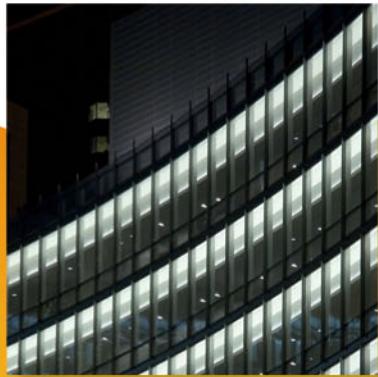


# UCTE



## September 2006

Monthly provisional values

union for the co-ordination of transmission of electricity

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#### **General remarks and abbreviations used in the tables**

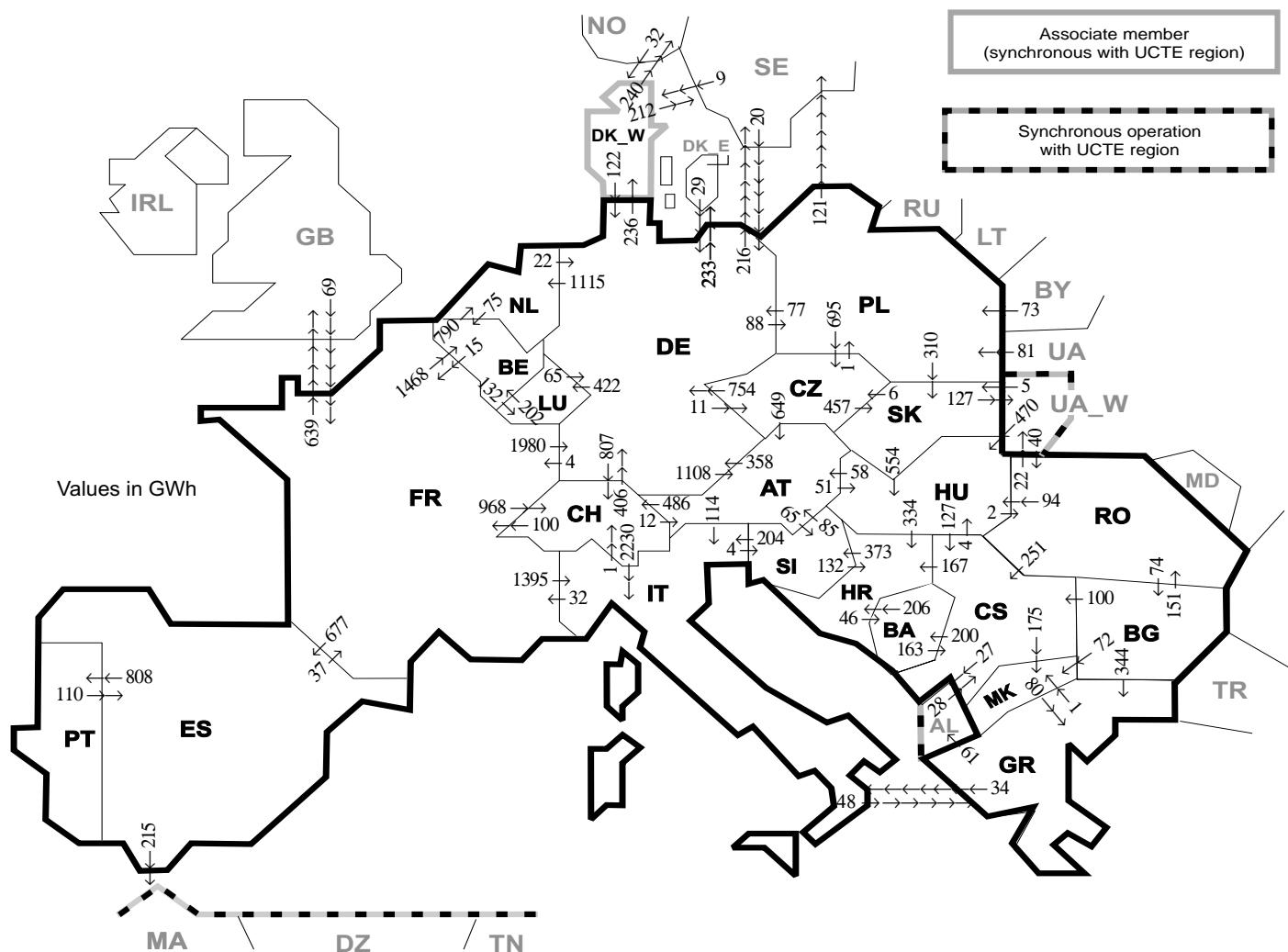
- All values of production and consumption in chapter 1, 3&4, 5&6 and 12 are calculated to represent 100% of the national values.
- DK\_W Denmark West represents the Western part of Denmark synchronously interconnected with UCTE (Jutland and Funen).
- UA\_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with UCTE.
- CET Central European Time
- The Bulgarian values of production and consumption are gross values.

Countries	Net production in GWh							Exchange balance in GWh	Pump monthly	Consumption in GWh			
	Therm. nuclear	Therm. conv.	Hydro prod	Other renew.	Of which wind	Not identify	Total			var. [%]	last 12 months	var. [%]	
AT	0	1243	2810	0	0	598	4651 <sup>1</sup>	801	264	5188	3,5	66567	4,9
BA	0	613	358	0	0	0	971	-131	0	840	1,9	11209	0,9
BE <sup>2</sup>	3431	2617	118	200	20	0	6366 <sup>1</sup>	818	141	7043	1,7	89838	2,9
BG	1343	1793	212	0	0	0	3348	-601	39	2708	5,2	36661	3,2
CH	2234	180	3121	83	0	0	5618 <sup>1</sup>	-477	227	4914	0,0	63631	2,0
CS	0	2189	693	0	0	0	2882 <sup>1</sup>	99	48	2933	2,9	42566	2,9
CZ	1732	4014	233	14	6	0	5993 <sup>1</sup>	-1149	82	4762	2,3	64588	3,7
DE	13273	25245	1959	3348	2173	0	43825 <sup>1</sup>	-407	812	42606	-1,1	558363	0,2
ES	4323	13863	1511	1803	1442	0	21500 <sup>1</sup>	-317	489	21216	6,0	258895	4,8
FR	33831	2579	4223	396	152	0	41029	-6958	524	33547	-2,7	482879	0,4
GR	0	3535	328	111	101	0	3974 <sup>1</sup>	375	63	4286	1,7	53834	2,7
HR	0	312	366	3	2	0	681 <sup>1</sup>	420	12	1089	-13,2	16881	3,3
HU <sup>3</sup>	961	1600	0	0	0	0	2561 <sup>1</sup>	651	0	3212	2,4	40498	4,1
IT	0	20799	3447	798	270	0	25044 <sup>1</sup>	3892	704	28232	1,4	334676	1,6
LU	0	270	70	9	3	0	349	287	92	544	2,3	6584	6,5
MK	0	330	71	0	0	0	401 <sup>1</sup>	169	0	570	6,1	8407	7,1
NL	314	6418	0	542	145	0	7274 <sup>1</sup>	1989	0	9263	1,0	115809	1,7
PL	0	11547	213	32	23	0	11792 <sup>1</sup>	-959	109	10724	5,0	135851	4,6
PT	0	2569	380	363	204	0	3312 <sup>1</sup>	711	86	4100	4,1	51095	3,3
RO	124	2542	1701	0	0	0	4367 <sup>1</sup>	-248	4	4115	4,7	52695	1,6
SI	495	351	230	0	0	0	1076	17	0	1093	3,1	13112	0,6
SK	1150	388	248	1	0	201	1988 <sup>1</sup>	86	17	2057	4,9	27209	4,1
UCTE	63211	104997	22292	7703	4541	799	199002 <sup>1</sup>	-932	3713	195042	1,0	2531848	1,9
DK_W	0	1520	1	476	387	0	1997 <sup>1</sup>	-289	0	1708	0,8	21708	2,2
UA_W	0	654	11	0	0	0	665 <sup>1</sup>	-366	0	299	15,0	4417	0,5

<sup>1</sup> Including deliveries from industry<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.<sup>3</sup> Data on hydro, other renewable, not clearly identifiable production are not yet available.

