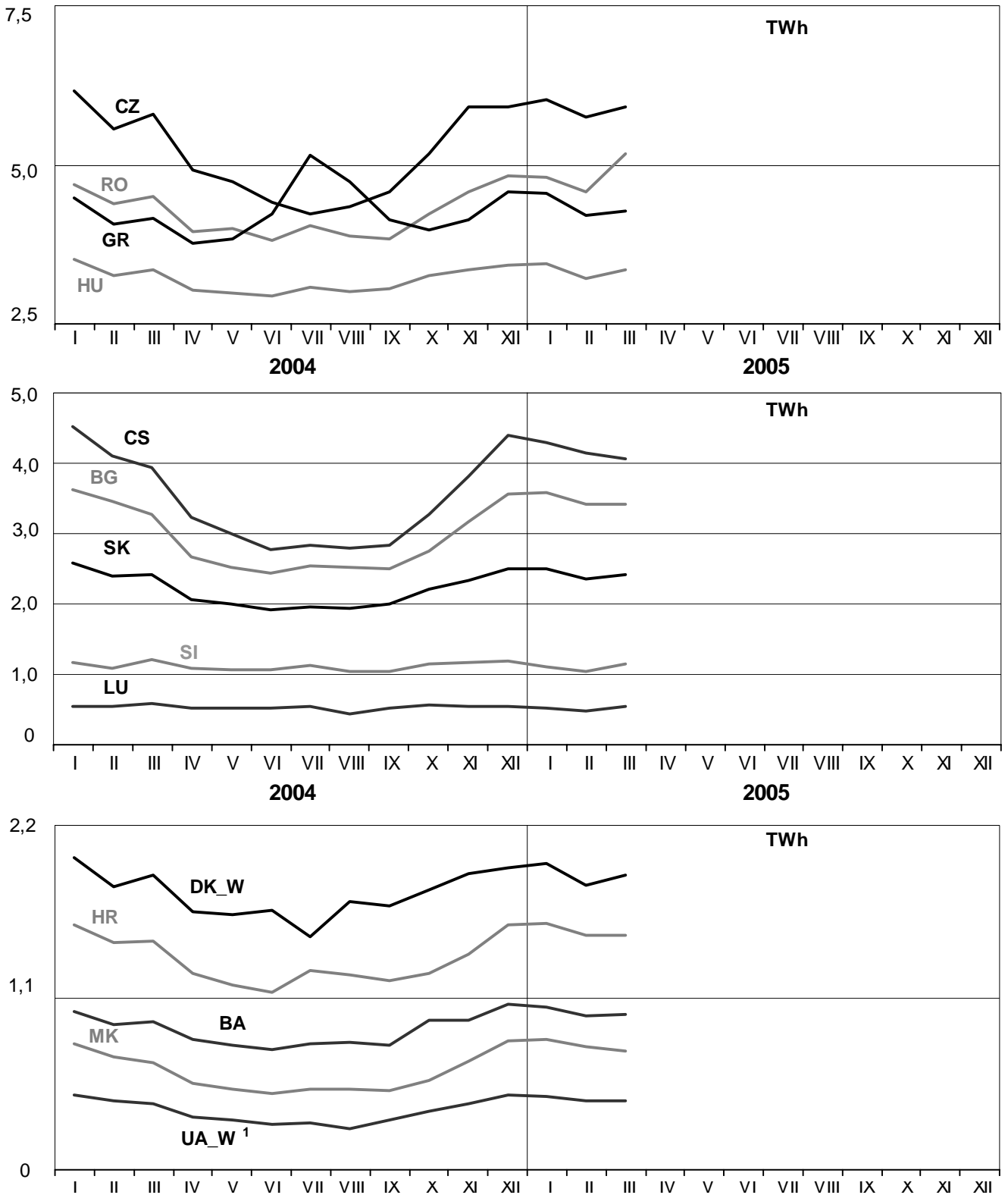


# 3

## Monthly consumption

March 2005

All values are calculated to represent 100% of the national values



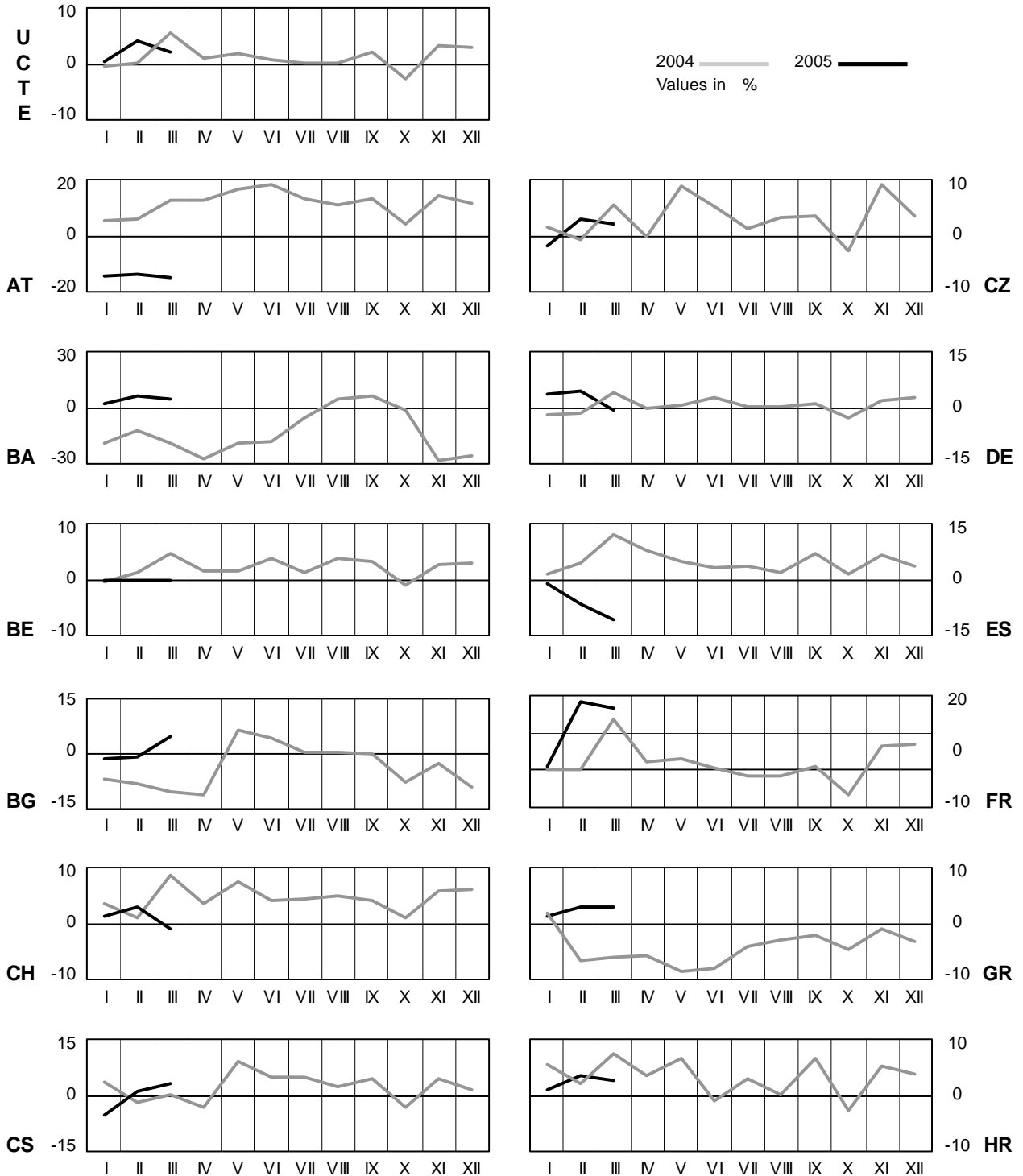
<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

