



# August 2008

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 load values on the 3rd Wednesday are gross values

## 1

## Electricity supply situation of the countries

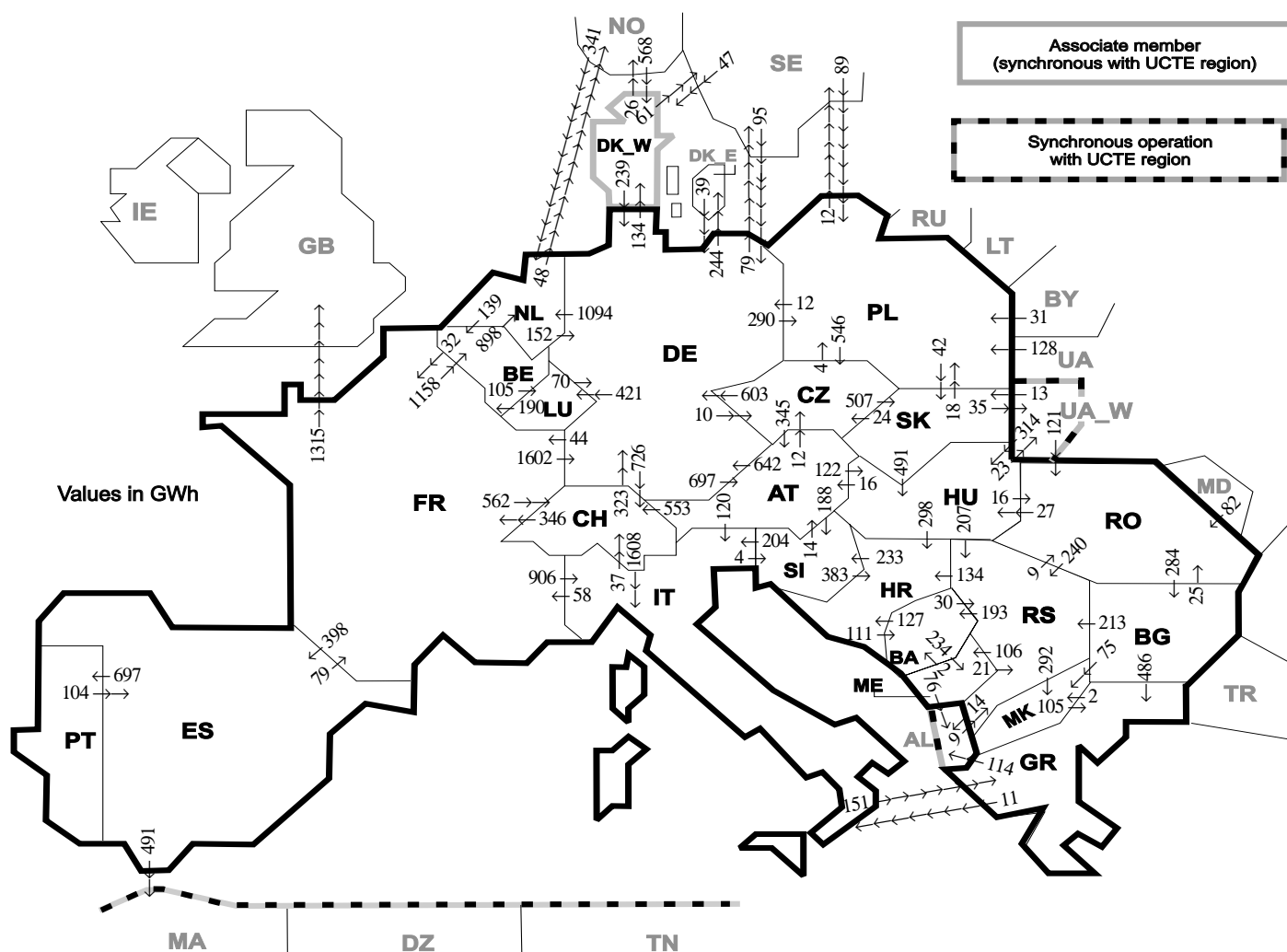
August 2008

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	1347	3948	0	0	713	6008	-570	194	5244	1,3	68848	3,6
BA	0	810	215	0	0	0	1025	-86	0	939	7,4	11657	6,3
BE <sup>2</sup>	3611	2414	125	278	n.a.	0	6428 <sup>1</sup>	450	152	6726	-4,1	90952	1,8
BG	1135	1788	245	0	0	0	3168	-524	60	2584	10,5	34682	4,7
CH	1253	178	3976	97	2	0	5504 <sup>1</sup>	-385	312	4807	0,9	64486	3,6
CZ	1977	3518	125	33	18	0	5653 <sup>1</sup>	-867	28	4758	-0,6	66082	4,2
DE	12100	25496	2081	5184	2881	0	44861 <sup>1</sup>	38	674	44225	-0,9	559274	0,3
DK_W	0	826	1	461	349	0	1288 <sup>1</sup>	423	0	1711	-2,9	21844	0,9
ES	4983	14312	1686	2135	1970	0	23116	-796	186	22134	2,5	272387	3,3
FR	32025	1744	4357	704	391	0	38830 <sup>1</sup>	-5570	267	32993	0,4	495425	6,0
GR	0	4325	302	194	178	0	4821 <sup>1</sup>	614	95	5340	3,3	56525	2,4
HR	0	560	323	2	2	0	885 <sup>1</sup>	600	19	1466	2,3	18000	7,6
HU	1011	1904	0	0	0	0	2915 <sup>1</sup>	394	0	3309	-1,7	41613	1,7
IT	0	19152	4164	1089	0	0	24405	2599	606	26398	2,7	340203	0,3
LU	0	255	73	13	4	0	341	266	100	507	5,0	6943	2,9
ME	0	131	17	0	0	0	148	241	0	389	1,0	4661	n.a.
MK	0	346	48	0	0	0	394	272	0	666	6,2	8899	7,2
NL	353	6333	0	600	331	0	7286 <sup>1</sup>	1993	0	9279	0,7	117184	0,7
PL <sup>3</sup>	0	11023	195	62	48	0	11280 <sup>1</sup>	-52	79	11149	-0,4	144332	3,7
PT	0	2459	404	593	0	0	3456 <sup>1</sup>	606	32	4030	0,4	52389	2,6
RO	942	2504	1350	0	0	0	4796 <sup>1</sup>	-299	5	4492	3,5	55710	4,4
RS	0	2153	709	0	0	0	2862	26	101	2787	7,5	38566	n.a.
SI	507	332	337	0	0	0	1176 <sup>1</sup>	-178	0	998	-7,0	13052	-2,7
SK	1224	512	342	20	0	0	2098 <sup>1</sup>	-7	13	2078	0,2	28032	3,5
<b>UCTE</b>	<b>61121</b>	<b>104422</b>	<b>25023</b>	<b>11465</b>	<b>6174</b>	<b>713</b>	<b>202744<sup>1</sup></b>	<b>-812</b>	<b>2923</b>	<b>199009</b>	<b>0,8</b>	<b>2611746</b>	<b>3,2</b>
UA_W	0	655	13	0	0	0	668	-390	0	278	-10,6	4260	2,1

<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	95	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