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 <sup>3</sup>	HU	IT	LU	MK	NL	PL	PT	RO	SI	SK	DK_W	UA_W
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	
Thermal conv.	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Hydro prod	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Other renew.	100	100	100	100	100	100	100	100	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Not identify	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Consumption	100	100	100	100	100	100	100	100	98	100	100	100	100	100	100	100	100	100	96	100	95	100	100	



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	Other III'	
AT	-	-	-	-	486	-	0	358	-	-	-	-	51	114	-	-	-	-	-	65	-	-	-	1074		
BA	-	-	-	-	-	163	-	-	-	-	-	-	206	-	-	-	-	-	-	-	-	-	-	369		
BE	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	937		
BG	-	-	-	-	-	100	-	-	-	-	344	-	-	-	-	72	-	-	151	-	-	-	-	0	667	
CH	12	-	-	-	-	-	-	406	-	100	-	-	2230	-	-	-	-	-	-	-	-	-	-	-	2748	
CS	-	200	-	0	-	-	-	-	-	-	-	167	4	-	175	-	-	0	-	-	-	-	-	573		
CZ	649	-	-	-	-	-	-	754	-	-	-	-	-	-	-	-	1	-	-	457	-	-	-	1861		
DE	1108	-	-	807	-	11	-	-	4	-	-	-	422	-	1115	88	-	-	-	236	-	449	-	4240		
ES	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-	808	-	-	-	-	215	1060		
FR	-	-	1468	-	968	-	-	1980	677	-	-	-	1395	-	-	-	-	-	-	-	-	-	-	639	7127	
GR	-	-	-	0	-	-	-	-	-	-	-	34	-	1	-	-	-	-	-	-	-	-	61	96		
HR	-	46	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	373	-	-	-	-	419		
HU	58	-	-	-	-	127	-	-	-	-	334	-	-	-	-	-	-	-	2	-	0	-	0	521		
IT	0	-	-	-	1	-	-	-	32	48	-	-	-	-	-	-	-	-	4	-	-	-	-	85		
LU	-	-	202	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267		
MK	-	-	-	0	-	0	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80		
NL	-	-	75	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97		
PL	-	-	-	-	-	-	695	77	-	-	-	-	-	-	-	-	-	-	310	-	-	121	-	1203		
PT	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110		
RO	-	-	-	74	-	251	-	-	-	-	94	-	-	-	-	-	-	-	-	22	0	-	-	441		
SI	85	-	-	-	-	-	-	-	-	132	-	204	-	-	-	-	-	-	-	-	-	-	-	421		
SK	-	-	-	-	-	-	6	-	-	-	-	554	-	-	-	0	-	-	-	127	-	-	-	-	687	
DK_W	-	-	-	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	574		
UA_W	-	-	-	-	-	-	-	-	-	-	470	-	-	-	-	-	40	5	-	-	-	-	-	515		
Other III'	-	-	-	0	-	28	-	49	0	69	0	-	-	-	-	154	0	-	41	-	-	-	-	341		
<b>Sum imp</b>	<b>1912</b>	<b>246</b>	<b>1745</b>	<b>74</b>	<b>2262</b>	<b>669</b>	<b>712</b>	<b>3833</b>	<b>787</b>	<b>257</b>	<b>472</b>	<b>839</b>	<b>1173</b>	<b>3977</b>	<b>554</b>	<b>248</b>	<b>1905</b>	<b>243</b>	<b>808</b>	<b>193</b>	<b>442</b>	<b>772</b>	<b>277</b>	<b>149</b>	<b>1964</b>	<b>26513</b>

Sum of physical energy flows between UCTE countries = 23186GWh

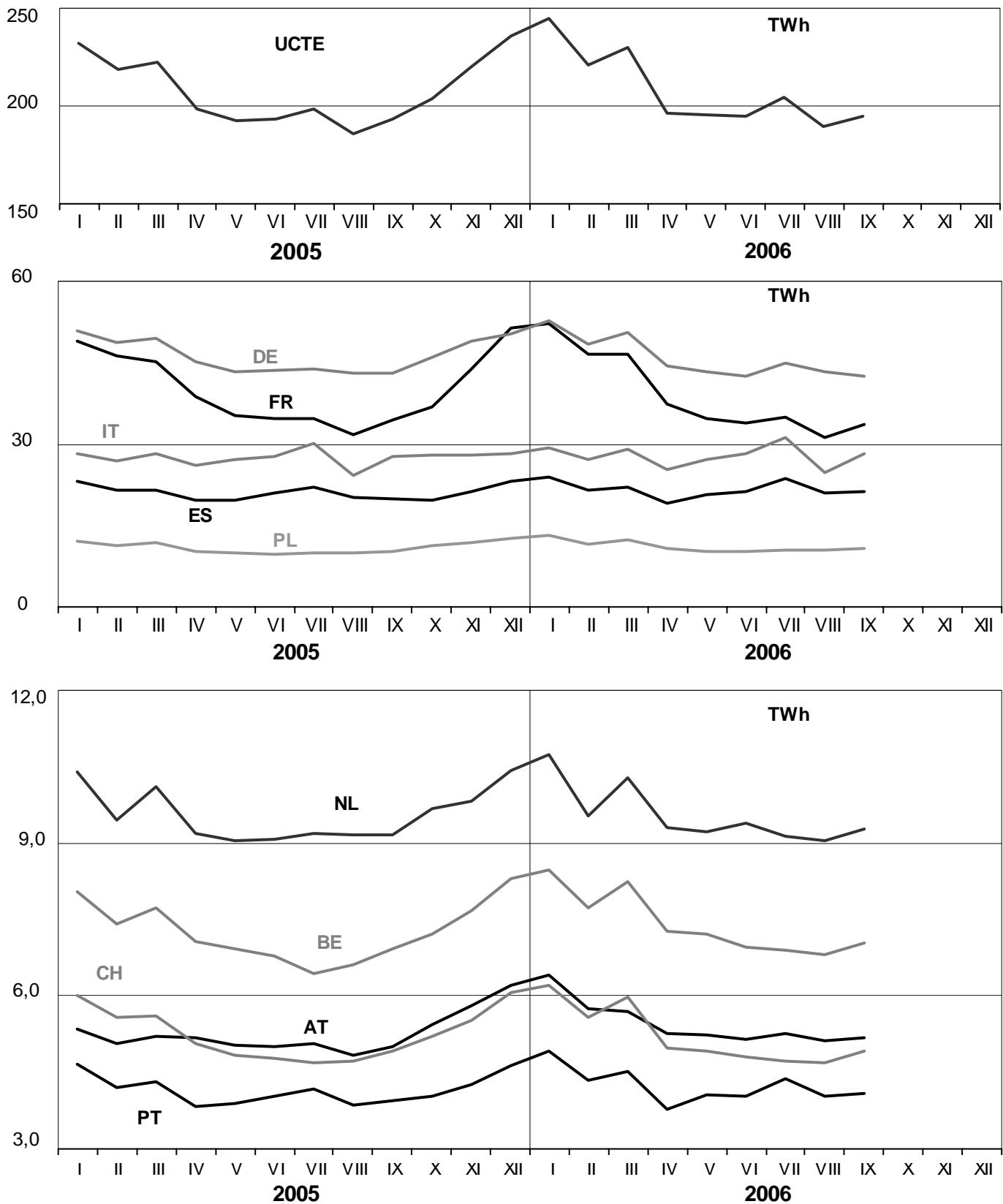
Total physical energy flows = 26513GWh

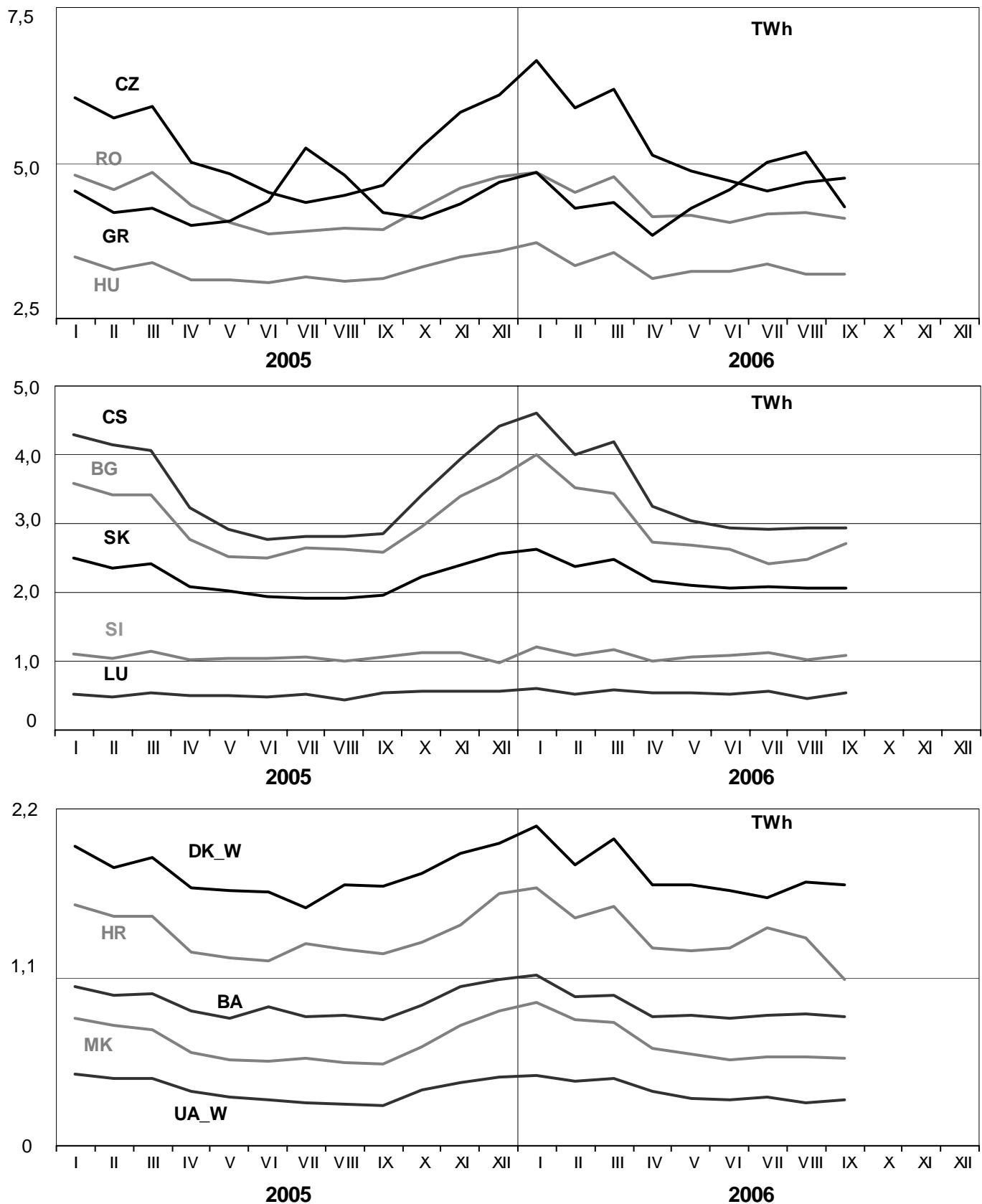
<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and UkrainaThese physical energy flows were measured on the cross-frontier transmission lines ( $\leq 110$  kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.