# 4

## Monthly consumption variation

March 2005

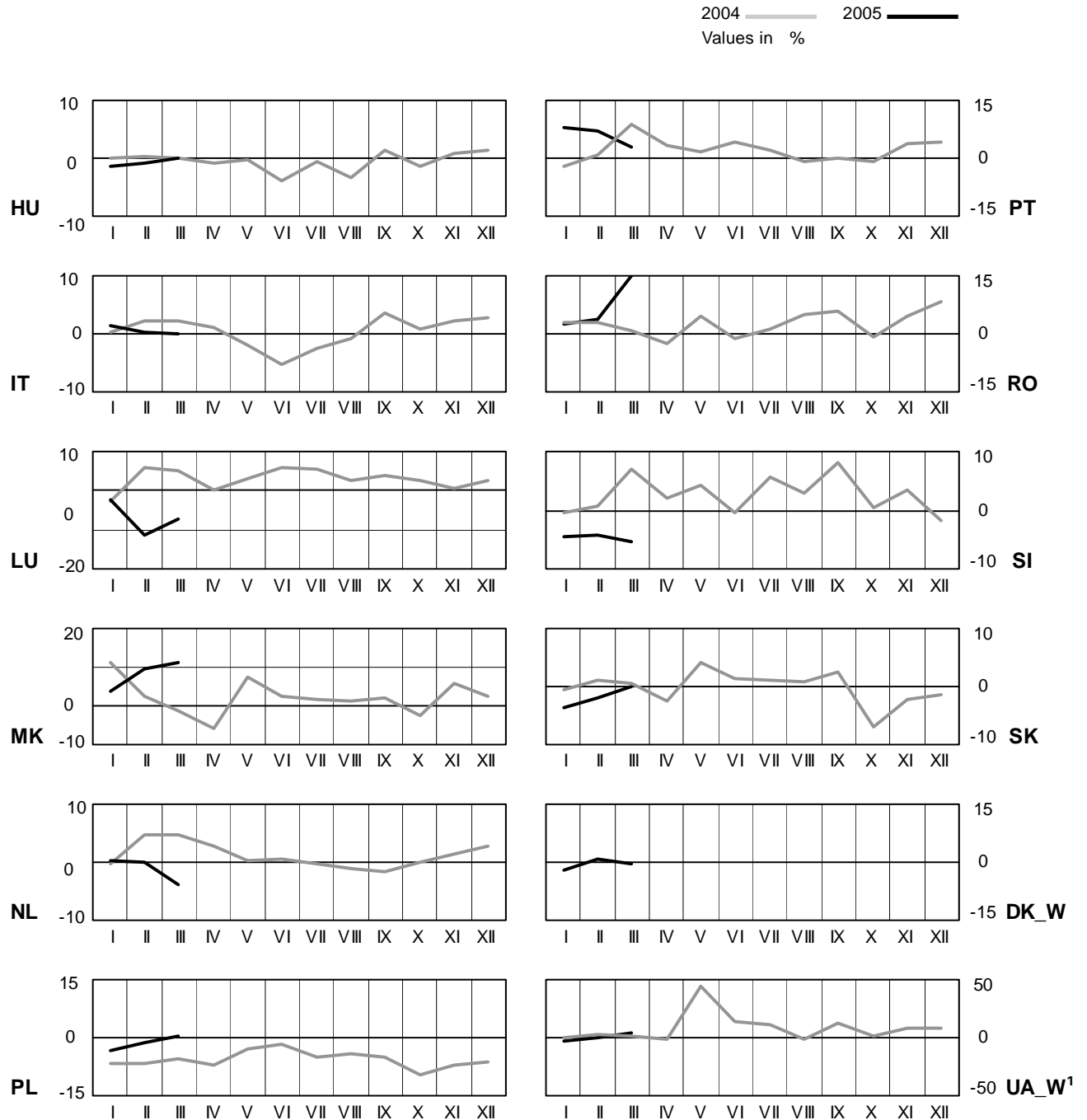
All values are calculated to represent 100% of the national values



