



# December 2009

Monthly provisional values as of 06 April 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 ENTSOE 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	2500	2495	0	0	769	5764	748	391	6121	0,9	65635	-4,0
BA	0	619	689	0	0	0	1308	-253	0	1055	-2,9	11001	-5,0
BE <sup>2</sup>	3856	3555	166	450	134	0	8027 <sup>1</sup>	35	157	7905	3,9	84554	-6,3
BG	1436	1800	370	0	0	0	3606	-328	98	3180	-3,8	32576	-5,4
CH	2422	180	2301	107	2	0	5010 <sup>1</sup>	1228	201	6037	0,7	63012	-2,2
CZ	2440	4572	232	27	24	0	7271 <sup>1</sup>	-1349	91	5831	2,5	61574	-5,5
DE	12342	30001	1832	5814	3310	0	49989 <sup>1</sup>	-3473	670	45846	0,6	526865	-5,4
DK_W	0	1666	3	617	467	0	2286 <sup>1</sup>	-363	0	1923	-0,5	20617	-5,0
ES	3953	11362	3478	5121	4663	36	23950	-455	479	23016	-3,5	258869	-4,4
FR	37853	7638	5227	1380	969	0	52098	-775	620	50703	-1,4	486033	-1,7
GR	0	3433	666	259	221	0	4358 <sup>1</sup>	199	7	4550	-3,0	53492	-5,0
HR	0	504	690	8	7	1	1203 <sup>1</sup>	460	13	1650	0,5	17507	-2,0
HU	1528	2080	0	0	0	0	3608 <sup>1</sup>	73	0	3681	7,1	41515	0,6
IT	0	18959	3292	1402	977	0	23653	3466	546	26573	-1,4	316851	-6,7
LU	0	211	109	15	7	0	335	327	134	528	15,5	6195	-7,2
ME	0	27	293	0	0	0	320	-30	0	290	-30,6	4321	-5,7
MK	0	478	128	0	0	0	606	194	0	800	-1,6	7796	-9,8
NL	362	9224	0	783	471	0	10369 <sup>1</sup>	-265	0	10104	-6,6	112907	-6,1
PL <sup>3</sup>	0	12835	257	116	94	0	13208 <sup>1</sup>	-266	112	12830	2,6	136816	-4,2
PT	0	2244	1412	1340	1166	0	4996 <sup>1</sup>	-107	91	4798	-1,3	51347	-1,6
RO	919	2781	1232	0	0	0	4932	-126	14	4792	2,2	50638	-8,3
RS	0	2966	1009	0	0	0	3975	-234	64	3677	-7,9	40854	4,8
SI	496	442	343	0	0	0	1281	-261	0	1020	1,4	11337	-10,6
SK	1217	590	403	35	1	0	2245 <sup>1</sup>	142	33	2354	-1,4	25436	-8,0
UCTE	68824	120667	26627	17474	12513	806	234398 <sup>1</sup>	-1413	3721	229264	-0,8	2487748	-4,4
UA_W	0	622	11	0	0	0	633	-202	0	431	2,6	3964	-4,6

<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> 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:

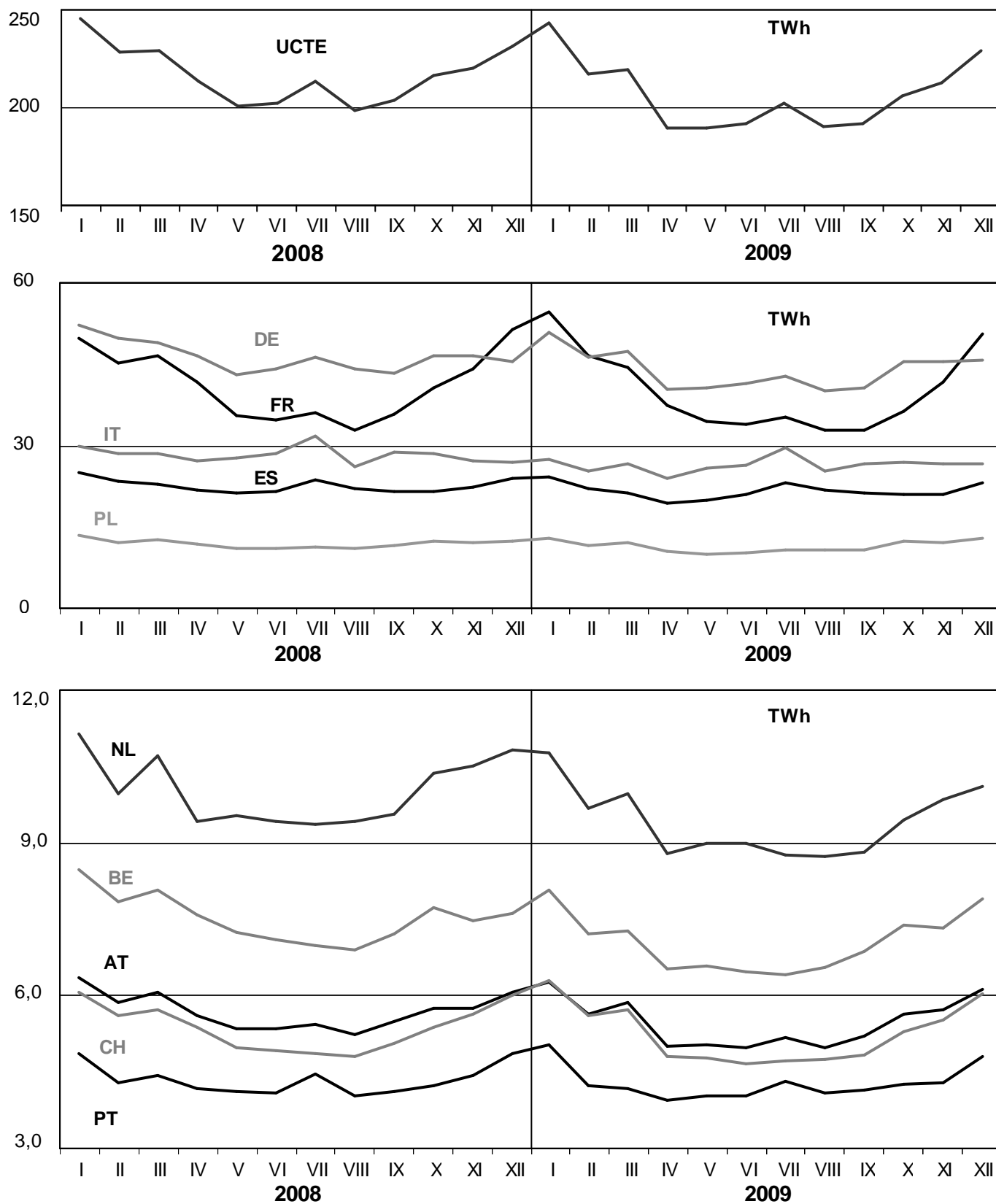
Countries	AT	BA	BE	BG	CH	CZ	DE	DK_W	ES	FR	GR	HR	HU	IT	LU	ME	MK	NL	PL	PT	RO	RS	SI	SK	UA_W
Production																									
Therm nuclear	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Fossil fuels	100	100	100	100	100	100	100	100	97	100	100	100	100	100	100	100	100	100	100	94	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	100	97	100	100	100	100	100