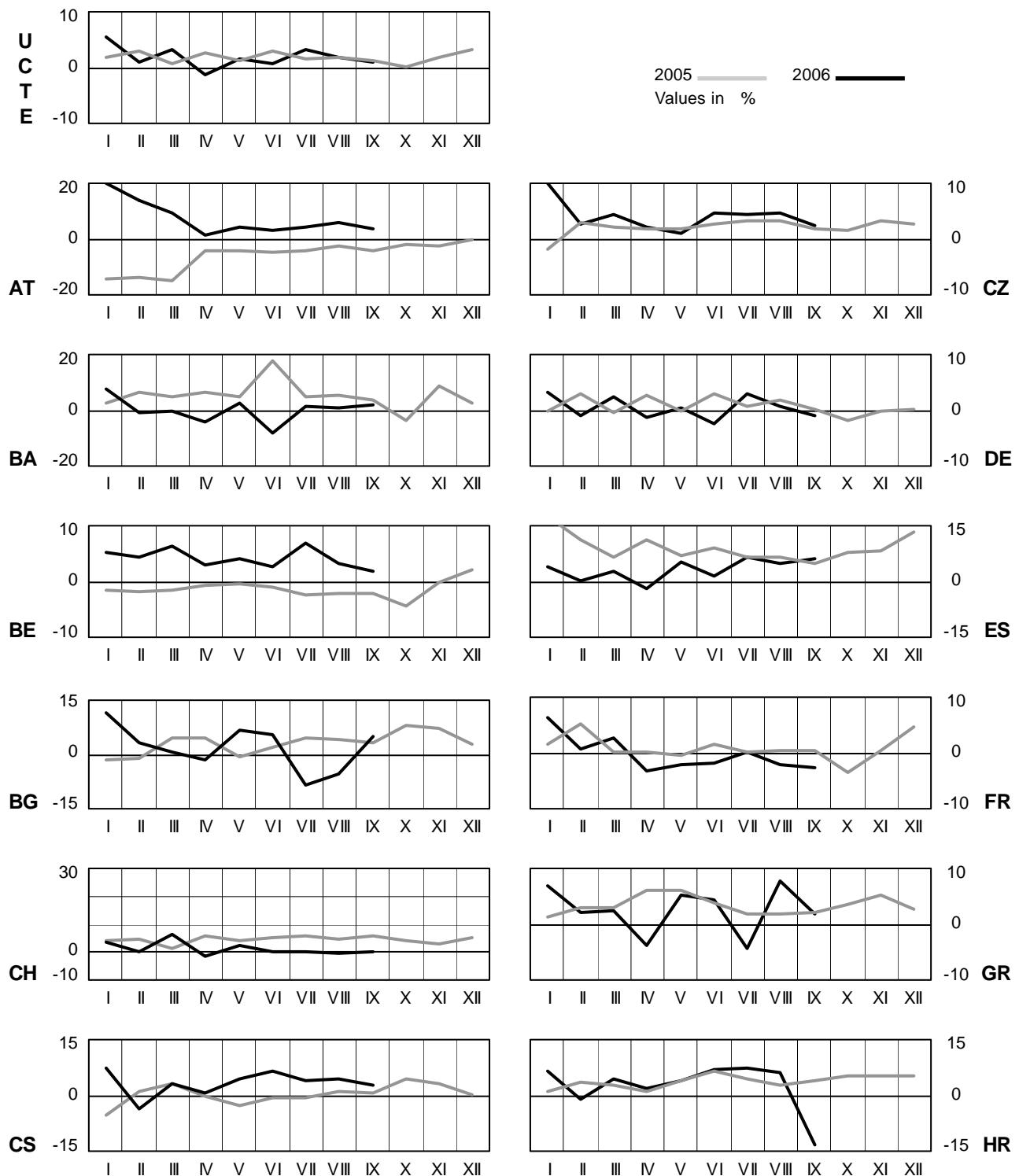
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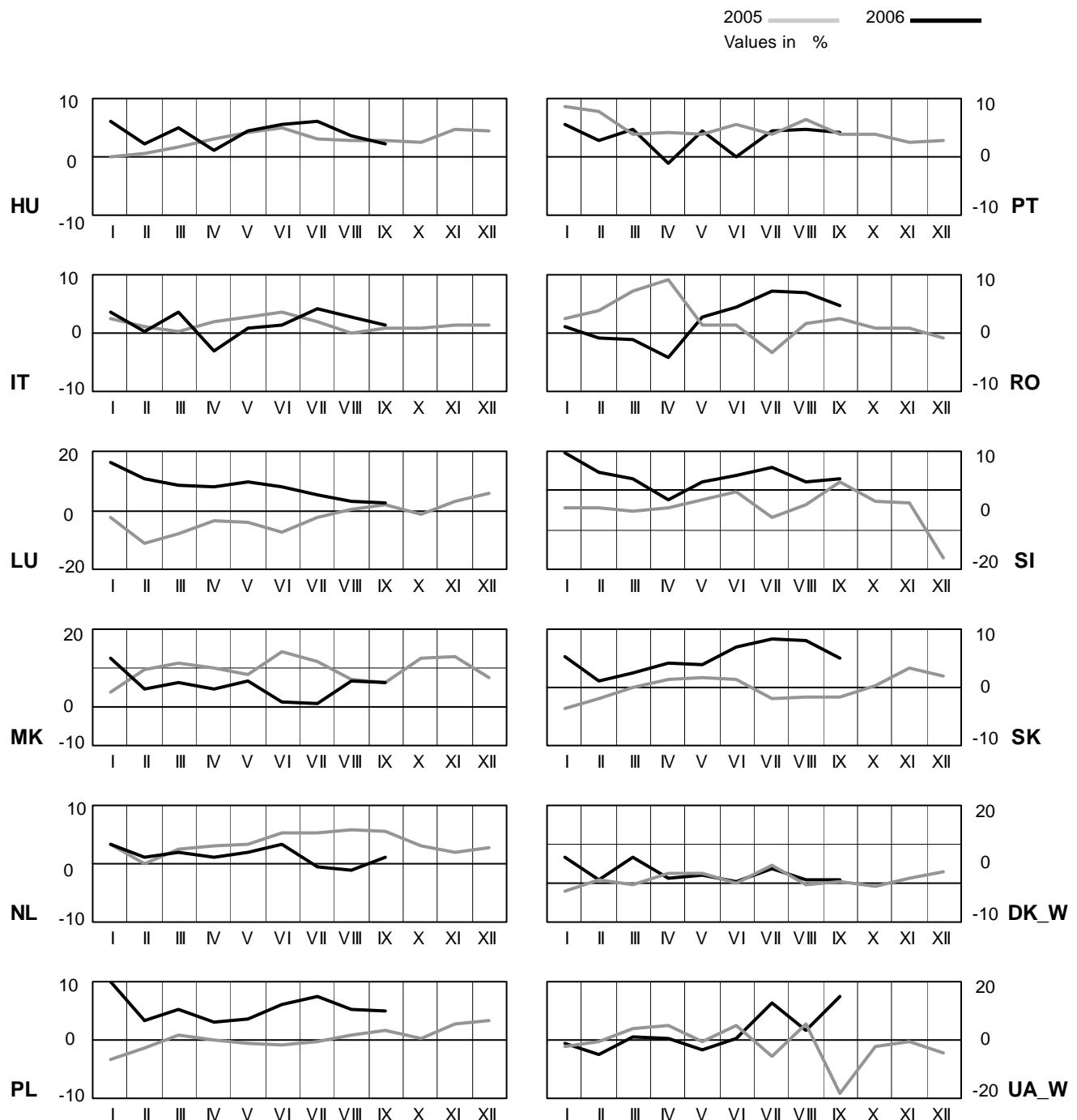
## Monthly consumption