# 4 Monthly consumption variation

March 2005

All values are calculated to represent 100% of the national values



<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

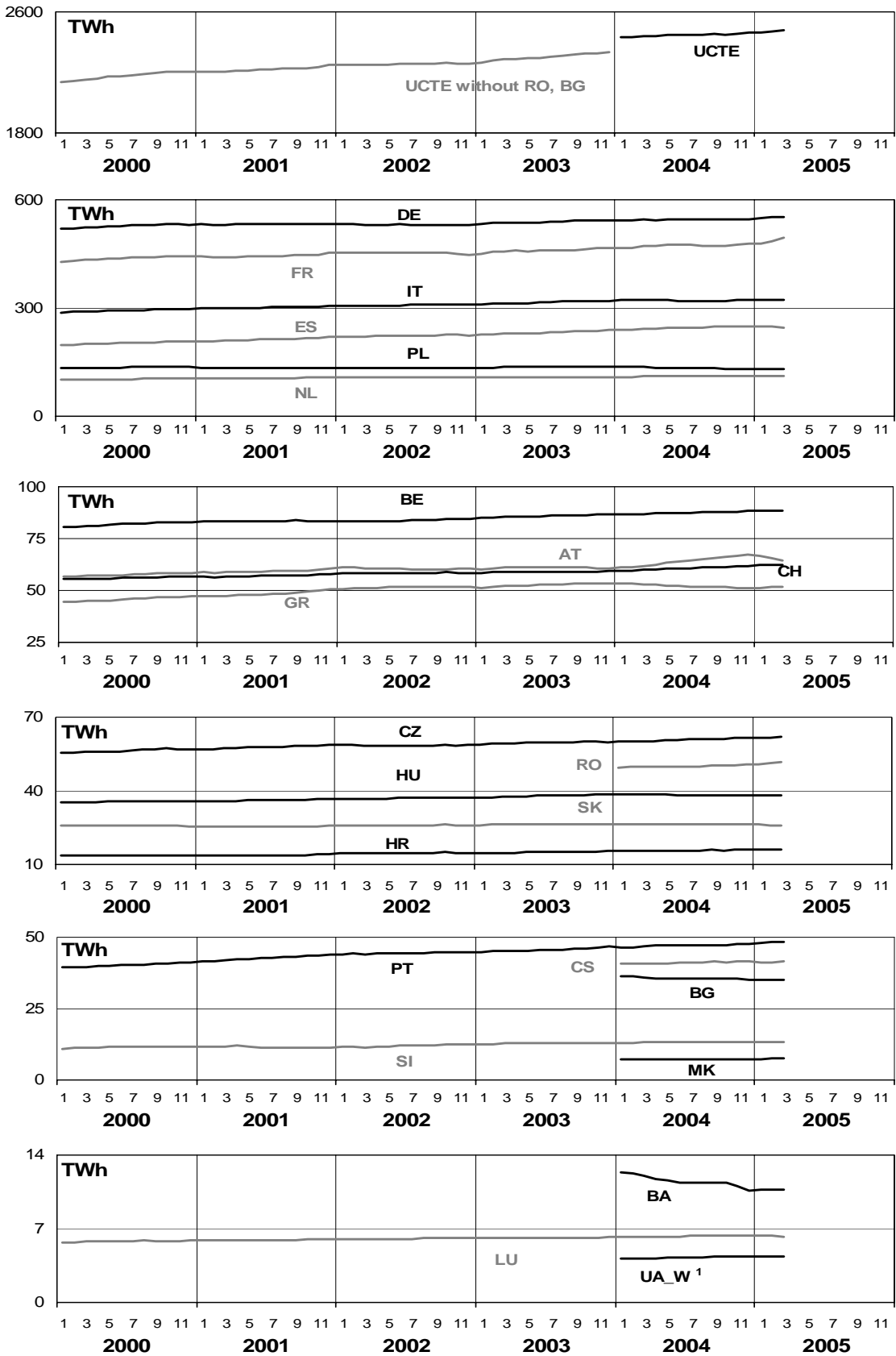


# 5

## Consumption of the last 12 months

March 2005

All values are calculated to represent 100% of the national values



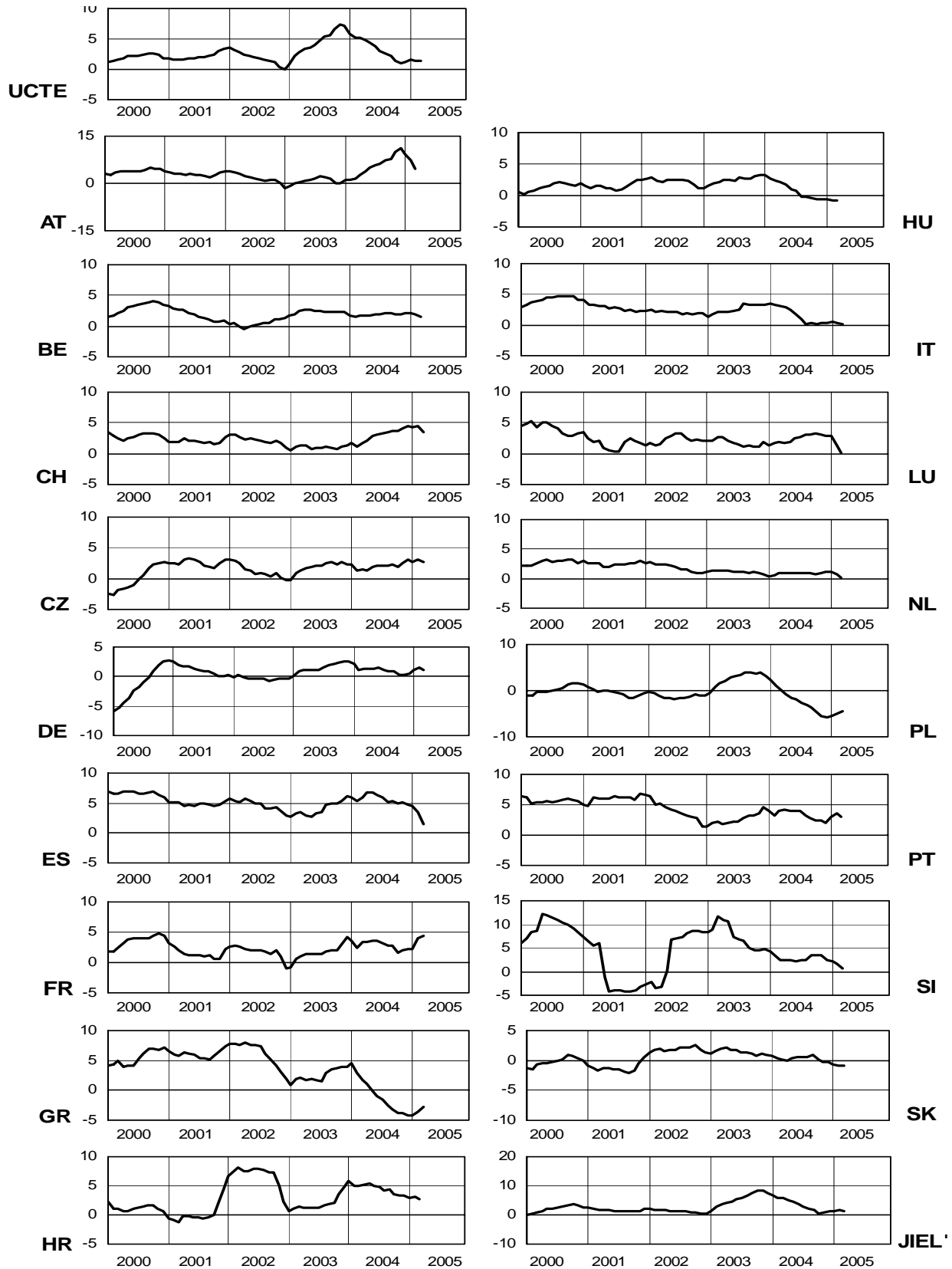
<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