# 3

## Monthly consumption

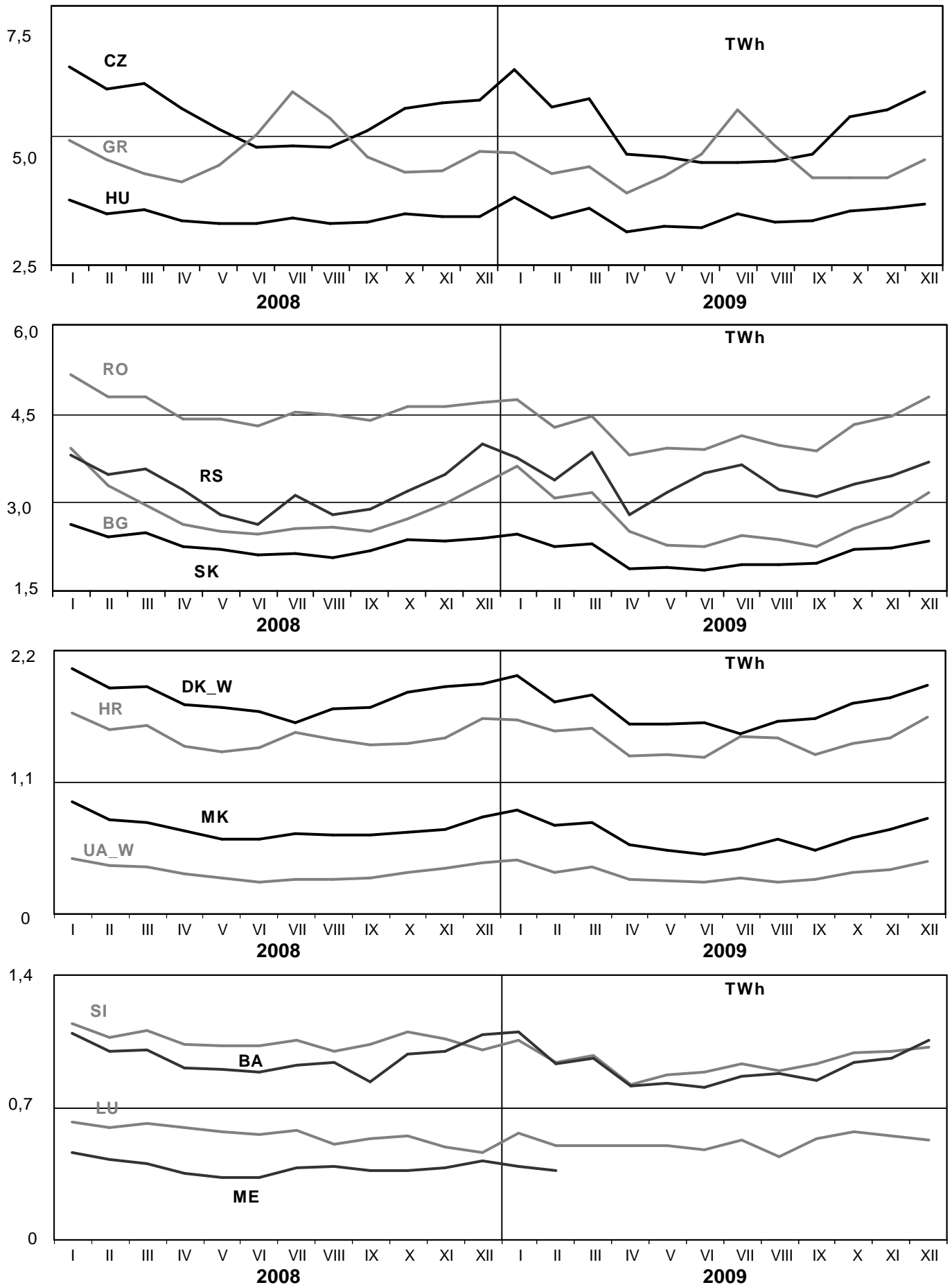
December 2009



# 3

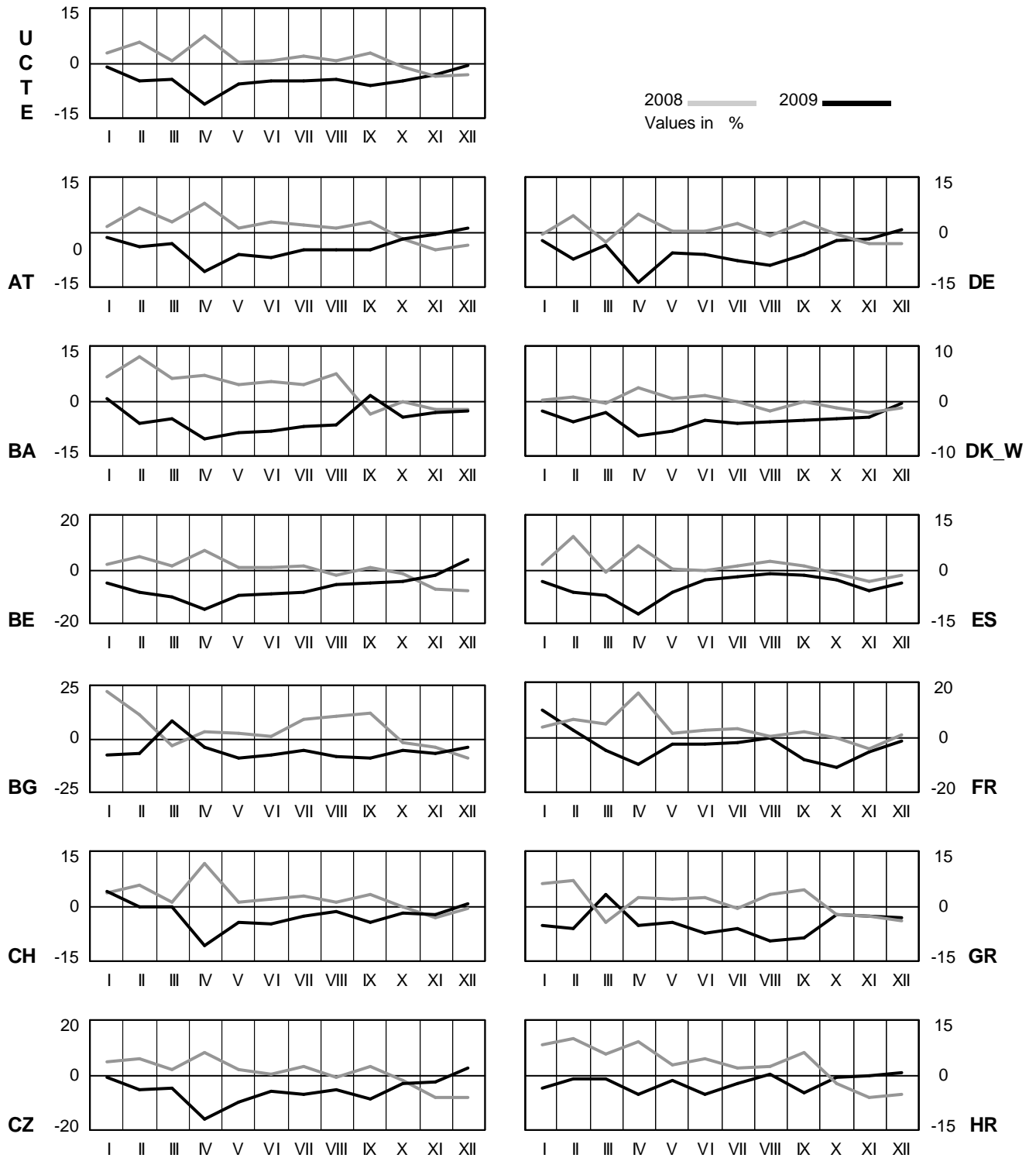
## Monthly consumption

December 2009



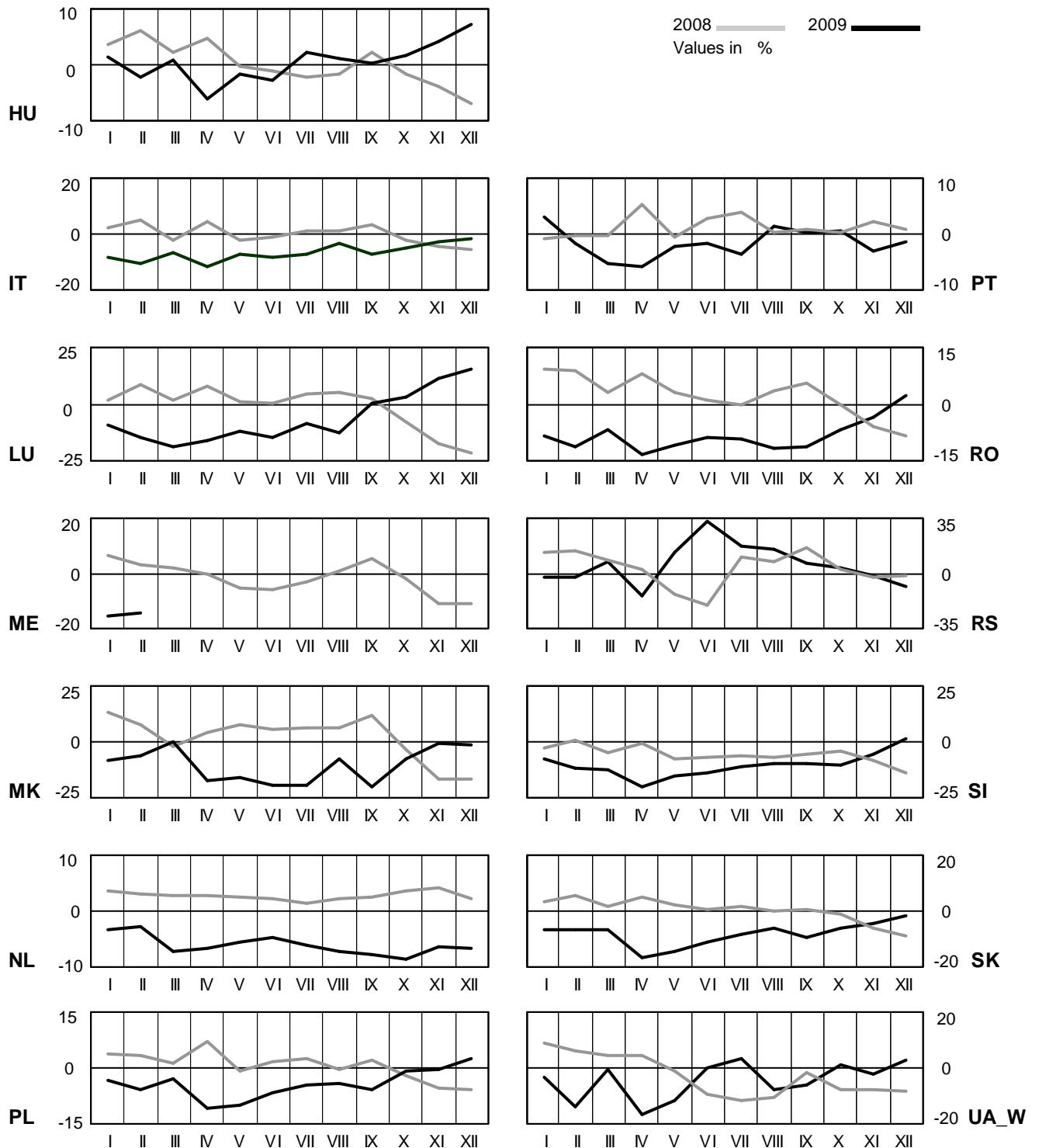
# 4 Monthly consumption variation

December 2009



# 4 Monthly consumption variation

December 2009

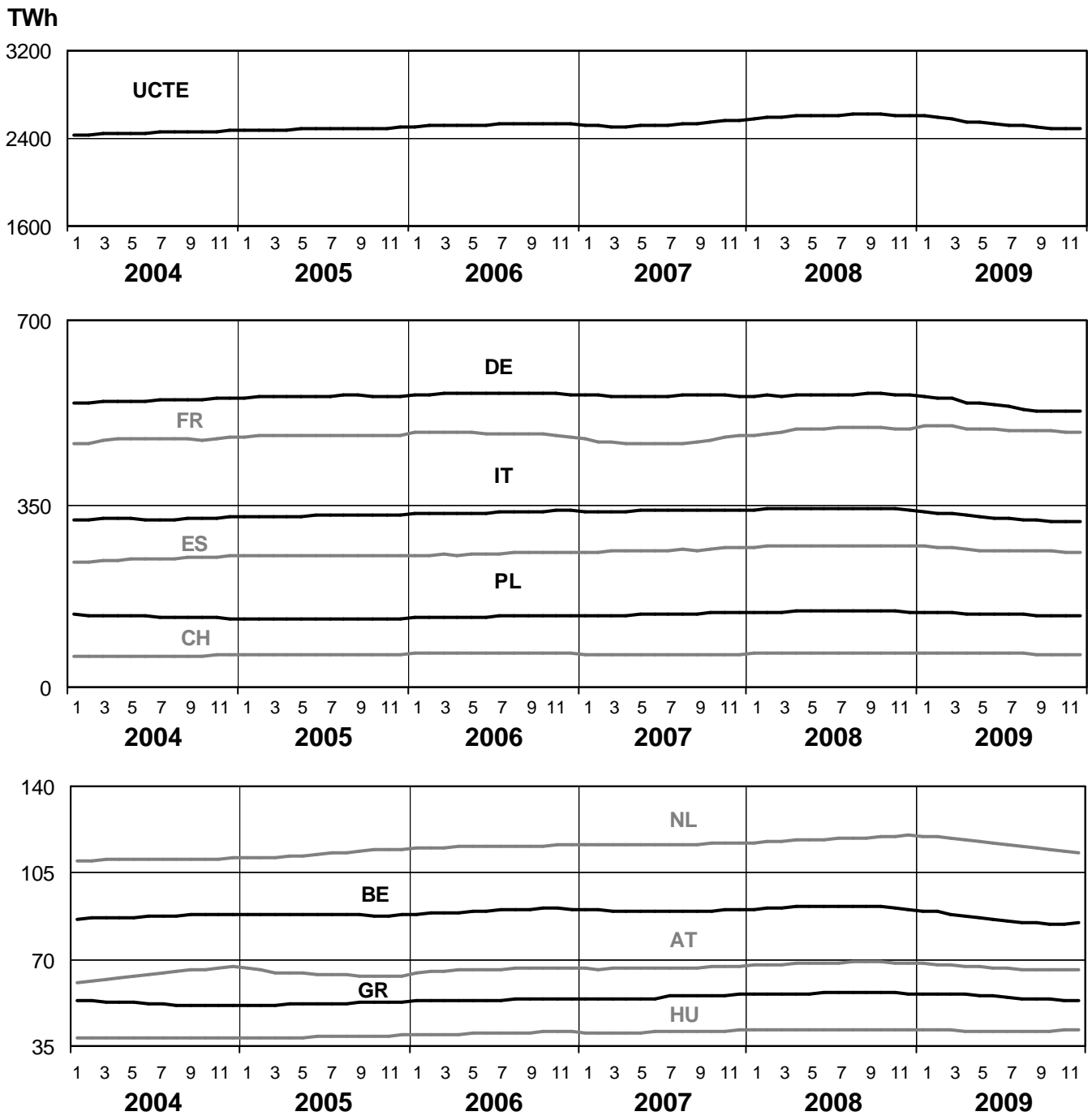




# 5

## Consumption of the last 12 months

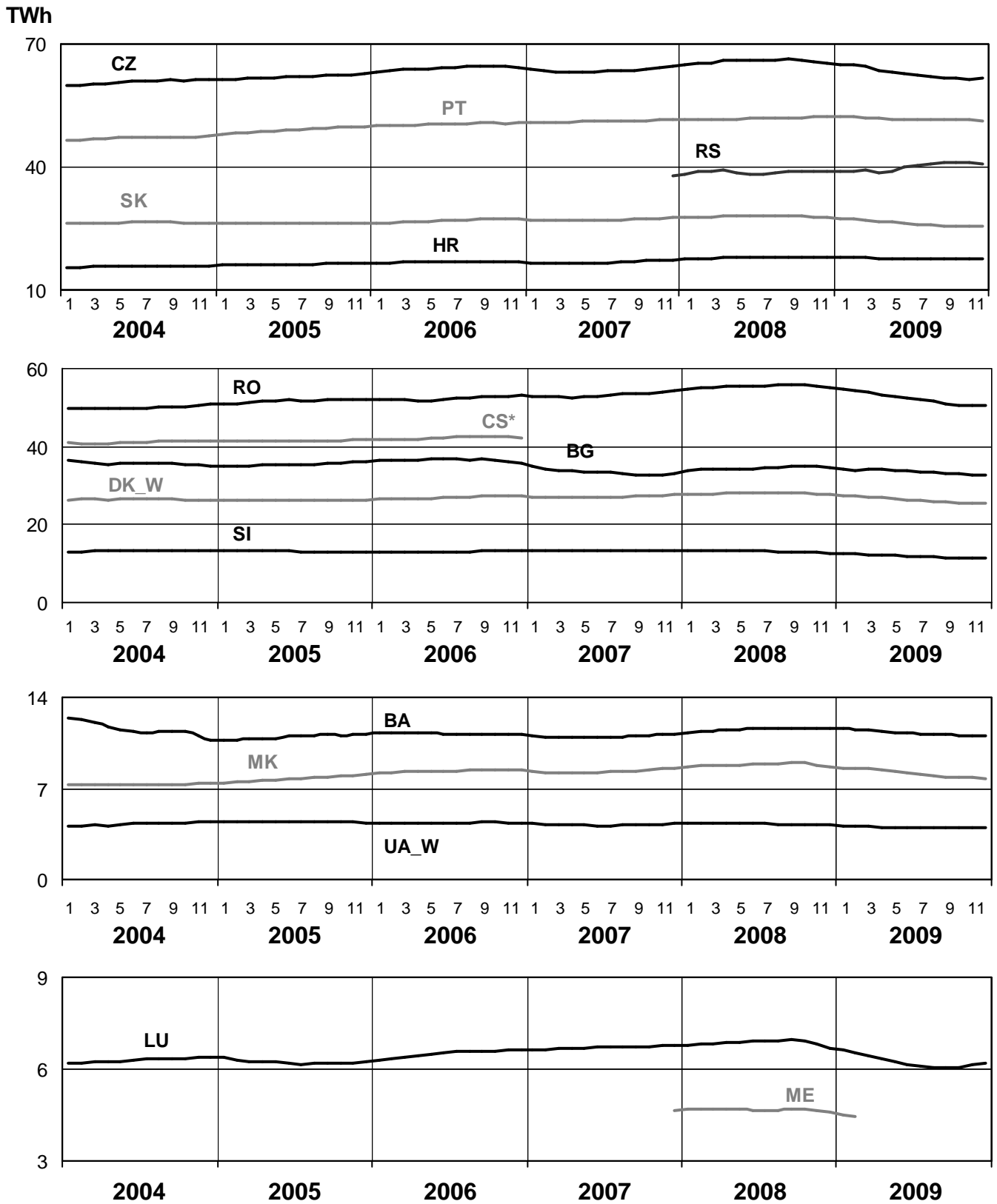
December 2009



# 5

## Consumption of the last 12 months

December 2009