September 2006

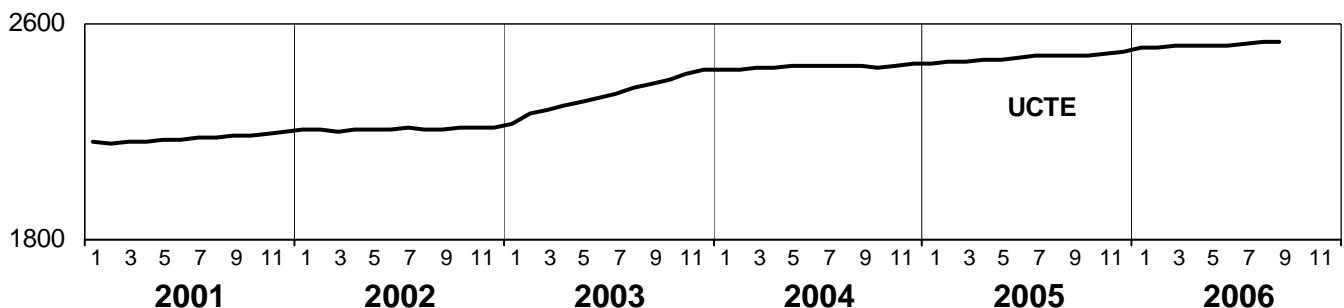








TWh



DE

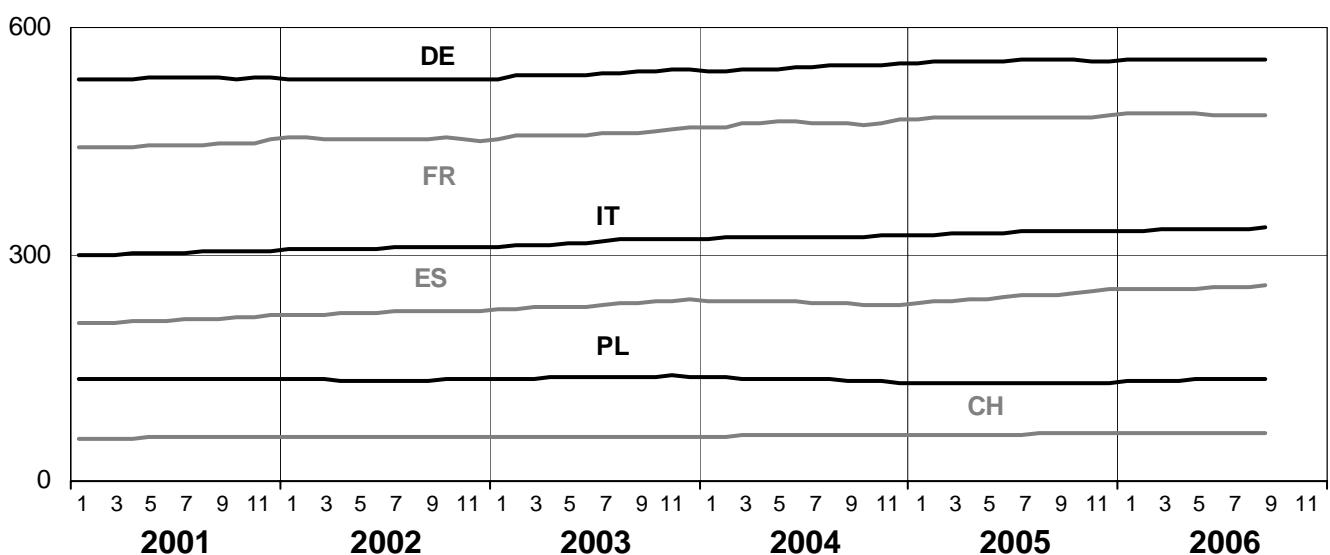
FR

IT

ES

PL

CH



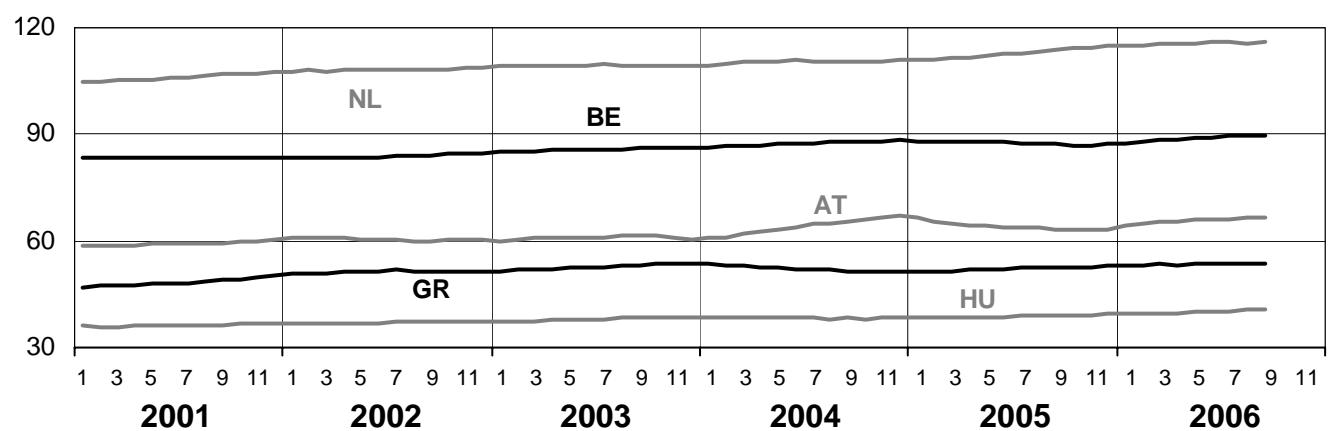
