



# September 2009

Monthly provisional values as of 25 January 2010

European Network of Transmission System Operators for Electricity

**Regional Group Continental Europe**



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

- Country code UCTE represents the ENTSO-E Regional Continental Europe (former all countries of the Union for the Co-ordination of Transmission of Electricity)
- 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 ENTSO-E Regional Continental Europe (Jutland and Funen).
- UA\_W Ukraine West represents the so-called Burshtyn Island synchronously interconnected with ENTSO-E Regional Continental Europe
- CET Central European Time
- The Bulgarian load values on the 3rd Wednesday are gross values

Countries	Net production in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh			
	Therm. nuclear	Fossil fuels	Hydro prod	Other renew.	Of which wind	Non identifiable	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	1541	3284	0	0	782	5607	-82	314	5211	-5,0	65742	-4,7
BA	0	662	233	0	0	0	895	-49	0	846	1,3	11109	-4,5
BE <sup>2</sup>	3857	3273	131	327	74	0	7588 <sup>1</sup>	-685	165	6738	-5,6	83344	-8,5
BG	918	1713	238	0	0	0	2869	-527	72	2270	-9,2	33060	-5,4
CH	2056	170	2916	101	2	0	5243 <sup>1</sup>	-176	221	4846	-4,5	63204	-2,2
CZ	1827	3585	180	30	19	0	5622 <sup>1</sup>	-893	82	4647	-8,5	61780	-6,7
DE	9830	25378	1577	5383	2675	0	42168 <sup>1</sup>	-856	659	40653	-6,2	528689	-5,7
DK_W	0	1050	1	603	492	0	1654 <sup>1</sup>	-18	0	1636	-5,3	20804	-4,8
ES	4377	13408	1200	3120	2360	35	22140	-714	252	21174	-1,3	261619	-3,9
FR	28679	3612	3001	888	550	0	36180	-2915	364	32901	-7,9	488726	-1,5
GR	0	3490	305	192	160	0	3987 <sup>1</sup>	229	23	4193	-8,8	53852	-5,1
HR	0	526	305	4	3	0	835 <sup>1</sup>	517	14	1338	-5,0	17507	-3,2
HU	1086	1488	0	0	0	0	2574 <sup>1</sup>	792	0	3366	0,3	41072	-1,6
IT	0	19356	3345	1028	627	0	23729	3536	403	26862	-6,9	320276	-6,6
LU	0	248	60	12	4	0	320	294	80	534	0,2	6052	-13,0
ME <sup>3</sup>	0	132	131	0	0	0	263	102	0	365	n.a.	5153	n.a.
MK	0	440	39	0	0	0	479	51	0	530	-19,8	7862	-12,3
NL	341	7739	0	678	366	0	8758 <sup>1</sup>	48	0	8806	-7,8	115521	-3,1
PL <sup>4</sup>	0	10847	165	108	89	0	11120 <sup>1</sup>	-138	89	10893	-5,7	136650	-5,5
PT	0	2886	438	608	435	0	3932 <sup>1</sup>	303	86	4149	0,4	51532	-1,0
RO	895	2192	924	0	0	0	4011	-114	10	3887	-11,4	51016	-8,8
RS	0	2423	554	0	0	0	2977	189	81	3085	6,1	41616	6,7
SI	493	275	379	0	0	0	1147	-211	0	936	-9,7	11499	-11,5
SK	898	480	277	35	0	0	1690 <sup>1</sup>	318	27	1981	-9,6	25711	-8,3
<b>UCTE</b>	<b>55257</b>	<b>106914</b>	<b>19683</b>	<b>13117</b>	<b>7856</b>	<b>817</b>	<b>195788<sup>1</sup></b>	<b>-999</b>	<b>2942</b>	<b>191847</b>	<b>-5,9</b>	<b>2503396</b>	<b>-4,5</b>
UA_W	0	559	3	0	0	0	562	-285	0	277	-6,1	3958	-7,0

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

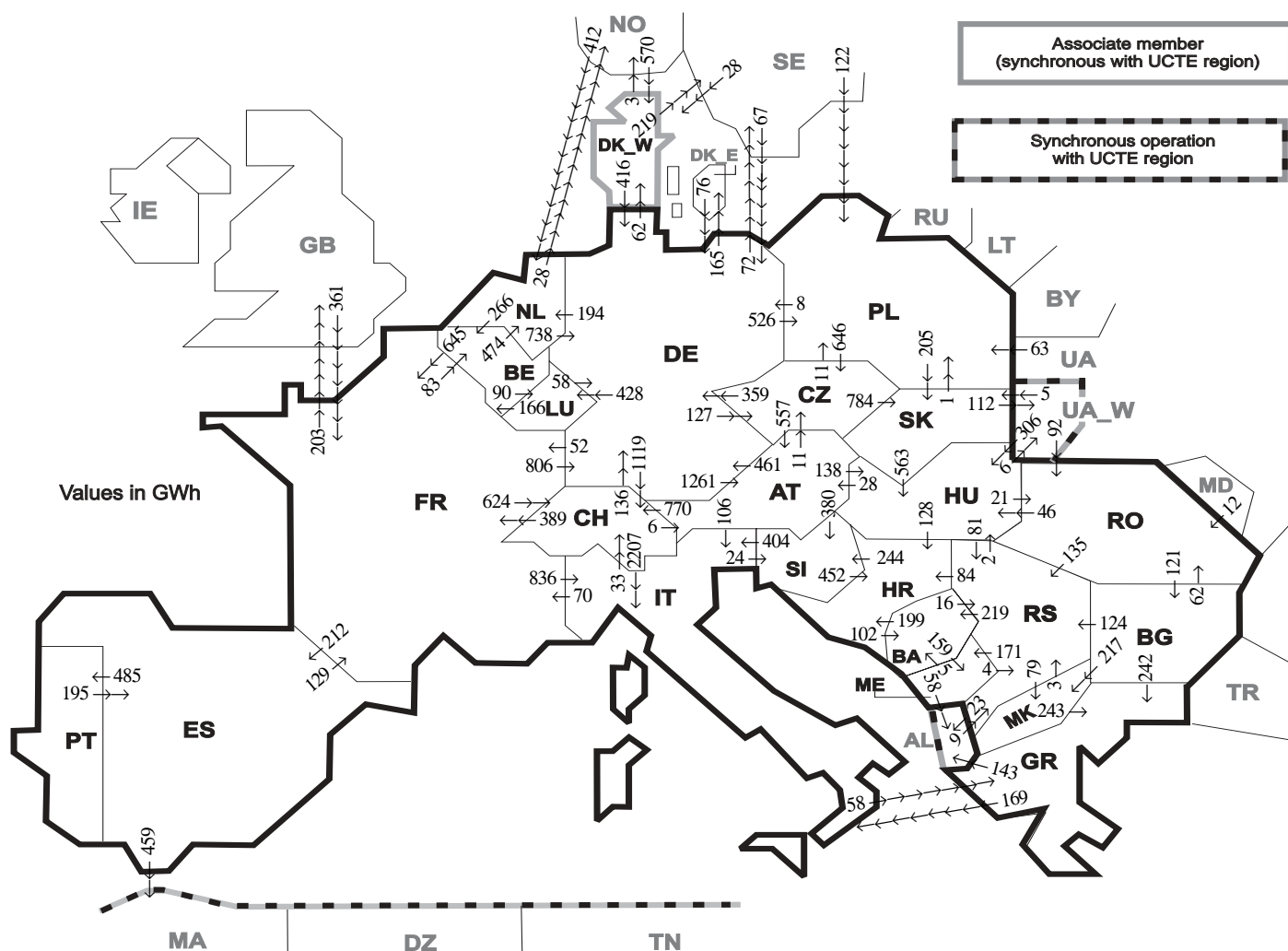
<sup>2</sup> The reported figures are best estimates based on actual measurements and extrapolations

<sup>3</sup> Monthly national values as of September 2008

<sup>4</sup> Operational data

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	DK_W	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	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
Fossil fuels	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	96	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	100	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Non identifiable	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	100	98	100	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100