# 6

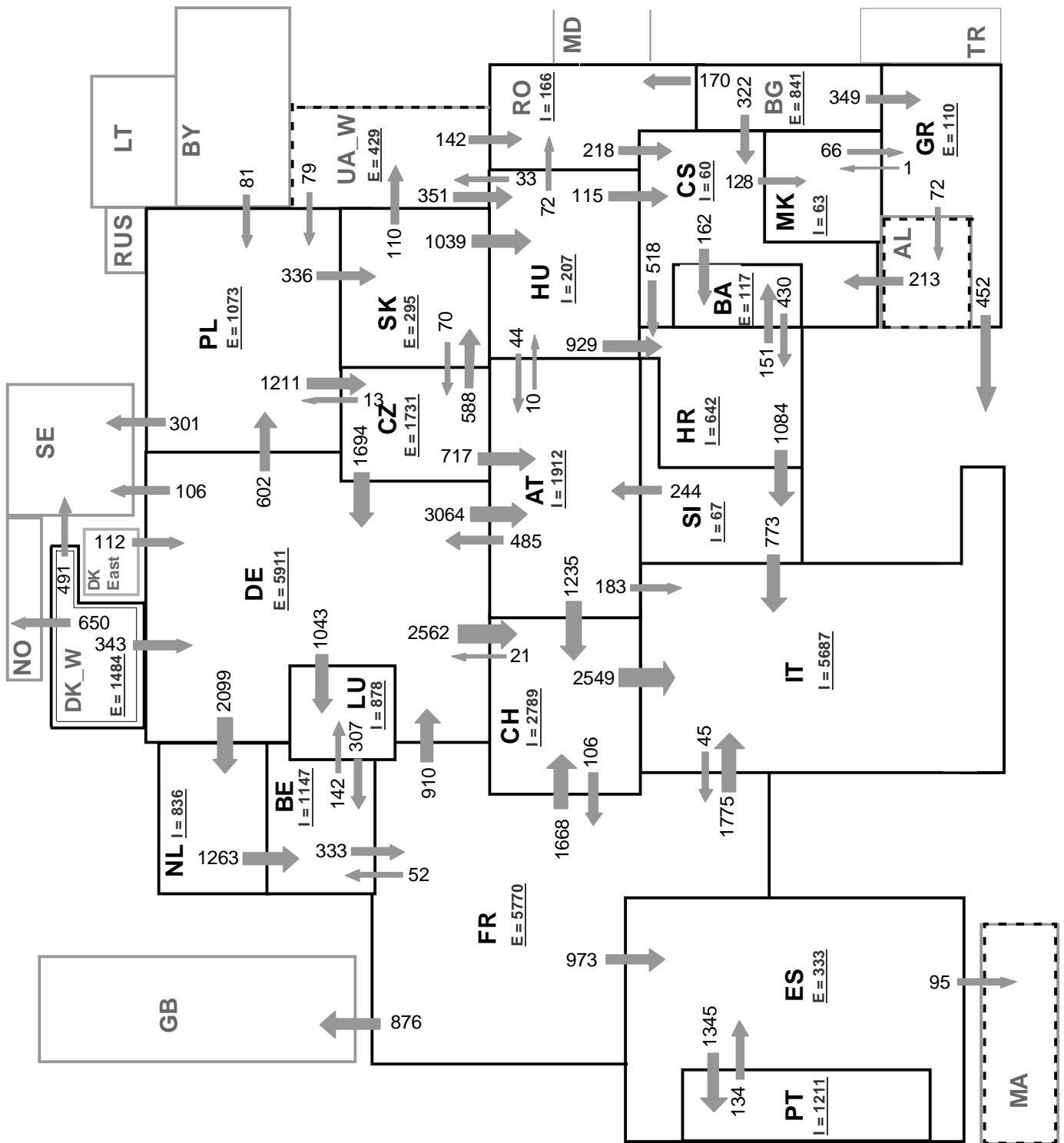
## Variation of the last 12 months' consumption in %

March 2005

All values are calculated to represent 100% of the national values



<sup>1</sup> JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



Associate member

Synchronous operation with first region

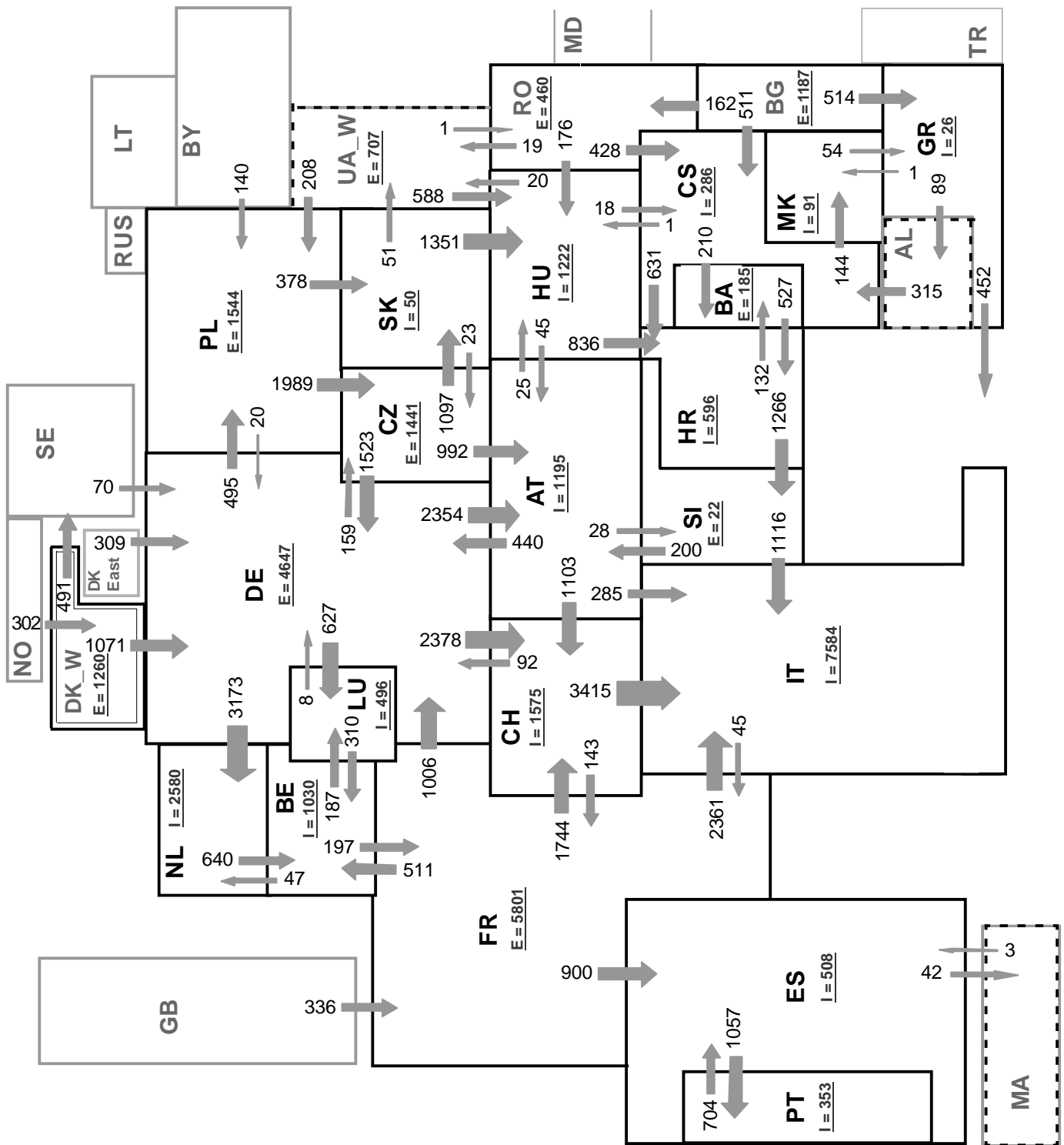
Sum of load flows in MW:

UCTE = 34802 MW      Total = 38857MW

\* Central European Time ( CET )

I = Import balance

E = Export balance



Associate member

Synchronous operation with first region

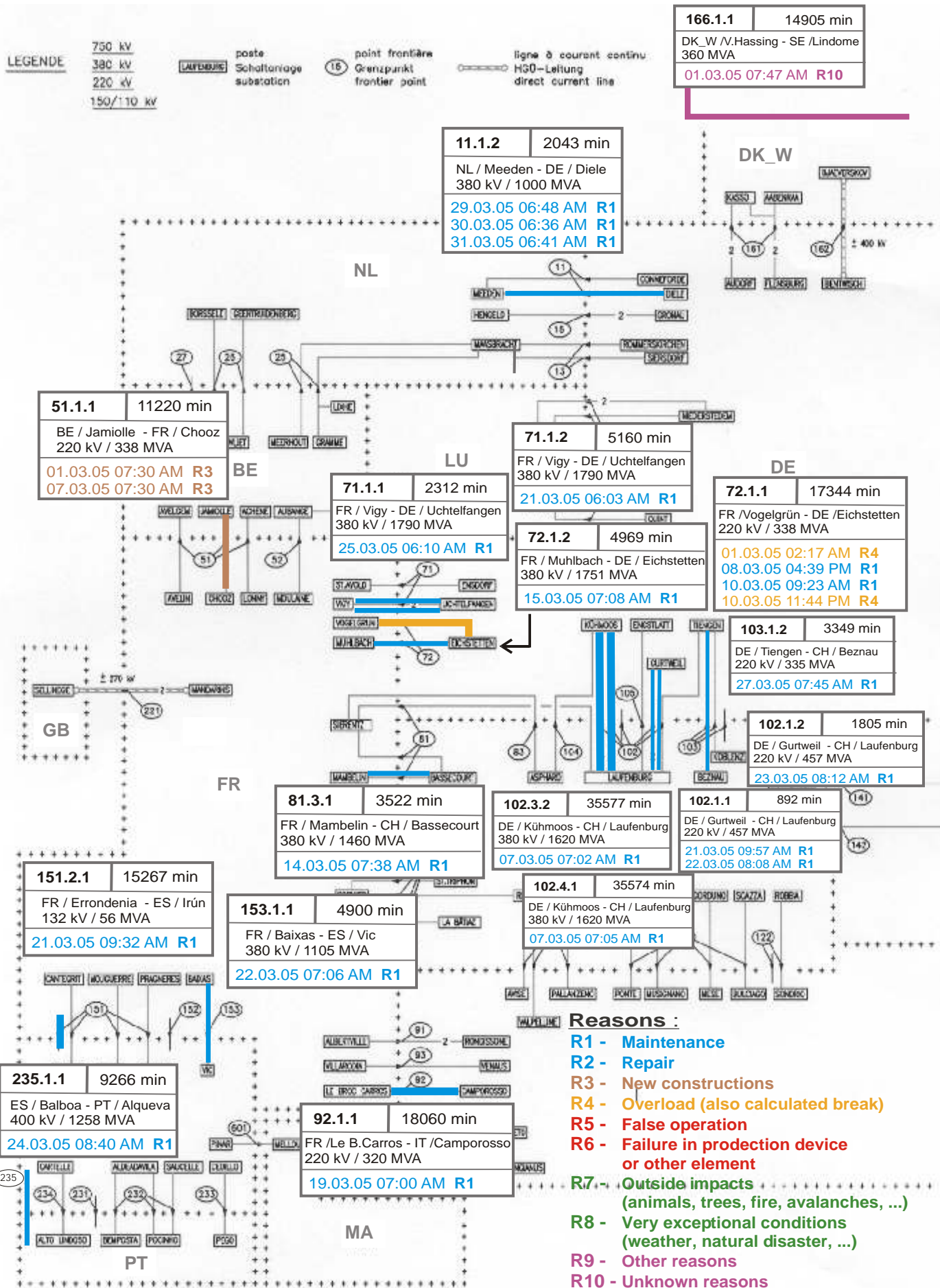
Sum of load flows in MW:

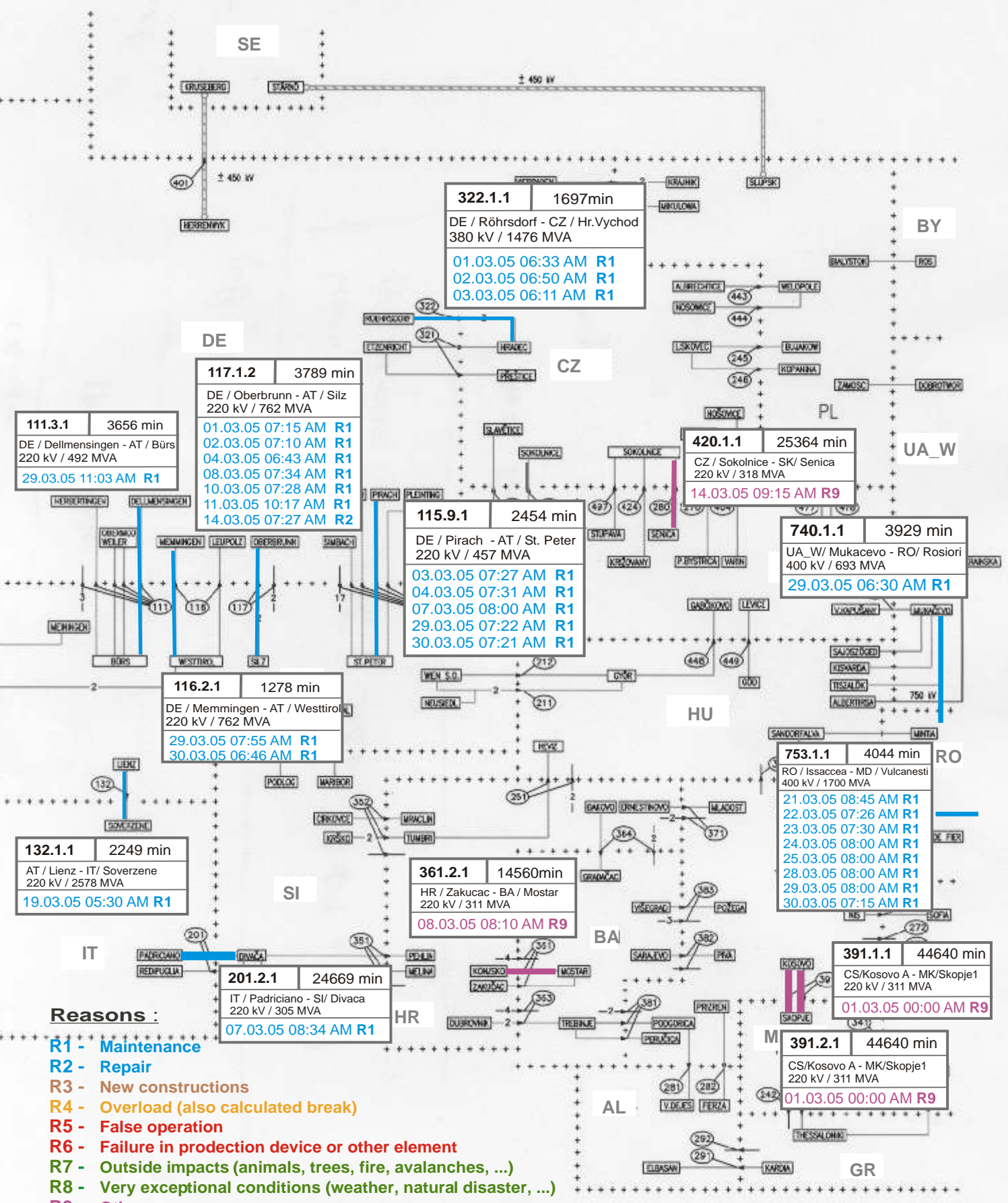
UCTE = 39231 MW      Total = 43286 MW

\* Central European Time ( CET )

I = Import balance

E = Export balance





<b>111.3.1</b>	3656 min
DE / Dellmensingen - AT / Bürs 220 kV / 492 MVA	
29.03.05 11:03 AM R1	

<b>117.1.2</b>	3789 min
DE / Oberbrunn - AT / Silz 220 kV / 762 MVA	
01.03.05 07:15 AM R1	
02.03.05 07:10 AM R1	
04.03.05 06:43 AM R1	
08.03.05 07:34 AM R1	
10.03.05 07:28 AM R1	
11.03.05 10:17 AM R1	
14.03.05 07:27 AM R2	

<b>115.9.1</b>	2454 min
DE / Pirach - AT / St. Peter 220 kV / 457 MVA	
03.03.05 07:27 AM R1	
04.03.05 07:31 AM R1	
07.03.05 08:00 AM R1	
29.03.05 07:22 AM R1	
30.03.05 07:21 AM R1	

<b>420.1.1</b>	25364 min
CZ / Sokolnice - SK / Senica 220 kV / 318 MVA	
14.03.05 09:15 AM R9	

<b>740.1.1</b>	3929 min
UA_W / Mukacevo - RO / Rosiori 400 kV / 693 MVA	
29.03.05 06:30 AM R1	

<b>116.2.1</b>	1278 min
DE / Memmingen - AT / Westtirol 220 kV / 762 MVA	
29.03.05 07:55 AM R1	
30.03.05 06:46 AM R1	

<b>132.1.1</b>	2249 min
AT / Lienz - IT / Soverzene 220 kV / 2578 MVA	
19.03.05 05:30 AM R1	

<b>361.2.1</b>	14560 min
HR / Zakucac - BA / Mostar 220 kV / 311 MVA	
08.03.05 08:10 AM R9	

<b>753.1.1</b>	4044 min
RO / Issacea - MD / Vulcanesti 400 kV / 1700 MVA	
21.03.05 08:45 AM R1	
22.03.05 07:26 AM R1	
23.03.05 07:30 AM R1	
24.03.05 08:00 AM R1	
25.03.05 08:00 AM R1	
28.03.05 08:00 AM R1	
29.03.05 08:00 AM R1	
30.03.05 07:15 AM R1	

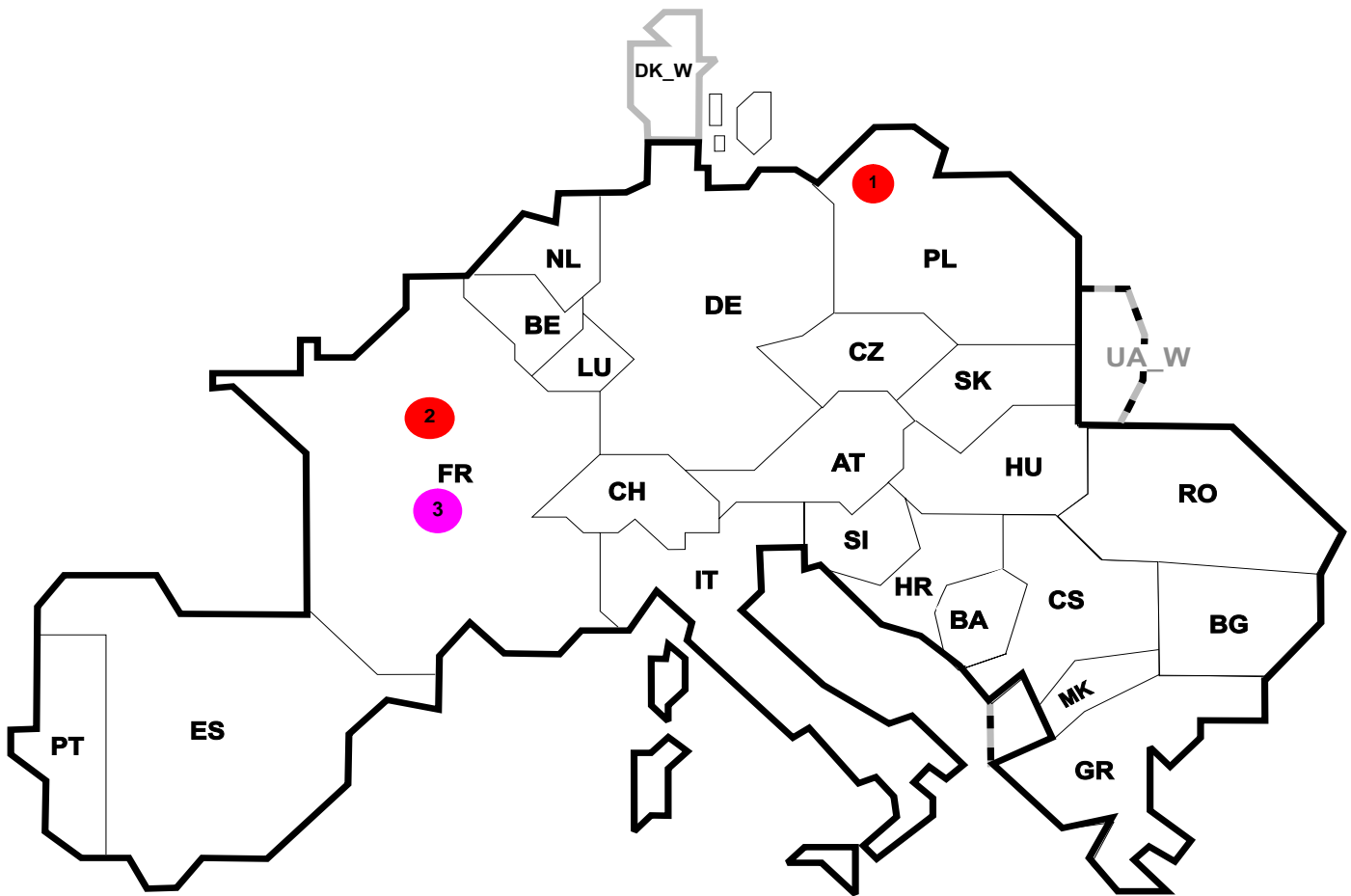
<b>201.2.1</b>	24669 min
IT / Padriciano - SI / Divaca 220 kV / 305 MVA	
07.03.05 08:34 AM R1	