NL

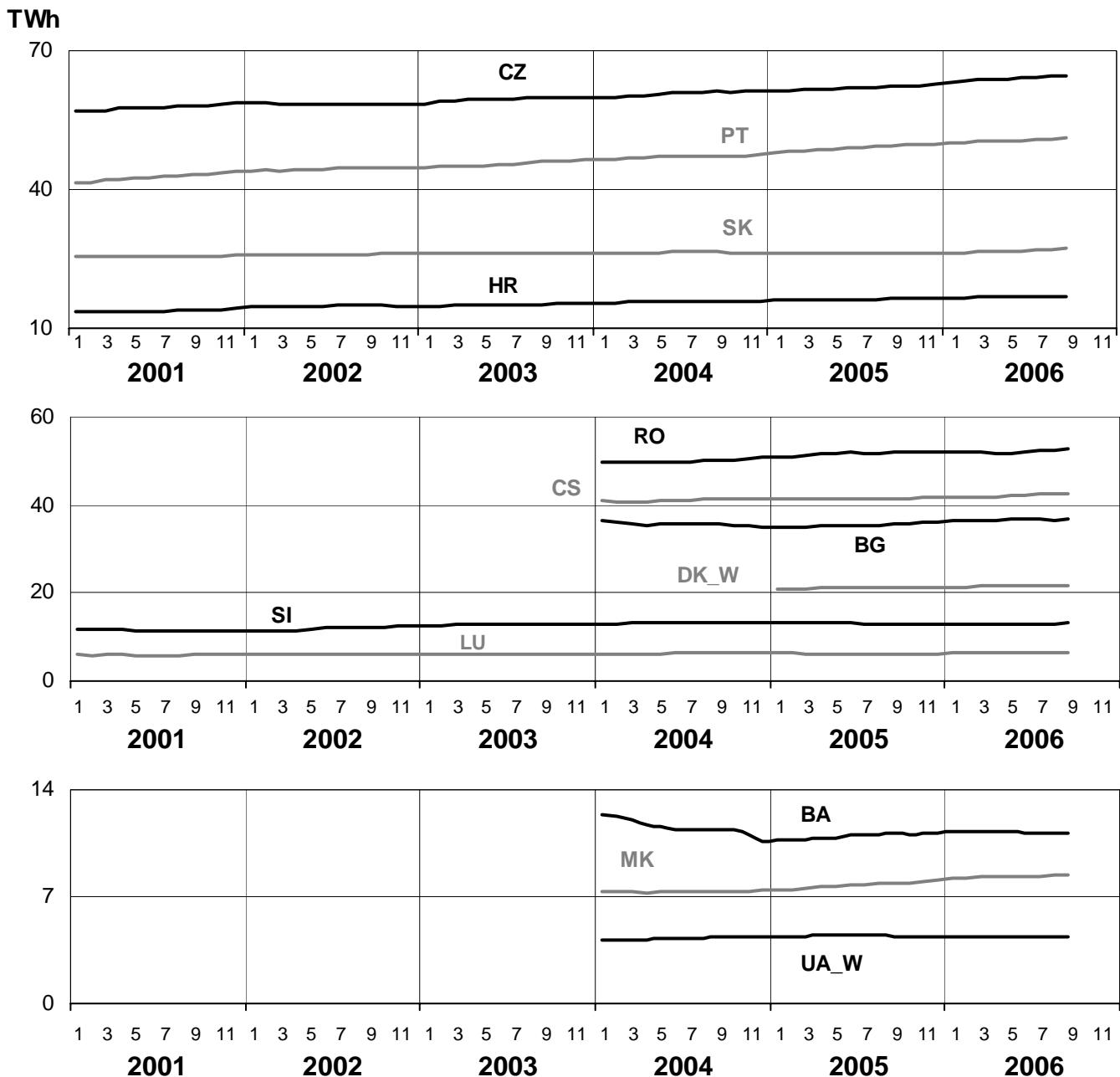
BE

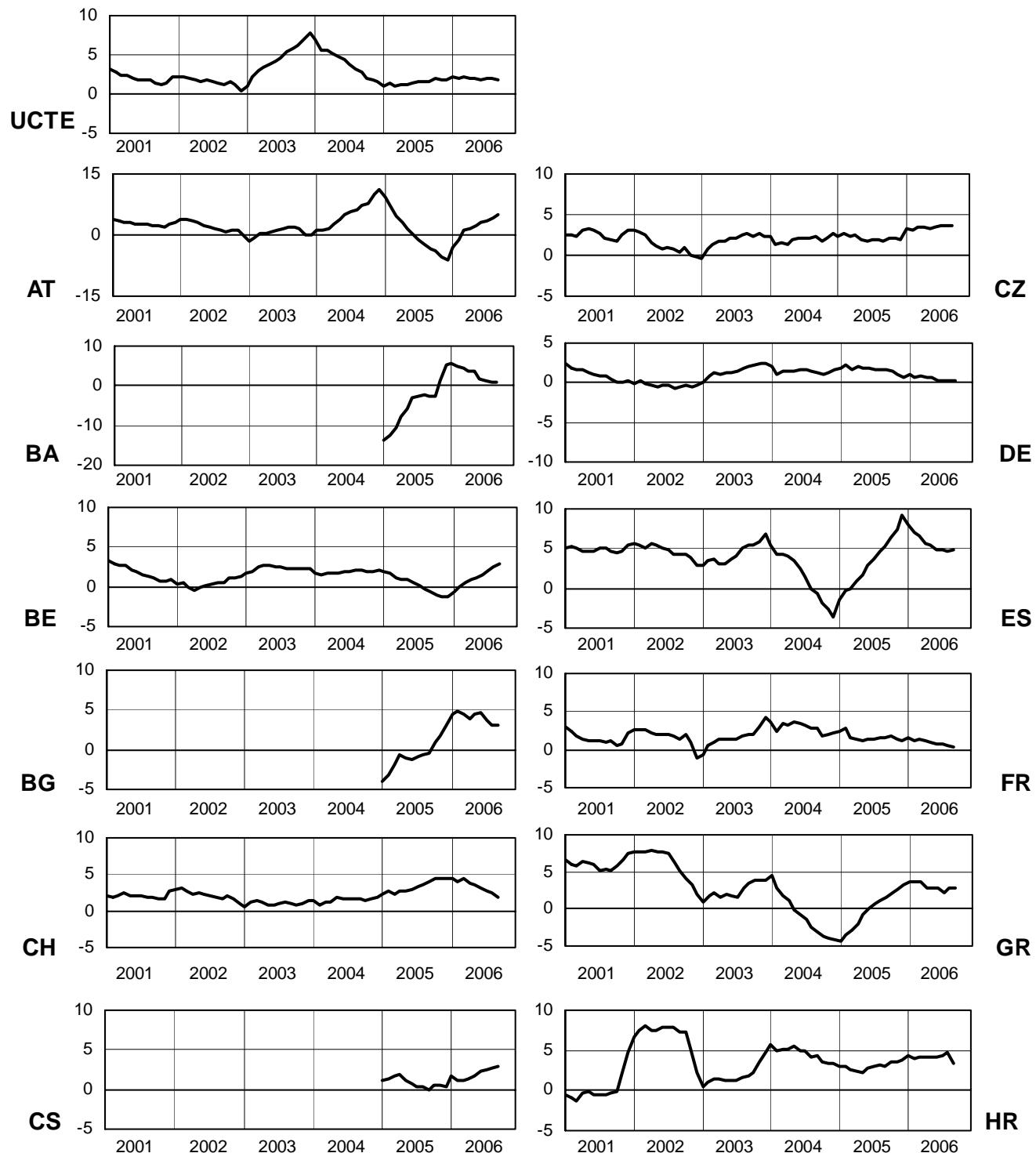
AT

GR

HU



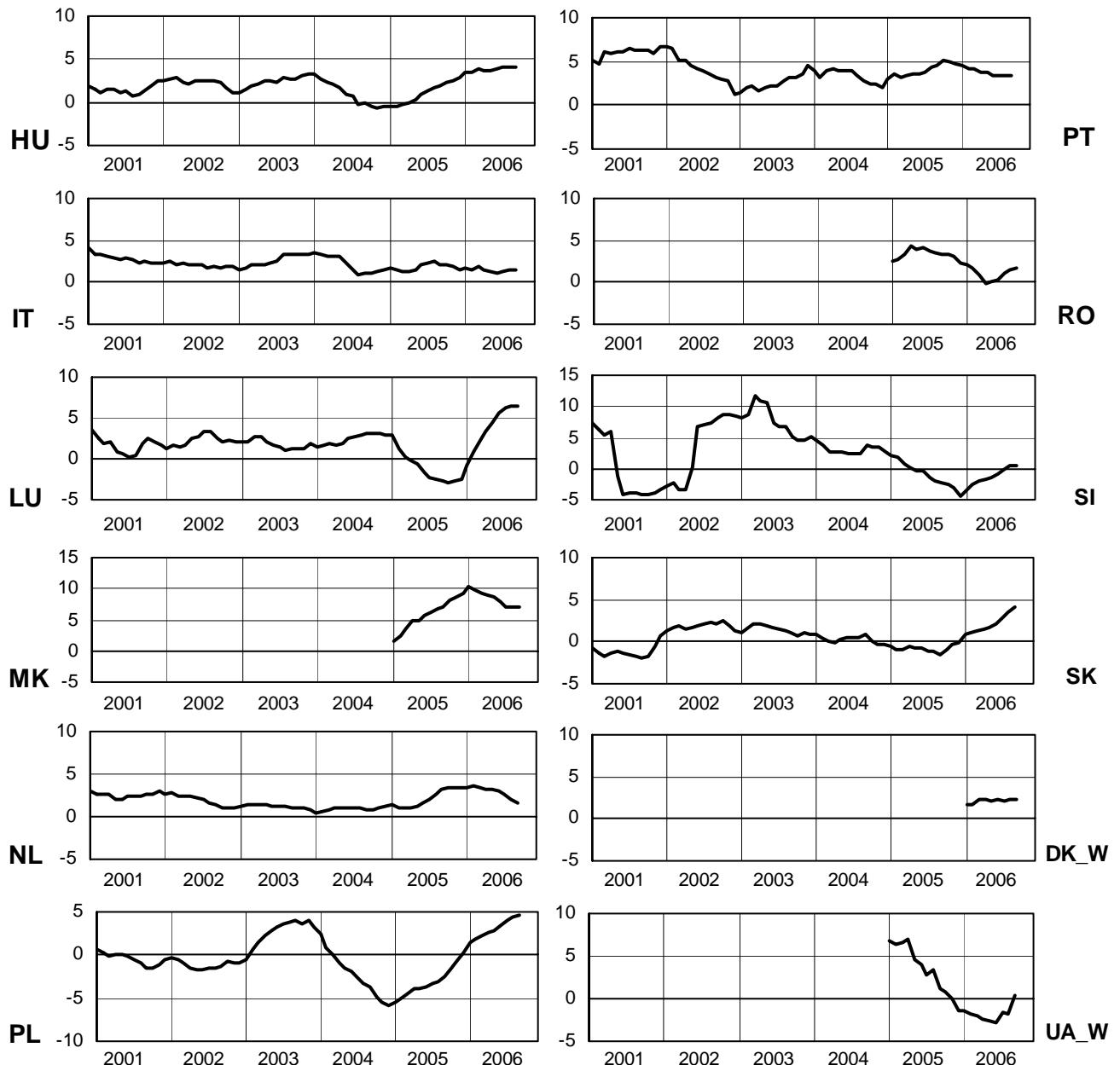


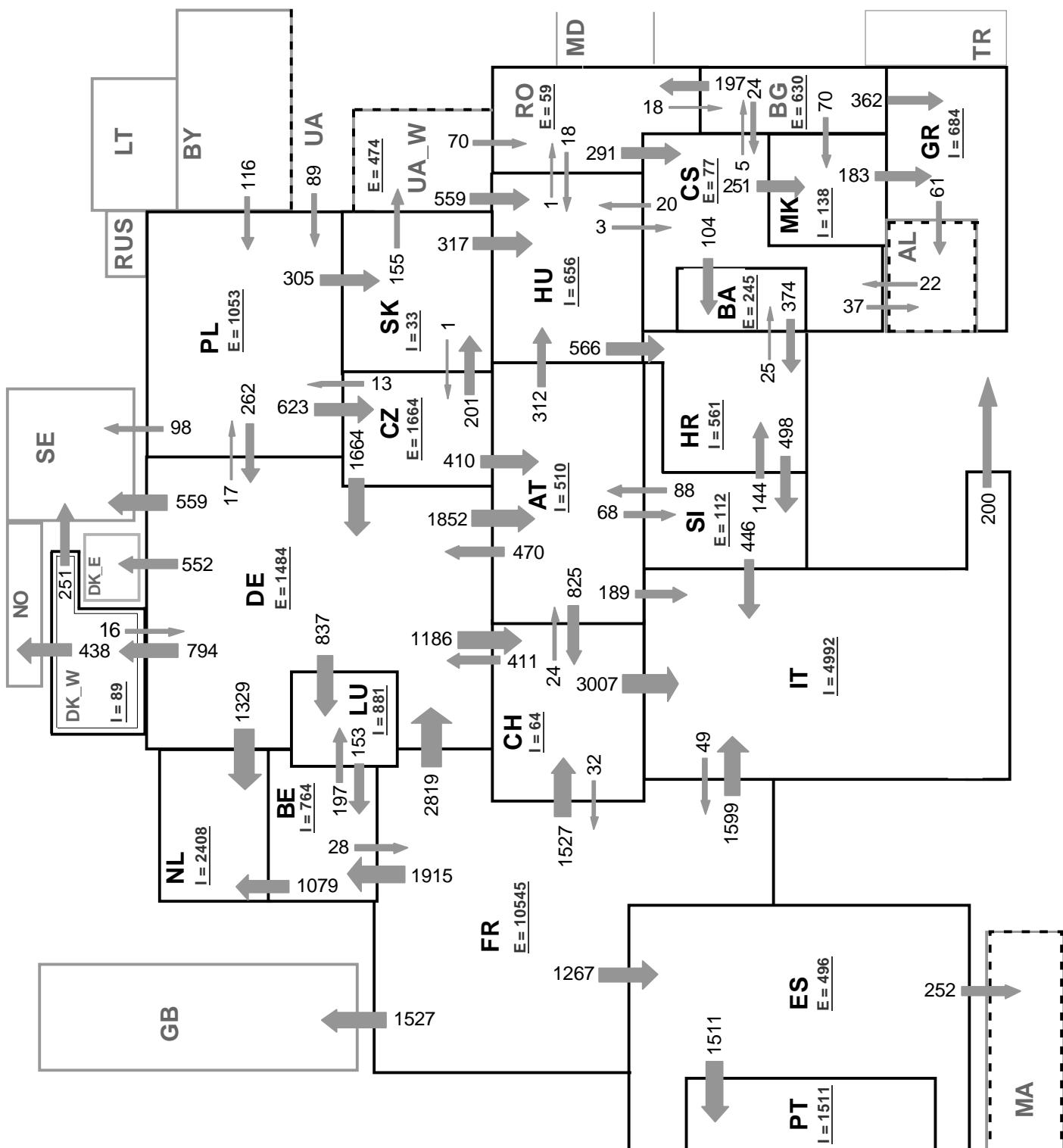