Exporting countries	AT	BA	BE	BG	CH	CZ	DE	DK_W	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	UA_W	Other III <sup>1</sup>	Sum export	
AT	-	-	-	-	770	11	461	-	-	-	-	-	138	106	-	-	-	-	-	-	-	-	380	-	-	-	1866	
BA	-	-	-	-	-	-	-	-	-	-	-	199	-	-	-	159	-	-	-	-	-	16	-	-	-	-	374	
BE	-	-	-	-	-	-	-	-	645	-	-	-	-	90	-	-	474	-	-	-	-	-	-	-	-	-	1209	
BG	-	-	-	-	-	-	-	-	-	242	-	-	-	-	-	217	-	-	-	62	124	-	-	-	-	0	645	
CH	6	-	-	-	-	-	136	-	389	-	-	-	2207	-	-	-	-	-	-	-	-	-	-	-	-	-	2738	
CZ	557	-	-	-	-	-	359	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	784	-	-	-	1711	
DE	1261	-	-	-	1119	127	-	62	52	-	-	-	-	428	-	-	-	194	526	-	-	-	-	-	-	237	4006	
DK_W	-	-	-	-	-	-	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	222	638	
ES	-	-	-	-	-	-	-	-	129	-	-	-	-	-	-	-	-	-	-	485	-	-	-	-	-	-	459	1073
FR	-	-	83	-	624	-	806	-	212	-	-	-	836	-	-	-	-	-	-	-	-	-	-	-	-	203	2764	
GR	-	-	-	0	-	-	-	-	-	-	-	-	169	-	-	0	-	-	-	-	-	-	-	-	-	143	312	
HR	-	102	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	244	-	-	-	346	
HU	28	-	-	-	-	-	-	-	-	-	-	128	-	-	-	-	-	-	-	-	21	81	0	6	-	-	264	
IT	0	-	-	-	33	-	-	-	70	58	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	185	
LU	-	-	166	-	-	-	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	
ME	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	58	67	
MK	-	-	-	0	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	246	
NL	-	-	266	-	-	-	738	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	1032	
PL	-	-	-	-	646	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205	-	-	0	859	
PT	-	-	-	-	-	-	-	-	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195	
RO	-	-	-	121	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-	-	0	0	-	302	
RS	-	219	-	0	-	-	-	-	-	-	-	84	2	-	-	171	79	-	-	0	-	-	-	-	-	23	578	
SI	0	-	-	-	-	-	-	-	-	-	452	-	404	-	-	-	-	-	-	-	-	-	-	-	-	-	856	
SK	-	-	-	-	0	-	-	-	-	-	-	-	563	-	-	-	-	1	-	-	-	-	-	-	112	-	676	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	306	-	-	-	-	-	-	-	92	-	-	5	-	-	403	
Other III <sup>1</sup>	-	-	-	0	-	-	143	598	0	361	0	-	-	-	-	0	-	412	185	-	12	9	-	-	-	-	1720	
<b>Sum imp</b>	<b>1852</b>	<b>326</b>	<b>515</b>	<b>121</b>	<b>2546</b>	<b>784</b>	<b>3125</b>	<b>660</b>	<b>407</b>	<b>1646</b>	<b>543</b>	<b>863</b>	<b>1055</b>	<b>3722</b>	<b>518</b>	<b>330</b>	<b>296</b>	<b>1080</b>	<b>723</b>	<b>485</b>	<b>187</b>	<b>372</b>	<b>648</b>	<b>994</b>	<b>118</b>	<b>1373</b>	<b>25289</b>	

Sum of physical energy flows between UCTE countries = 21675GWh Total physical energy flows = 25289GWh

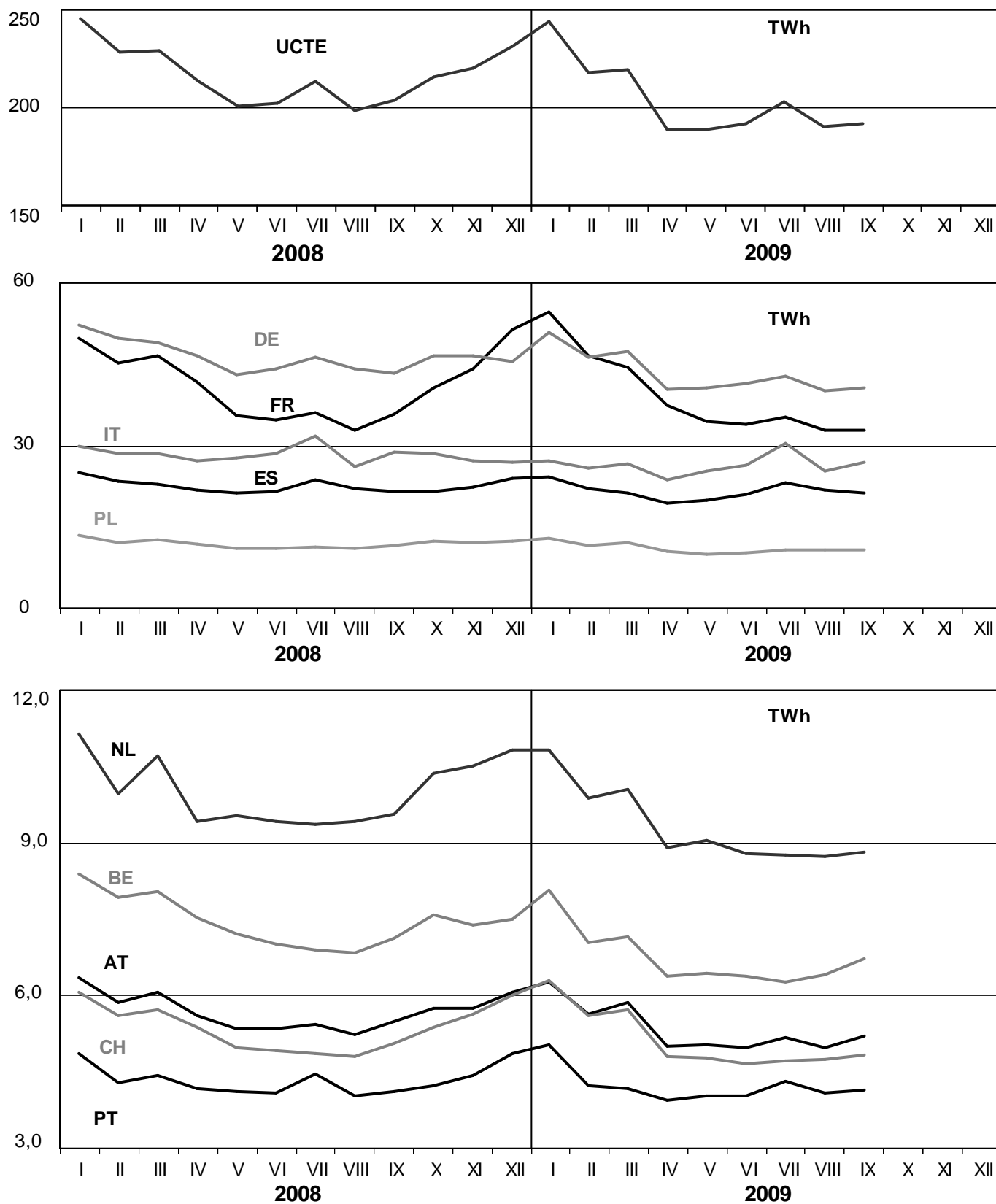
<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and Ukraine