<b>391.1.1</b>	44640 min
CS/Kosovo A - MK/Skopje1 220 kV / 311 MVA	
01.03.05 00:00 AM R9	

<b>391.2.1</b>	44640 min
CS/Kosovo A - MK/Skopje1 220 kV / 311 MVA	
01.03.05 00:00 AM R9	

**Reasons :**

- R1 - Maintenance
- R2 - Repair
- R3 - New constructions
- R4 - Overload (also calculated break)
- R5 - False operation
- R6 - Failure in production device or other element
- R7 - Outside impacts (animals, trees, fire, avalanches, ...)
- R8 - Very exceptional conditions (weather, natural disaster, ...)
- R9 - Other reasons
- R10 - Unknown reasons



Reasons:

**R4** Overload (also calculated break)

**R5** False operation

**R6** Failure in protection device or other element

**R7** Outside impacts (animals, trees, fire, avalanches, ...)  
(animals, trees, 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 <sup>1</sup>
1	PL	Slupsk	R6	81	300	27	0,33
2	FR	Genissiat Poste	R6	16	36	30	0,02
3	FR	Colonie	R9	2	26	4	0,00

<sup>1</sup> ( year [in min] \* energy not supply ) / 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
AT	669039	982655	1618	934	1549	1142
BA	310966	58033	351	0	364	40
BE	425715	1039506	12	951	883	1791
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2449902	3041708	2173	4930	3854	5411
CS	591550	782421	582	668	907	1199
CZ	1911296	698723	2267	450	2574	1077
DE	5017277	2150256	5897	2023	7182	2521
ES	753210	828185	1384	970	1018	1475
FR	7594072	3911391	9348	3358	10950	5040
GR	310482	352156	500	411	500	543
HR	486806	909620	657	1309	643	1261
HU	541160	1122156	970	1176	571	1799
IT	361711	4897339	45	5732	45	7629
MK	3800	101100	18	96	8	147
NL	413864	1992050	922	1705	382	2968
PL	1269195	146285	1283	235	1850	225
PT	126773	600563	0	1287	576	1000
RO	487026	314107	390	541	875	411
SI	942445	1001316	1226	1289	1415	1344
SK	703806	558682	852	530	1035	1062
DK_W	774499	436622	1472	0	1510	310
UA_W <sup>1</sup>	310197	0	354	0	497	0

- Control areas can differ from national borders ( i.e. German block which includes parts of AT, LU 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.

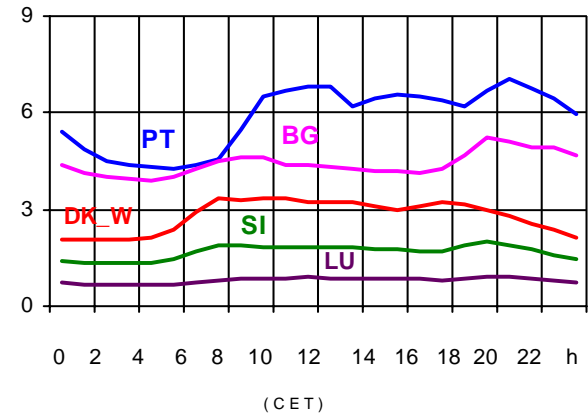
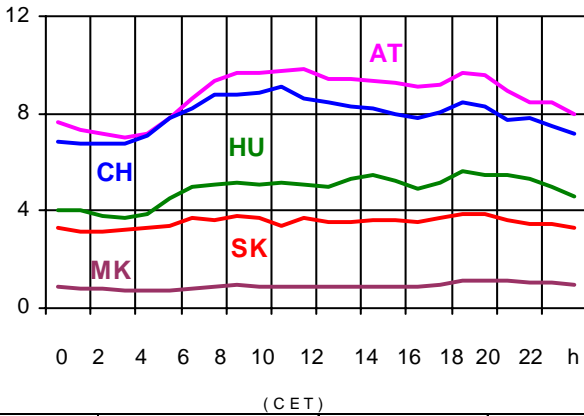
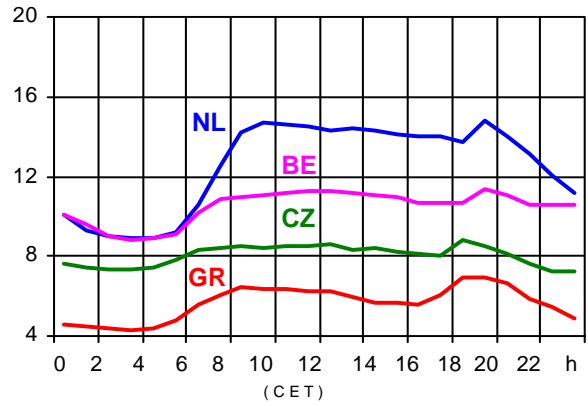
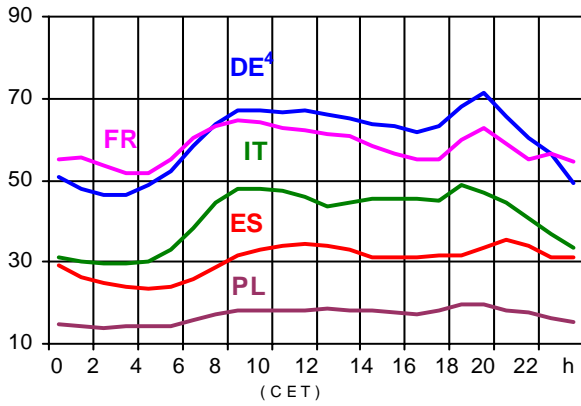
<sup>1</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE