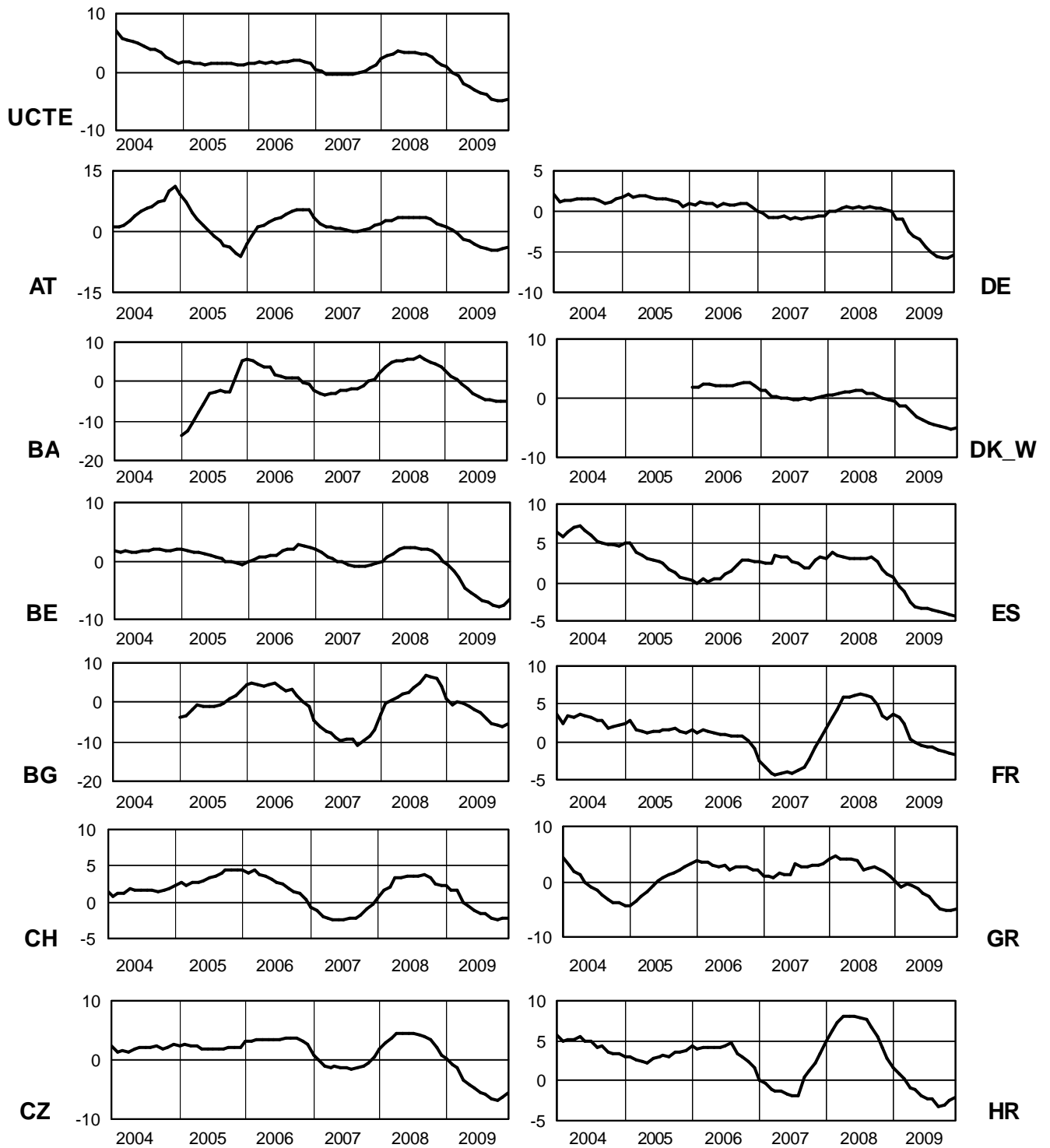


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

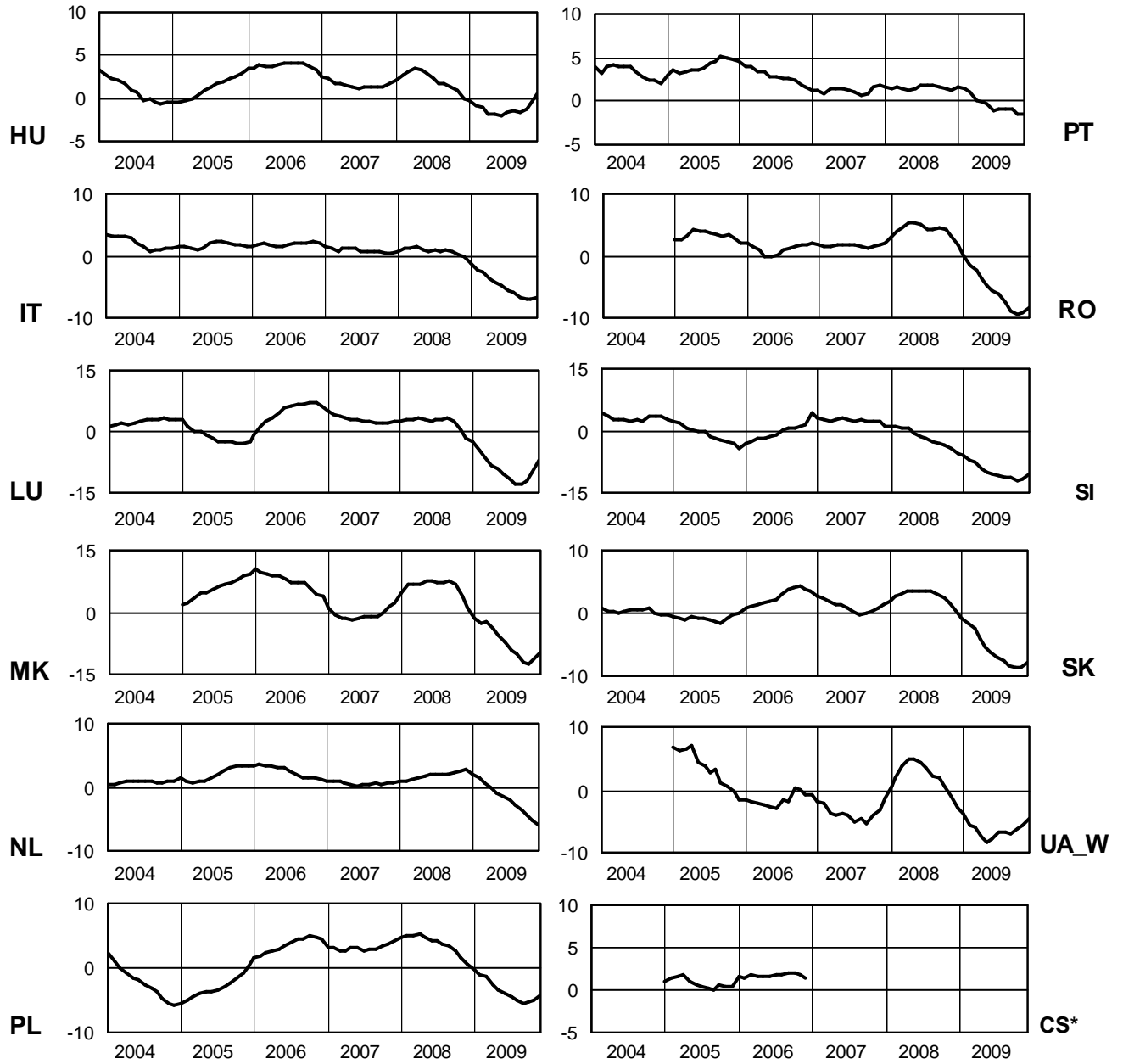
December 2009



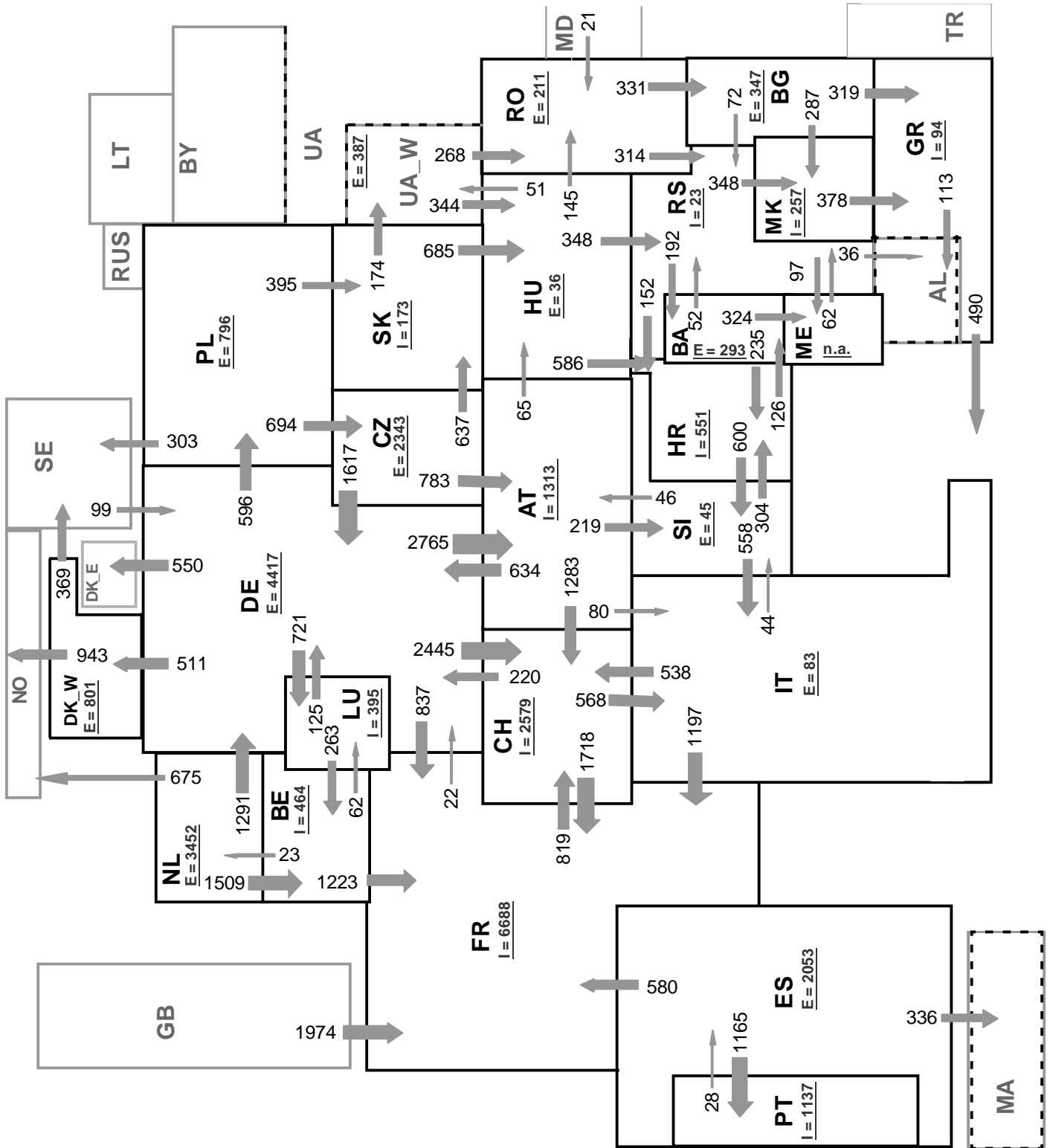
# 6

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

December 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



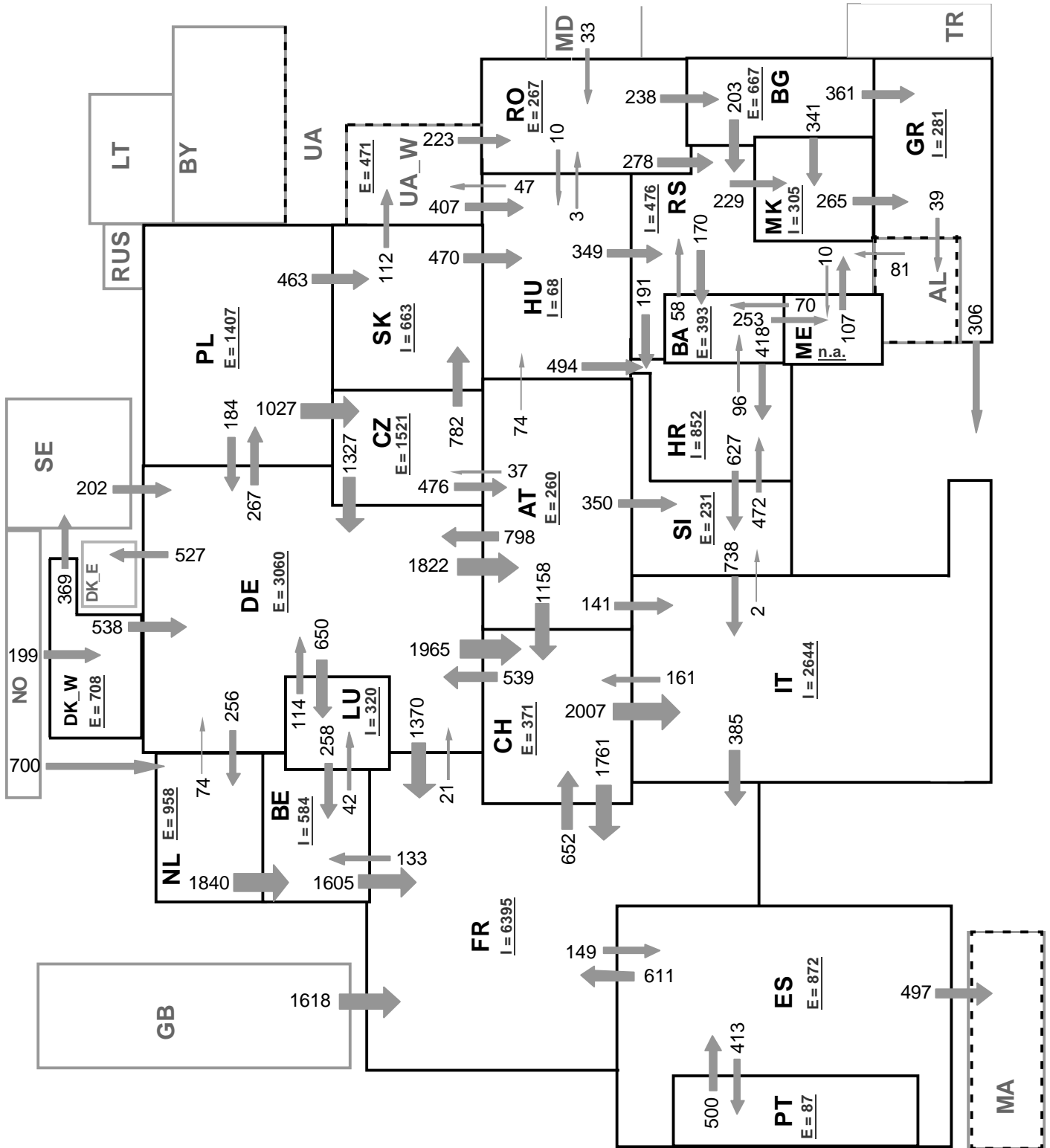
Sum of load flows in MW

UCTE = 32728 MW

Total = 38984 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



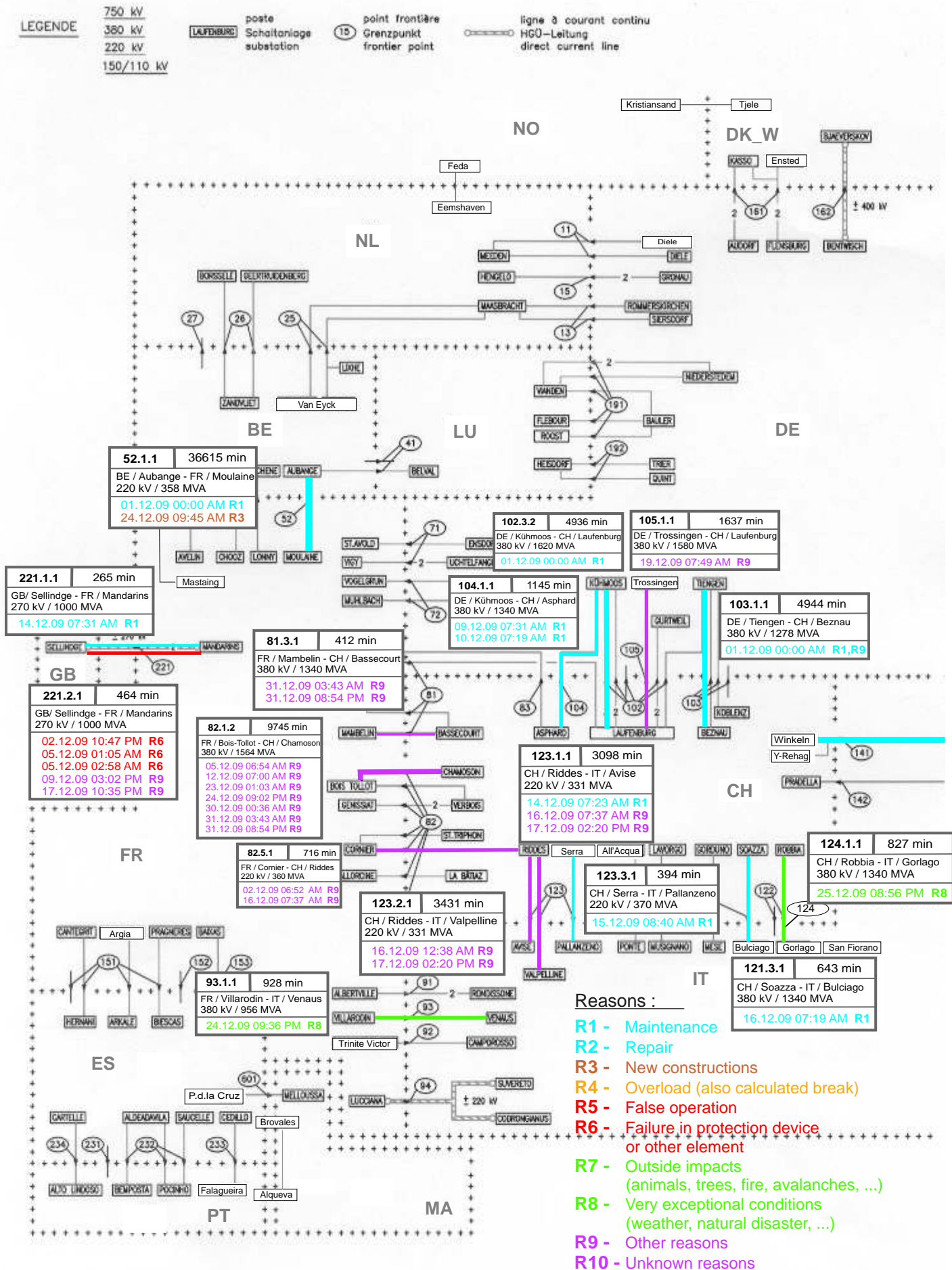
Sum of load flows in MW