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_Other III <sup>1</sup>	Sum export	
AT	-	-	-	-	553	12	642	-	-	-	-	-	122	120	-	-	-	-	-	-	-	-	188	-	-	1637	
BA	-	-	-	-	-	-	-	-	-	-	-	127	-	-	-	234	-	-	-	-	-	30	-	-	-	391	
BE	-	-	-	-	-	-	-	-	32	-	-	-	-	105	-	-	898	-	-	-	-	-	-	-	-	1035	
BG	-	-	-	-	-	-	-	-	-	486	-	-	-	-	-	75	-	-	-	-	25	213	-	-	0	799	
CH	0	-	-	-	-	-	323	-	-	346	-	-	1608	-	-	-	-	-	-	-	-	-	-	-	-	2277	
CZ	345	-	-	-	-	-	603	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	507	-	-	1459	
DE	697	-	-	-	726	10	-	134	44	-	-	-	-	421	-	-	-	1094	290	-	-	-	-	-	323	3739	
DK_W	-	-	-	-	-	-	239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87	
ES	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	697	-	-	-	-	-	491	
FR	-	-	1158	-	562	-	1602	-	398	-	-	-	906	-	-	-	-	-	-	-	-	-	-	-	-	1315	
GR	-	-	-	0	-	-	-	-	-	-	-	-	-	11	-	2	-	-	-	-	-	-	-	-	-	114	
HR	-	111	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	233	-	-	344	
HU	16	-	-	-	-	-	-	-	-	-	-	298	-	-	-	-	-	-	-	-	16	207	0	23	-	560	
IT	0	-	-	-	37	-	-	-	58	151	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	250	
LU	-	-	190	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	
ME	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	76	
MK	-	-	-	0	-	-	-	-	-	-	105	-	-	-	-	-	-	-	-	-	-	-	0	-	-	105	
NL	-	-	139	-	-	-	152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	
PL	-	-	-	-	-	546	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	612	
PT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	
RO	-	-	-	284	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	0	0	551	
RS	-	193	-	0	-	-	-	-	-	-	-	134	0	-	106	292	-	-	-	-	9	-	-	-	-	14	
SI	14	-	-	-	-	-	-	-	-	-	383	204	-	-	-	-	-	-	-	-	-	-	-	-	-	601	
SK	-	-	-	-	-	24	-	-	-	-	-	-	491	-	-	-	-	-	-	-	-	-	-	35	-	568	
UA_W	-	-	-	-	-	-	-	-	-	-	-	-	314	-	-	-	-	-	-	-	121	-	13	-	-	448	
Other III <sup>1</sup>	-	-	-	0	-	-	134	615	0	0	0	-	-	-	-	0	-	341	248	-	82	9	-	-	-	1429	
<b>Sum imp</b>	<b>1072</b>	<b>306</b>	<b>1487</b>	<b>284</b>	<b>1878</b>	<b>592</b>	<b>3777</b>	<b>749</b>	<b>502</b>	<b>559</b>	<b>742</b>	<b>942</b>	<b>954</b>	<b>2849</b>	<b>526</b>	<b>340</b>	<b>369</b>	<b>2333</b>	<b>560</b>	<b>697</b>	<b>253</b>	<b>720</b>	<b>425</b>	<b>562</b>	<b>58</b>	<b>2480</b>	<b>26016</b>

Sum of physical energy flows between UCTE countries = 21601GWh Total physical energy flows = 26016GWh

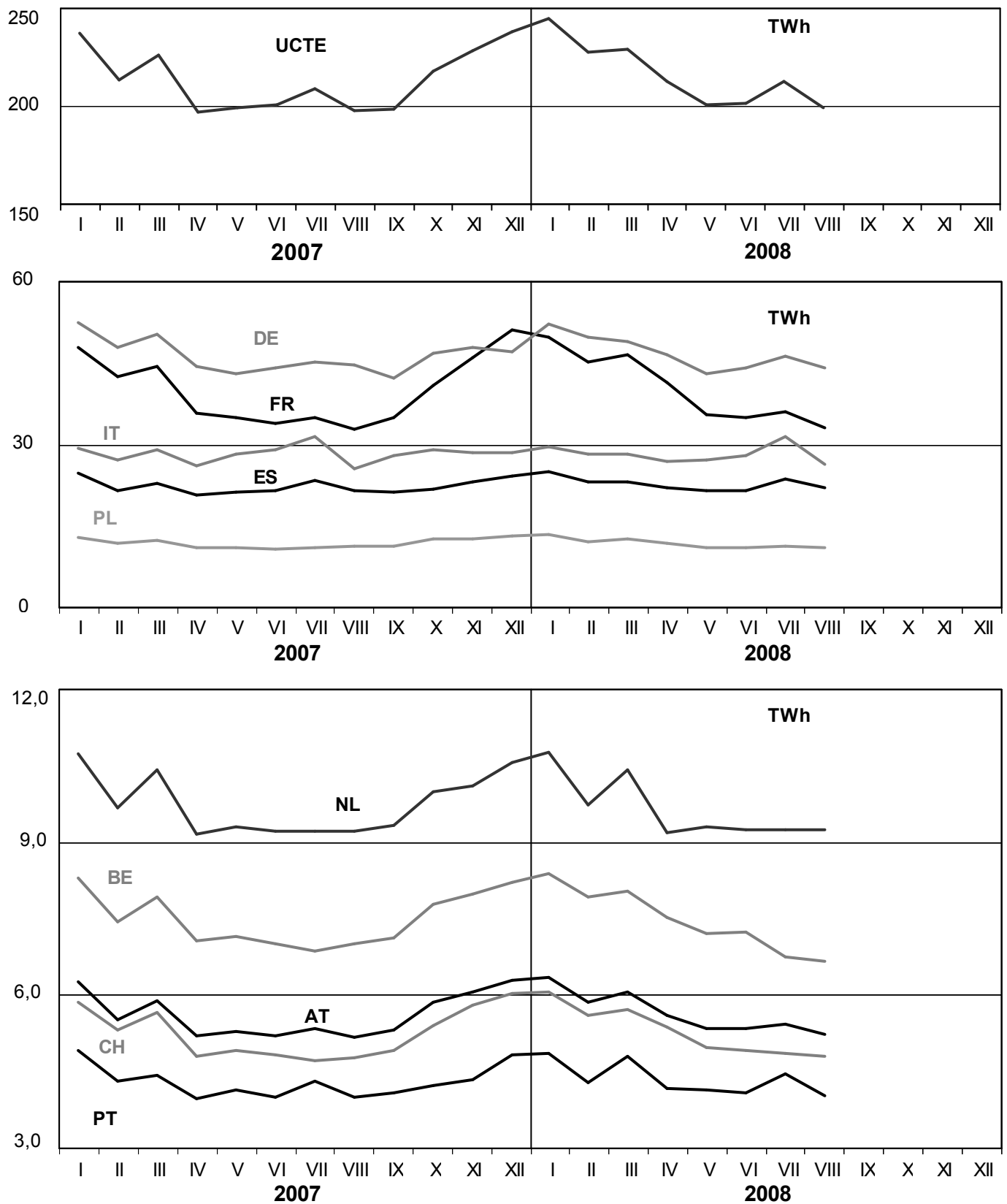
<sup>1</sup> Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden, Republic of Turkey and Ukraine

