

# UCTE



## November 2007

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 in GWh	Consumption in GWh			
	Therm. nuclear	Therm. conv.	Hydro prod	Other renew.	Of which wind	Not identify	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	2523	2655	0	0	863	6041 <sup>1</sup>	267	250	6058	5,1	67201	0,8
BA	0	719	495	0	0	0	1214	-198	0	1016	5,5	11126	0,0
BE <sup>2</sup>	3781	3054	132	371	54	0	7338 <sup>1</sup>	786	135	7989	3,2	89743	-0,9
BG	1336	2038	231	0	0	0	3605	-438	67	3100	2,1	32842	-8,7
CH	2334	192	2410	94	1	0	5030 <sup>1</sup>	925	139	5816	6,4	62835	-1,0
CZ	2383	4801	254	34	19	0	7472 <sup>1</sup>	-1310	39	6123	6,0	64303	-0,4
DE	10941	33398	1906	5776	3996	0	52021 <sup>1</sup>	-3272	807	47942	-1,4	556862	-0,8
ES	3935	15913	1616	3137	2781	0	24601 <sup>1</sup>	-1053	375	23173	11,0	266932	2,8
FR	35805	7520	3350	795	429	0	47470 <sup>1</sup>	-594	813	46063	11,8	477922	-0,7
GR	0	3914	278	150	129	0	4342 <sup>1</sup>	177	80	4439	1,3	55550	3,0
HR	0	676	380	5	4	0	1061 <sup>1</sup>	538	29	1570	9,7	17241	2,2
HU <sup>3</sup>	1327	2158	0	0	0	0	3485 <sup>1</sup>	98	0	3583	1,2	41180	1,3
IT	0	22899	2596	838	408	0	26333 <sup>1</sup>	2996	763	28566	0,5	338161	0,1
LU	0	276	72	12	6	0	360	333	92	601	3,1	6763	2,2
ME	0	93	168	0	0	0	261	157	0	418	n.a.	4188	n.a.
MK	0	486	93	0	0	0	579 <sup>1</sup>	265	0	844	12,4	8482	1,3
NL	348	8273	0	726	342	0	9347 <sup>1</sup>	707	0	10054	1,4	116822	0,6
PL <sup>4</sup>	0	13319	262	102	92	0	13683 <sup>1</sup>	-801	110	12772	6,2	141469	3,6
PT	0	2572	536	554	385	0	3662 <sup>1</sup>	759	74	4347	5,8	51455	1,6
RO	870	2833	1556	0	0	0	5259 <sup>1</sup>	-333	14	4912	4,7	53873	1,8
RS	0	2728	1057	0	0	0	3785	134	99	3820	n.a.	35652	n.a.
SI	369	447	216	0	0	0	1032	123	0	1155	0,1	13435	2,1
SK	1130	682	375	27	1	0	2214 <sup>1</sup>	304	20	2498	4,1	27459	0,7
DK_W	0	1887	2	692	539	0	2581 <sup>1</sup>	-627	0	1954	1,3	21757	-0,1
<b>UCTE<sup>5</sup></b>	<b>64559</b>	<b>133401</b>	<b>20640</b>	<b>13313</b>	<b>9186</b>	<b>863</b>	<b>232776<sup>1</sup></b>	<b>-57</b>	<b>3906</b>	<b>228813</b>	<b>5,6</b>	<b>2567585</b>	<b>1,2</b>
UA_W	0	752	4	0	0	0	756 <sup>1</sup>	-344	0	412	7,3	4231	-3,0

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

<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations

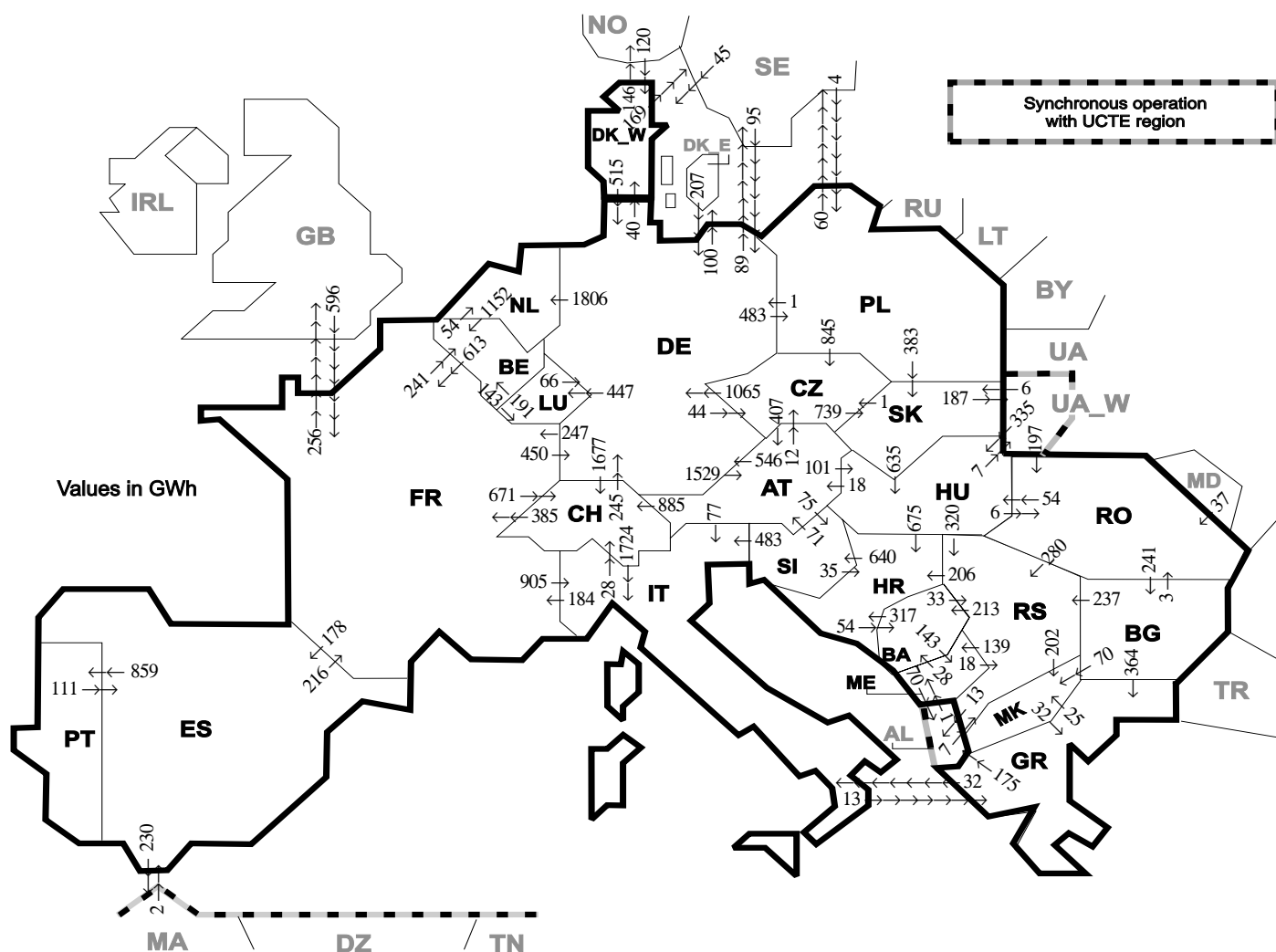
<sup>3</sup> Data on hydro, other renewable, not clearly identifiable production are not yet available

<sup>4</sup> Operational data

<sup>5</sup> From June 2007 on including DK\_W

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	CZ	DE	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	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	100	100
Thermal conv.	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	100	95	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	100	100
Other renew.	100	100	100	100	100	100	100	95	100	100	100	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	100	100
Consumption	100	100	100	100	100	100	100	98	100	100	100	100	100	100	100	100	100	100	97	100	100	95	100	100	100

