

UCTE



December 2005

Monthly provisional values
union for the co-ordination of transmission of electricity

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¹ Monthly provisional values from the UCTE database as of 31 March 2006

All values are calculated to represent 100% of the national values

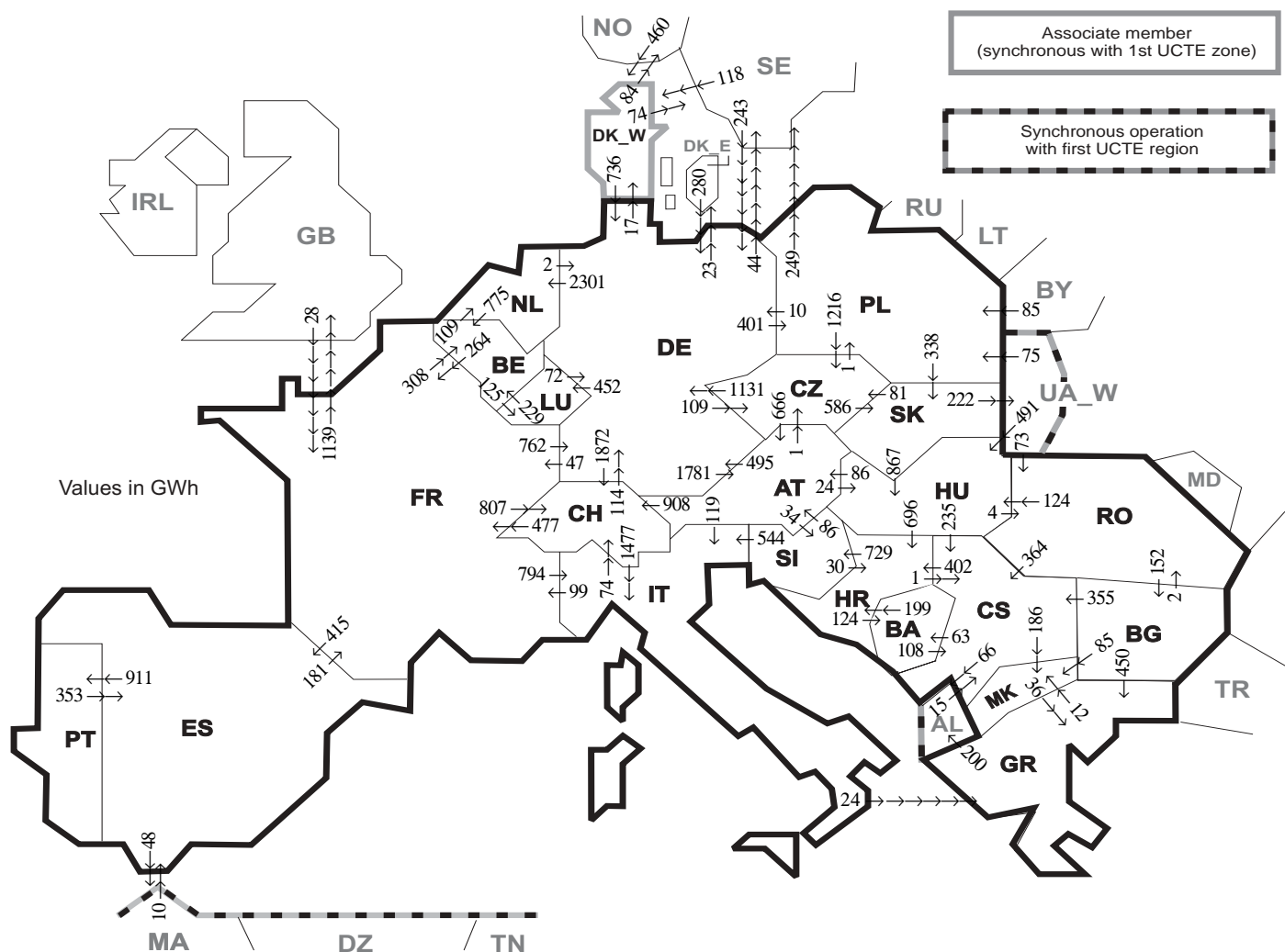
Countries	Net production in GWh							Exchange balance in GWh	Pump in GWh	Consumption in GWh			
	Therm. nuclear	Fossil fuel	Hydro prod	Other renew.	Of which wind	Not identify	Total			monthly	var. [%]	last 12 months	var. [%]
AT	0	2960	2115	0	0	420	5495 ¹	969	253	6211	-0,1	63174	-6,1
BA	0	628	612	0	0	0	1240	-155	0	1085	2,6	11191	5,1
BE	4151	2939	150	206	15	0	7446 ¹	813	154	8105	-0,3	86820	-1,7
BG	2173	1892	413	0	0	0	4478	-749	62	3667	2,9	36083	3,0
CH	2426	207	1952	88	0	0	4673 ¹	1603	208	6068	5,0	63044	4,4
CS	0	2881	1275	0	0	0	4156 ¹	360	100	4416	0,3	41632	0,3
CZ	2190	4762	190	8	3	0	7150 ¹	-976	89	6085	2,6	62666	2,0
DE	14033	34936	1707	3774	2859	0	54450 ¹	-3202	928	50320	0,0	556385	0,7
ES	5505	13281	2104	2600	2489	0	23490 ¹	-429	555	22506	1,0	247928	-1,2
FR	42053	8527	4326	415	132	0	55321	-3316	610	51395	4,8	482400	1,1
GR	0	3841	503	133	122	0	4477 ¹	297	84	4690	2,6	52876	3,2
HR	0	423	765	2	1	0	1190 ¹	464	6	1648	5,1	16557	3,7
HU	1316	1568	23	66	2	82	2973 ¹	486	0	3541	3,2	38814	1,6
IT	0	23173	3052	777	324	0	27002 ¹	2737	879	28860	3,8	329081	1,1
LU	0	397	81	11	6	0	489	276	101	664	23,2	6327	-0,8
MK	0	507	128	0	0	0	635 ¹	247	0	882	7,4	8074	9,3
NL	324	7919	0	536	213	0	8779 ¹	1633	0	10412	2,8	114658	3,4
PL	0	13770	265	0	0	0	14035 ¹	-1254	206	12575	3,0	130388	0,1
PT	0	2882	817	446	279	0	4145 ¹	571	68	4648	3,0	49464	4,0
RO	489	3419	1443	0	0	0	5351 ¹	-562	0	4789	-0,7	51885	2,2
SI	447	421	218	0	0	0	1086	-101	0	985	-17,0	12767	-4,5
SK	1700	584	262	1	1	270	2817 ¹	-246	18	2553	2,0	26283	-0,1
UCTE	76807	131917	22401	9063	6446	772	240960¹	-543	4321	236105	2,3	2488497	0,8
DK_W	0	1573	2	703	573	0	2278 ¹	-298	0	1980	2,9	21296	0,9
UA_W ²	0	787	7	0	0	0	794 ¹	-343	0	451	-4,7	4362	-1,4