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

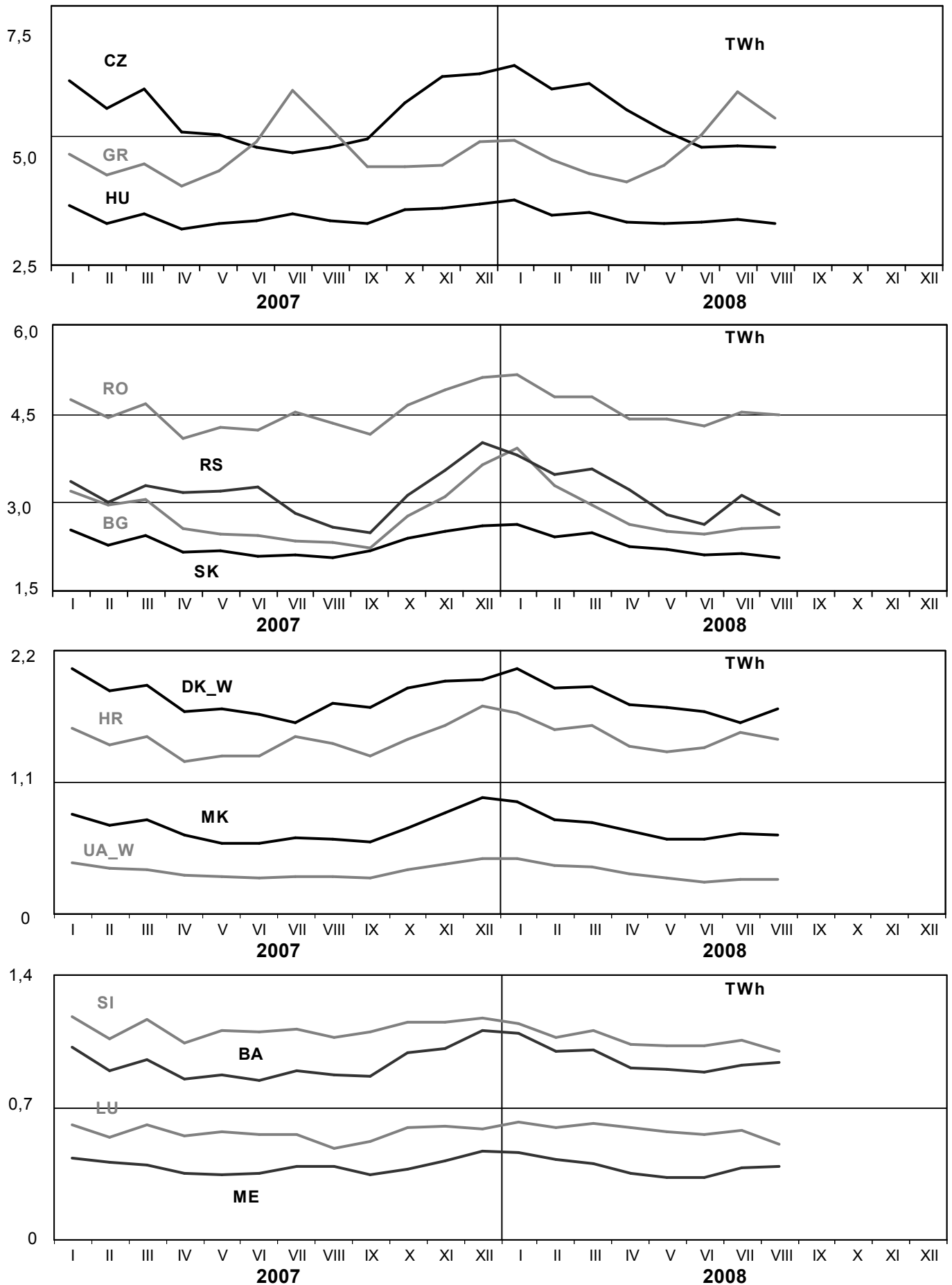
August 2008



# 3

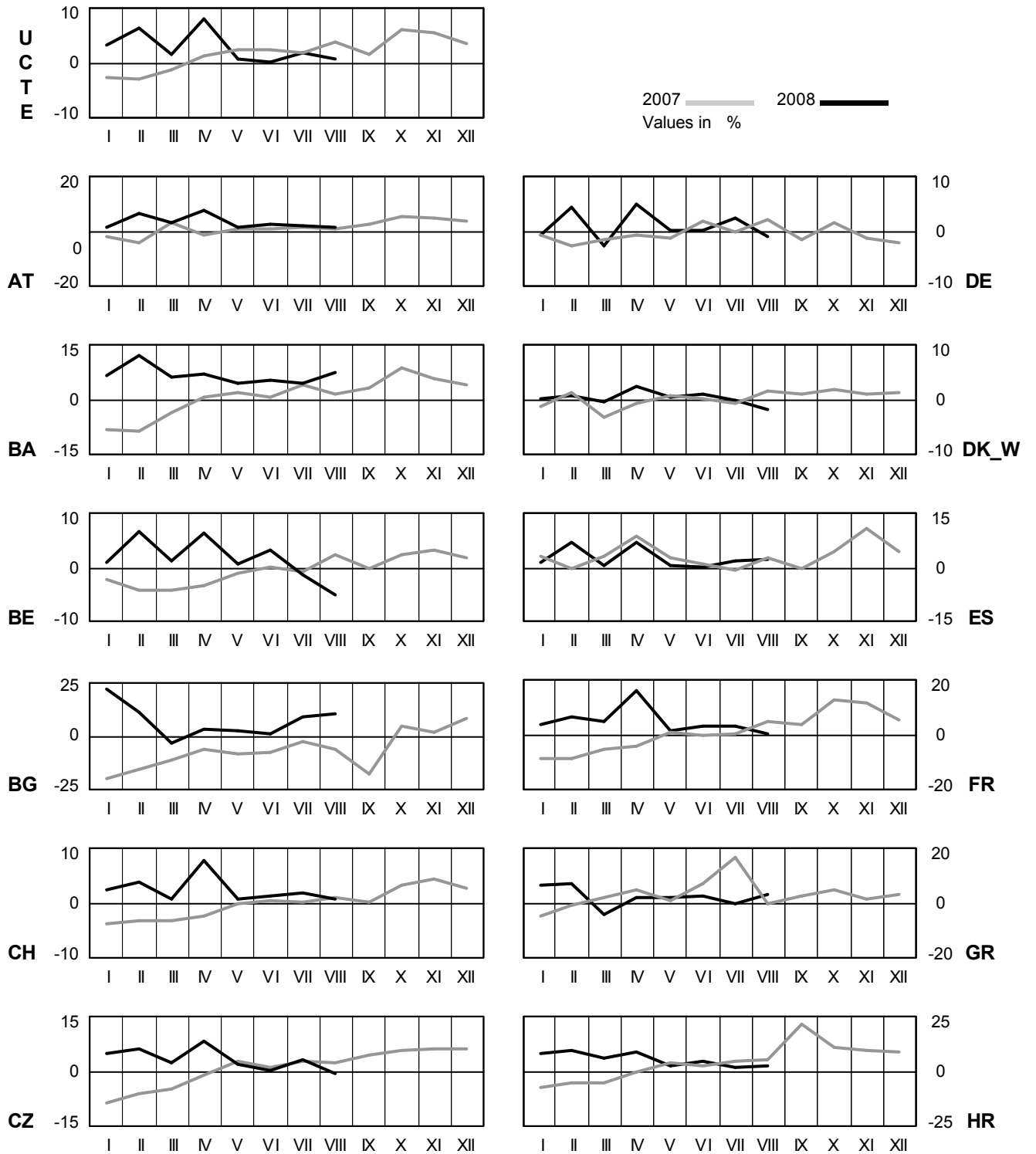
## Monthly consumption

August 2008



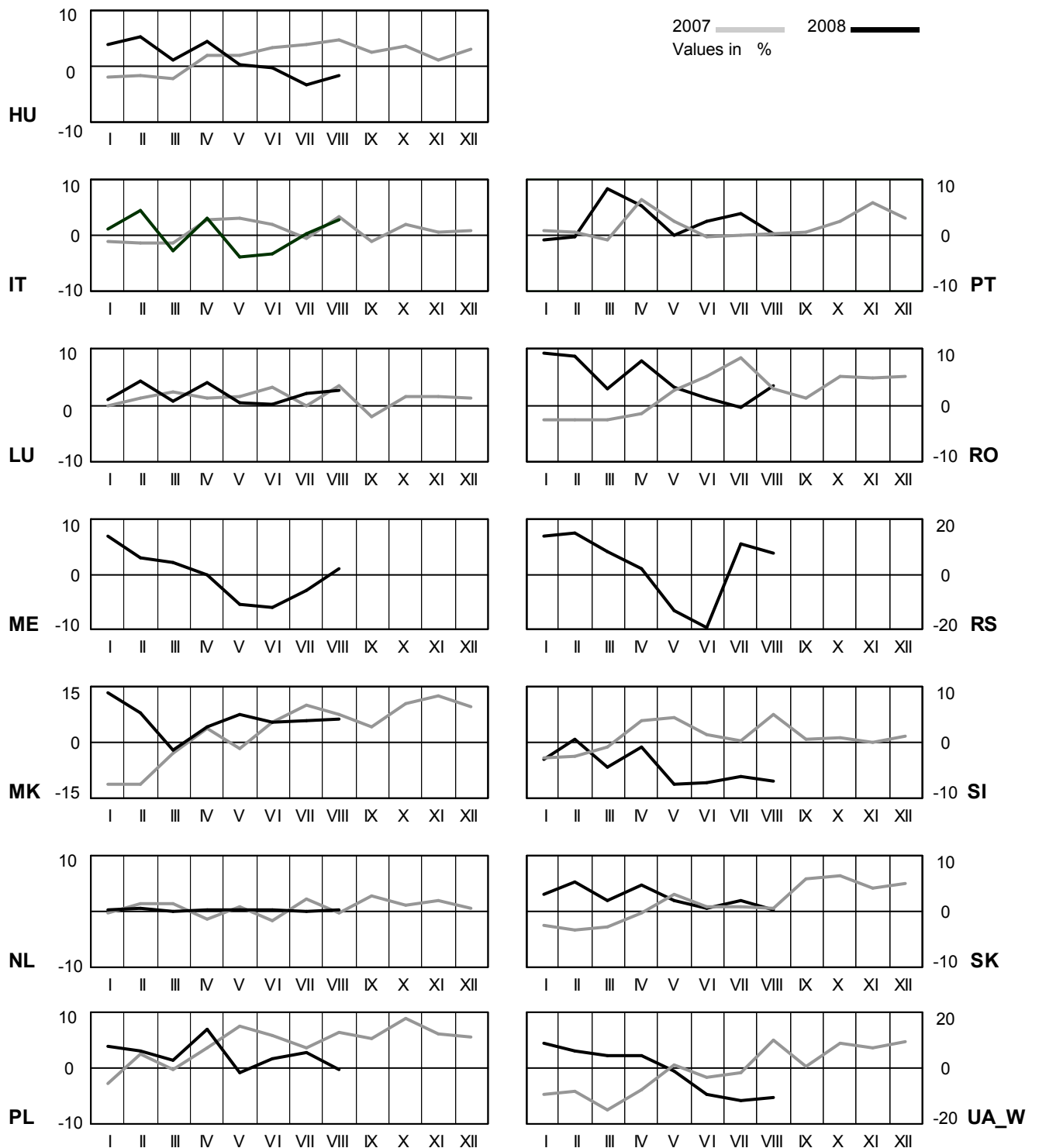
# 4 Monthly consumption variation

August 2008



# 4 Monthly consumption variation

August 2008