# 6

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

September 2006





Associate member

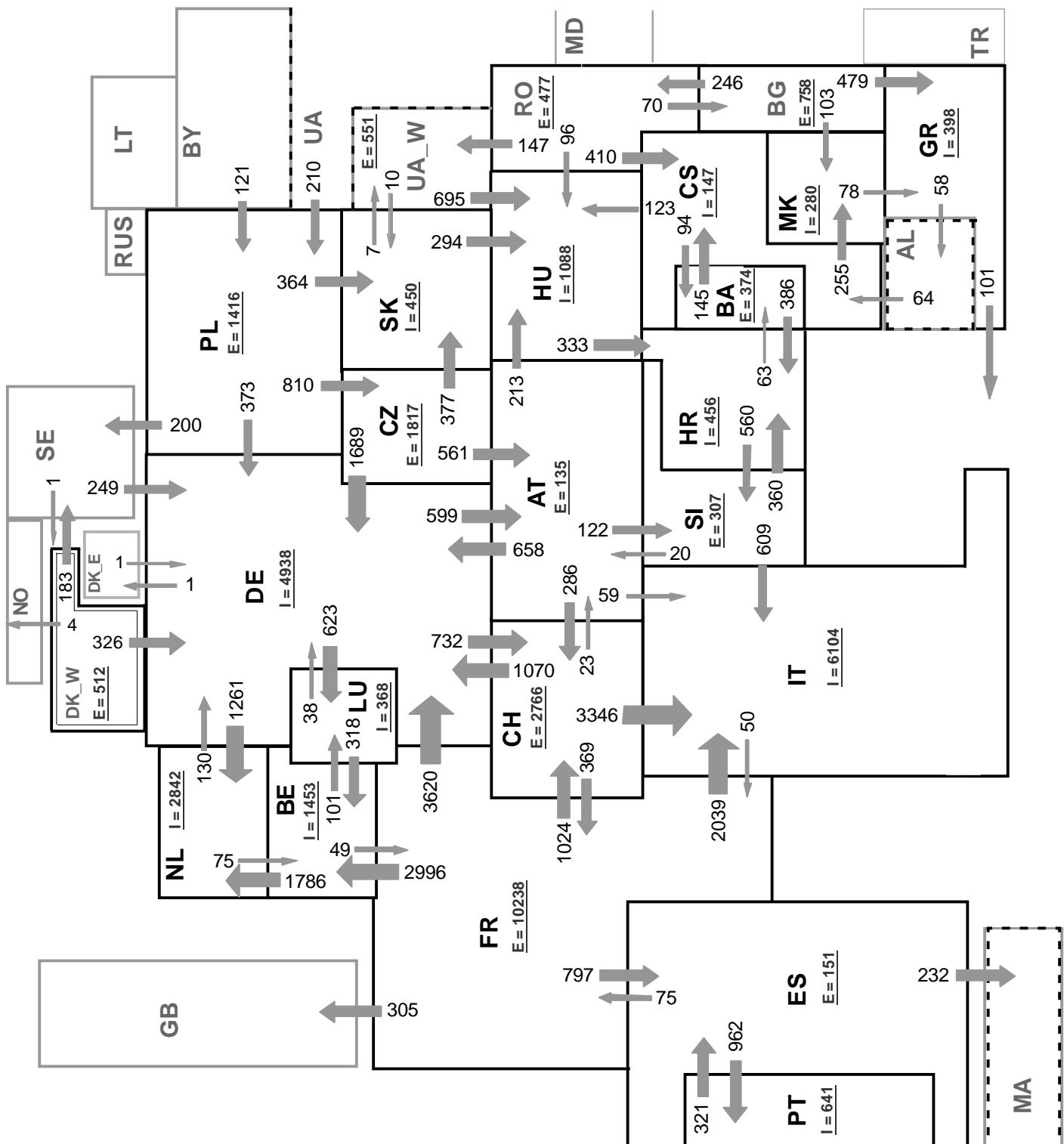
Sum of load flows in MW:

UCTE = 30387 MW

Total = 35983 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



Associate member

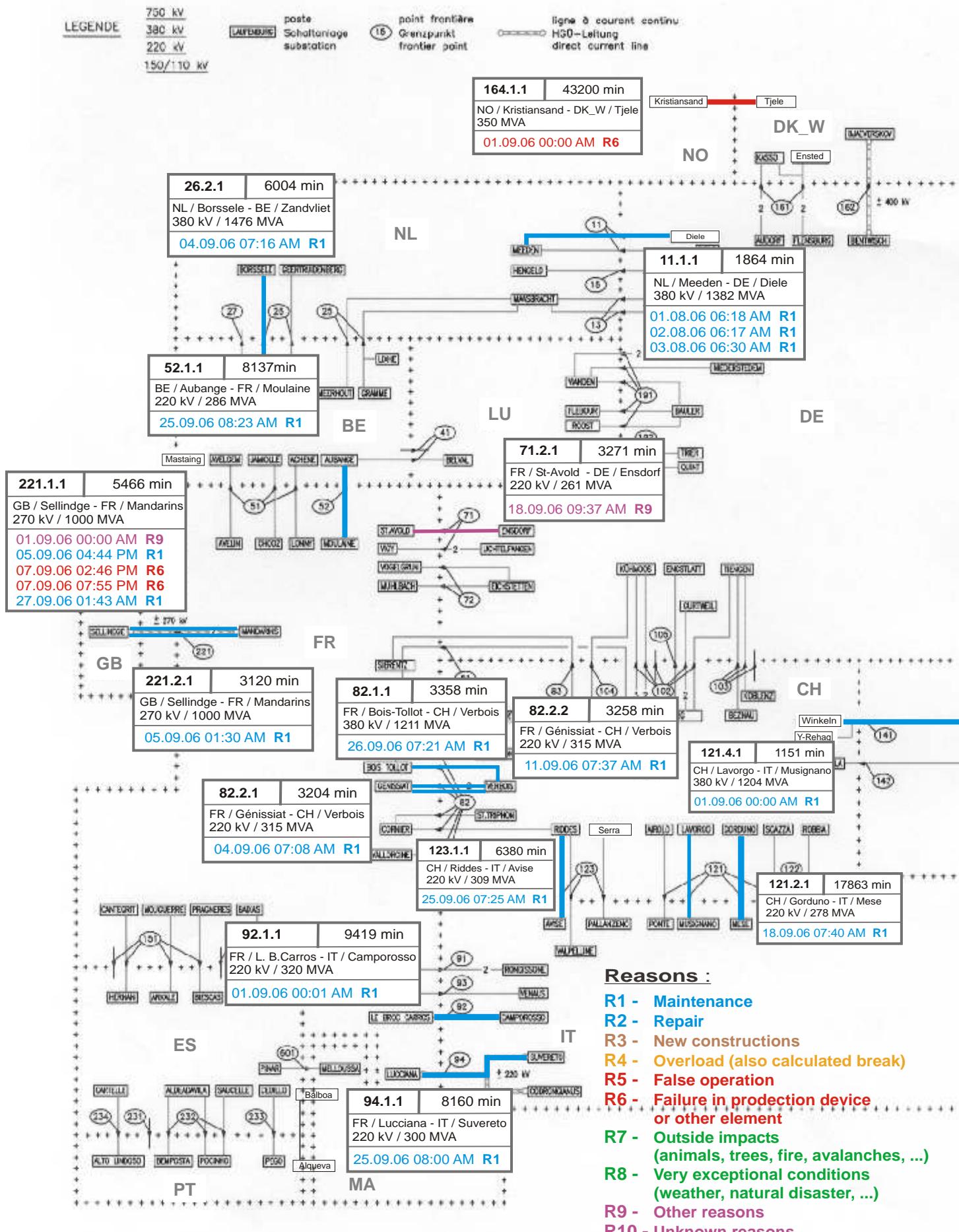
Sum of load flows in MW:

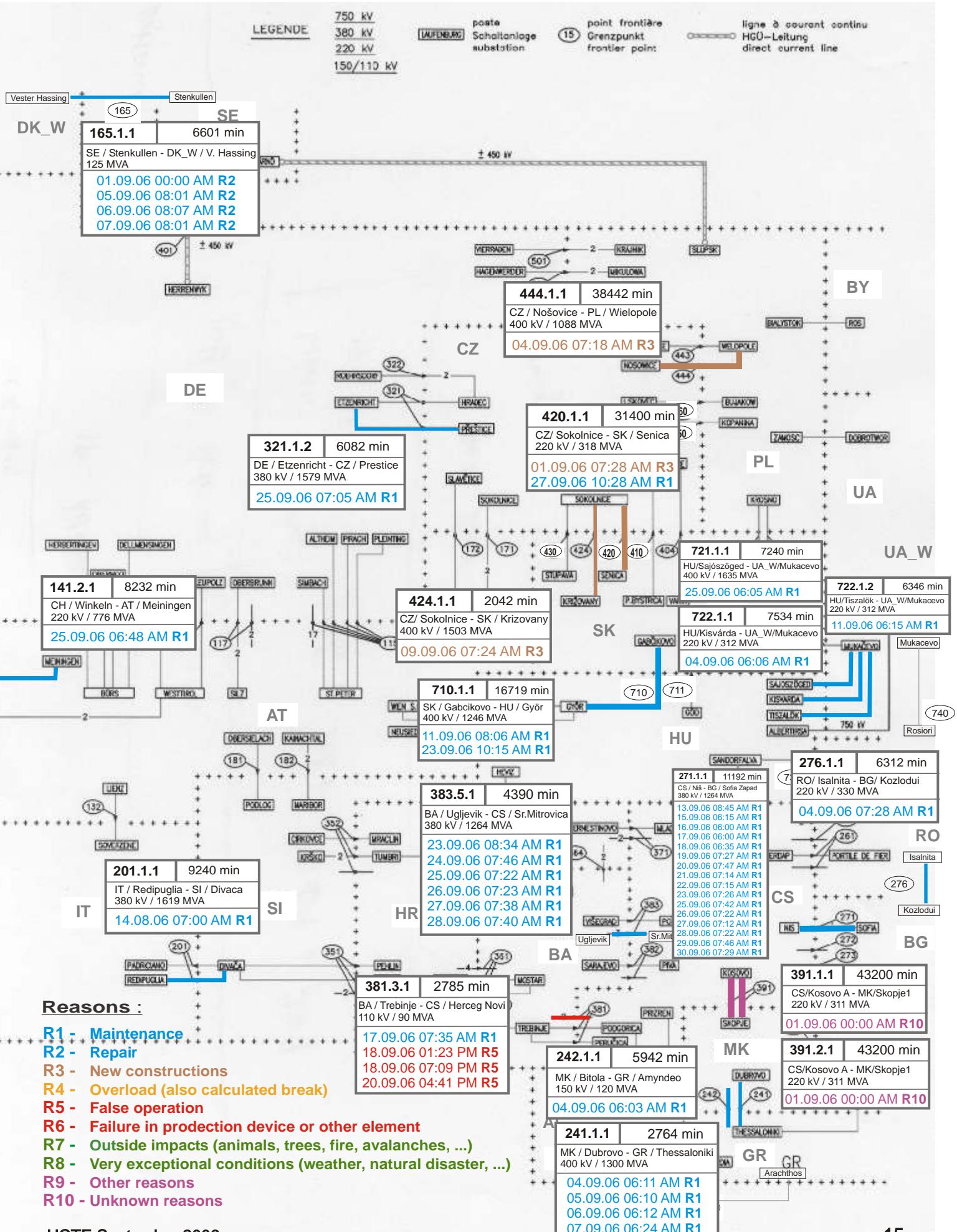
UCTE = 32741 MW

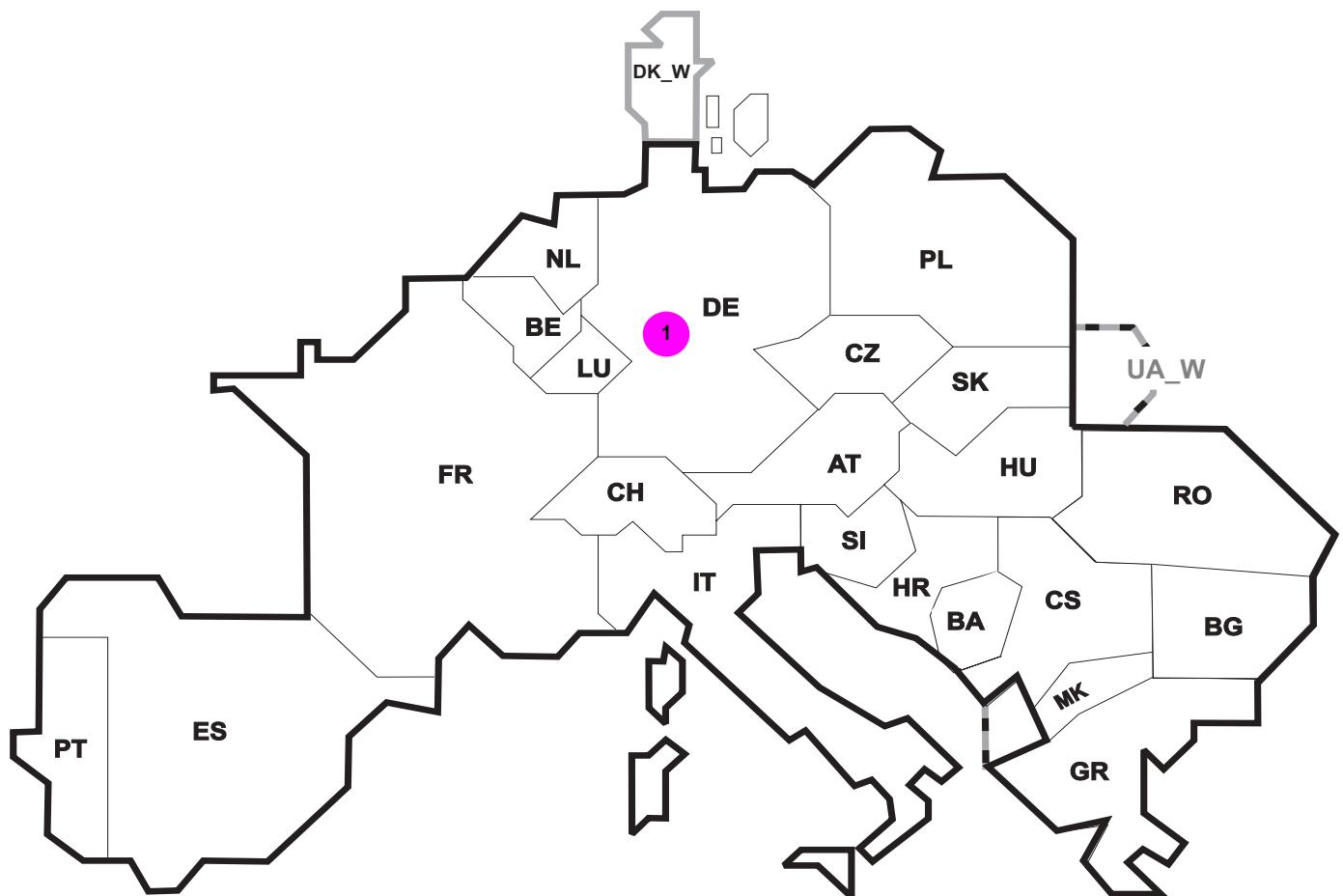
Total = 35555 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance