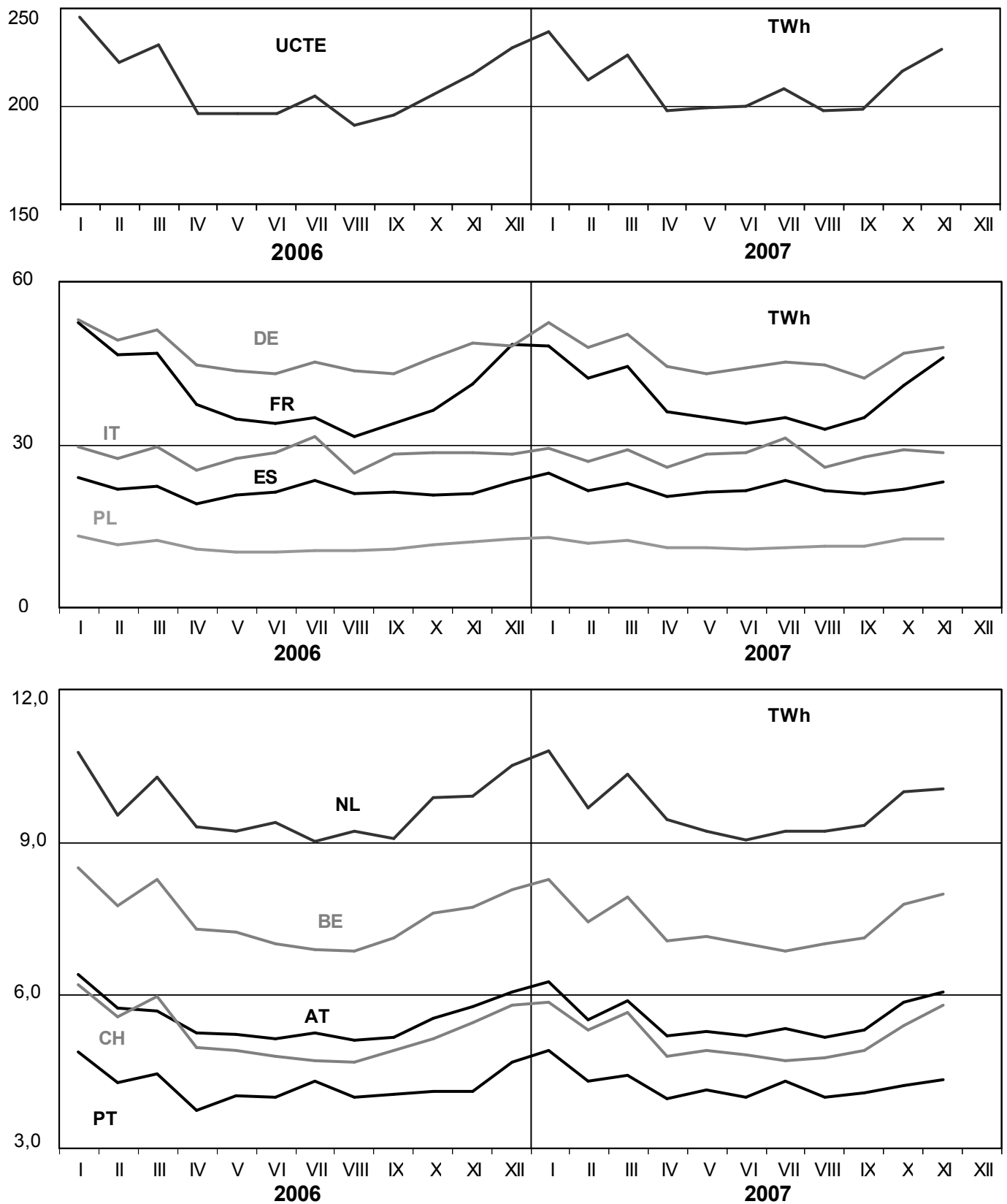


Exporting countries	AT	BA	BE	BG	CH	CZ	DE	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	DK_W	UA_W	Other III <sup>1</sup>	Sum export	
AT	-	-	-	-	885	12	546	-	-	-	-	101	77	-	-	-	-	-	-	-	-	75	-	-	-	-	1696	
BA	-	-	-	-	-	-	-	-	-	-	317	-	-	-	143	-	-	-	-	-	33	-	-	-	-	-	493	
BE	-	-	-	-	-	-	-	-	613	-	-	-	-	143	-	54	-	-	-	-	-	-	-	-	-	-	810	
BG	-	-	-	-	-	-	-	-	-	364	-	-	-	-	-	70	-	-	-	3	237	-	-	-	-	0	674	
CH	0	-	-	-	-	245	-	385	-	-	-	1724	-	-	-	-	-	-	-	-	-	-	-	-	-	2354		
CZ	407	-	-	-	-	-	1065	-	-	-	-	-	-	-	-	-	0	-	-	-	-	739	-	-	-	2211		
DE	1529	-	-	-	1677	44	-	247	-	-	-	447	-	-	1806	483	-	-	-	-	-	-	40	-	189	6462		
ES	-	-	-	-	-	-	-	-	216	-	-	-	-	-	-	-	-	-	859	-	-	-	-	-	-	230	1305	
FR	-	-	241	-	671	-	450	178	-	-	-	905	-	-	-	-	-	-	-	-	-	-	-	-	-	256	2701	
GR	-	-	-	0	-	-	-	-	-	-	-	32	-	-	25	-	-	-	-	-	-	-	-	-	-	-	175	232
HR	-	54	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	640	-	-	-	-	694	
HU	18	-	-	-	-	-	-	-	-	-	675	-	-	-	-	-	-	-	-	6	320	0	-	7	-	1026		
IT	0	-	-	-	28	-	-	184	13	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	225		
LU	-	-	191	-	-	-	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257		
ME	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	70	116	
MK	-	-	0	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	32		
NL	-	-	1152	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1152	
PL	-	-	-	-	845	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	383	-	-	60	1289		
PT	-	-	-	-	-	-	-	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111		
RO	-	-	-	241	-	-	-	-	-	-	54	-	-	-	-	-	-	-	-	-	280	-	-	0	0	575		
RS	-	213	-	0	-	-	-	-	-	-	206	0	-	139	202	-	-	-	-	0	-	-	-	-	-	13	773	
SI	71	-	-	-	-	-	-	-	-	-	35	483	-	-	-	-	-	-	-	-	-	-	-	-	-	589		
SK	-	-	-	-	-	1	-	-	-	-	635	-	-	-	-	-	-	0	-	-	-	-	-	-	187	823		
DK_W	-	-	-	-	-	-	515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	315	830		
UA_W	-	-	-	-	-	-	-	-	-	-	-	335	-	-	-	-	-	-	-	197	-	6	-	-	-	538		
Other III <sup>1</sup>	-	-	-	0	-	-	302	2	596	0	-	-	-	-	1	-	4	-	37	7	-	-	165	-	-	1114		
<b>Sum imp</b>	<b>2025</b>	<b>295</b>	<b>1584</b>	<b>241</b>	<b>3261</b>	<b>902</b>	<b>3190</b>	<b>291</b>	<b>2241</b>	<b>409</b>	<b>1233</b>	<b>1125</b>	<b>3221</b>	<b>590</b>	<b>283</b>	<b>297</b>	<b>1860</b>	<b>487</b>	<b>859</b>	<b>243</b>	<b>895</b>	<b>715</b>	<b>1128</b>	<b>205</b>	<b>194</b>	<b>1308</b>	<b>29082</b>	

Sum of physical energy flows between UCTE countries = 25928GWh Total physical energy flows = 29082GWh