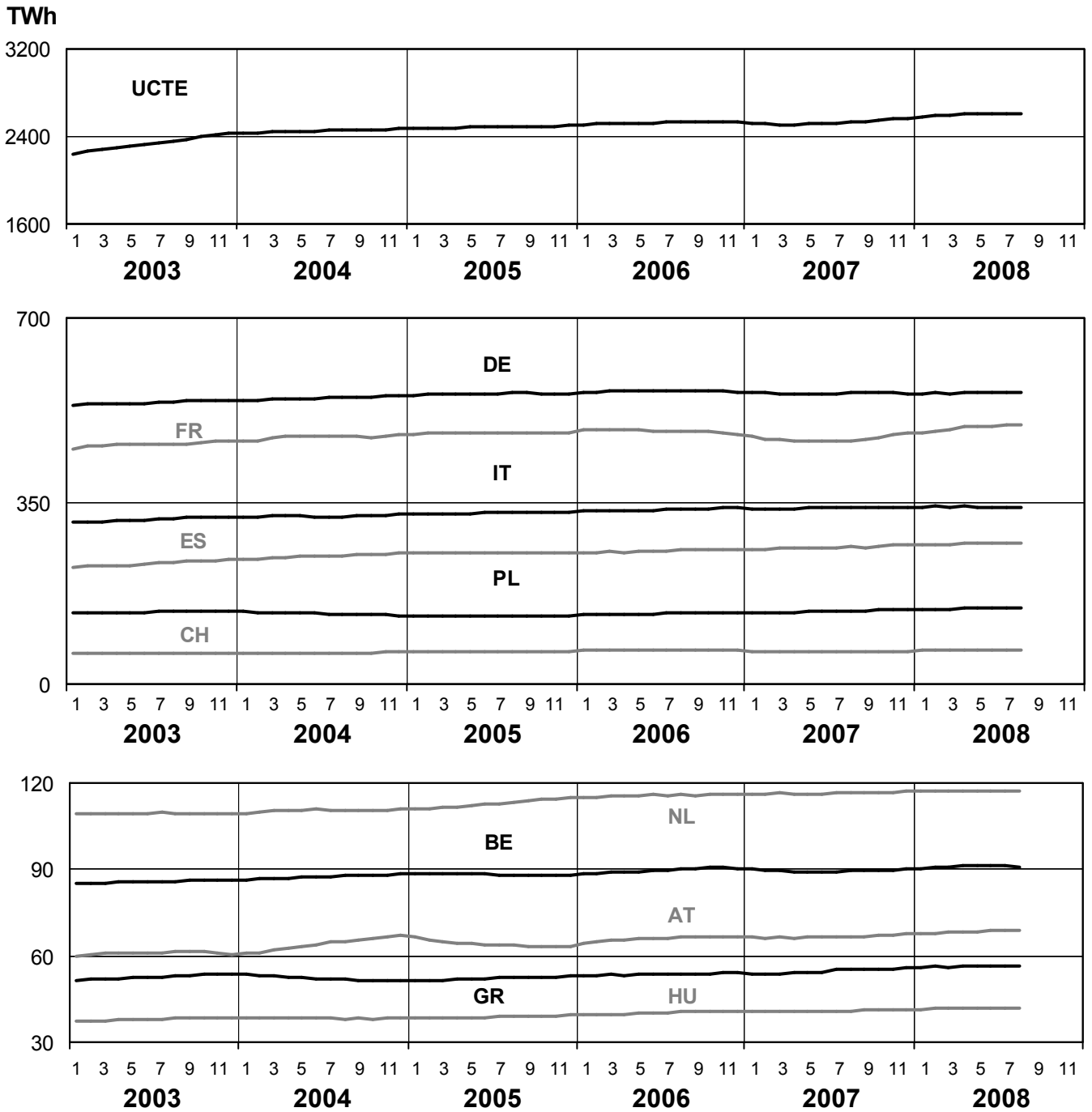




# 5

## Consumption of the last 12 months

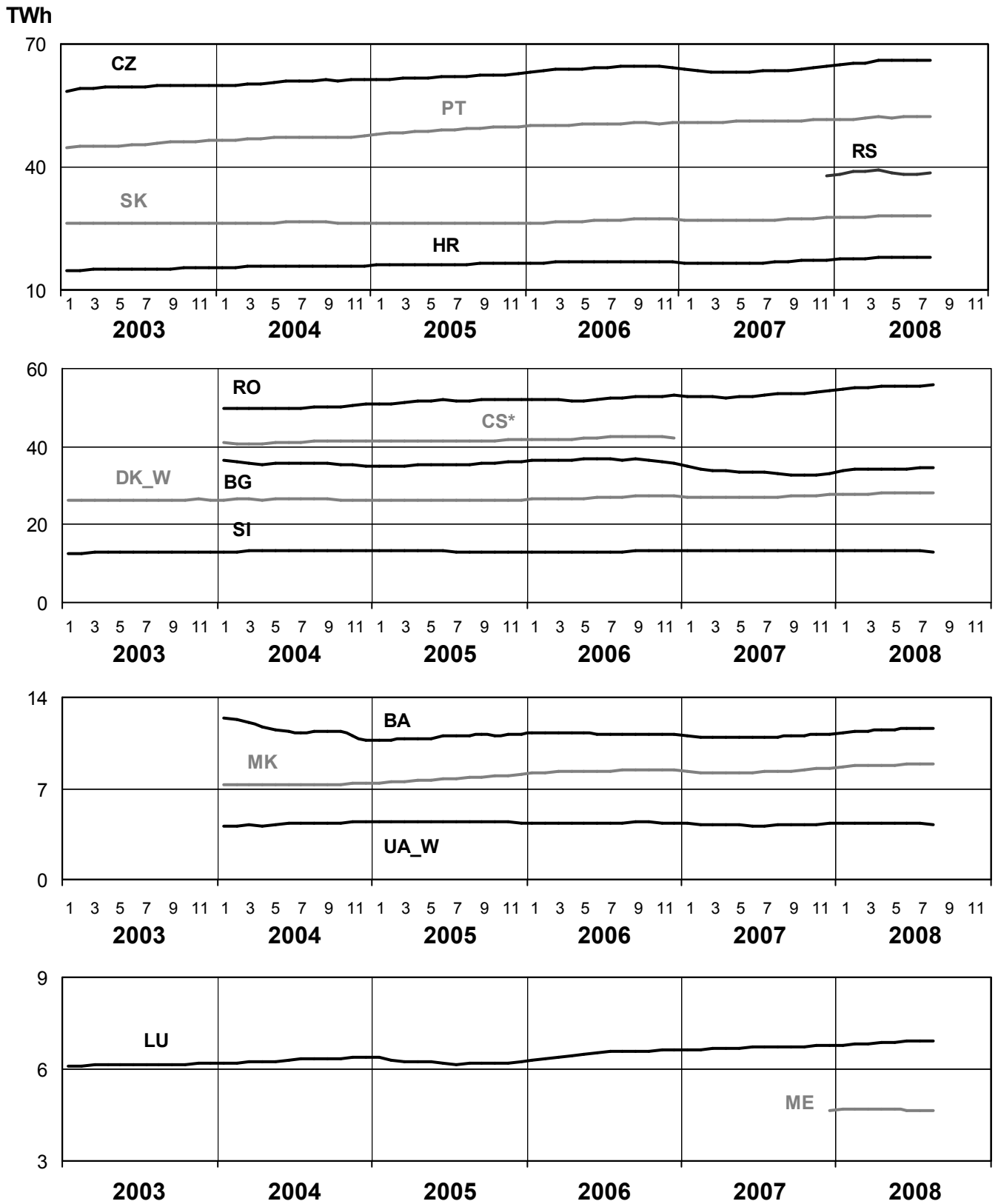
August 2008



# 5

## Consumption of the last 12 months

August 2008

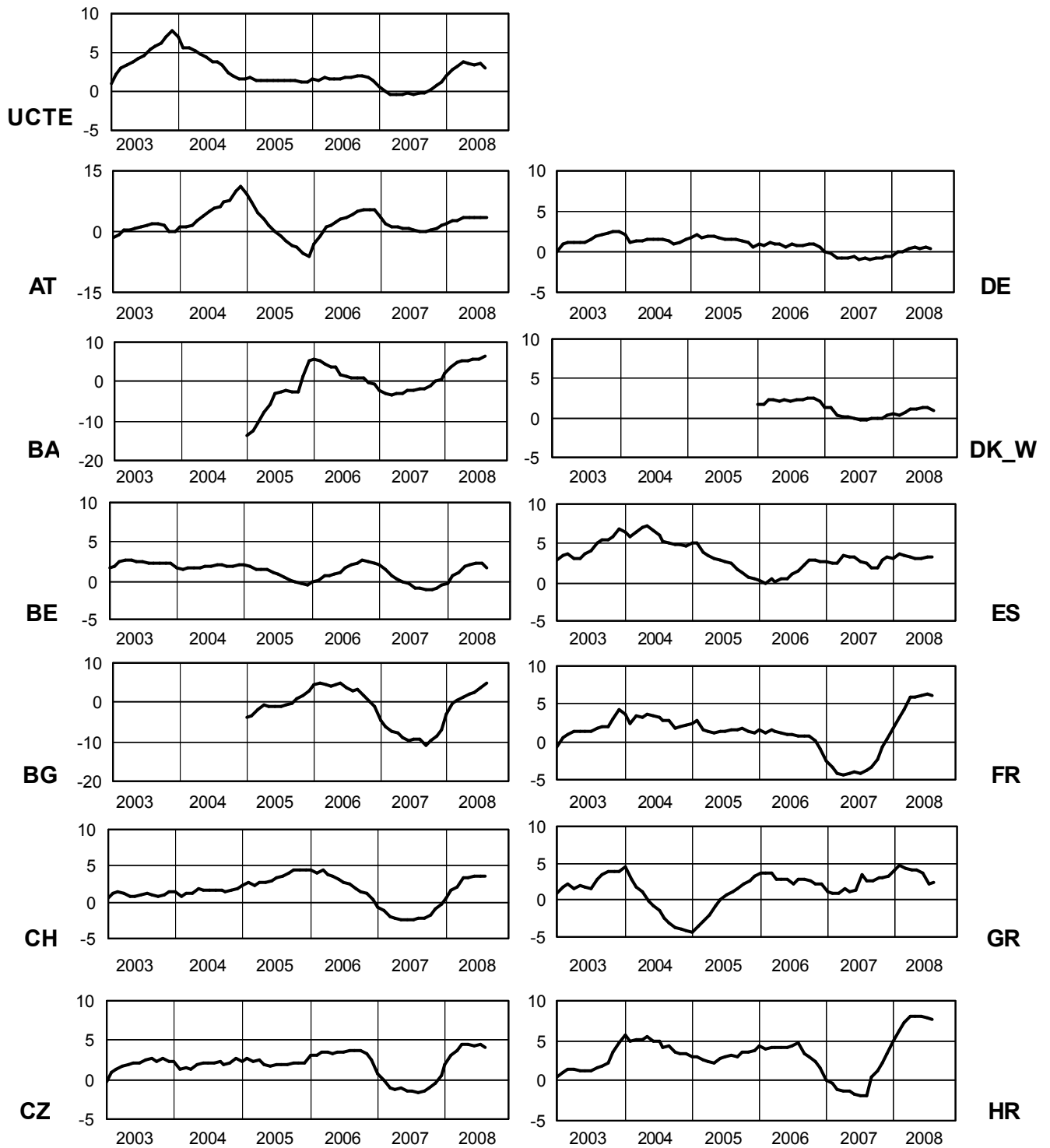


\* CS consumption values until December 2006; from 2007 on ME and RS as separate countries