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

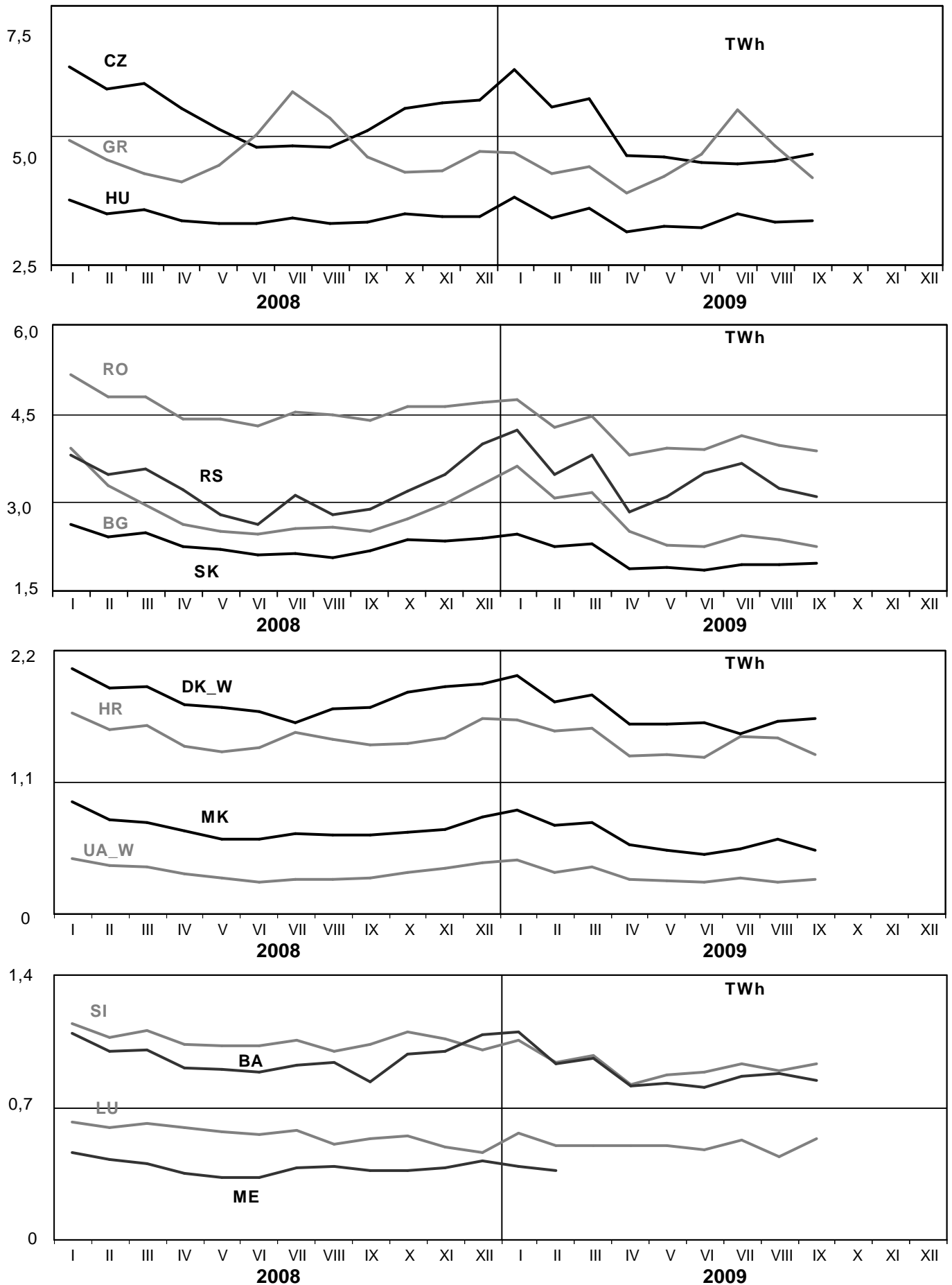
September 2009



# 3

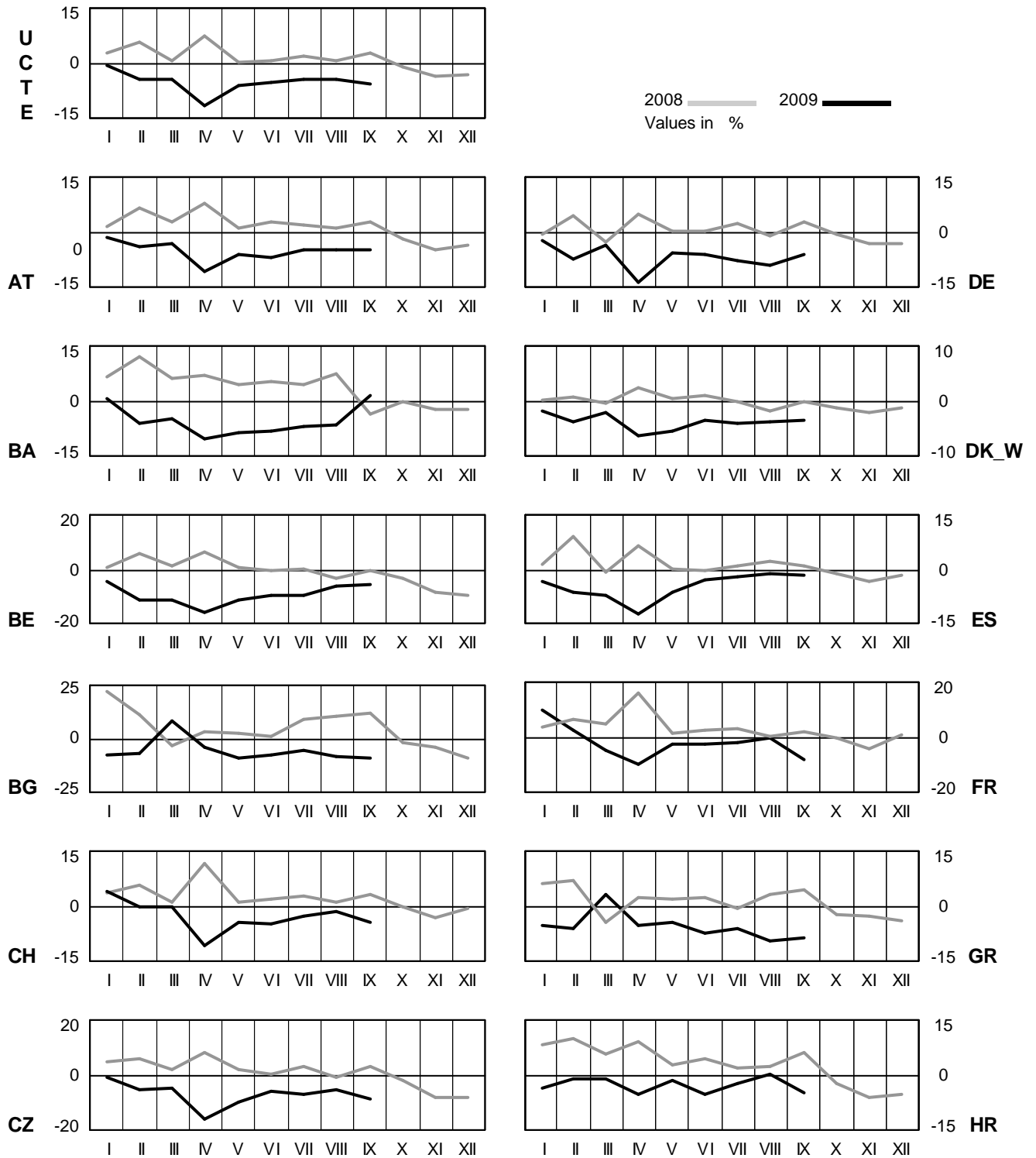
## Monthly consumption

September 2009



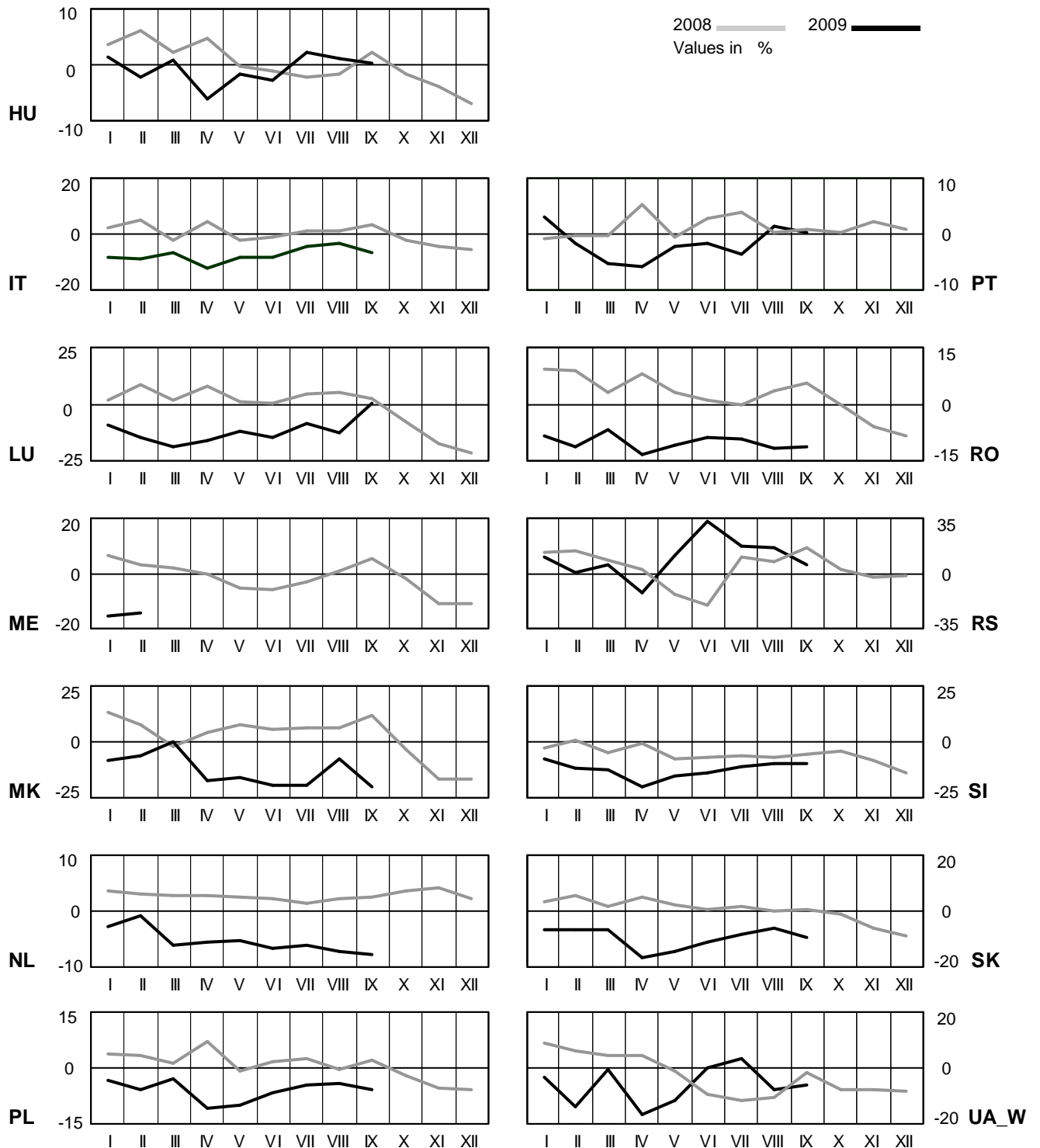
# 4 Monthly consumption variation

September 2009