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

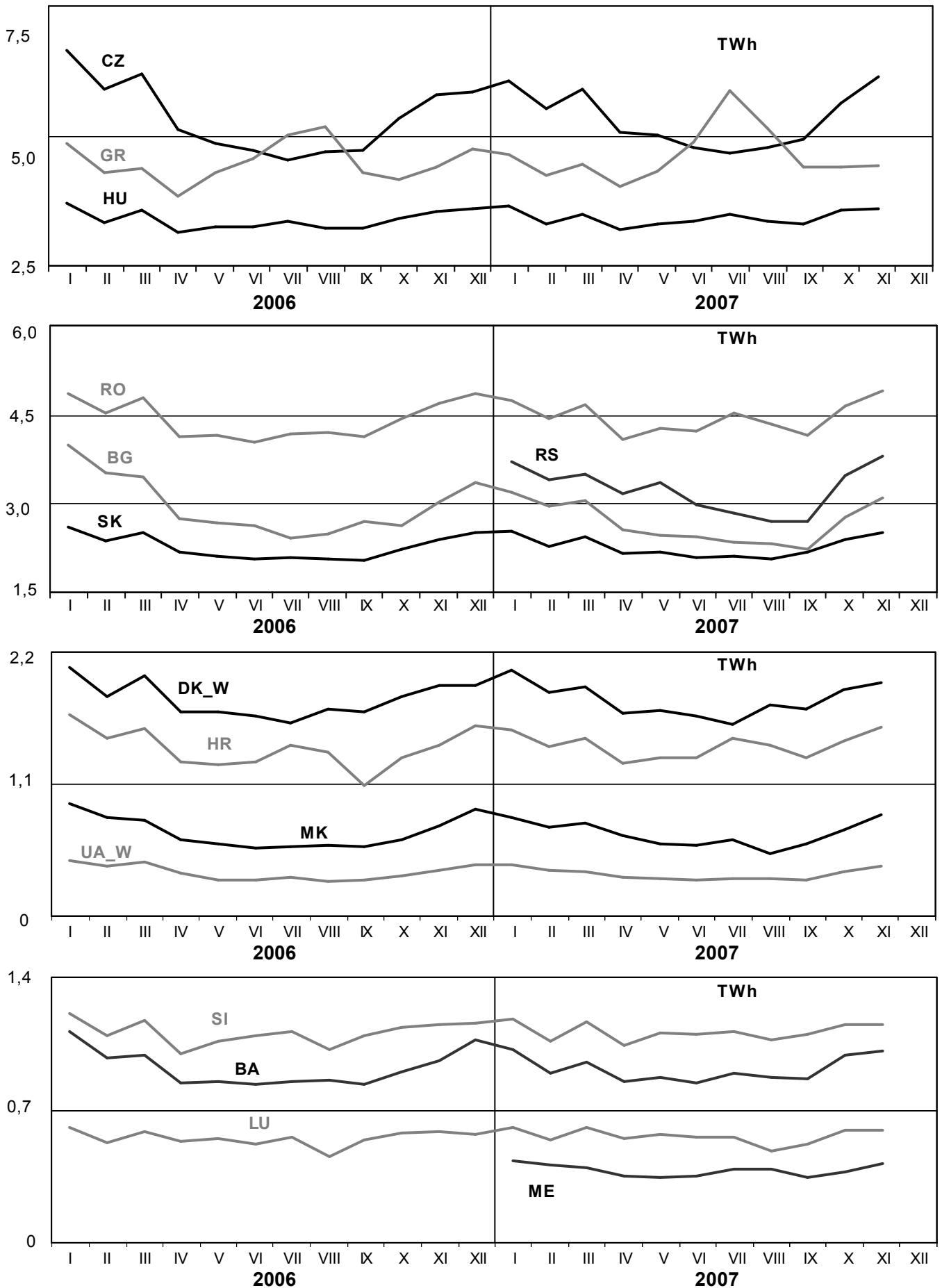
These physical energy flows were measured on the cross-frontier transmission lines (≤ 110 kV) listed in table 9 of the Statistical Yearbook. These values may differ from the official statistics and the exchange balances in chapter 1.