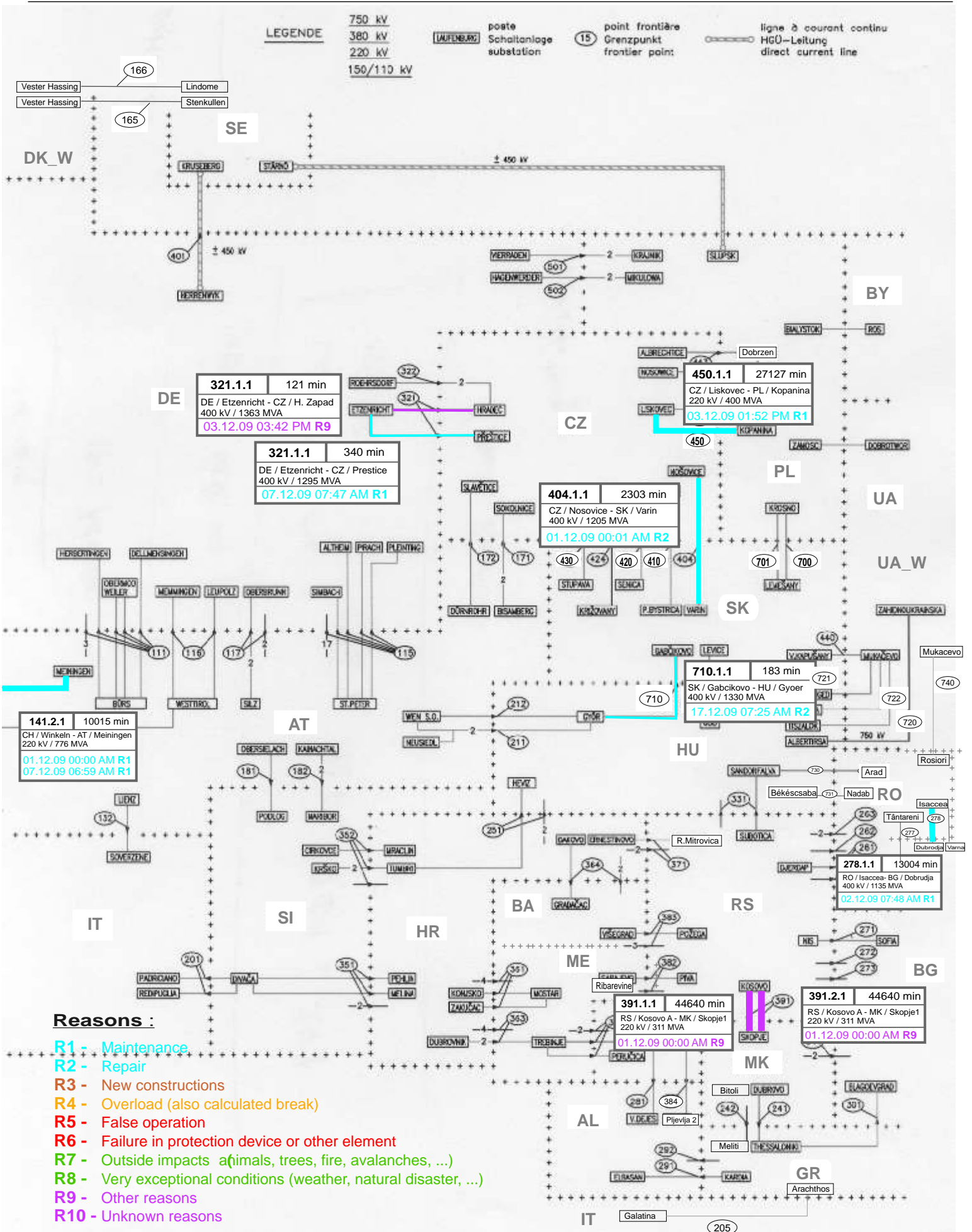
UCTE = 31709 MW

Total = 36763 MW

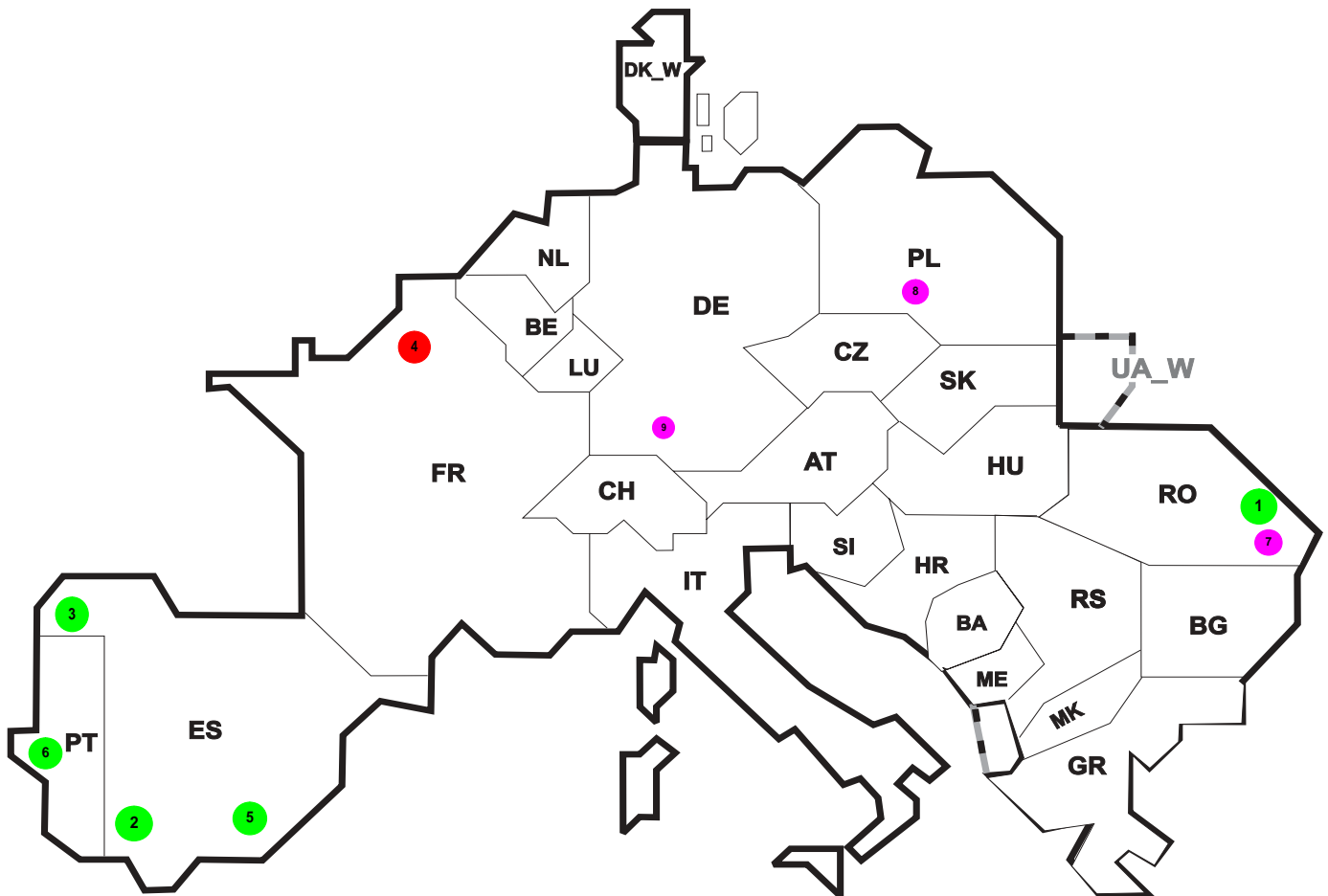
Synchronous operation with UCTE region

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 [ MWh ]	Total loss of power [ MW ]	Restoration time [ min ]	Equivalent time of interruption <sup>1</sup>
1	RO	Tulcea	R8	486	1298	87	5,042
2	ES	Puerto Real	R8	9	366	11	0,017
3	ES	Lourizan	R8	7	6948	11	0,014
4	FR	Villiers le Bel	R6	10	116	5	0,011
5	ES	Velle	R7	5	2047	2	0,010
6	PT	Subestacao de Fernao Ferro	R7	0	0	2	0,001