¹ Including deliveries from industry

² UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

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	HU	IT	LU	MK	NL	PL	PT	RO	SI	SK	DK_W	UA_W ²
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
Fossil fuel	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98	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	99	100	100	100	100	100	100	100	100	100
Other renew.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	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
Consumption	100	100	100	100	100	100	100	100	98	100	100	100	100	100	99	100	100	100	96	100	95	100	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 ²	Other III ¹	
AT	-	-	-	-	908	-	1	495	-	-	-	24	119	-	-	-	-	-	-	-	34	-	-	-	-	-	1581
BA	-	-	-	-	-	108	-	-	-	-	-	199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	307
BE	-	-	-	-	-	-	-	-	-	264	-	-	-	-	125	-	109	-	-	-	-	-	-	-	-	-	498
BG	-	-	-	-	-	355	-	-	-	-	450	-	-	-	-	85	-	-	-	-	2	-	-	-	-	0	892
CH	0	-	-	-	-	-	-	114	-	477	-	-	-	1477	-	-	-	-	-	-	-	-	-	-	-	2068	
CS	-	63	-	0	-	-	-	-	-	-	-	402	0	-	186	-	-	-	-	0	-	-	-	-	-	66	717
CZ	666	-	-	-	-	-	-	1131	-	-	-	-	-	-	-	-	-	1	-	-	-	586	-	-	-	2384	
DE	1781	-	-	-	1872	-	109	-	47	-	-	-	-	452	-	2301	401	-	-	-	-	-	17	-	67	7047	
ES	-	-	-	-	-	-	-	-	181	-	-	-	-	-	-	-	-	-	911	-	-	-	-	-	48	1140	
FR	-	-	308	-	807	-	-	762	415	181	-	-	-	794	-	-	-	-	-	-	-	-	-	-	1139	4225	
GR	-	-	-	0	-	-	-	-	-	-	-	0	0	0	12	-	-	-	-	-	-	-	-	-	200	212	
HR	-	124	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	-	729	-	-	-	-	854	
HU	86	-	-	-	-	235	-	-	-	-	-	696	-	-	-	-	-	-	-	4	0	0	-	-	-	1021	
IT	0	-	-	-	74	-	-	-	-	99	24	-	-	-	-	-	-	-	-	-	0	-	-	-	-	197	
LU	-	-	229	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	301	
MK	-	-	-	0	-	0	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	
NL	-	-	775	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	777	
PL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	338	0	249	-	1813	
PT	-	-	-	-	-	-	-	-	353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	353	
RO	-	-	-	152	-	364	-	-	-	-	-	-	124	-	-	-	-	-	-	-	-	-	-	0	0	640	
SI	86	-	-	-	-	-	-	-	-	-	30	544	-	-	-	-	-	-	-	-	-	-	-	-	-	660	
SK	-	-	-	-	-	81	-	-	-	-	-	-	867	-	-	-	-	0	-	-	-	-	-	222	-	1170	
DK_W	-	-	-	-	-	-	736	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158	881	
UA_W ²	-	-	-	-	-	-	-	-	-	-	-	491	-	-	-	-	-	75	-	73	0	-	-	-	-	639	
Other III ¹	-	-	-	0	15	-	523	10	28	0	-	-	-	-	-	-	-	85	-	0	-	578	-	-	-	1239	
Sum imp	2619	187	1312	152	3661	1078	1407	3845	778	1096	510	1327	1506	2934	577	283	2410	562	911	79	763	924	596	222	1927	31653	

Sum of physical energy flows between UCTE countries = 26885GWh

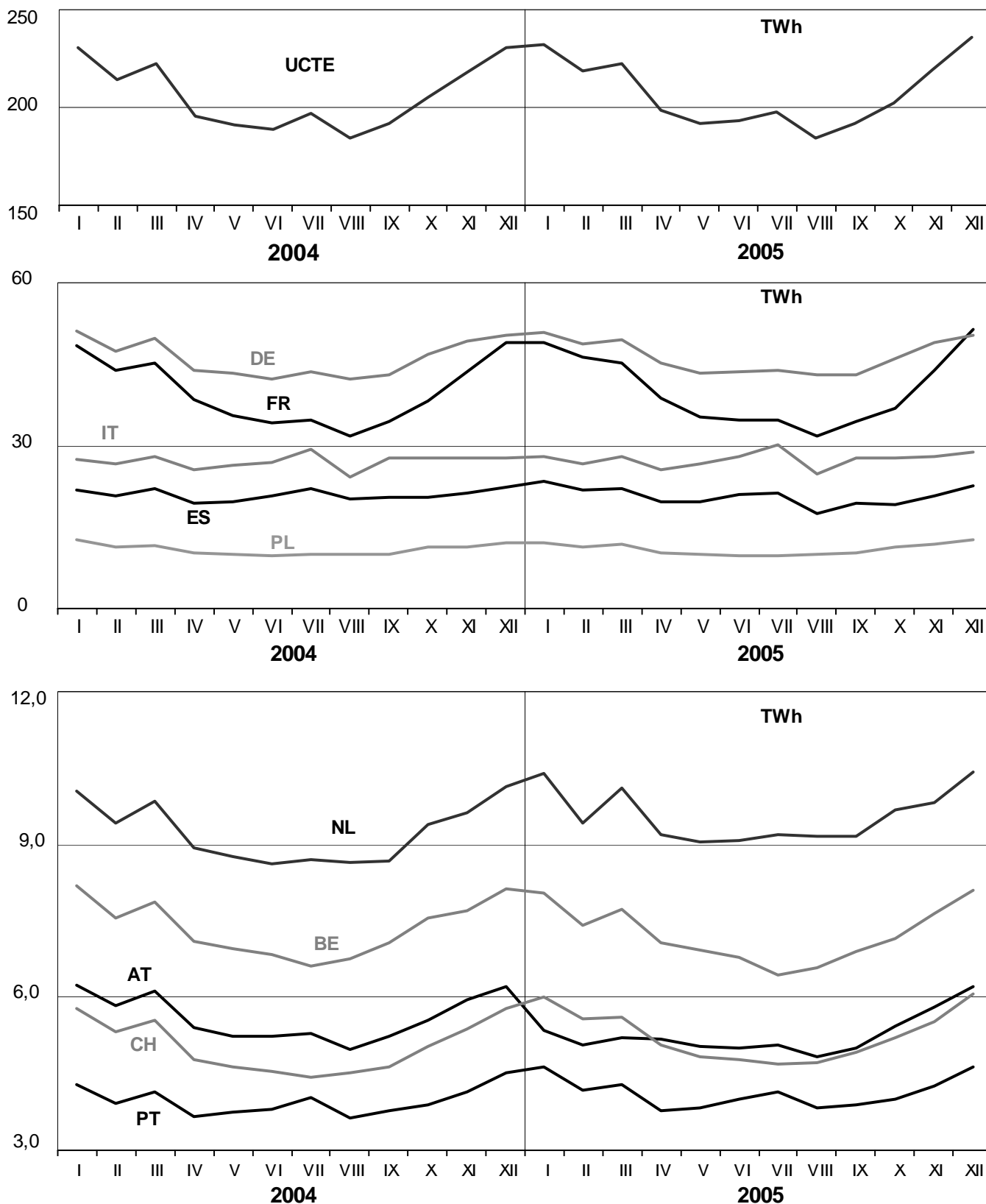
Total physical energy flows = 31665GWh

¹ Other III: Albania, Belarus, Denmark East, Great Britain, Morocco, Republic of Moldavia, Norway, Sweden and Republic of Turkey