# 6

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

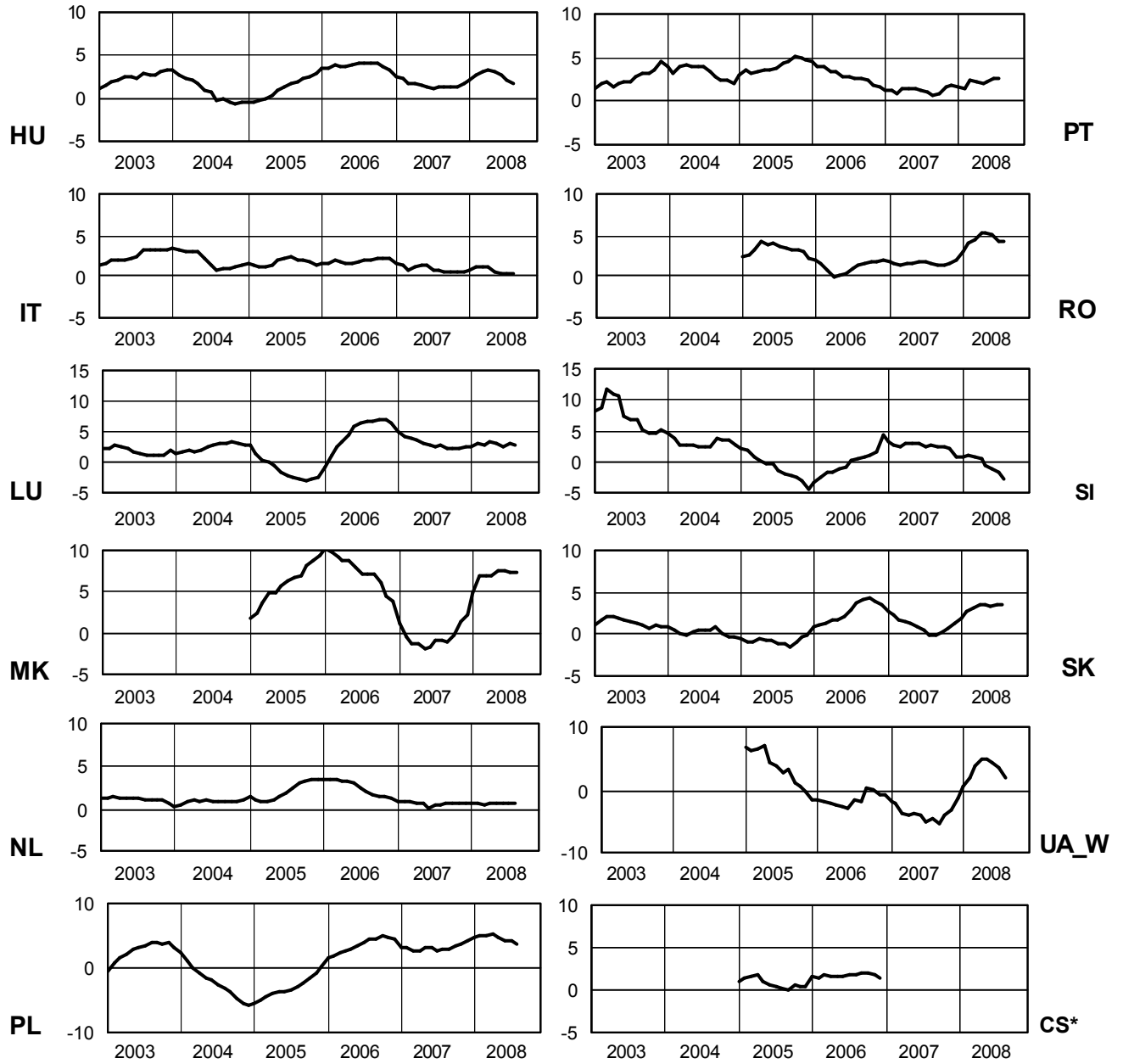
August 2008



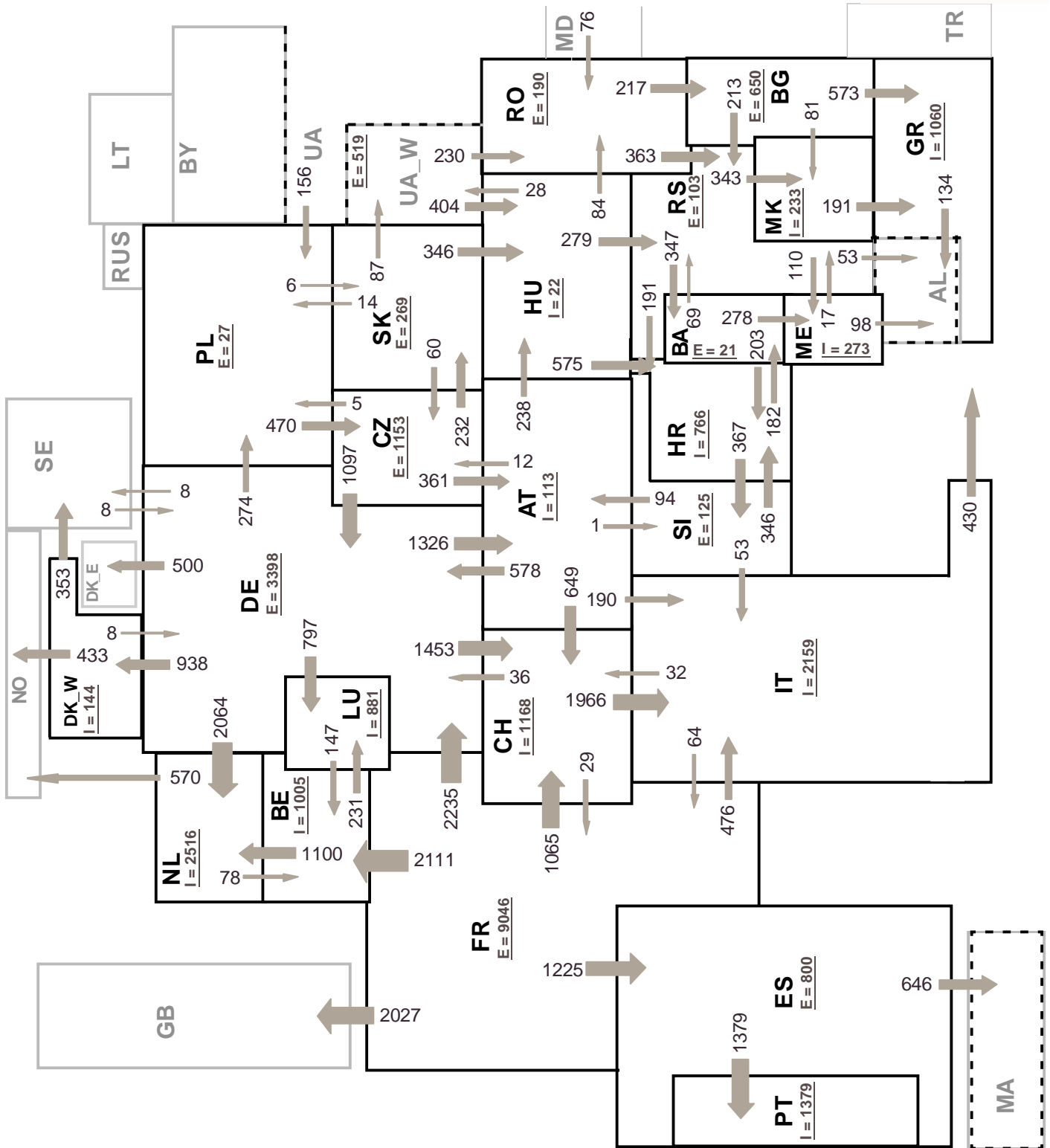
# 6

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

August 2008



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



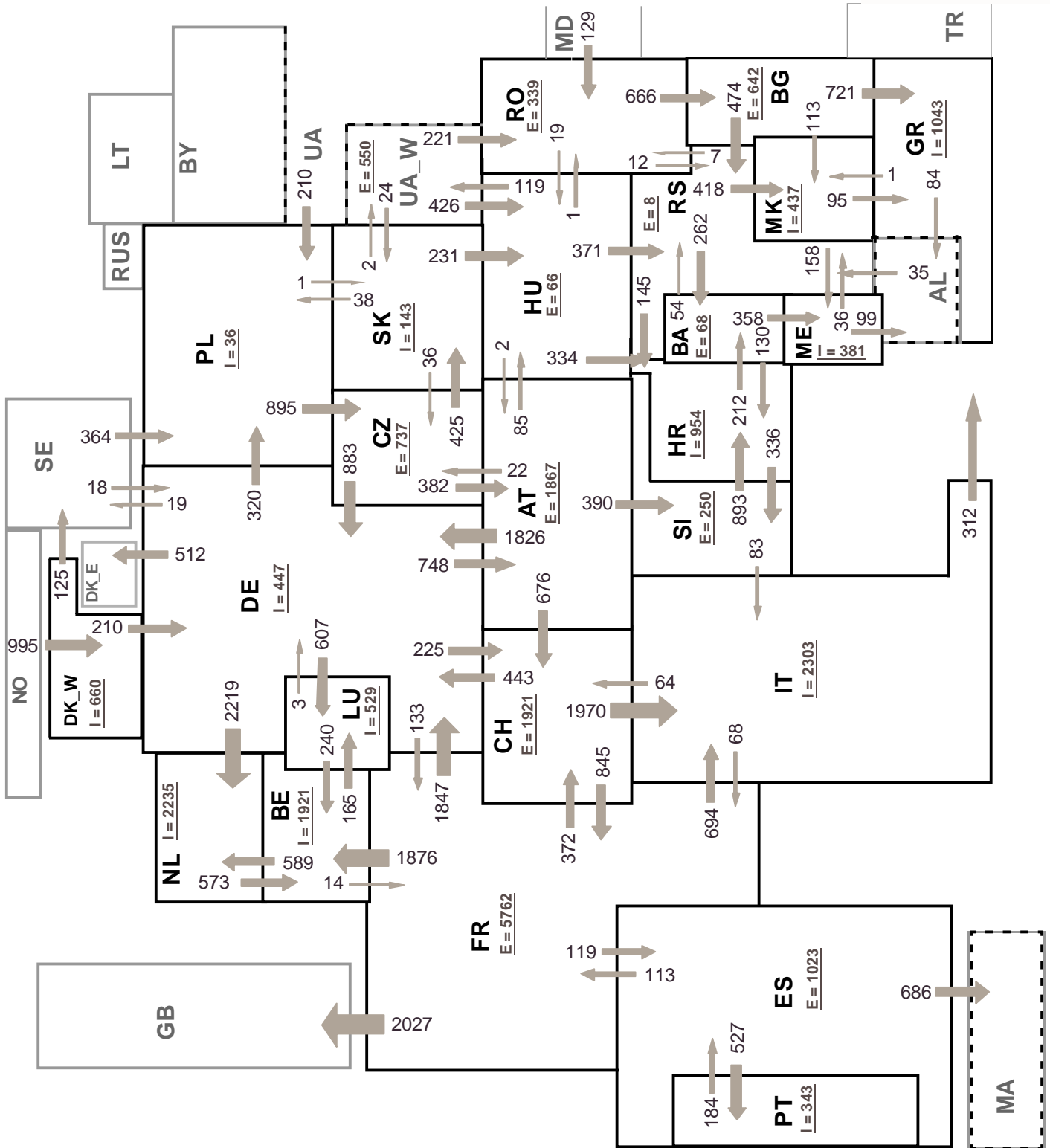
Sum of load flows in MW

UCTE = 28899 MW

Total = 34710 MW