7	RO	Isaccea	R9	0	0	1333	0
8	PL	Kopanina	R9	0	217	1038	0
9	DE	In control area transpower south	R9	0	0	122	0

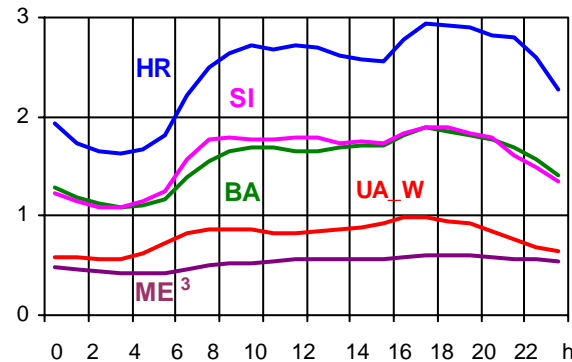
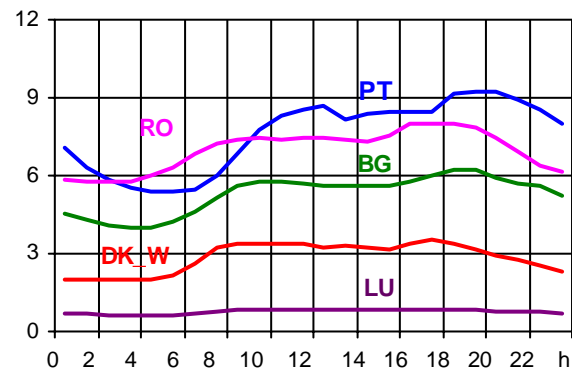
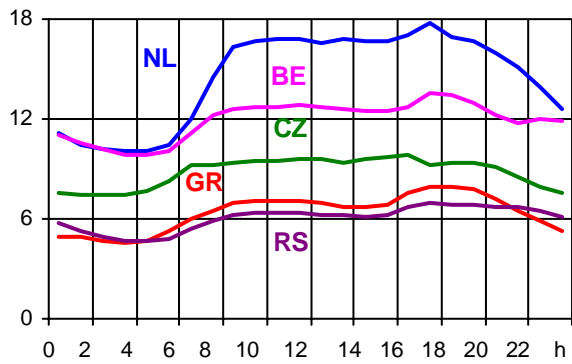
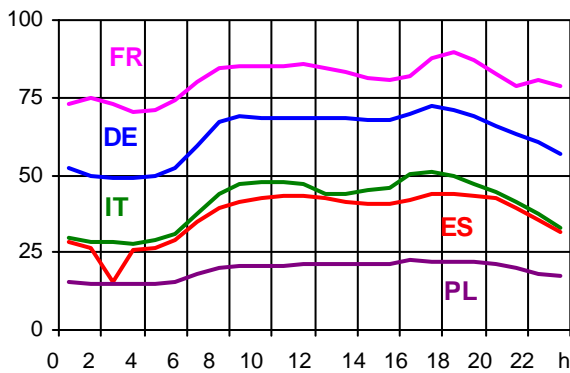
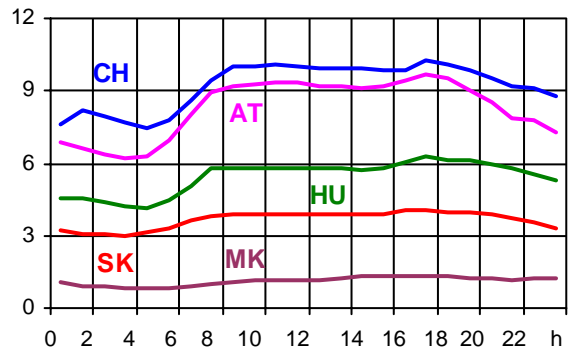
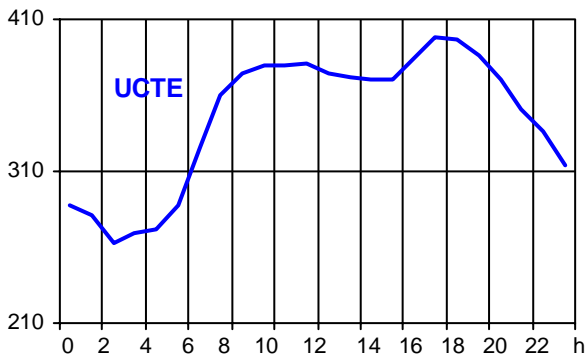
<sup>1</sup> ( year [in min] \* energy not supplied ) / consumption last 12 months

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	599312	2220571	4001	807	3104	849
BA	556625	315285	34	100	84	100