# 3

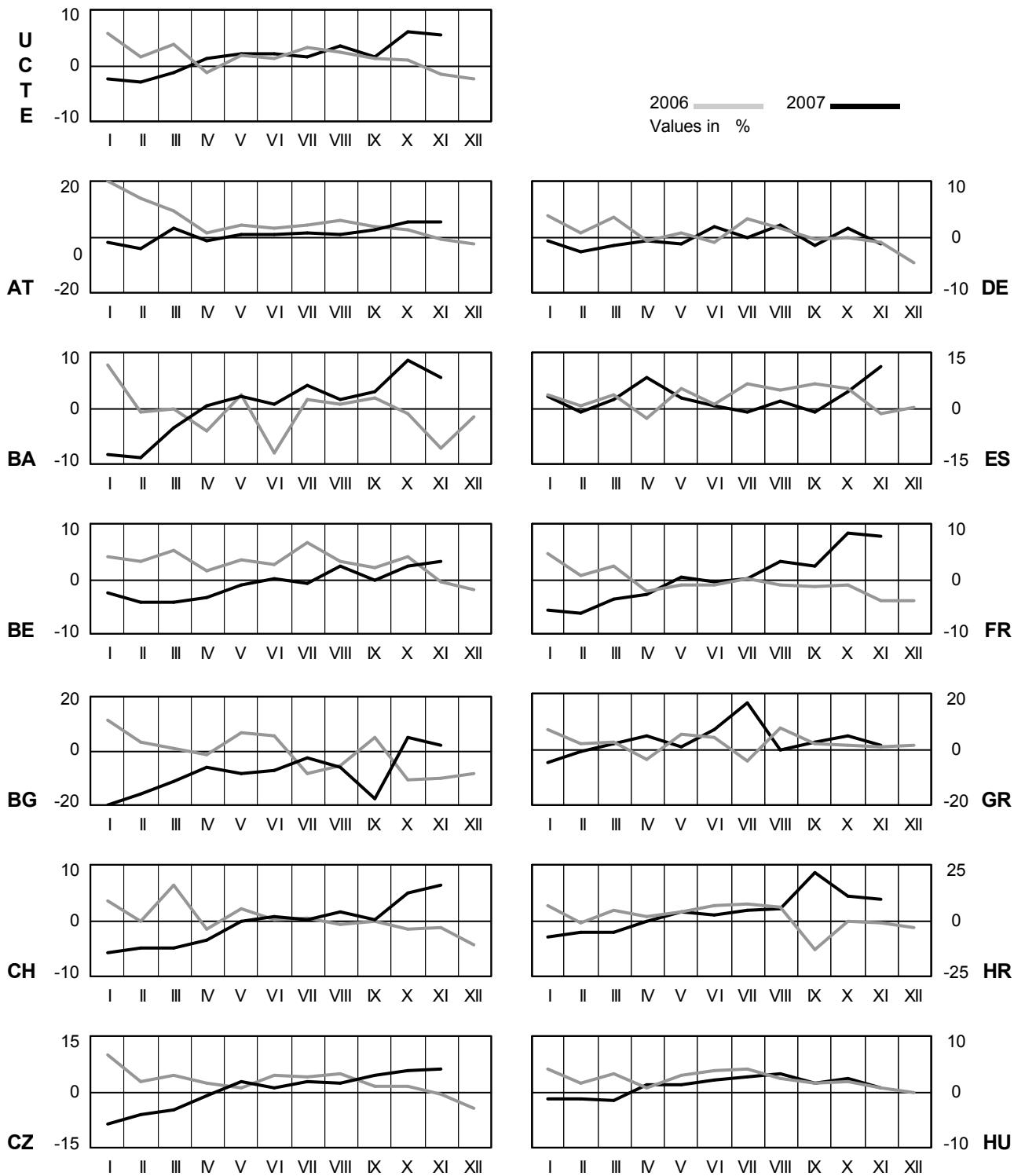
## Monthly consumption

November 2007



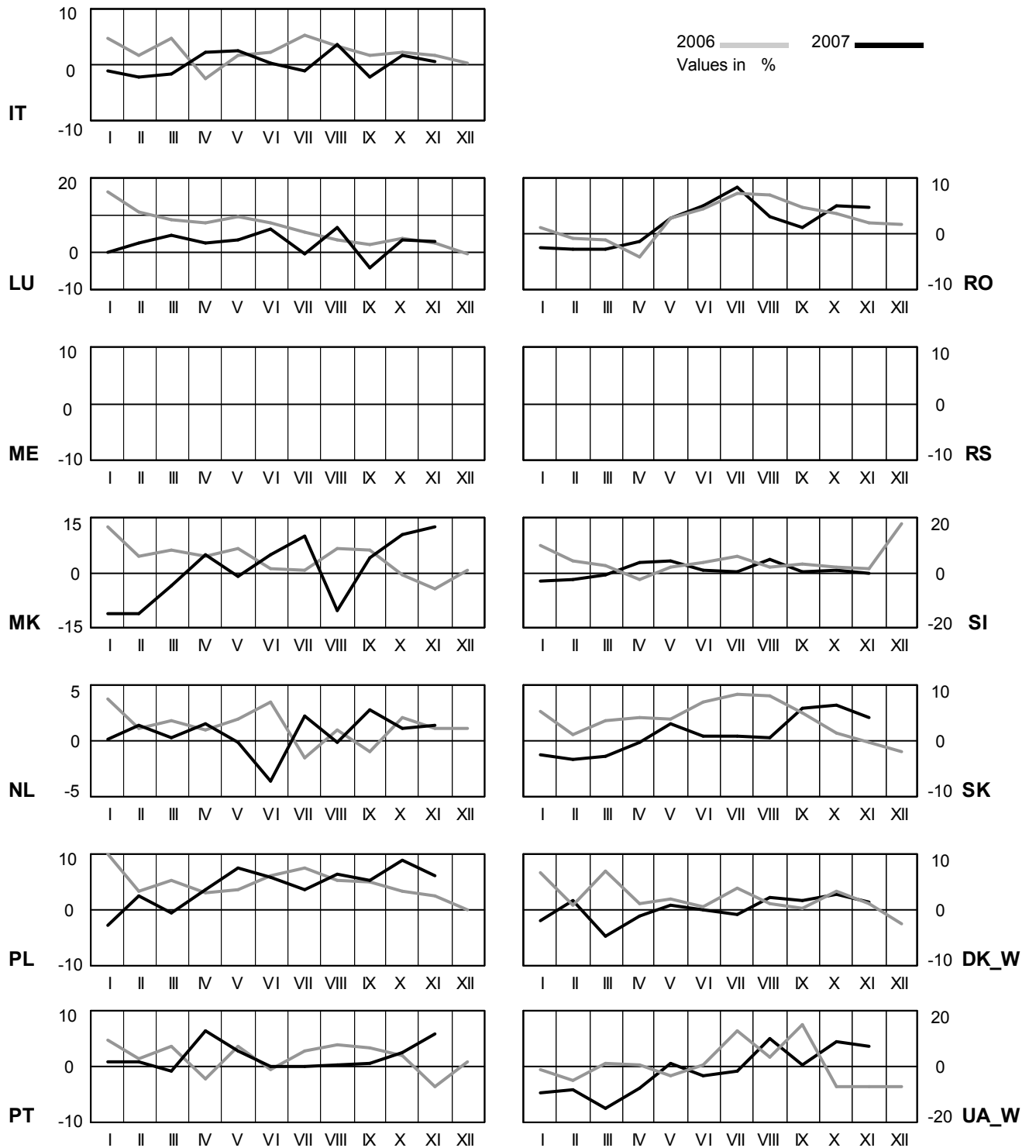
# 4 Monthly consumption variation

November 2007



# 4 Monthly consumption variation

November 2007

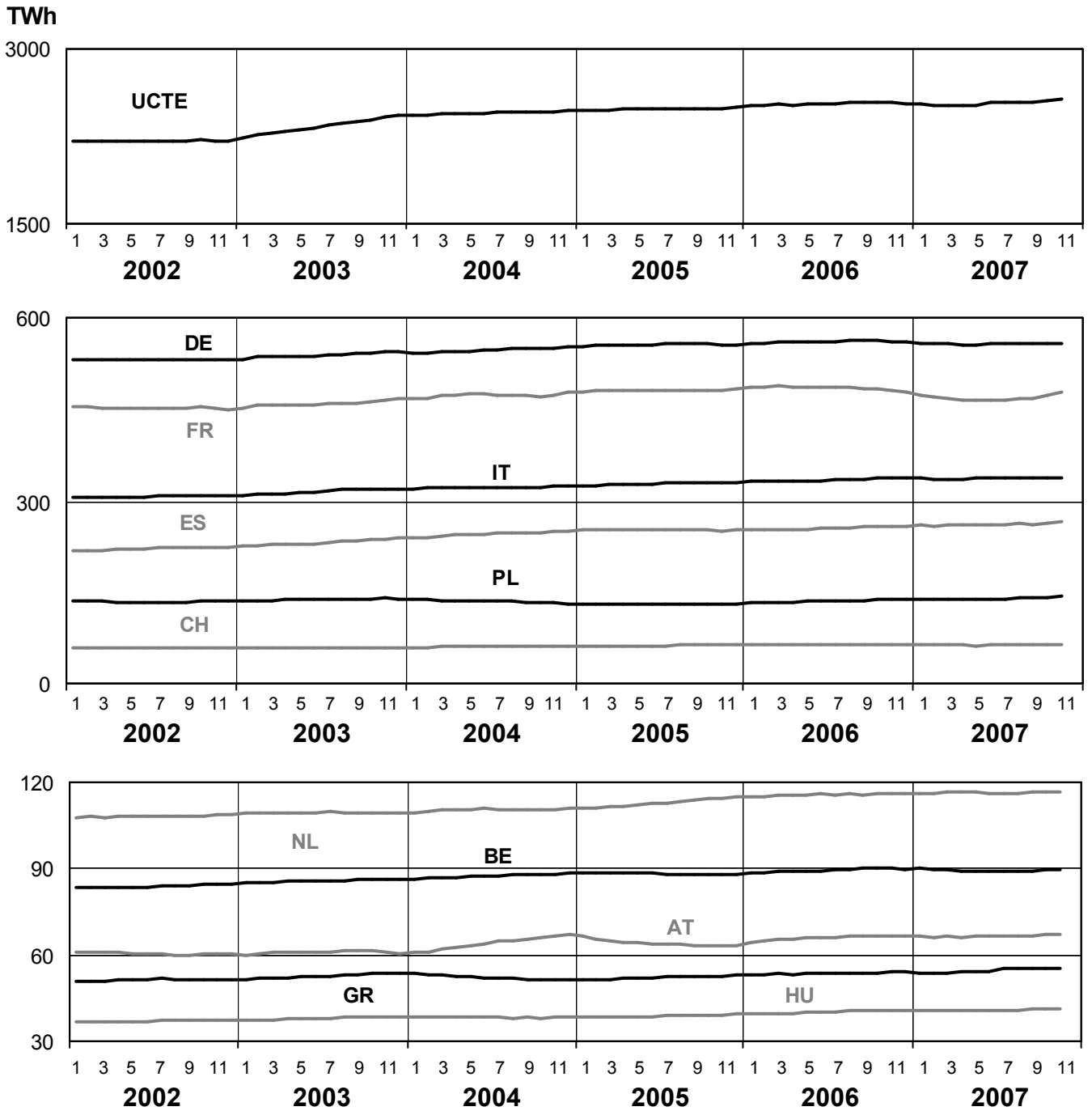




# 5

## Consumption of the last 12 months

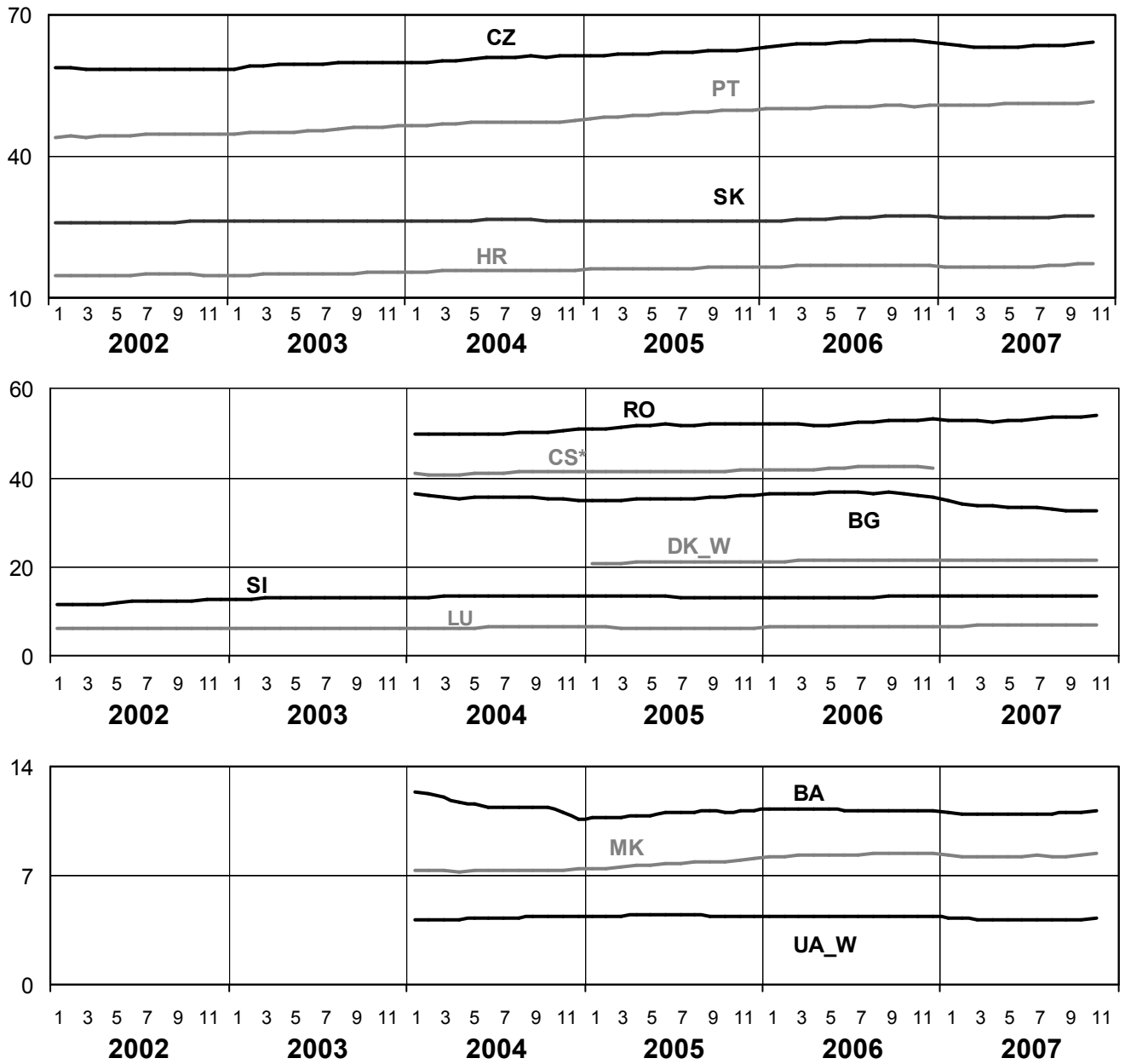
November 2007



# 5

## Consumption of the last 12 months

November 2007

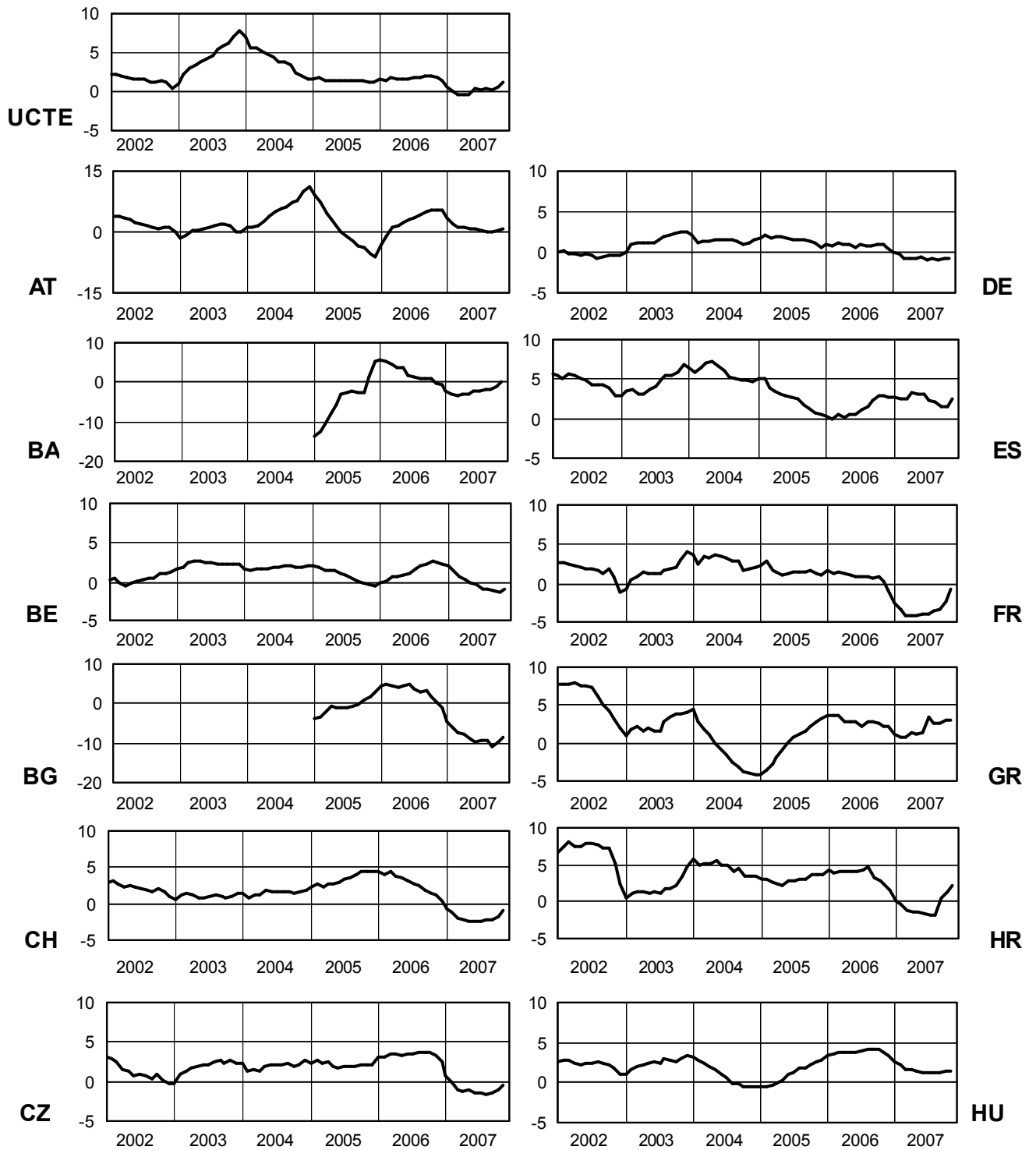


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

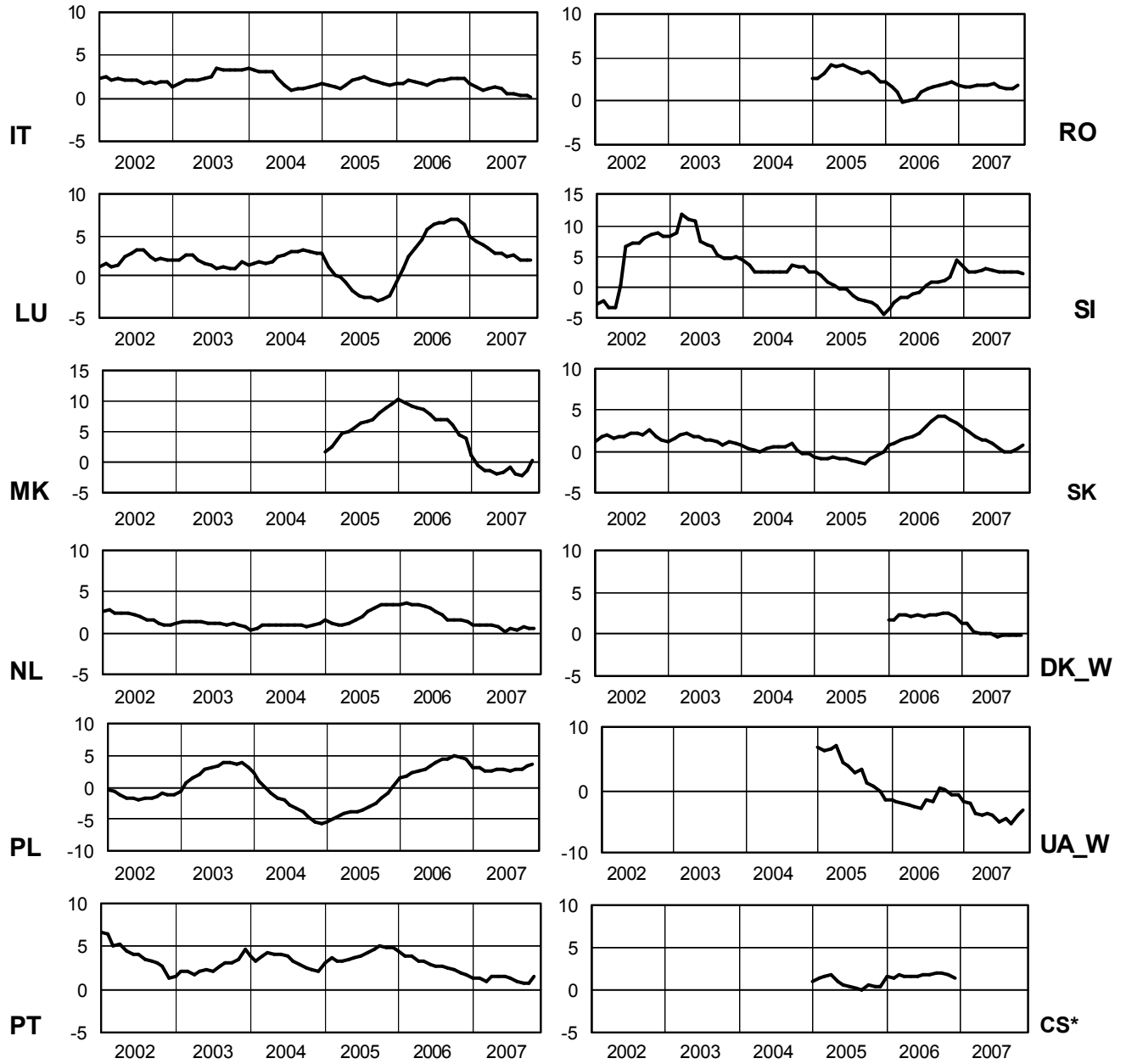
November 2007



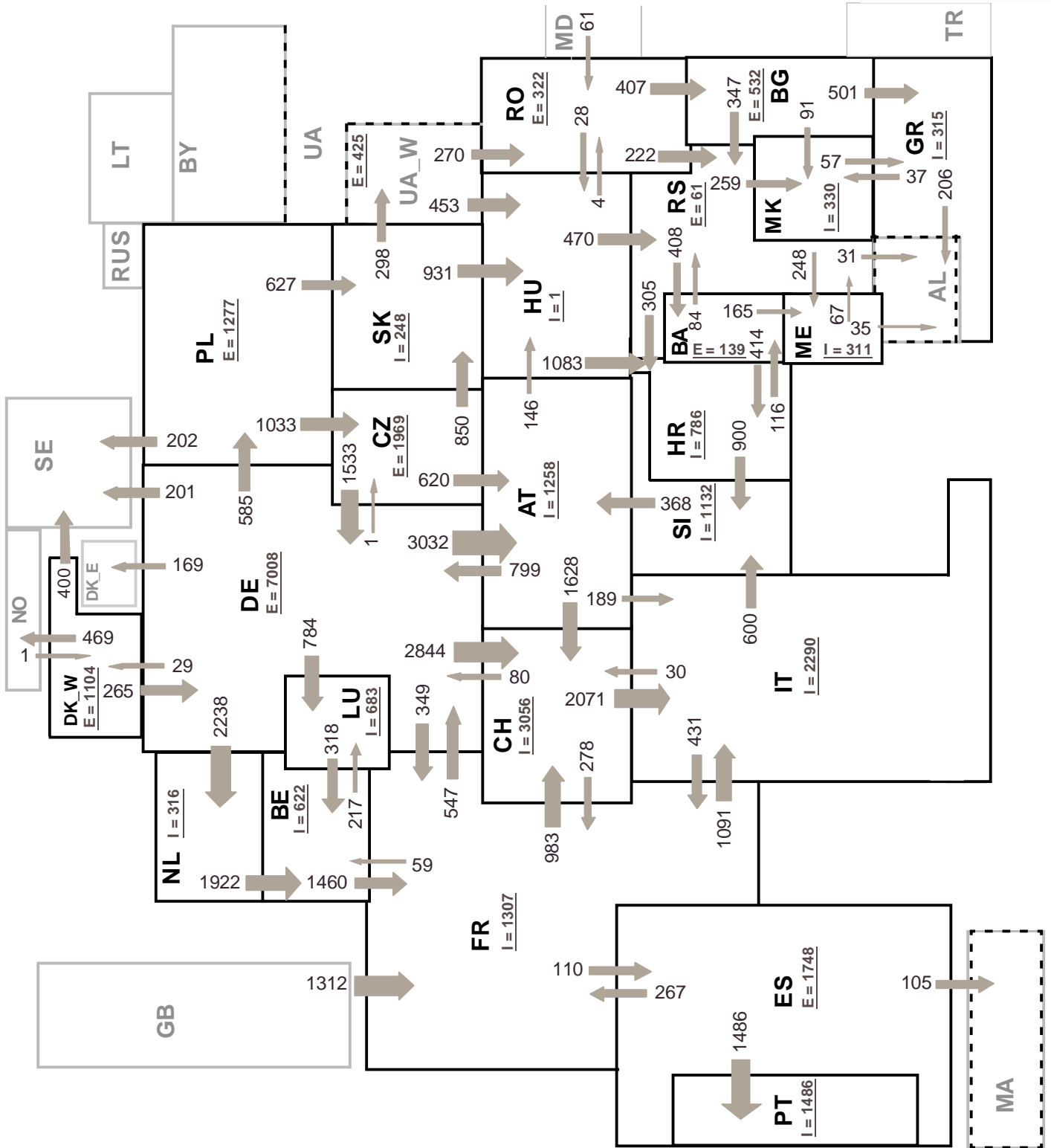
# 6

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

November 2007



\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries



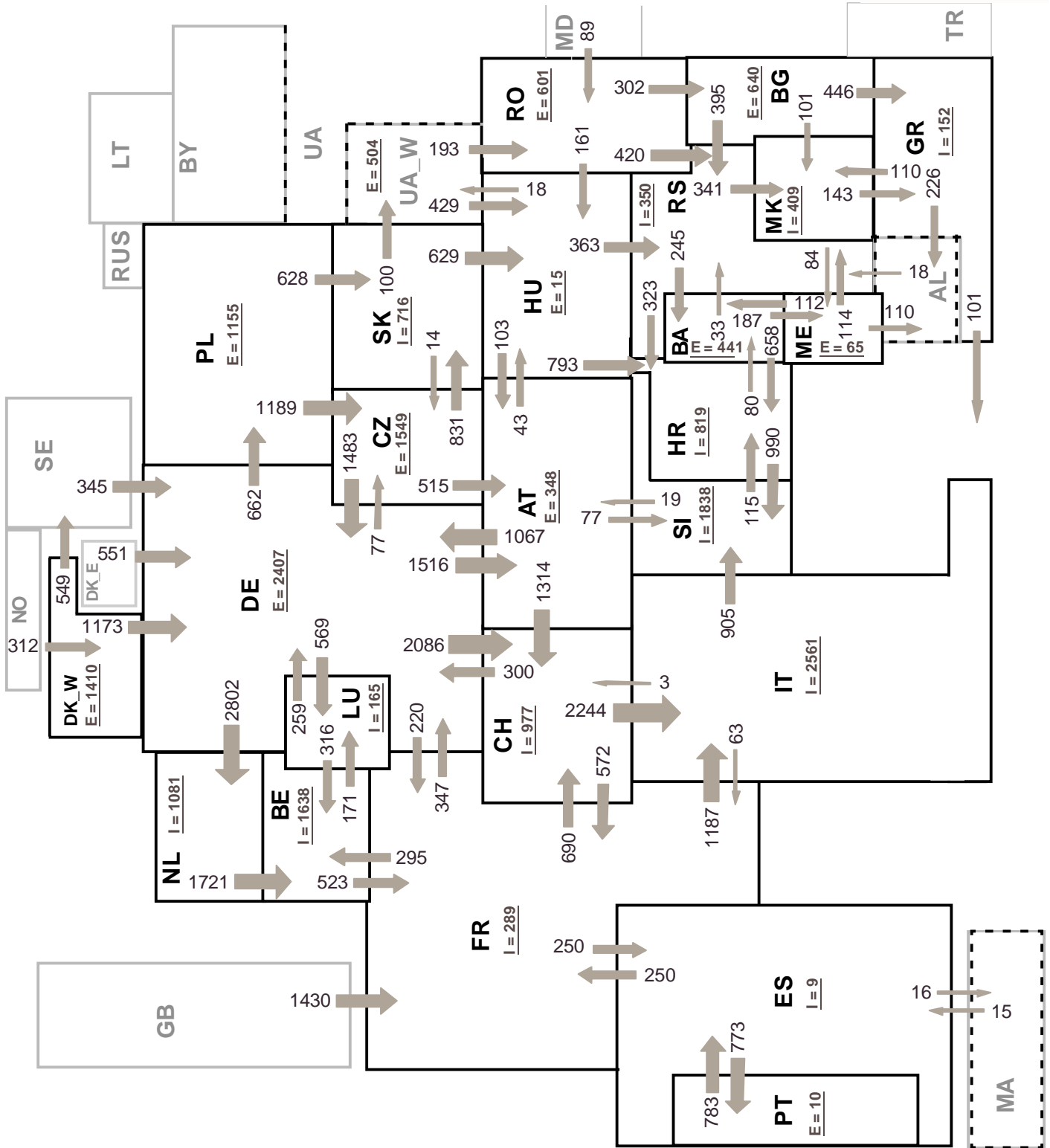
Sum of load flows in MW

UCTE = 37014 MW

Total = 41227 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



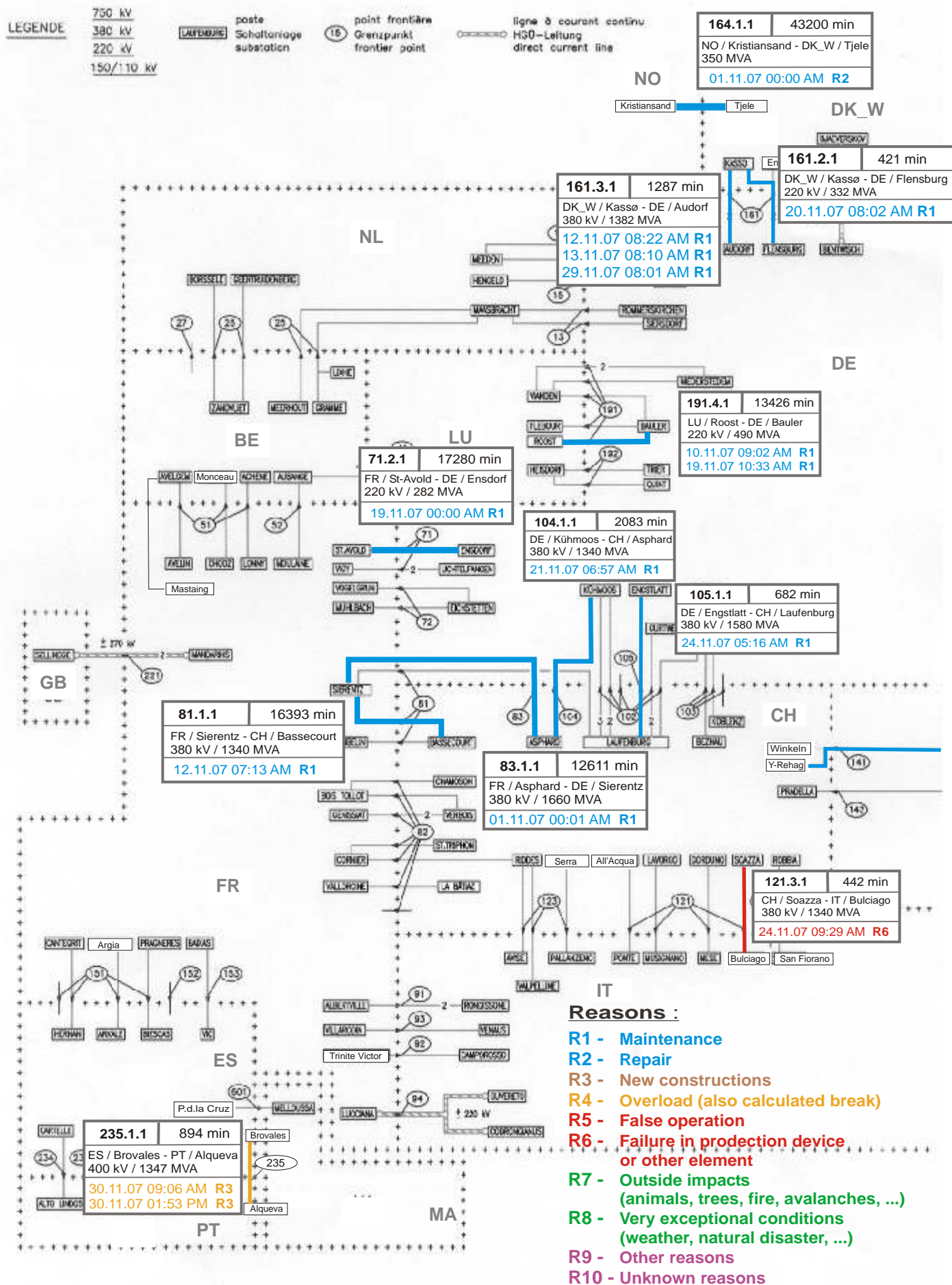
Sum of load flows in MW

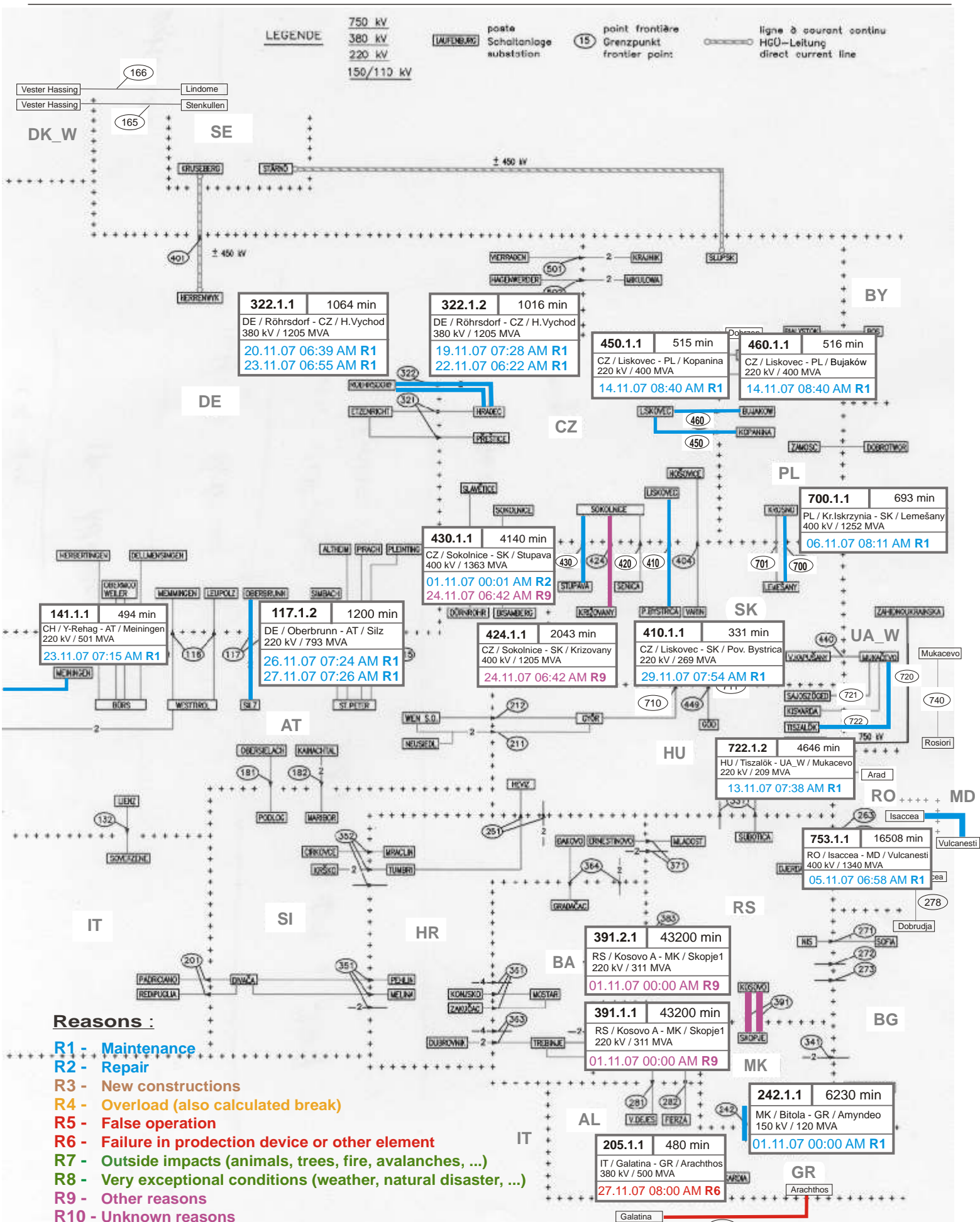
UCTE = 35286 MW

Total = 39687 MW

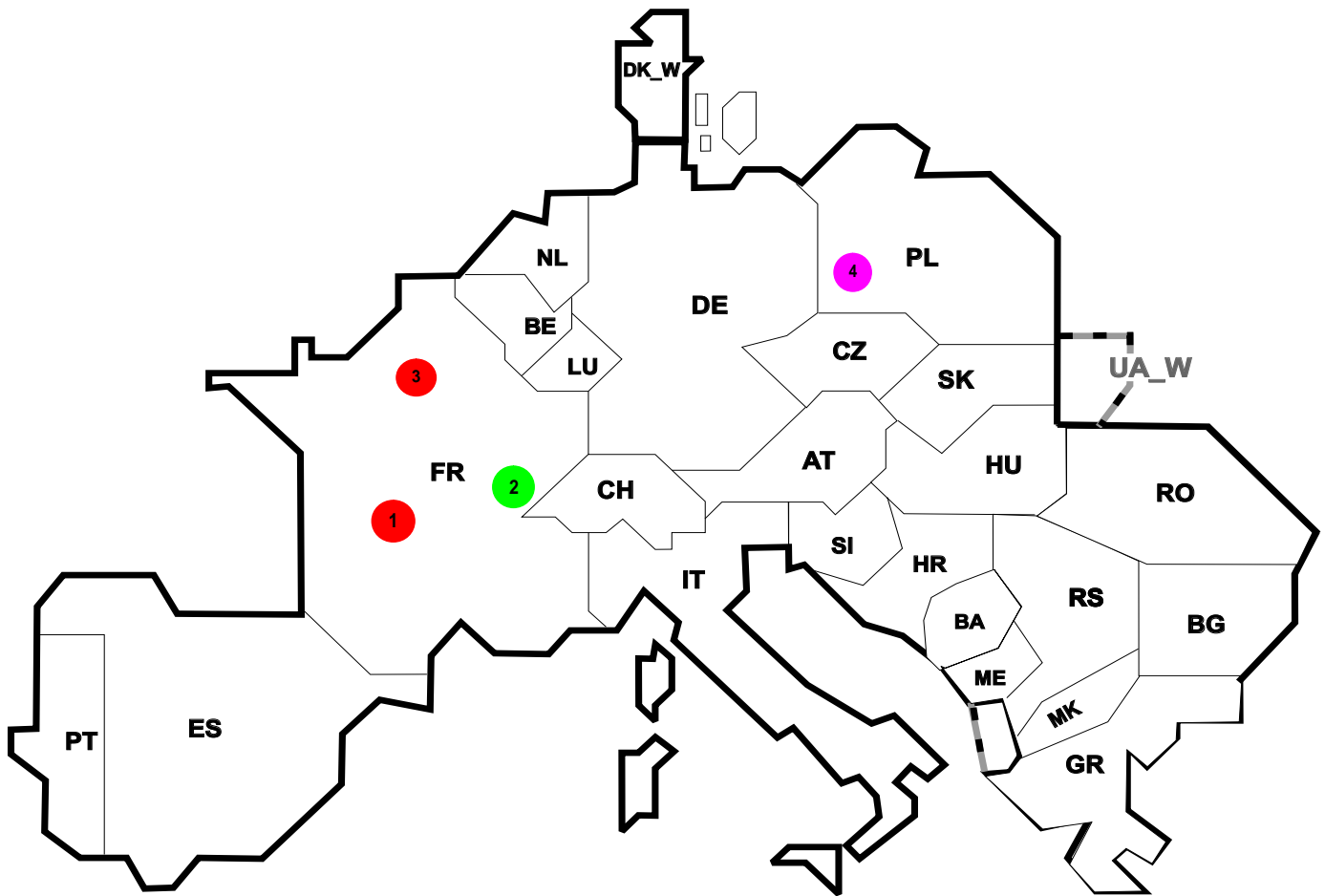
Synchronous operation with UCTE region

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 <sup>2</sup> [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	FR	Grezillac	R6	10	16	37	0,011
2	FR	Riddes	R8	6	12	32	0,007
3	FR	Carrieres	R5	2	25	4	0,002
4	PL	Patnow	R9	0	362	1	0,000

<sup>1</sup> ( 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
AT	414411	1042054	2092	457	2507	421
BA	501503	303290	419	190	685	190