# 4 Monthly consumption variation

September 2009

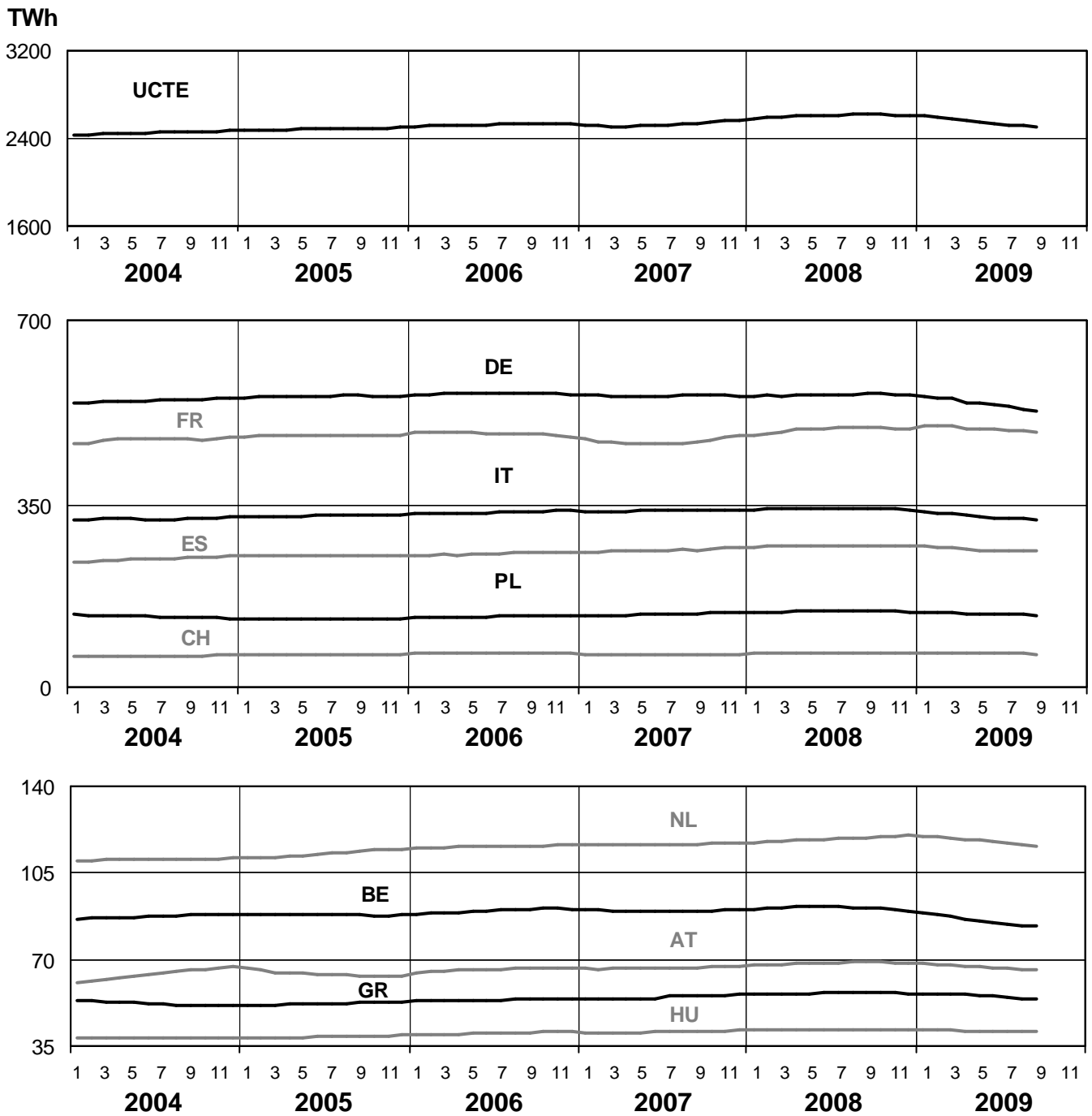




# 5

## Consumption of the last 12 months

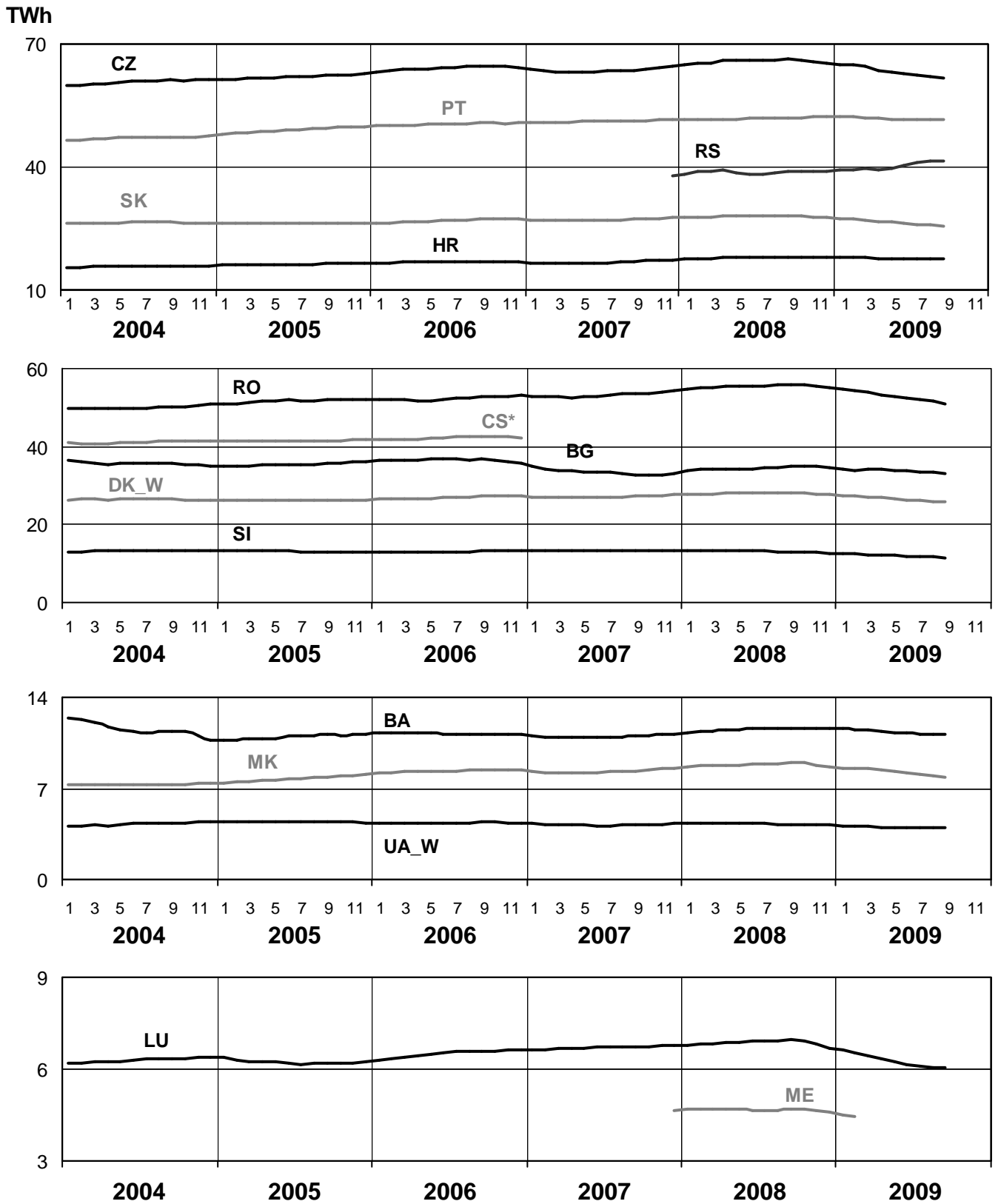
September 2009



# 5

## Consumption of the last 12 months

September 2009

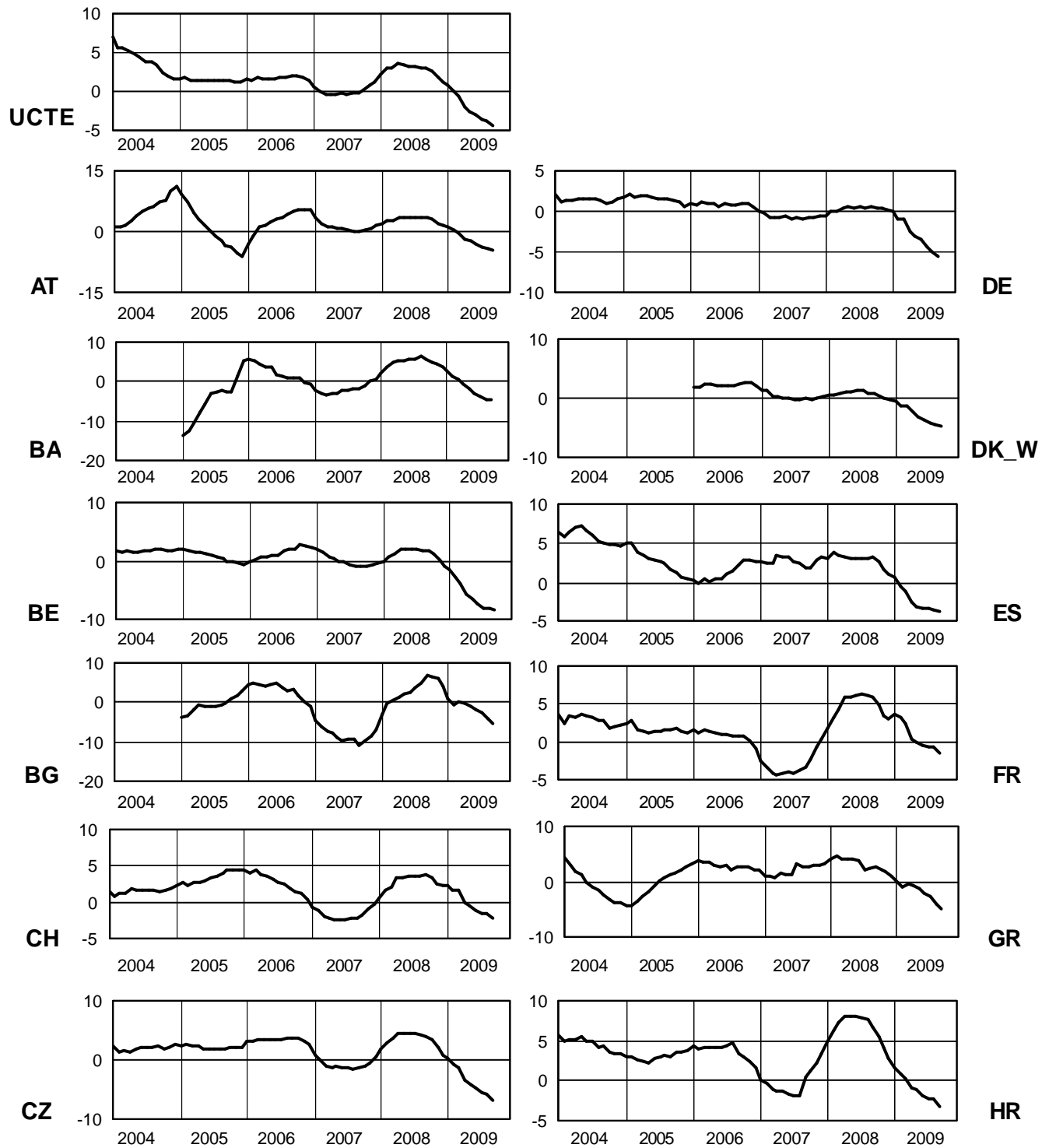