BE	621463	585071	1110	1404	980	1370
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	1472183	2706753	0	2599	1883	1542
CZ	2086908	719488	2929	626	2984	1539
DE	3638812	1342891	4948	3312	4420	2525
DK_W	503860	875416	505	1370	118	870
ES	1049149	620261	2457	300	1300	343
FR	5097612	4529029	3400	10116	4685	10943
GR	293182	495227	500	568	367	642
HR	99999	559774	104	705	23	909
HU	1146766	1219409	1590	1544	1634	1704
IT	187372	3652881	1779	1696	548	3192
ME	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MK	1500	194600	114	324	114	421
NL	1383940	1121209	3892	415	2501	1527
PL	341363	108441	816	50	1400	0
PT	165579	270529	0	1207	43	0
RO	275053	146997	409	182	441	160
RS	751475	875976	1057	1091	1152	1334
SI	836332	573376	928	854	1192	968
SK	653329	736896	857	972	880	1450
UA_W	195296	360	386	0	469	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 16.12.2009 CET

Values in GW



	Highest load		Load representativity %
	MW	var.% <sup>1</sup>	
AT	9675	9,1	100
BA	1890	1,3	100
BE <sup>2</sup>	13501	5,9	100
BG	6207	4,0	99
CH	10261	4,1	100
CZ	9836	9,2	100
DE	71991	-7,1	100
DK_W	3545	-0,7	100
ES	44058	3,4	98
FR	89719	6,5	100
GR	7864	-0,4	100
HR	2948	7,6	100
HU	6252	7,2	100
IT	50963	2,7	100
LU	855	15,1	100
ME <sup>3</sup>	606	n.a.	100
MK	1312	5,7	100
NL	17714	4,7	100
PL <sup>4</sup>	22425	5,8	100
PT	9241	4,3	97
RO	8035	2,9	100
RS	6923	6,9	100
SI	1895	11,6	100
SK	4056	3,5	100
<b>UCTE</b>	<b>398037</b>	<b>2,8</b>	
UA_W	991	14,6	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 December 2008

<sup>4</sup> Operational data

## Contact

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