## 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

No	Country	Substation	Reason	Energy not supplied [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	DE	Kusenhorst	R10	216	360	36	0,20

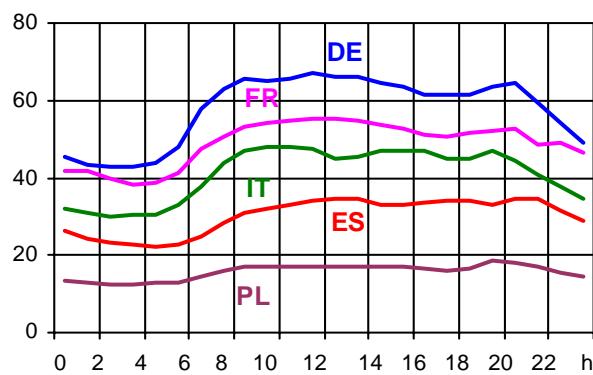
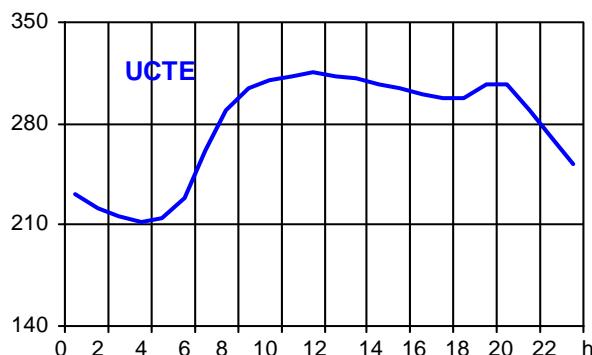
<sup>1</sup> ( year [in min] \* energy not supply ) / consumption last 12 months

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	529432	342890	466	579	984	363
BA	210592	81641	340	89	453	70
BE	602274	1338093	1114	1922	870	2068
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2547289	2078449	2959	3018	5588	2836
CS	274897	368179	298	244	353	483
CZ	1777690	580578	2334	586	2691	799
DE	2378556	2965827	2059	3829	2036	7011
ES	1200190	882757	1817	1300	895	809
FR	7895777	1030144	11954	1372	10762	542
GR	50524	422267	22	721	119	521
HR	42061	462242	149	687	247	715
HU	442673	1094545	587	1263	600	1700
IT	85490	3976909	249	5241	50	6154
MK	78454	247548	7	130	7	293
NL	321632	2127855	457	2878	118	2982
PL	1032713	100583	1287	134	1604	214
PT	110911	821713	0	1500	0	646
RO	425036	175207	383	314	753	267
SI	529393	546285	765	687	1000	670
SK	586242	617888	781	760	851	1214
DK_W	553214	263843	970	800	462	0
UA_W	362335	0	475	0	549	0

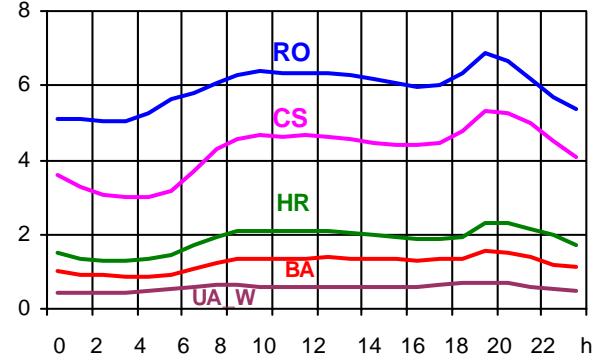
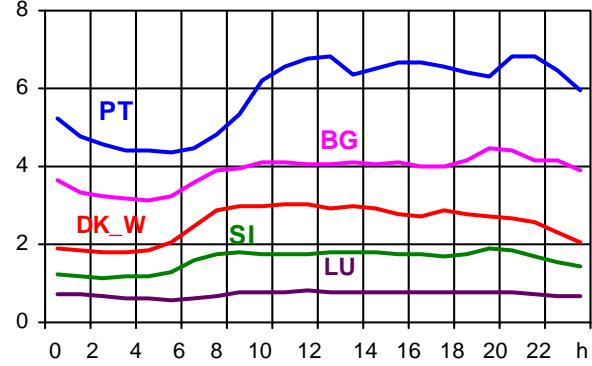
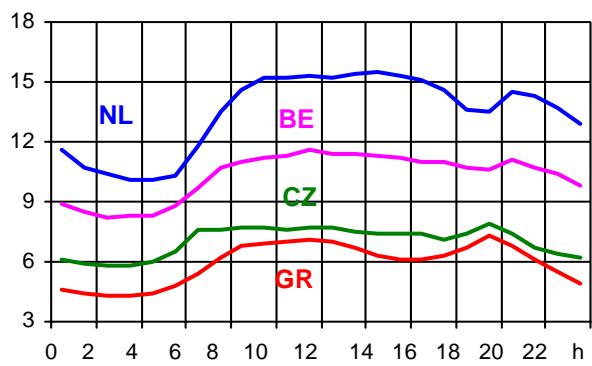
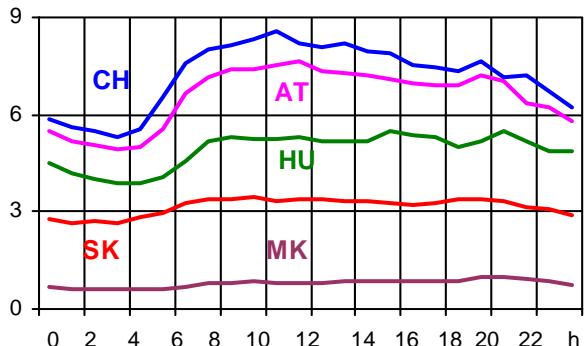
- Control areas can differ from national borders ( i.e. German block which includes parts of AT, LU and DK ).
- Values are calculated on an hourly base ( MWh ).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the 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.

Consumption hourly load curves on 20.09.2006

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %	Parallel power <sup>2</sup> MW
AT	7656	2,0	100	8725
BA	1547	4,0	100	1741
BE <sup>3</sup>	11628	3,3	100	10037
BG	4472	4,0	100	4824
CH	8556	-0,6	100	11226
CS	5340	4,5	100	4475
CZ	7908	1,6	100	9873
DE	73782	-2,6	91	72200
ES	35535	5,1	98	33301
FR	55241	-2,0	100	65219
GR	7331	1,9	100	6603
HR	2303	1,1	100	1779
HU	5505	-0,9	100	4213
IT	48092	1,8	100	41089
LU	797	-13,3	100	835
MK	1002	7,7	100	548
NL	15500	6,6	100	12342
PL <sup>4</sup>	18480	1,0	100	22430
PT	7131	4,7	96	5930
RO	6855	4,0	100	6799
SI	1974	0,8	95	2049
SK	3435	0,0	100	2953
UCTE	<b>315951</b>	1,3		<b>329191</b>
DK_W	3021	-1,0	100	3715
UA_W	717	15,8	100	1143

<sup>1</sup> Variation as compared to corresponding month of the previous year<sup>2</sup> Power produced in parallel operation (including autoproduction)<sup>3</sup> The reported figures are best estimates based on actual measurements and extrapolations.<sup>4</sup> Average value of each hour



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