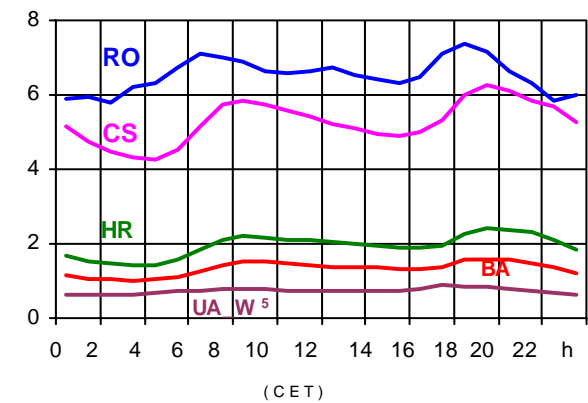
All values are calculated to represent 100% of the national values

Consumption hourly load curves<sup>1</sup> on 16.03.2005

Values in GW



	Peak load MW	var.% <sup>2</sup>	Load representativity <sup>1</sup> %	Parallel power <sup>3</sup> MW
AT	9816	3,9	82	7398
BA	1600	5,6	100	1654
BE	11359	1,1	100	10077
BG	5214	1,5	100	5581
CH	9076	6,0	100	9084
CS	6275	7,9	100	5292
CZ	8814	5,7	100	10545
DE <sup>4</sup>	71300	-5,8	100	73300
ES	35192	1,3	98	33232
FR	64725	6,1	100	68784
GR	6967	2,2	100	6317
HR	2434	6,4	100	1544
HU	5658	3,8	100	3915
IT	48905	3,7	100	40773
LU	927	4,0	99	964
MK	1148	14,8	100	819
NL	14832	2,9	100	12070
PL	19496	4,4	100	19982
PT	7042	-0,2	97	6152
RO	7384	5,9	100	6583
SI	2011	5,0	95	1764
SK	3900	4,6	100	3595
<b>UCTE</b>	<b>336169</b>	<b>1,4</b>		<b>329425</b>
DK_W	3365	8,8	100	4609
UA_W <sup>5</sup>	869	-0,9	100	1246



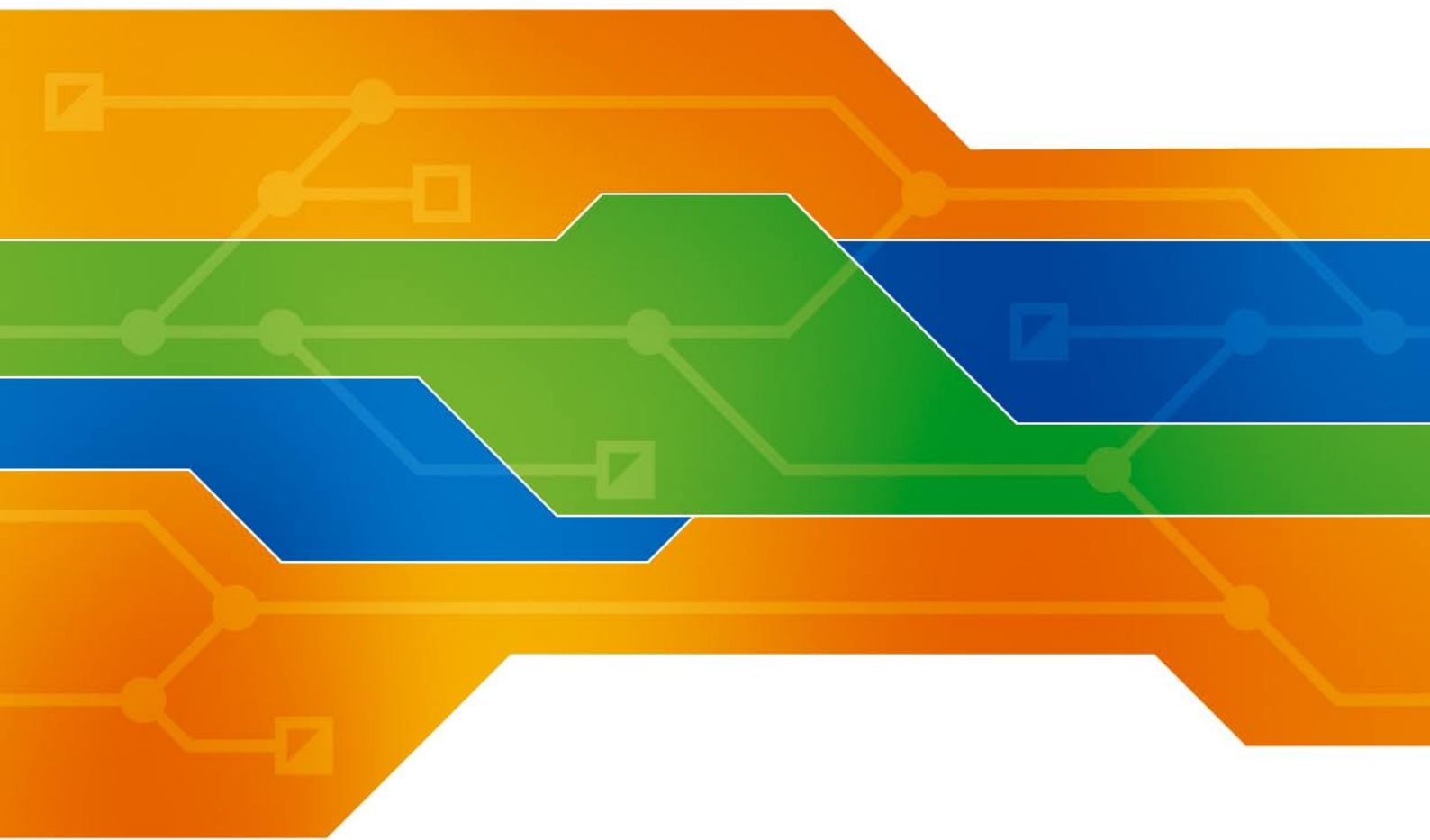
<sup>1</sup> Percentage as referred to total values in %

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

<sup>3</sup> Power produced in parallel operation (including autoproduction)

<sup>4</sup> 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.

<sup>5</sup> UA\_W represents the so-called Burshtyn Island synchronously interconnected with UCTE



## Contact

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

[info@ucte.org](mailto:info@ucte.org)  
[www.ucte.org](http://www.ucte.org)