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

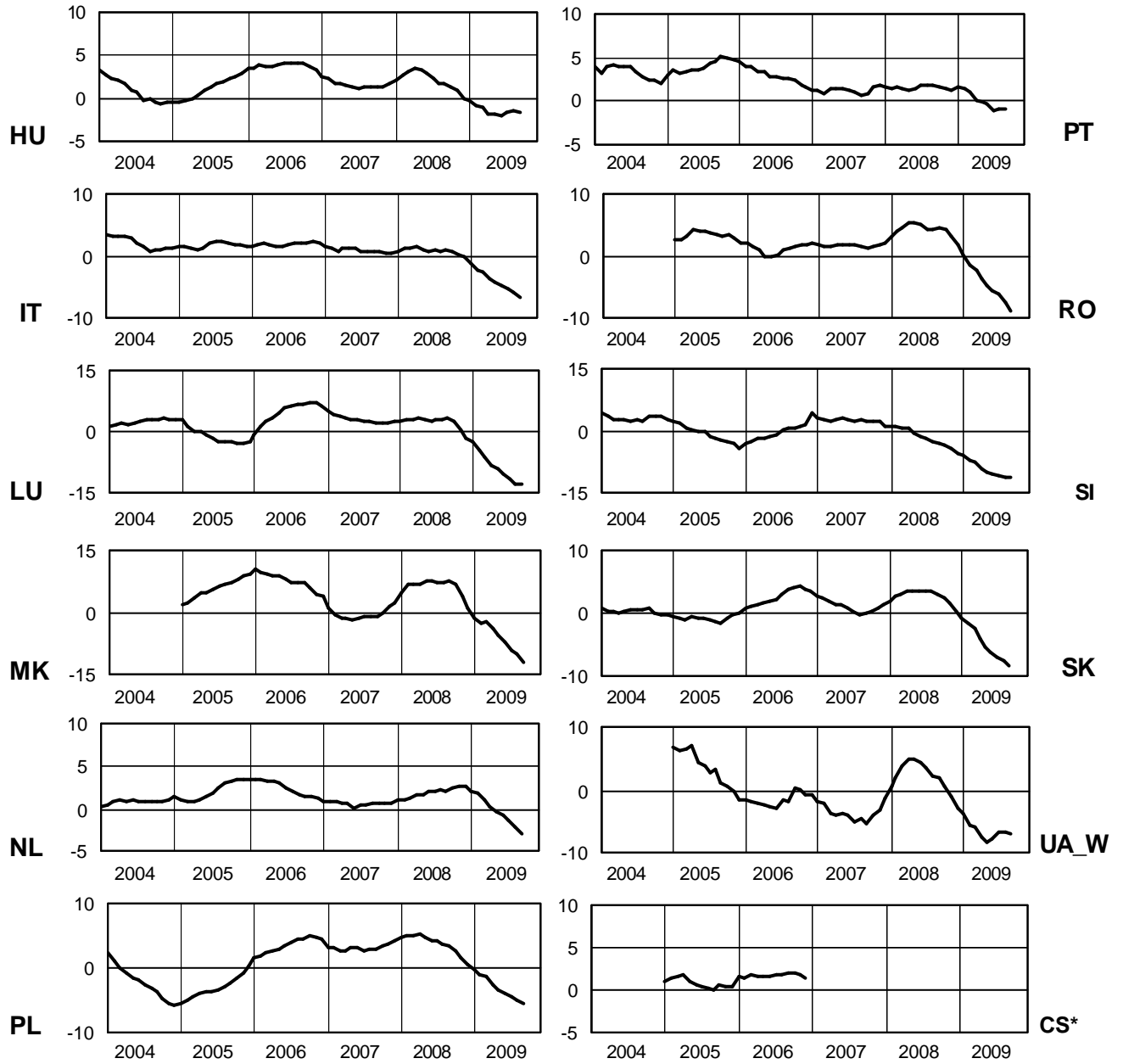
September 2009



# 6

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

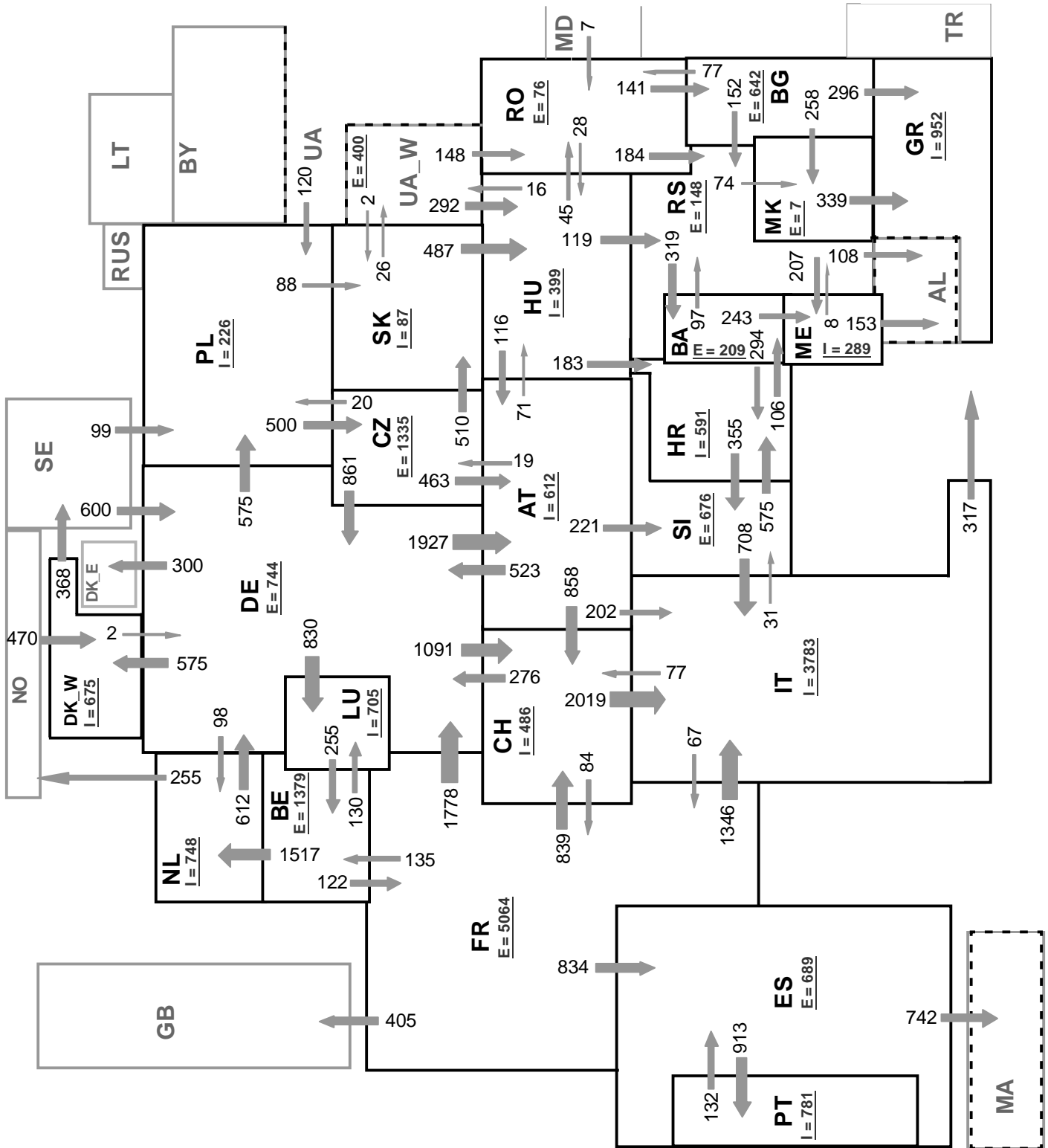
September 2009



\* CS consumption values of the last 12 months until December 2006; variation