Synchronous operation with UCTE region

I = Import balance  
E = Export balance



Sum of load flows in MW

UCTE = 27271 MW

Total = 33366 MW

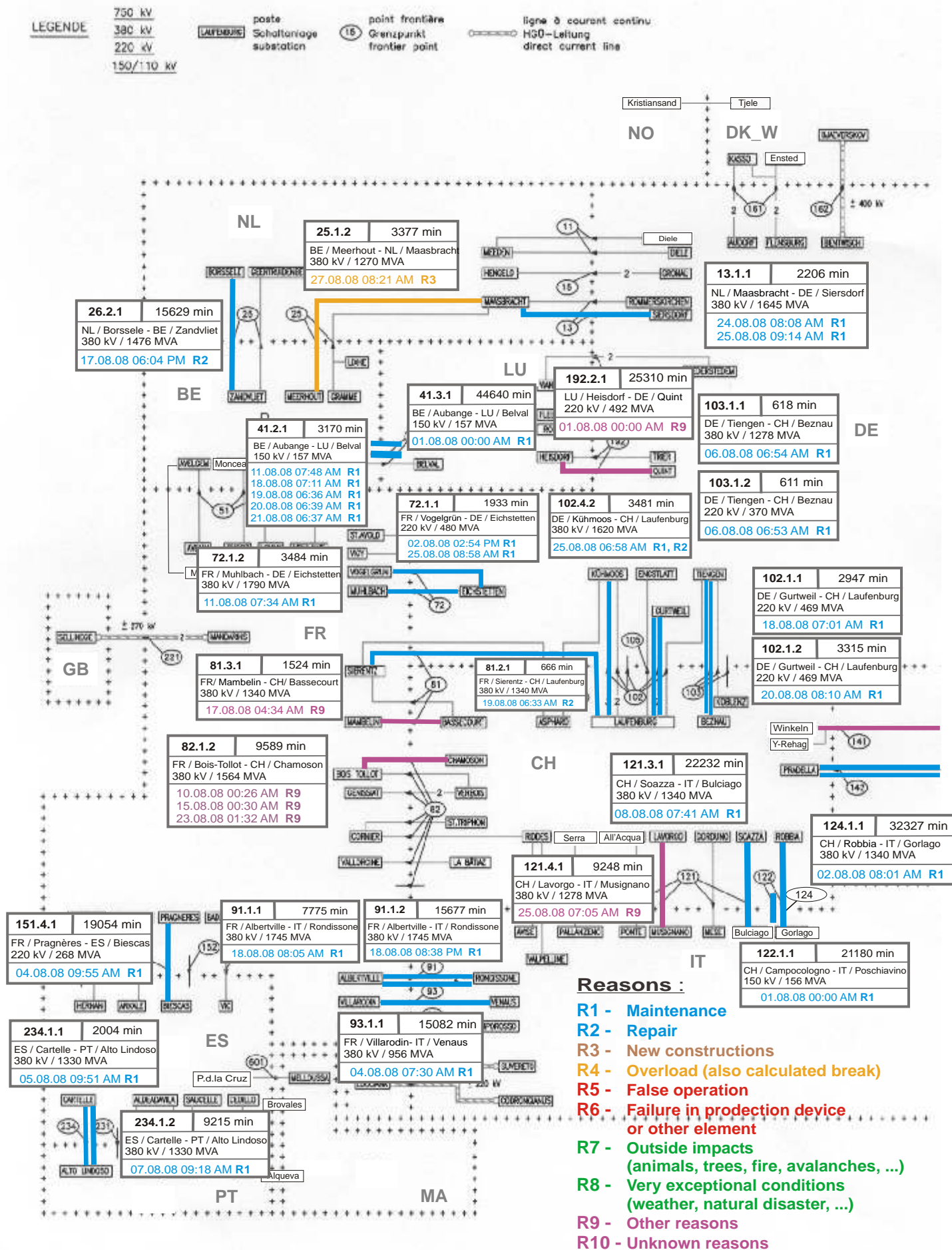
Synchronous operation with UCTE region

**I** = Import balance  
**E** = Export balance

# 9

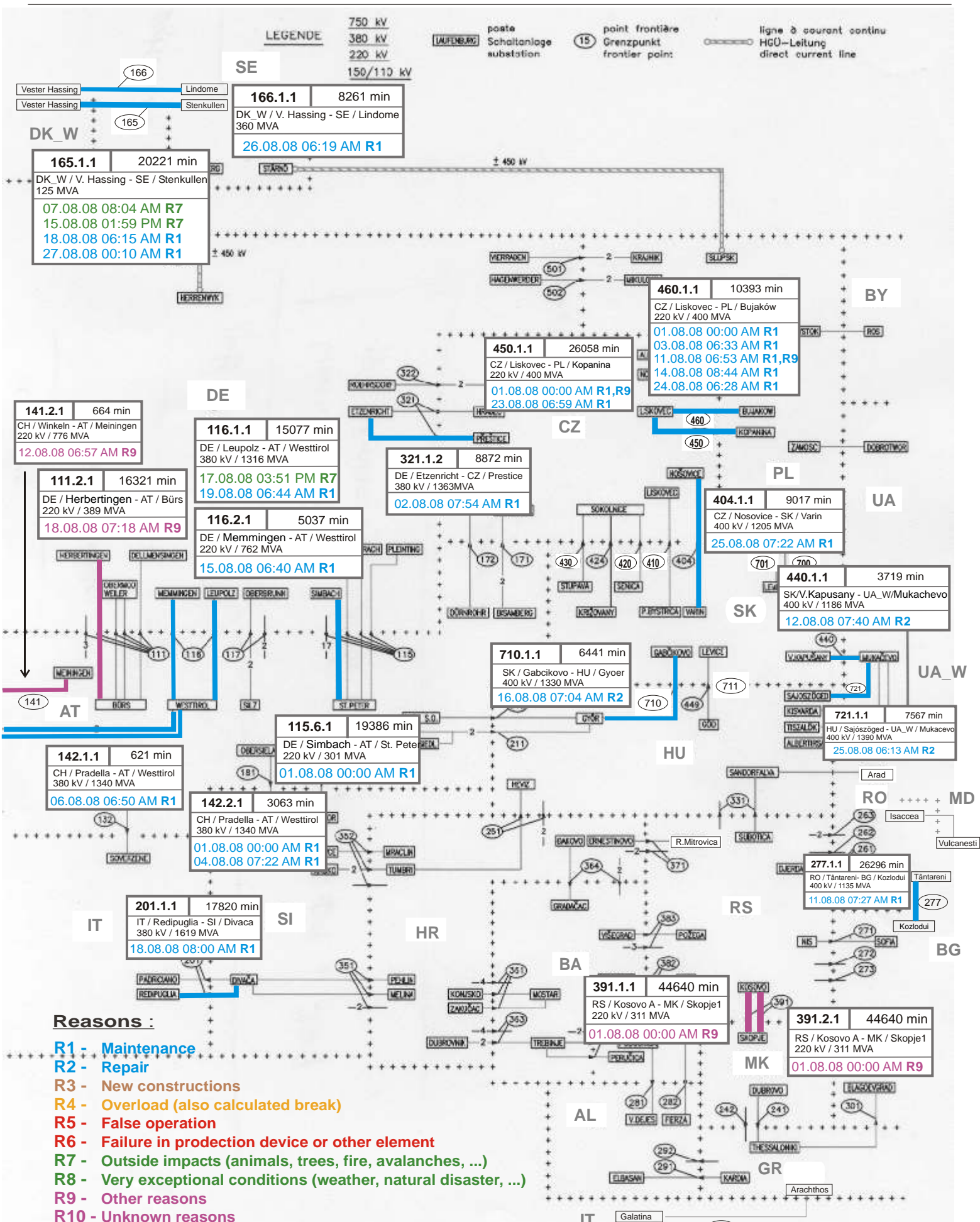
## Unavailability of international tie lines (major events with sum over 600 minutes)

August 2008