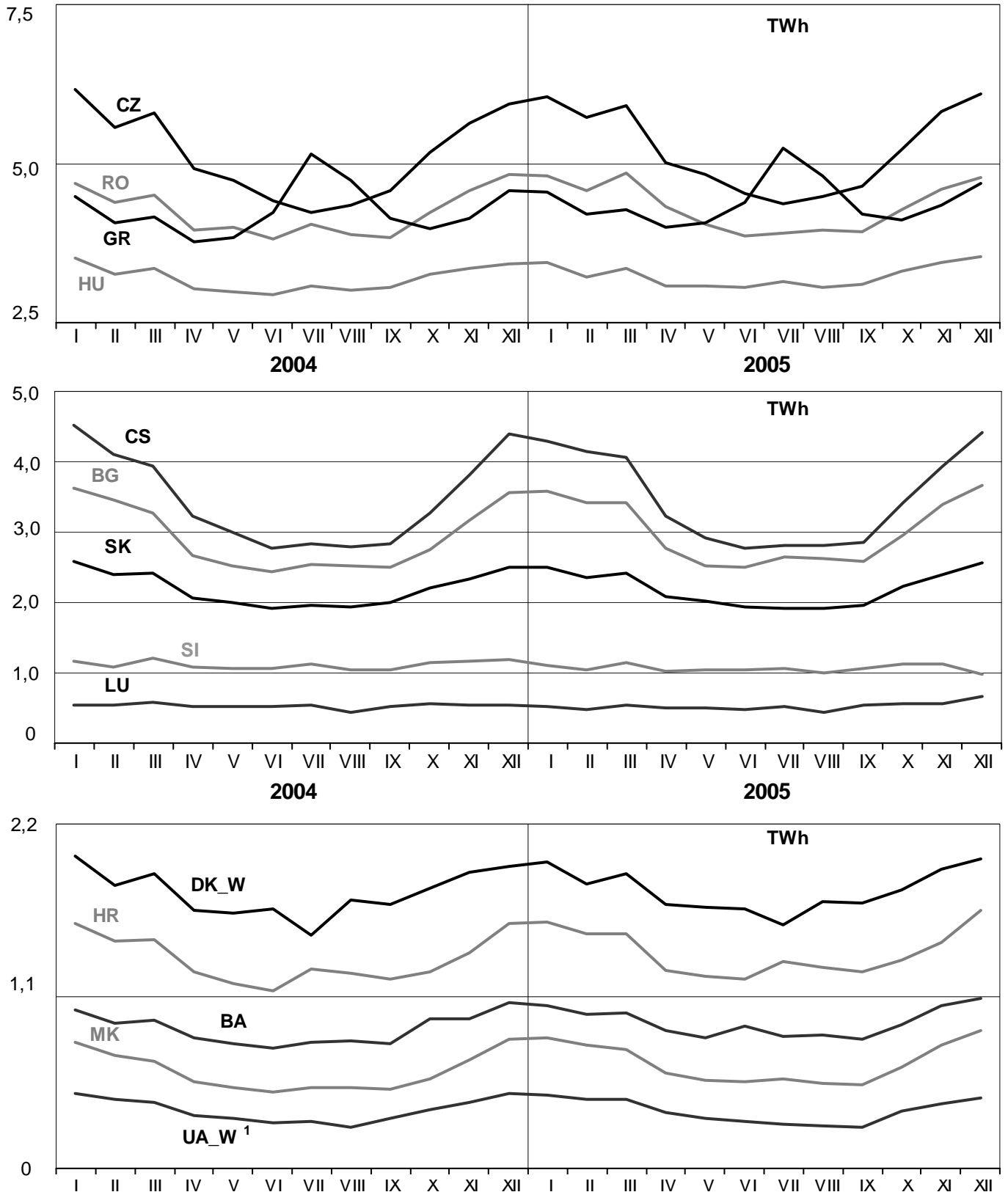
² UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

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.

All values are calculated to represent 100% of the national values



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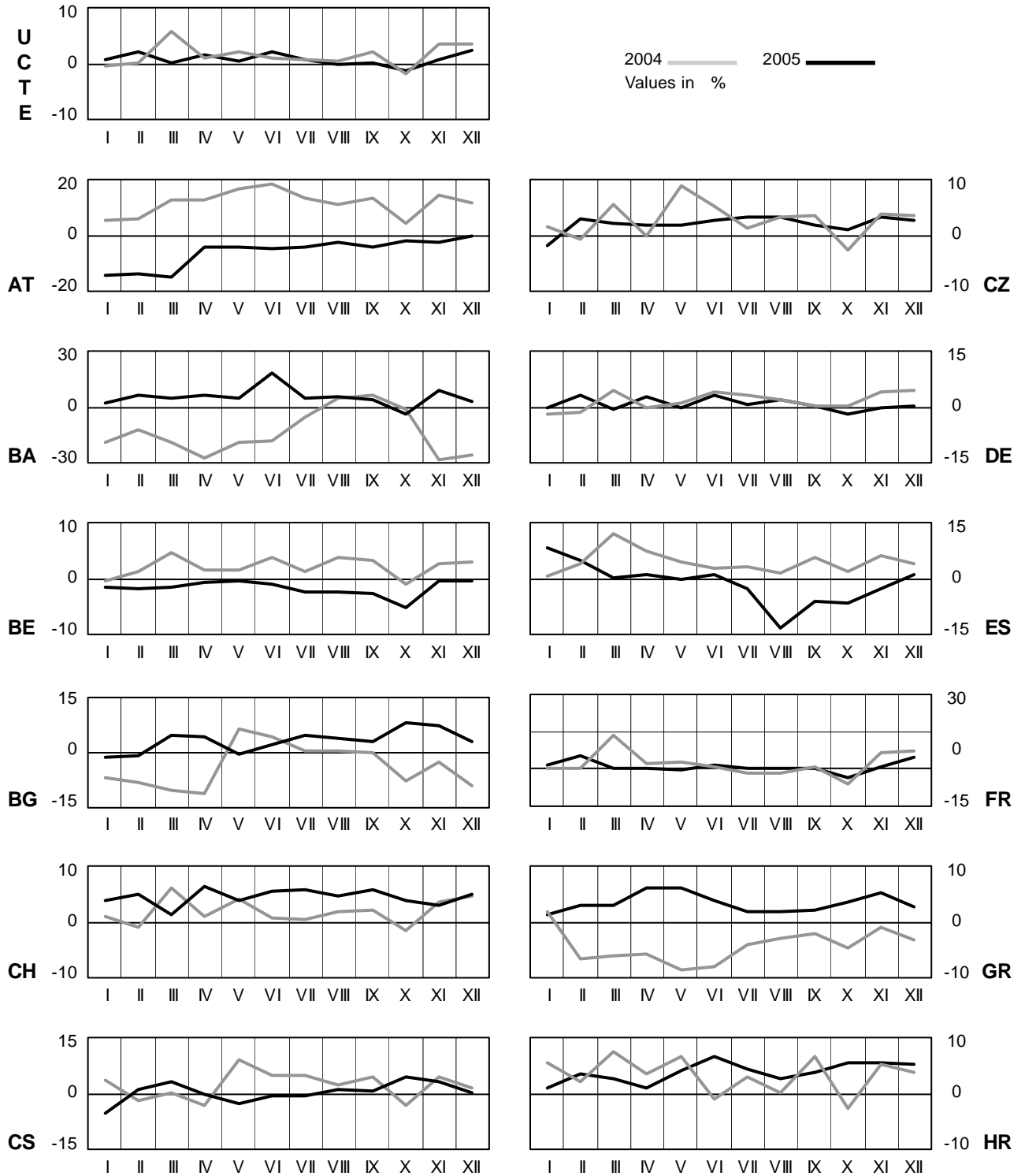


¹ UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

4 Monthly consumption variation

December 2005

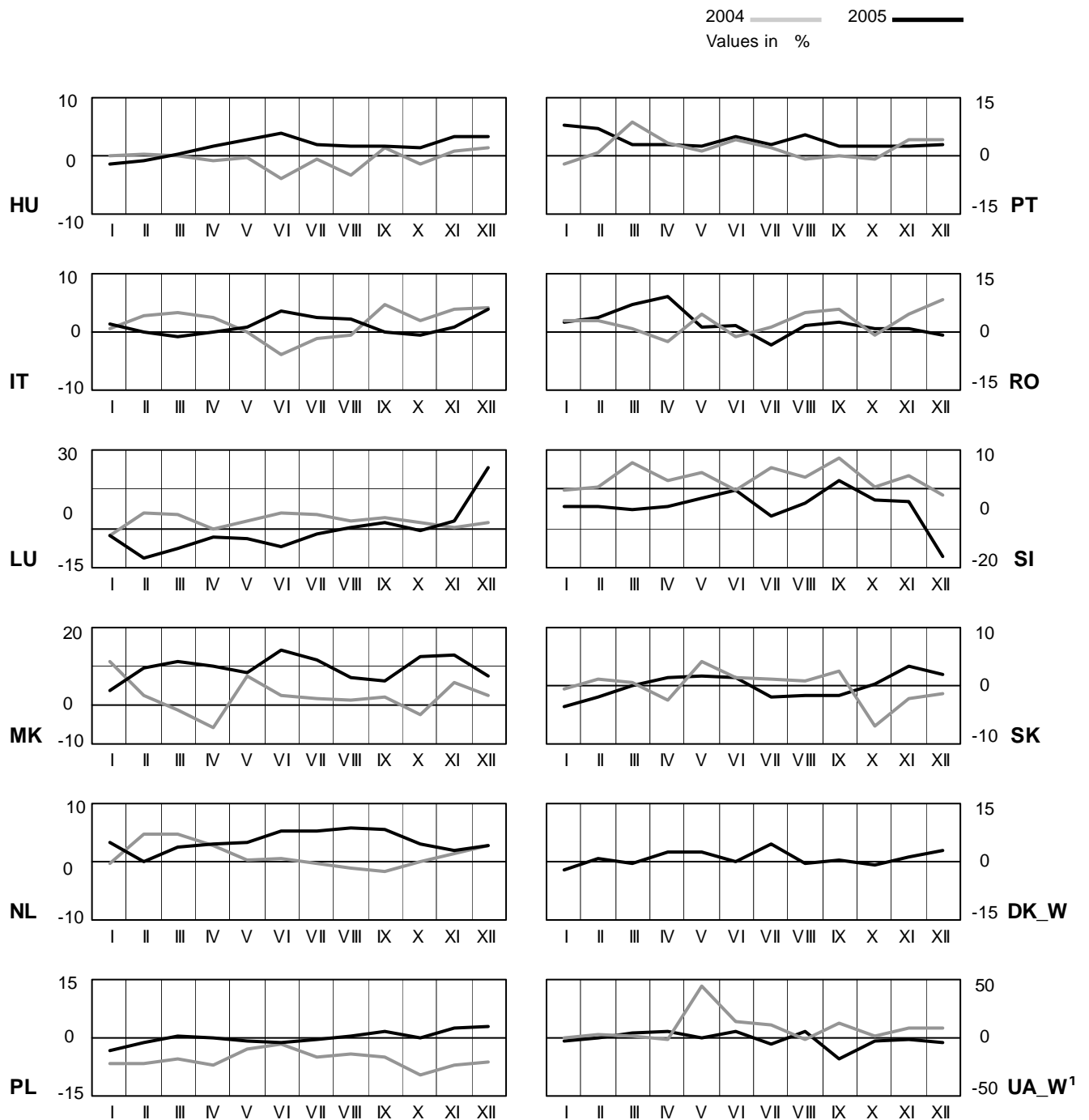
All values are calculated to represent 100% of the national values