ME and RS will be published from the third quarter 2009 on

# 7

## Load flows (night) on 16.09.09 at 03:00 a.m. CET in MW September 2009



Sum of load flows in MW

UCTE = 26329 MW

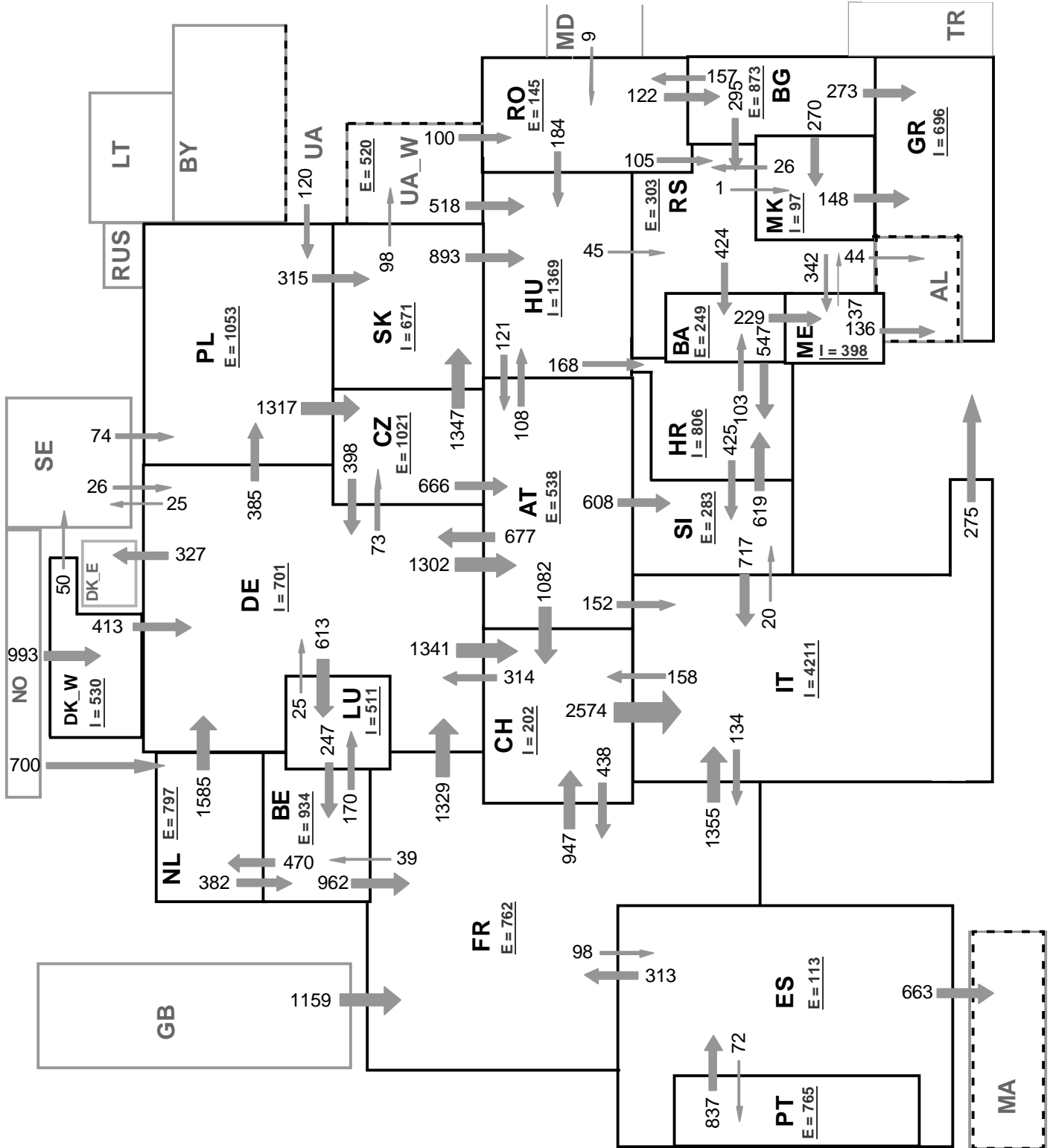
Total = 30440 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