### Reasons :

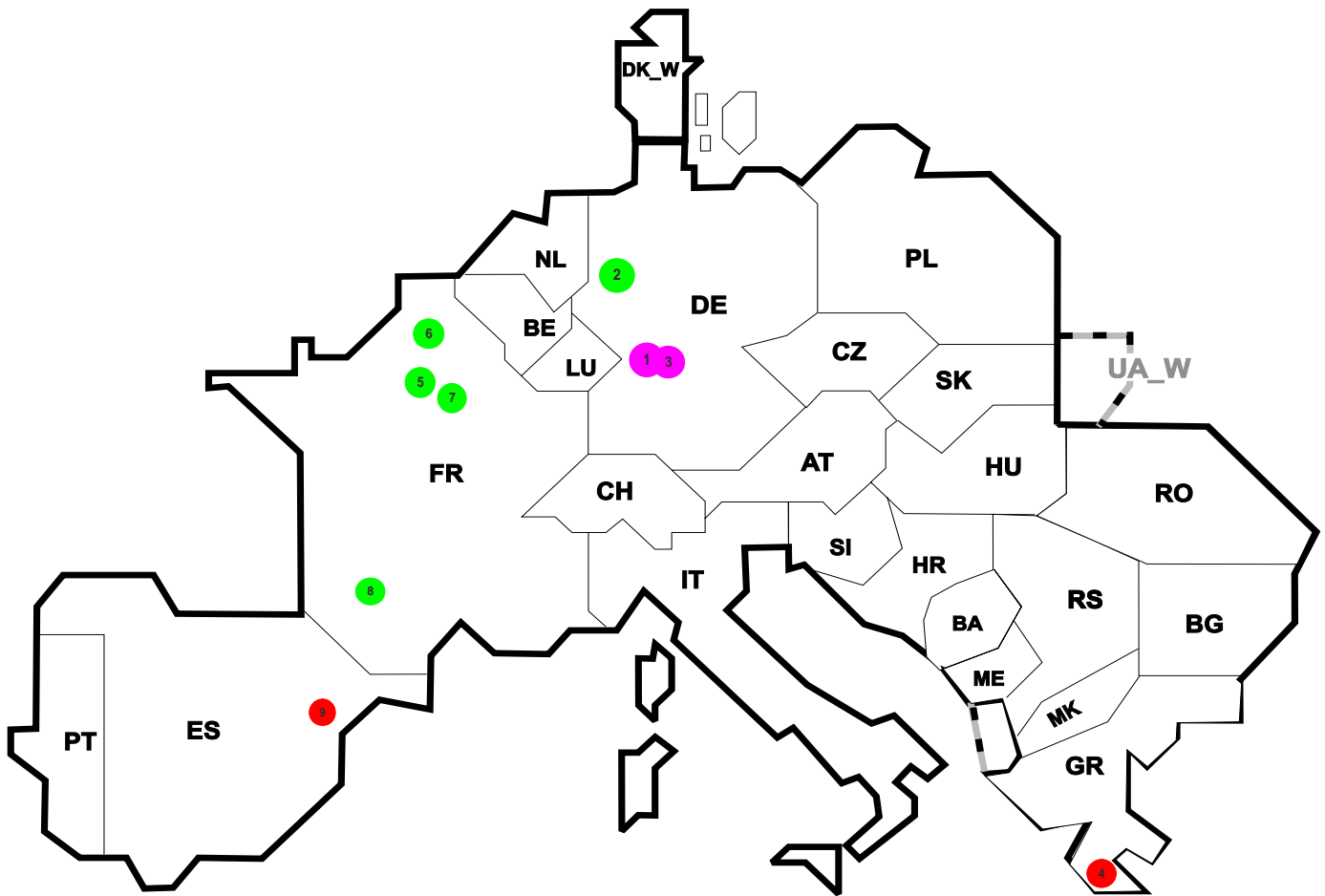
- R1 - Maintenance
- R2 - Repair
- R3 - New constructions
- R4 - Overload (also calculated break)
- R5 - False operation
- R6 - Failure in protection device or other element
- R7 - Outside impacts (animals, trees, fire, avalanches, ...)
- R8 - Very exceptional conditions (weather, natural disaster, ...)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