4 Monthly consumption variation

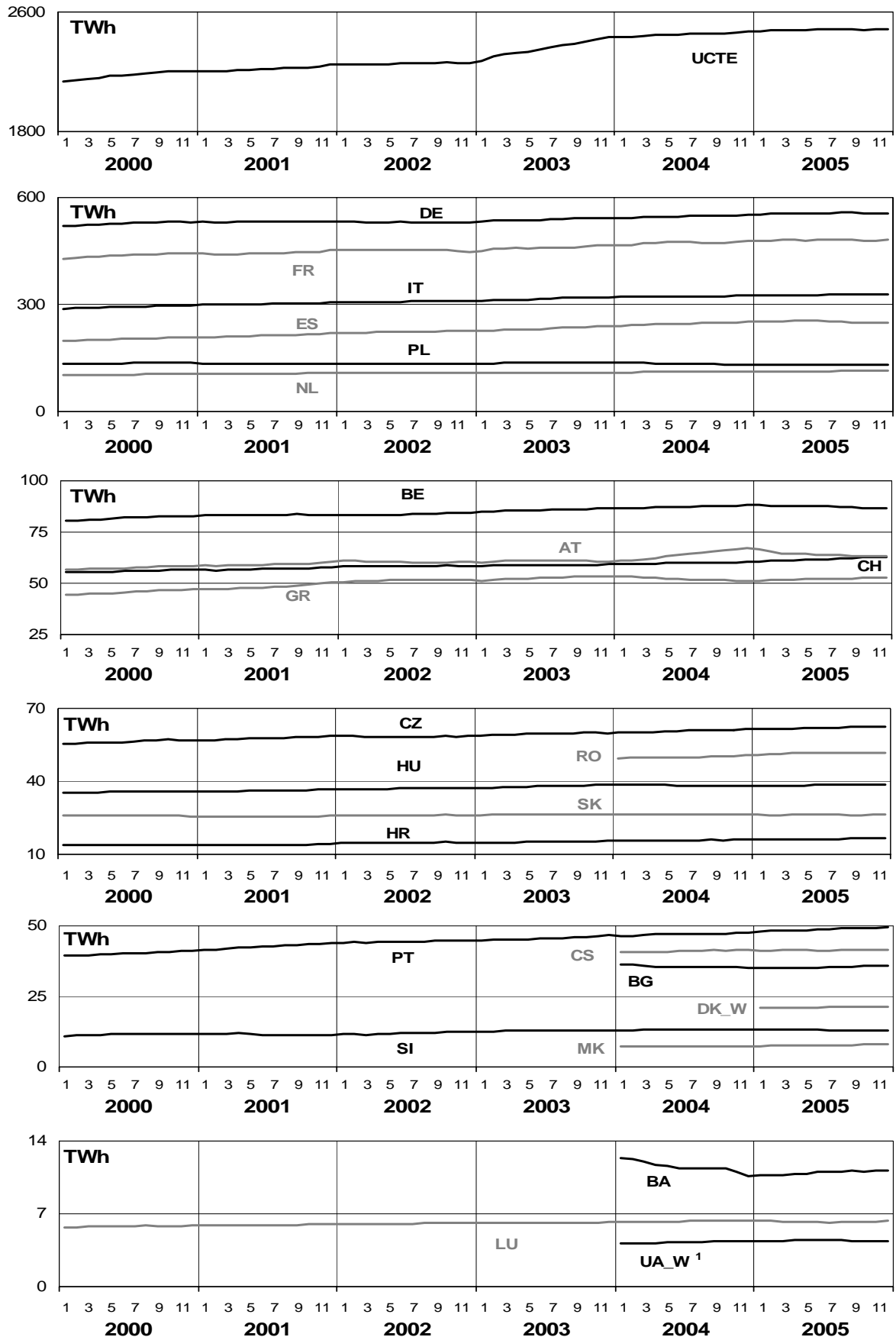
December 2005

All values are calculated to represent 100% of the national values



¹ UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

All values are calculated to represent 100% of the national values



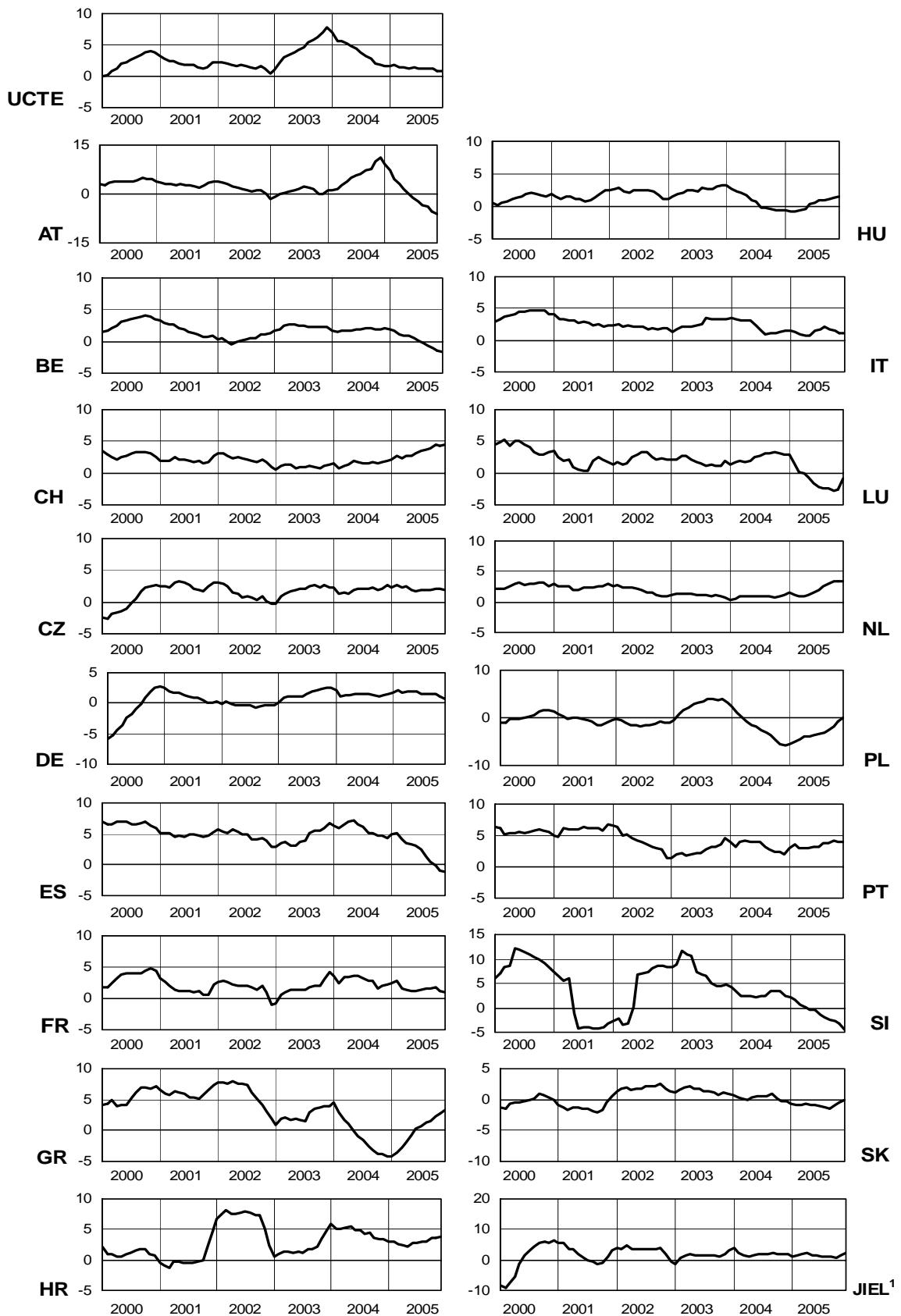
¹ UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