BE	181538	913212	523	1065	0	1510
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	1493258	2406784	1071	4093	2428	3395
CZ	2148281	792437	3187	1130	3150	1548
DE	4585192	1547523	7317	2108	6357	2210
ES	1298454	267200	2065	300	300	300
FR	5129350	4601367	5968	7315	7177	7466
GR	52571	229600	0	291	100	255
HR	136251	675876	142	959	239	1066
HU	989934	1088479	1403	1390	1549	1541
IT	225090	3221439	461	3951	66	4437
ME	235810	392426	170	481	170	431
MK	4800	266000	0	291	0	403
NL	715265	1415780	1467	1751	776	1861
PL	752474	235122	1055	160	1300	140
PT	89	761295	0	1500	0	0
RO	422126	93780	449	130	772	168
RS	503062	587744	724	664	695	740
SI	511480	637431	850	821	886	948
SK	494309	720964	793	956	418	1012
DK_W	199054	780859	0	930	318	1100
UA_W	337847	0	420	0	495	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.

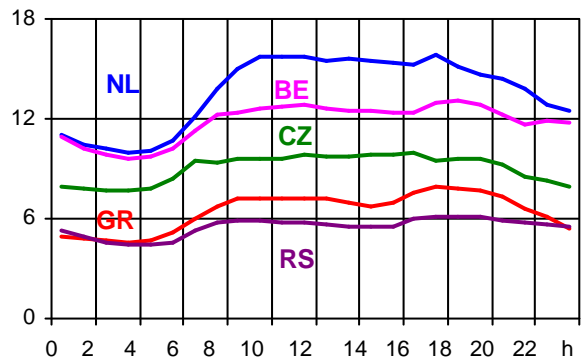
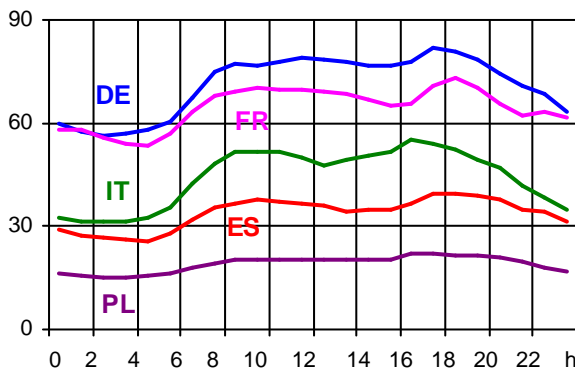
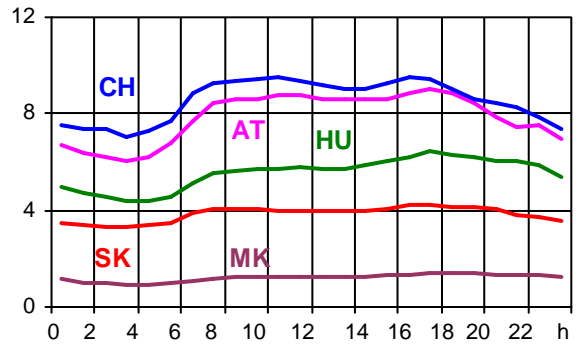
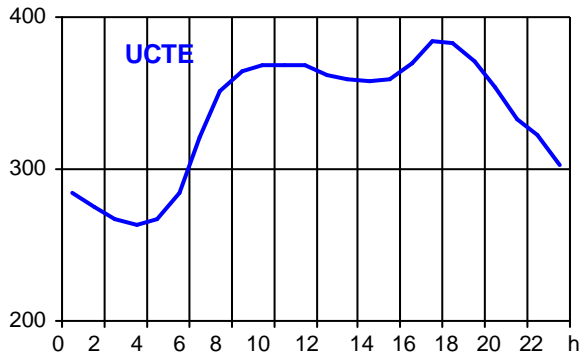
- Export Programs: Sum of all positive values of every hour of every border  
 - Import Programs: Sum of all negative values of every hour of every border

- 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.

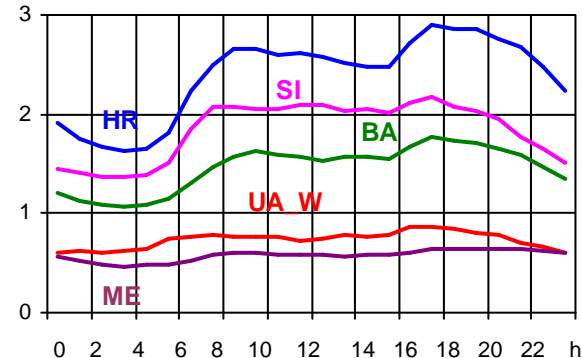
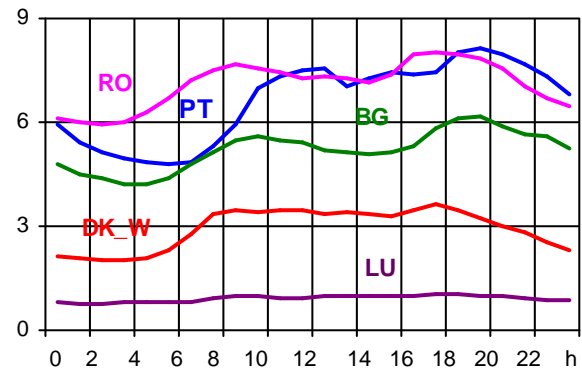
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.  
 - Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

Consumption hourly load curves on 21.11.2007 CET

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %
AT	9042	7,7	100
BA	1781	1,3	100
BE <sup>2</sup>	13060	3,2	100
BG	6179	12,0	100
CH	9497	5,9	100
CZ	9950	8,9	100
DE	81584	1,9	91
ES	39567	8,7	98
FR	73257	10,9	100
GR	7905	4,4	100
HR	2902	13,8	100
HU	6460	5,6	100
IT	55216	6,2	100
LU	1022	11,6	100
ME	654	-	100
MK	1430	18,0	100
NL	15817	-3,7	100
PL <sup>3</sup>	21999	6,5	100
PT	8106	8,5	97
RO	8025	6,8	100
RS	6139	-	100
SI	2174	1,7	95
SK	4238	4,0	100
DK_W	3648	4,3	100
<b>UCTE<sup>4</sup></b>	<b>383810</b>	<b>6,6</b>	
UA_W	869	-0,8	100



<sup>1</sup> Variation as compared to corresponding month of the previous year  
<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations.  
<sup>3</sup> Operational data  
<sup>4</sup> From June 2007 on including DK\_W



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