### Reasons :

- R1 - Maintenance
- R2 - Repair
- R3 - New constructions
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- R9 - Other reasons
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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	DE	Buerstadt	R10	8140	1200	407	7,671
2	DE	Hanekenfaehr	R7	7470	1330	337	7,039
3	DE	Buerstadt	R10	5400	1200	270	5,089
4	GR	Lavrion	R6	300	600	30	2,797
5	FR	Nemours	R8	36	12	182	0,039
6	FR	Estre	R8	27	9	179	0,029
7	FR	Chesnoy	R8	14	10	86	0,015
8	FR	Capelle	R8	14	6	143	0,015
9	ES	Can Jard	R5	0	1656	18	0,001

<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	560832	1081178	1638	893	1191	569
BA	348922	265230	240	141	283	161
BE	497151	873982	990	2084	148	2004
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	2180212	1791347	1906	3094	3707	1801
CZ	1862847	979151	2406	1215	2178	1440
DE	2302937	2451026	3670	2622	3621	4239
DK_W	871742	241973	0	1676	1338	129
ES	1257077	468198	2058	1200	2002	300
FR	7205163	1800399	10348	1322	9041	3413
GR	46253	658596	25	1081	25	1040
HR	95695	695138	140	883	261	1229
HU	707733	1102388	900	956	1093	1033
IT	249964	2849437	526	2685	446	2747
ME	104111	345132	99	368	99	446
MK	7900	271900	0	245	0	408
NL	341051	2341765	595	3121	74	2883
PL	218285	221071	61	160	416	590
PT	3742	610916	0	1400	0	319
RO	402829	100614	349	185	474	151
RS	418979	374698	421	325	578	587
SI	582677	402643	464	371	816	529
SK	575370	506106	680	343	422	470
UA_W	384681	0	520	0	550	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.

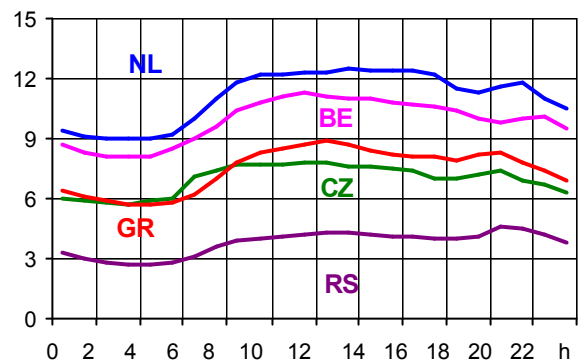
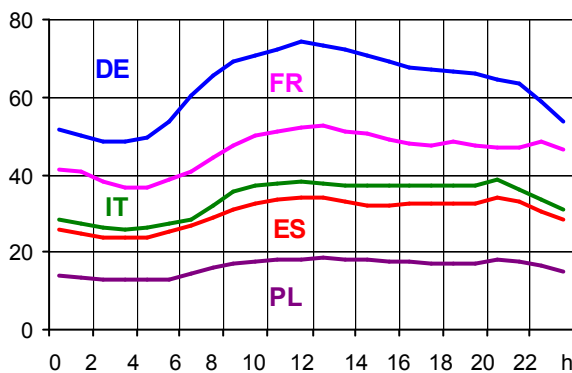
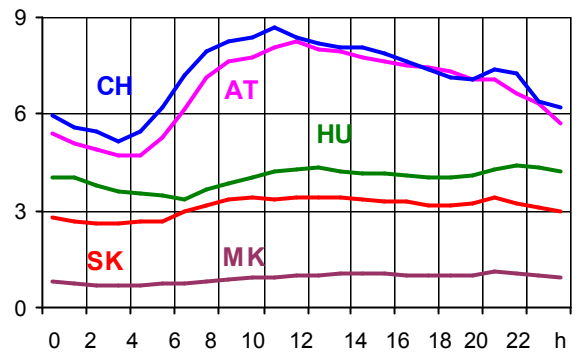
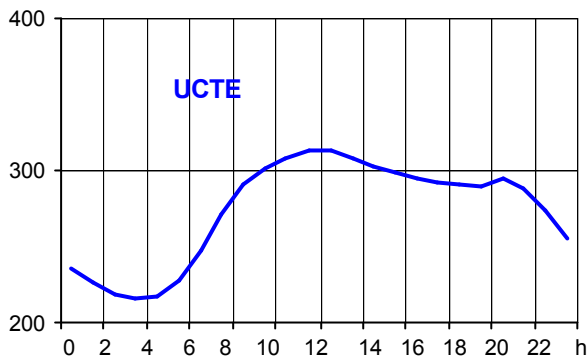
- Export Programs: Sum of all positive values of every hour of every border  
 - Import Programs: Sum of all negative values of every hour of every border

- 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.

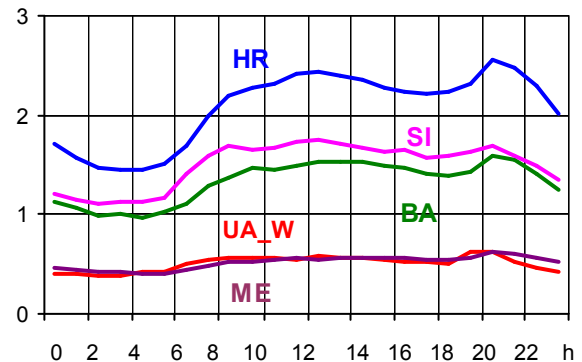
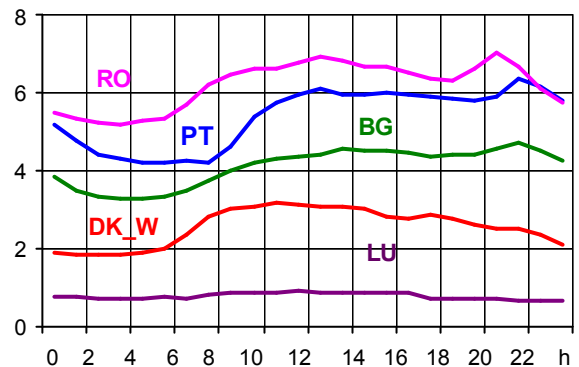
- Export Programs at 11:00: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.  
 - Import Programs at 11:00: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

Consumption hourly load curves on 20.08.2008 CET

Values in GW



	Highest load		Load representativity %
	MW	var.% <sup>1</sup>	
AT	8257	40,5	100
BA	1597	11,8	100
BE <sup>2</sup>	11332	21,7	100
BG	4708	4,3	100
CH	8669	10,4	100
CZ	7820	-0,7	100
DE	74232	3,6	91
DK_W	3157	-2,7	100
ES	34187	14,4	98
FR	52650	17,6	100
GR	8860	30,7	100
HR	2553	21,1	100
HU	4424	-22,2	100
IT	38917	21,5	100
LU	920	45,1	100
ME	617	2,7	100
MK	1091	10,8	100
NL	12479	-6,2	100
PL <sup>3</sup>	18324	27,0	100
PT	6384	15,1	97
RO	7030	9,2	100
RS	4611	4,9	100
SI	1757	17,4	100
SK	3428	2,6	100
<b>UCTE</b>	<b>313682</b>	<b>15,2</b>	
UA_W	628	-11,4	100



<sup>1</sup> Variation as compared to corresponding month of the previous year; referring the 3<sup>rd</sup> Wednesday 2007 in the most countries was a public holiday (AT, BE, CH, DE, ES, FR, GR, HR, IT, LU, PL, PT, SI)

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

<sup>3</sup> Operational data

## Contact

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