6

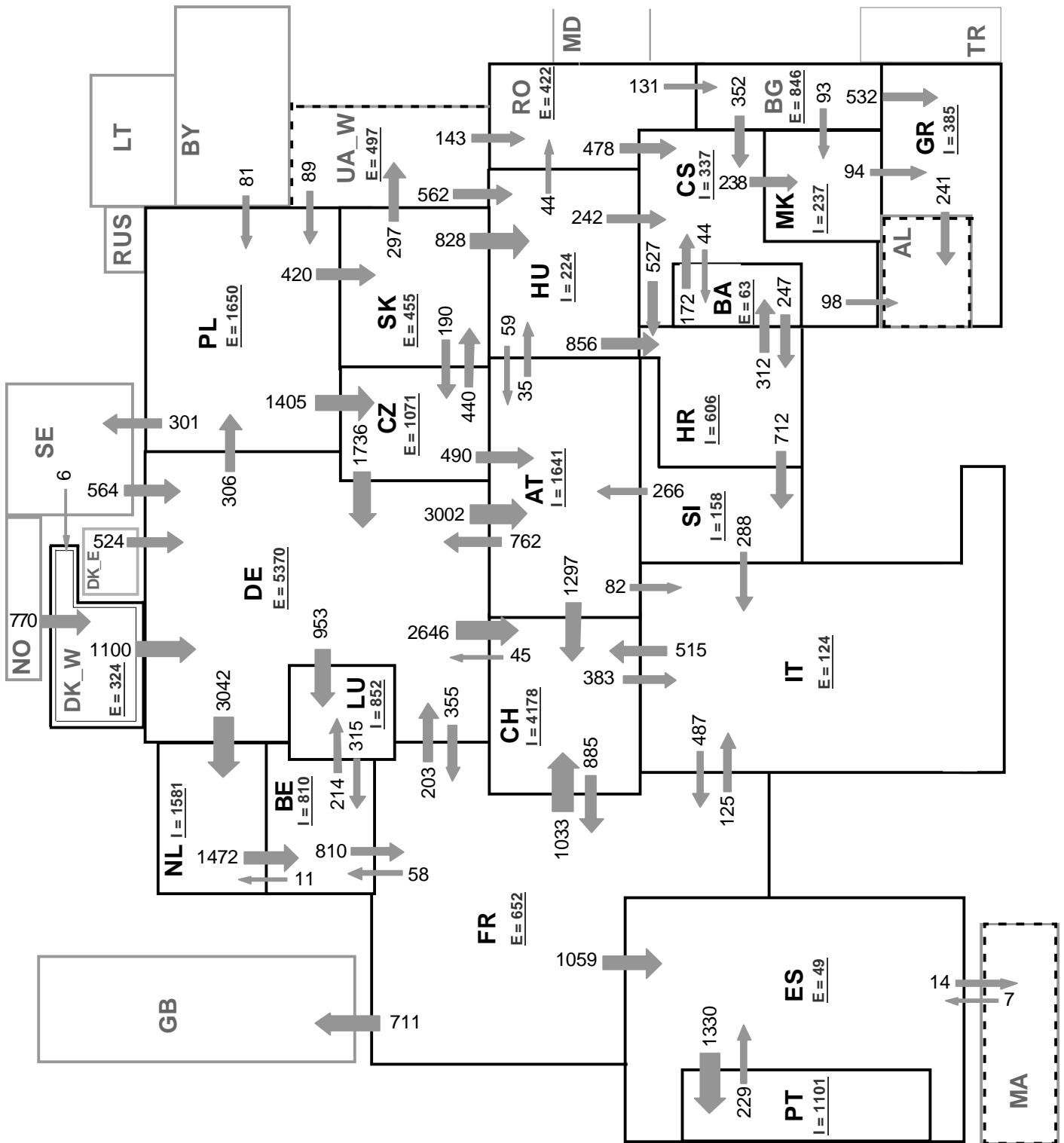
Variation of the last 12 months' consumption in %

December 2005

All values are calculated to represent 100% of the national values



¹ JIEL = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



Associate member

Synchronous operation with first region

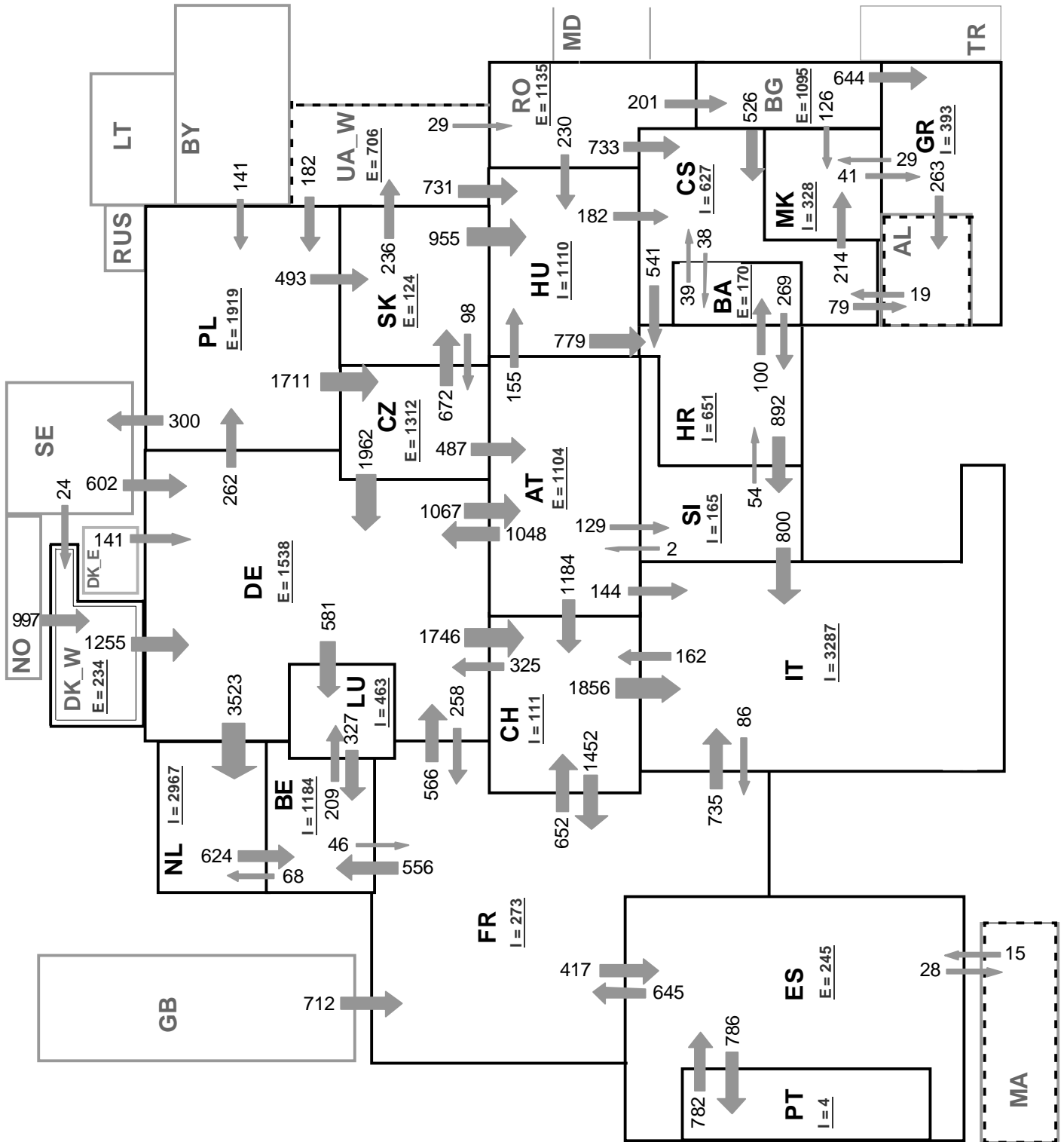
Sum of load flows in MW:

UCTE = 32850 MW Total = 38358 MW

* Central European Time (CET)

I = Import balance

E = Export balance



Associate member

Synchronous operation with first region

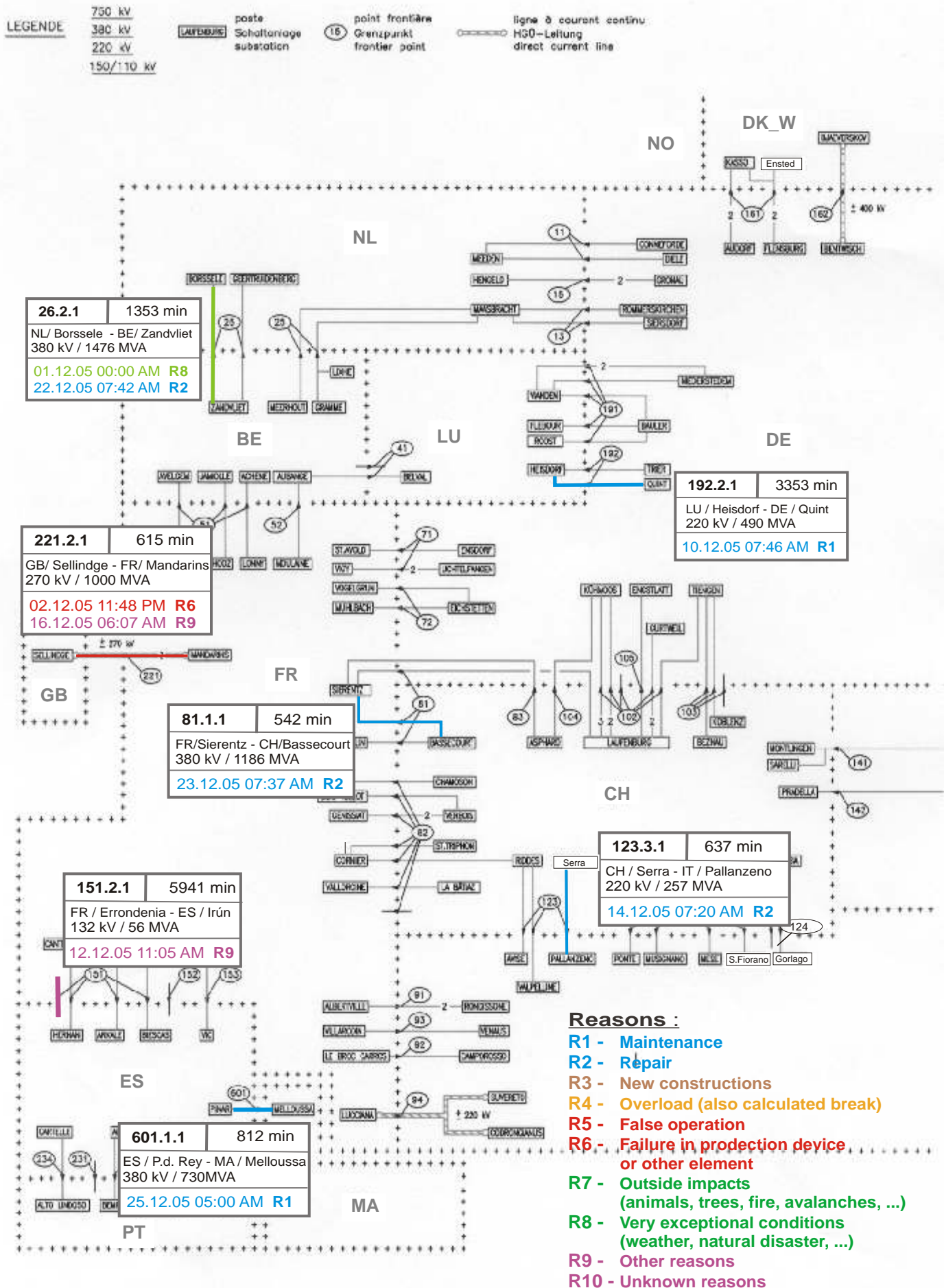
Sum of load flows in MW:

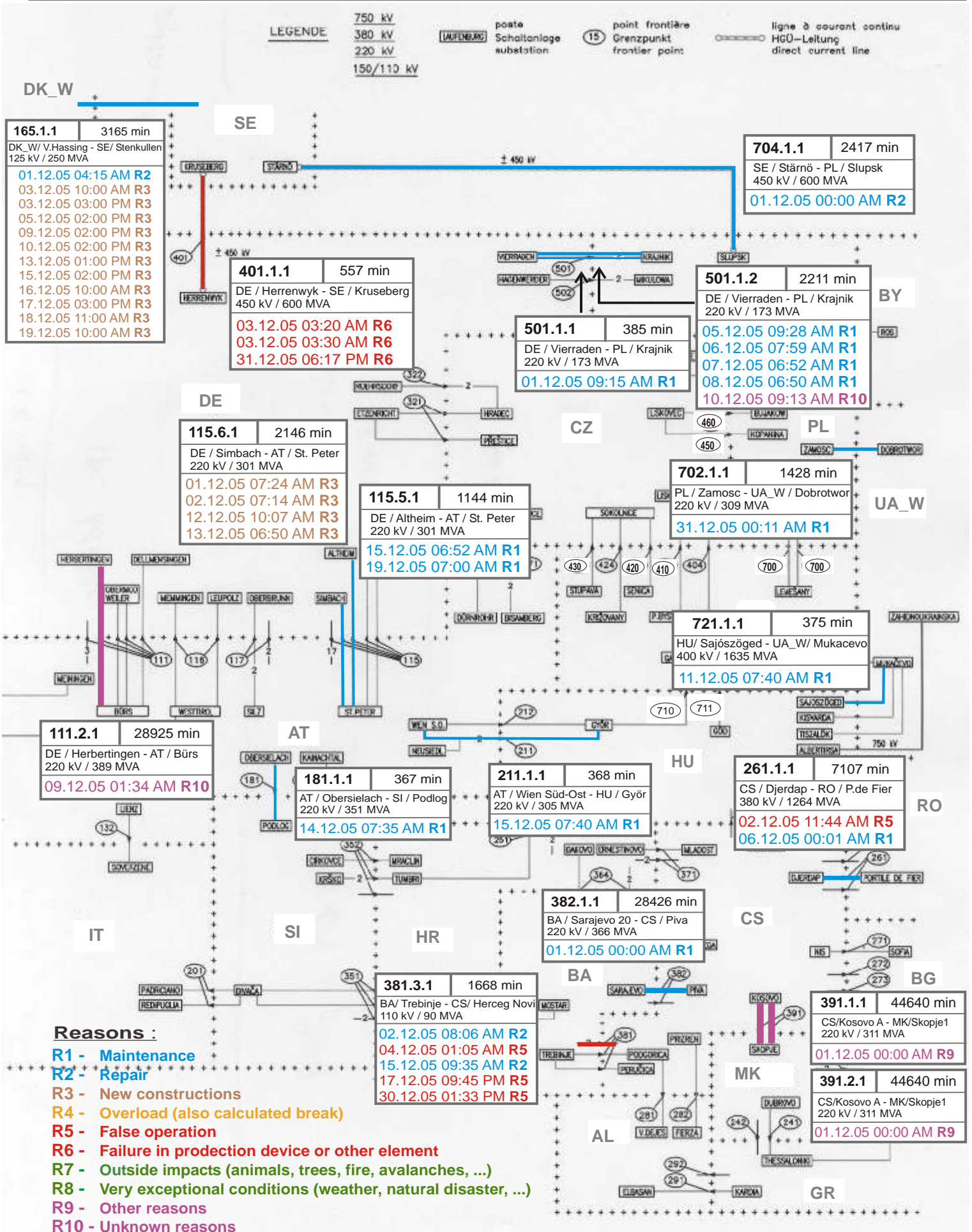
UCTE = 33209 MW Total = 38963 MW

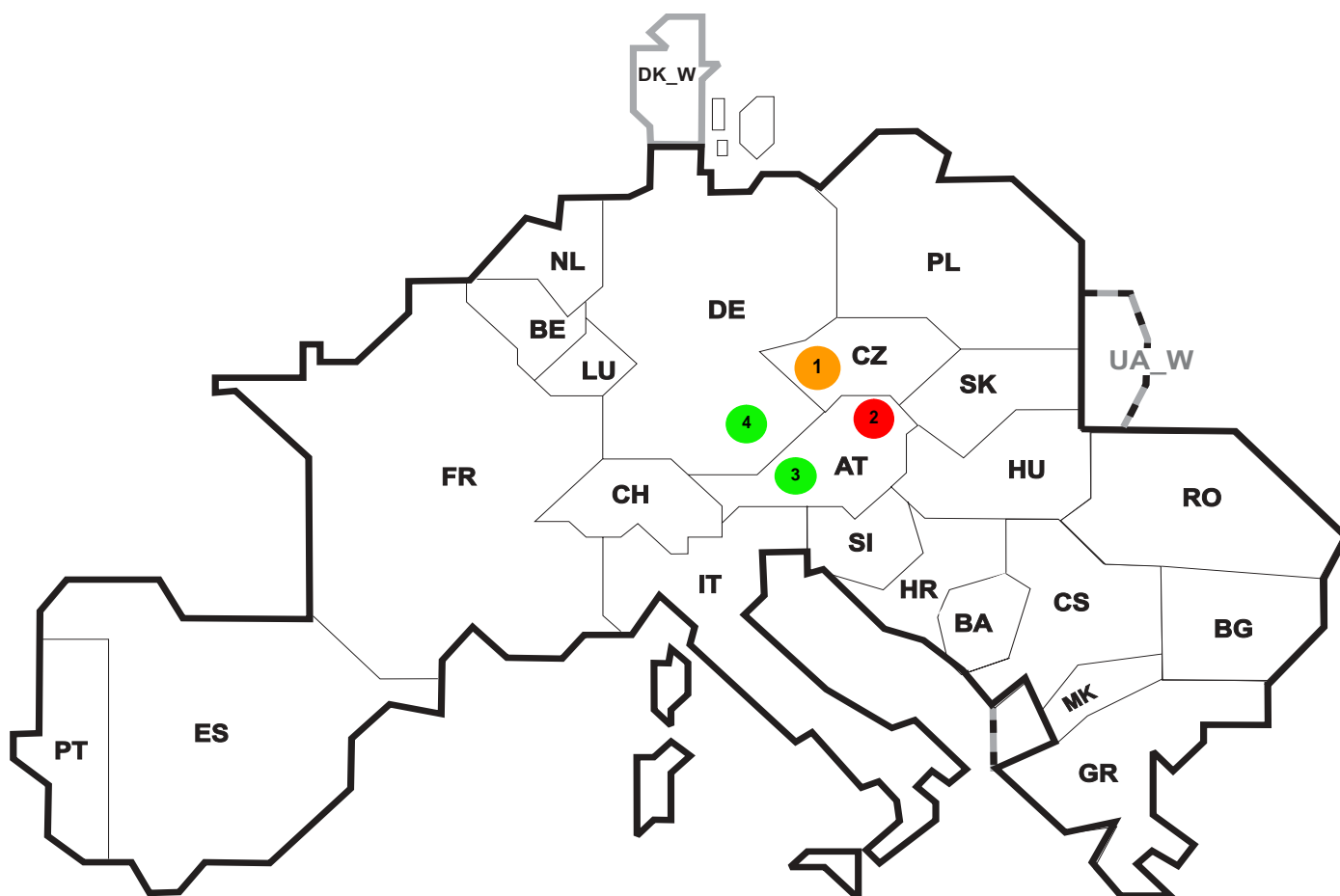
* Central European Time (CET)

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 ¹
1	CZ	Chrast	R4	5	60	5	0,04
2	AT	Dürnrohr	R6	0	0	492	0,00
3	AT	St. Peter	R7	0	0	114	0,00
4	DE	KHT	R8	0	250	44	0,00

¹ (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	721846	1214875	957	519	800	1780
BA	198936	20835	288	235	307	160
BE	443392	1152423	498	1205	709	1767
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	1453628	3064339	0	4200	3035	3133
CS	579442	939791	691	1081	880	1526
CZ	1814691	775113	2341	1141	2622	1257
DE	5529588	1875045	7668	1948	6410	3086
ES	898963	468232	1185	1078	1277	933
FR	7871175	4731929	9735	9030	8936	9153
GR	39600	334646	78	460	73	460
HR	218526	685189	266	877	262	911
HU	659228	1141469	1036	1262	749	1839
IT	197405	2934477	1002	878	248	3535
MK	300	252400	61	299	93	433
NL	507077	2132843	963	2547	288	3230
PL	1279592	84791	1653	135	2090	185
PT	67839	638427	5	1130	628	649
RO	737869	175530	745	305	1365	221
SI	624651	723967	881	1058	905	1035
SK	701893	384902	810	283	1006	780
DK_W	581196	593011	1087	775	1200	1000
UA_W ¹	342699	0	401	0	500	0