# Load flows (day) on 16.09.09 at 11:00 a.m. CET in MW September 2009



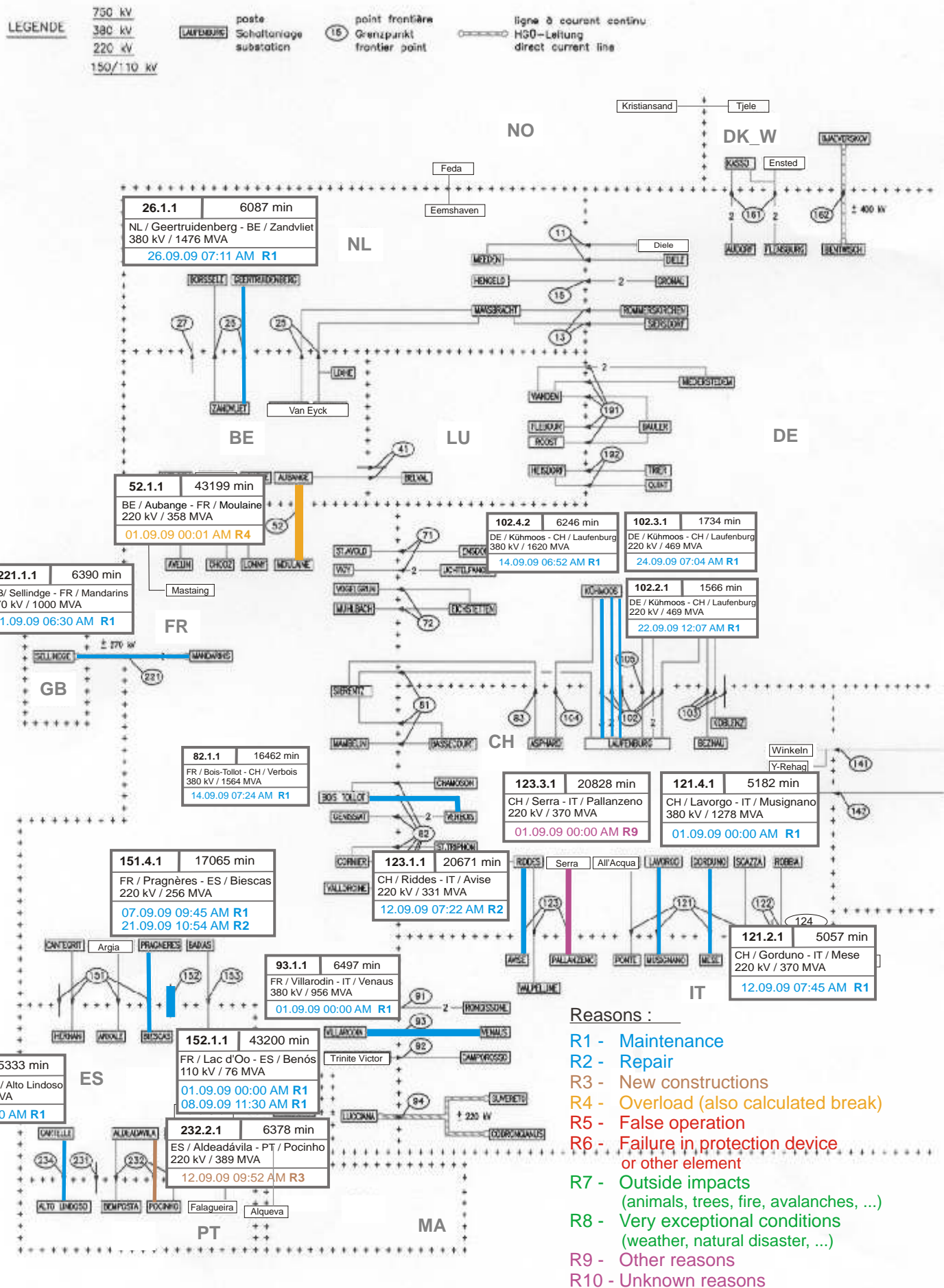
Sum of load flows in MW

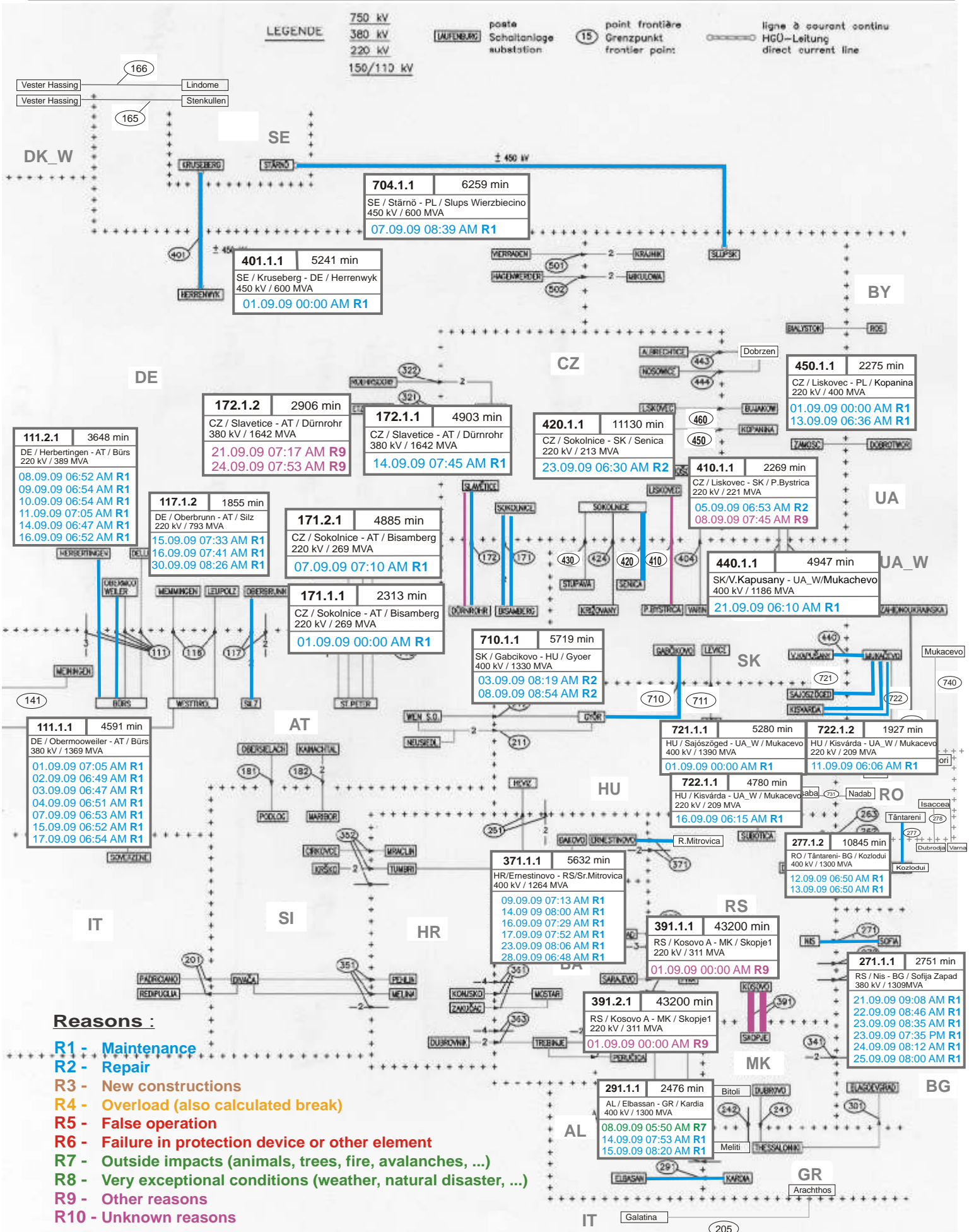
UCTE = 29792 MW

Total = 34834 MW

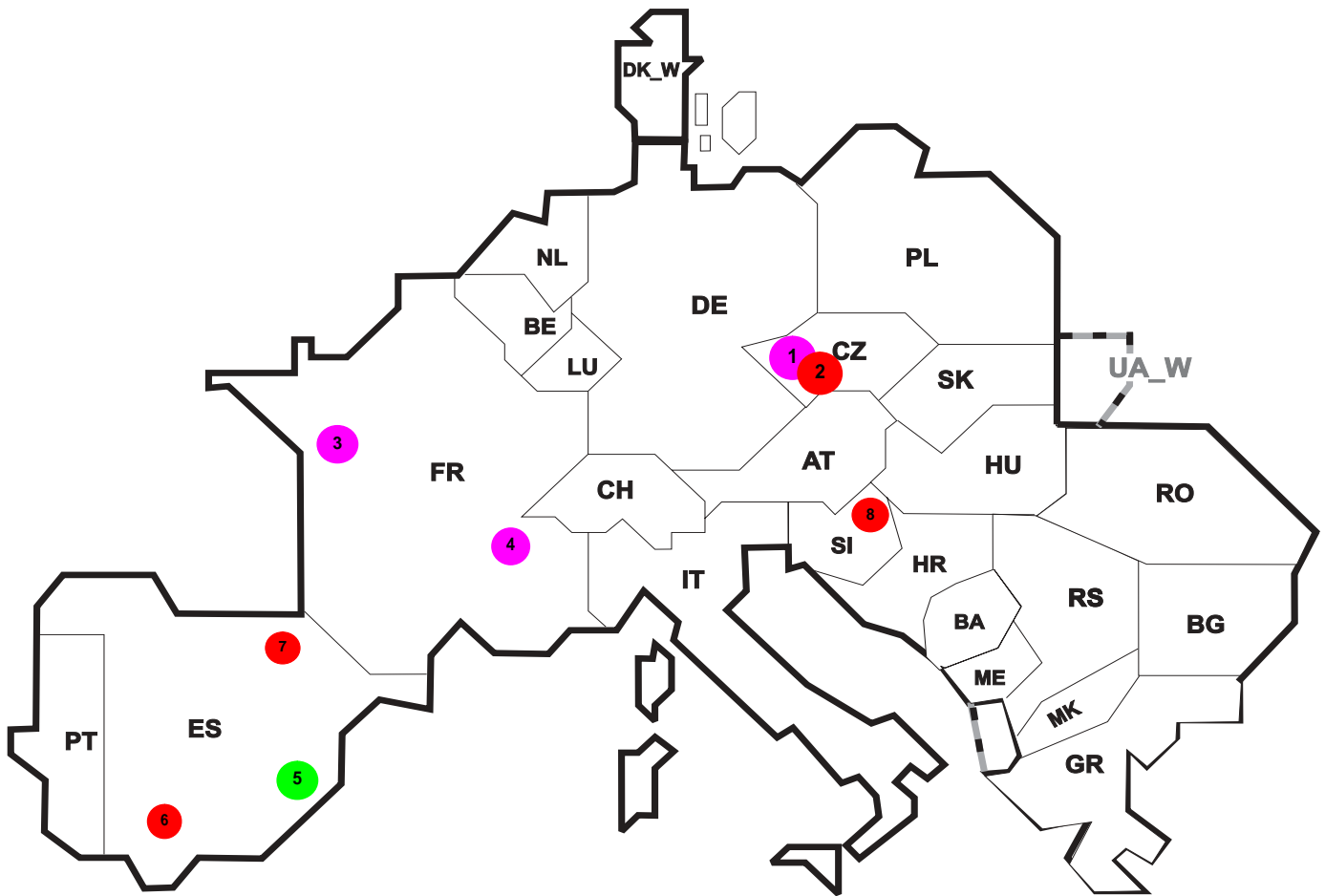
Synchronous operation with UCTE region

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, ...)

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	CZ	Chodov	R9	16	330	6	0,140
2	CZ	Prestice	R6	8	100	5	0,068
3	FR	Cordéac	R10	16	35	26	0,017
4	FR	Menuel	R10	12	40	18	0,013
5	ES	Petrel	R7	2	4880	1767	0,003
6	ES	Alcores	R6	2	25	4	0,003
7	ES	Albarellos	R5	0	3	2	0,000
8	SI	Maribor	R6	0	0	3	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	1509187	1556076	2358	446	1186	1778
BA	369613	323713	82	100	82	100
BE	836104	66378	1514	0	1059	0
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	1849161	1673428	2198	2701	2360	2556
CZ	1754578	804413	2251	833	2358	1333
DE	2316037	1612485	935	1873	2011	3157
DK_W	819022	343301	842	370	2057	4
ES	1095255	411157	1589	875	922	760
FR	4663192	3490761	6441	1401	4790	3950
GR	223536	454427	55	924	0	718
HR	42482	559320	0	603	0	833
HU	757704	1549825	1519	1907	1032	2393
IT	185020	3721382	492	4275	587	4789
ME	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MK	94000	145000	150	147	112	199
NL	1235802	1287793	1610	2392	2316	1498
PL	337623	266662	4	320	1141	195
PT	72485	375382	0	783	760	0
RO	203708	90254	230	147	275	130
RS	672412	463224	826	655	934	649
SI	693400	485591	1247	560	1049	771