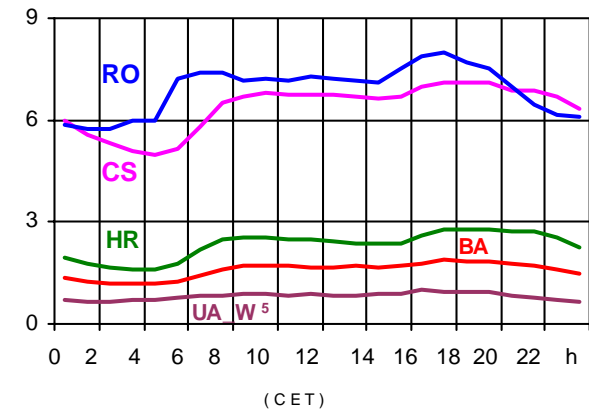
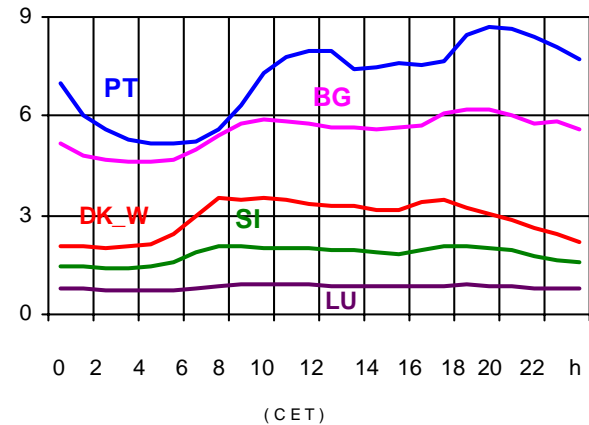
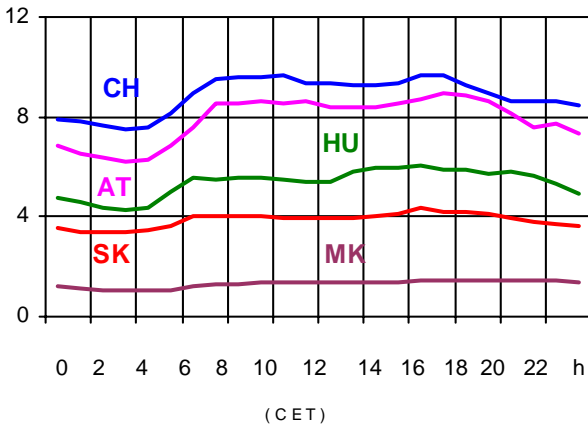
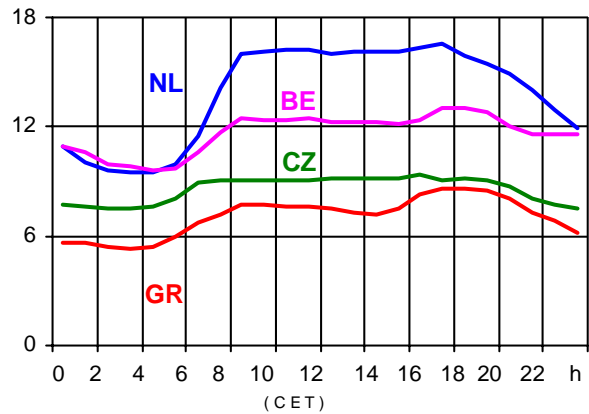
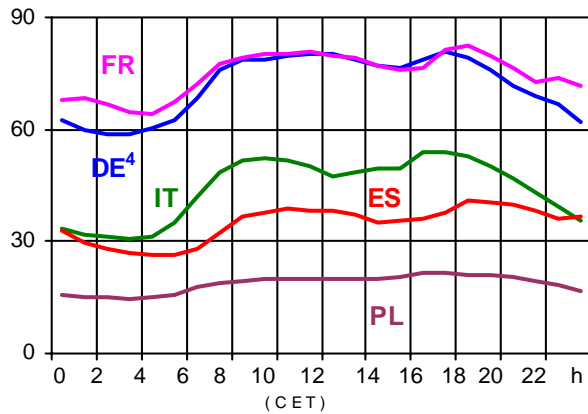
- Control areas can differ from national borders (i.e. German block which includes parts of AT, LU and DK).
- Values are calculated on an hourly base (MWh).
- This values are not the provisional values entered in the VULCANUS system, but the definitive values after an eventual correction during the actual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

¹ UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE

All values are calculated to represent 100% of the national values

Consumption hourly load curves¹ on 21.12.2005

Values in GW



	Peak load MW	var.% ²	Load representativity ¹ %	Parallel power ³ MW
AT	8904	-17,9	100	9817
BA	1891	3,8	100	1858
BE	13059	-2,0	100	11094
BG	6222	4,6	100	6858
CH	9695	1,5	100	9699
CS	7126	-0,4	100	6107
CZ	9424	-6,7	100	10846
DE ⁴	80879	-0,9	91	79700
ES	40972	3,5	98	38187
FR	82319	2,9	100	80237
GR	8596	5,8	100	7277
HR	2810	4,4	100	2183
HU	6064	-4,6	100	4438
IT	54115	1,9	100	49828
LU	929	4,9	99	914
MK	1450	6,8	100	1031
NL	16597	-0,8	100	13221
PL	21578	3,1	100	22196
PT	8681	5,1	96	7497
RO	7974	-0,7	100	7143
SI	2075	2,1	95	1728
SK	4323	0,0	100	4048
UCTE	389841	0,9		375907
DK_W	3527	-0,7	100	3765
UA_W ⁵	978	0,3	100	1356

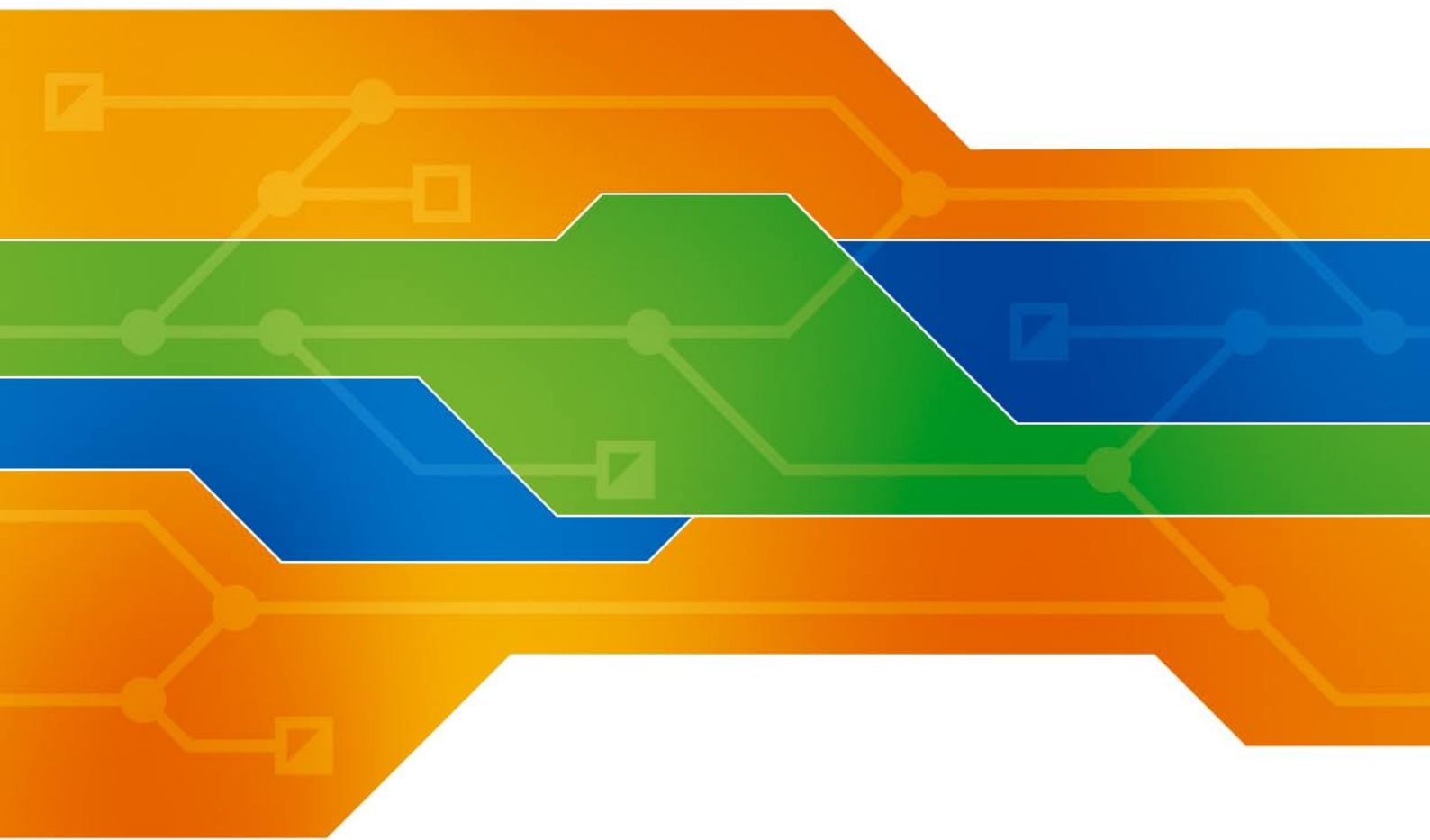
¹ Percentage as referred to total values in %

² Variation as compared to corresponding month of the previous year

³ Power produced in parallel operation (including autoproduction)

⁴ Values estimated on the basis of the vertical load. The vertical load is the total amount of the power flows out of the transmission network into distribution and large consumer networks.

⁵ UA_W represents the so-called Burshtyn Island synchronously interconnected with UCTE



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