SK	709074	980879	608	666	924	1524
UA_W	281372	100	397	0	518	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.

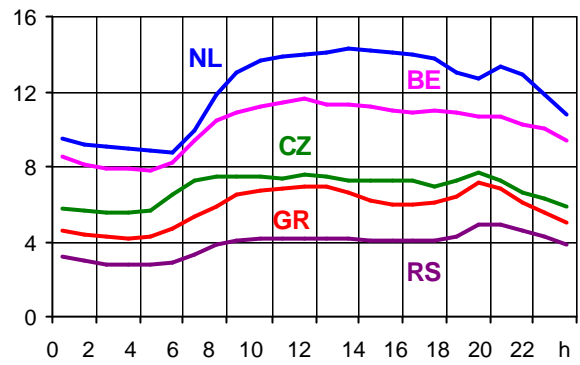
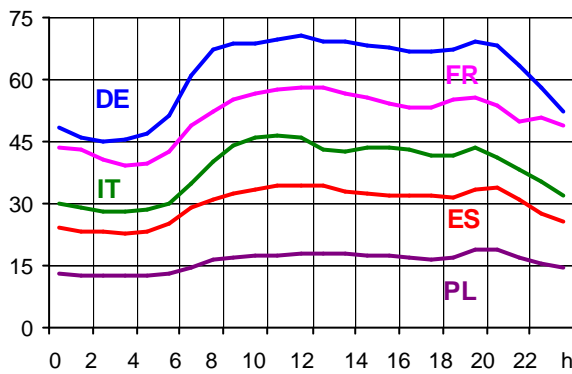
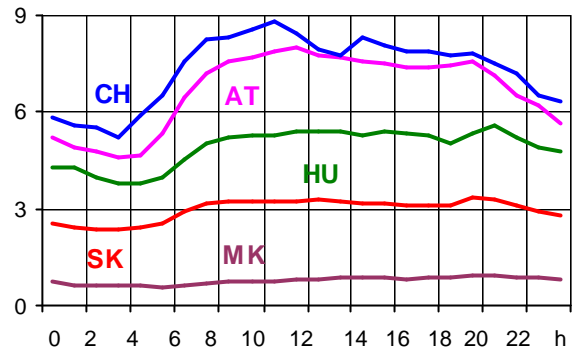
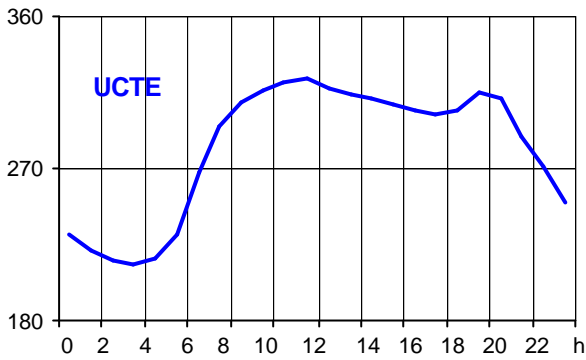
- Export Programs: Sum of all positive values of every hour of every border  
 - Import Programs: Sum of all negative values of every hour of every border

- 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.

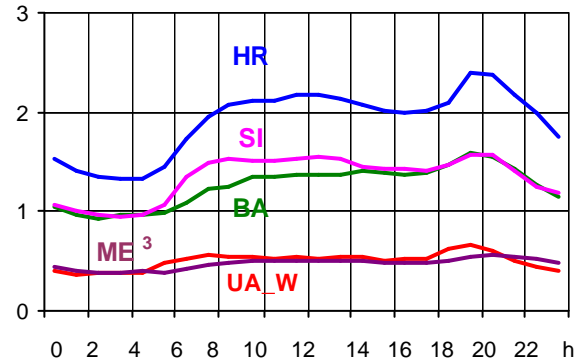
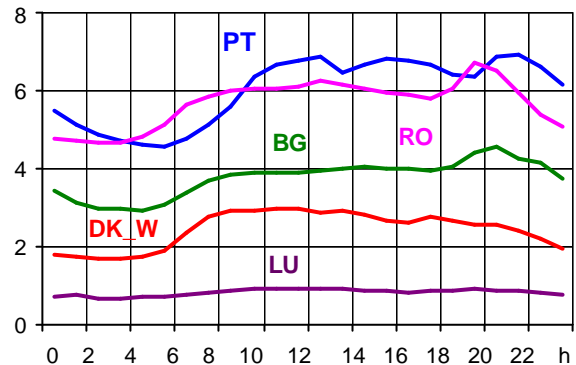
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.  
 - Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

Consumption hourly load curves on 16.09.2009 CET

Values in GW



	Highest load MW	var.% <sup>1</sup>	Load representativity %
AT	7991	-1,9	100
BA	1581	-6,0	100
BE <sup>2</sup>	11638	-0,6	100
BG	4556	-2,9	99
CH	8798	1,0	100
CZ	7645	-10,3	100
DE	70587	-4,9	91
DK_W	2973	-4,3	100
ES	34504	-5,0	98
FR	58291	0,2	100
GR	7114	-7,1	100
HR	2388	-3,0	100
HU	5610	-2,8	100
IT	46238	-0,1	100
LU	931	-1,7	100
ME <sup>3</sup>	565	n.a.	100
MK	949	-11,1	100
NL	14251	-2,7	100
PL <sup>4</sup>	18697	-6,0	100
PT	6944	-0,4	97
RO	6734	-8,6	100
RS	4928	-11,0	100
SI	1578	-13,4	100
SK	3326	-10,3	100
<b>UCTE</b>	<b>323545</b>	<b>-3,4</b>	
UA_W	670	-11,1	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> Highest load value as of September 2008

<sup>4</sup> Operational data

## Contact

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