

# UCTE



## June 2003

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

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<sup>1</sup> Monthly provisional values as of UCTE database from 30 October 2003

# 1

## Electricity supply situation of the countries

June 2003

| Countries       | Net production in GWh <sup>1</sup> |              |              |                           | Exchange balance<br>in GWh | Pump<br>in GWh | Consumption in GWh <sup>1</sup> |                    |                   |                    |
|-----------------|------------------------------------|--------------|--------------|---------------------------|----------------------------|----------------|---------------------------------|--------------------|-------------------|--------------------|
|                 | Hy                                 | Tn           | Tc           | Total                     |                            |                | monthly                         | Δ <sup>3</sup> [%] | last<br>12 months | Δ <sup>3</sup> [%] |
| B               | 97                                 | 3590         | 2389         | 6076 <sup>2</sup>         | 475                        | 109            | 6442                            | 0,7                | 83990             | 1,6                |
| D               | 1652                               | 11832        | 24751        | 38235 <sup>2</sup>        | 407                        | 649            | 37993                           | 1,0                | 504155            | 1,5                |
| E               | 2577                               | 4456         | 11726        | 18759 <sup>2</sup>        | 409                        | 415            | 18753                           | 8,1                | 215119            | 2,6                |
| F               | 4958                               | 31010        | 2438         | 38406                     | -5121                      | 502            | 32783                           | 2,2                | 441284            | 1,1                |
| GR              | 356                                | 0            | 3755         | 4111 <sup>2</sup>         | 247                        | 81             | 4277                            | 0,8                | 48440             | 1,5                |
| I               | 4885                               | 0            | 19742        | 24627                     | 4099                       | 876            | 27850                           | 4,8                | 314541            | 2,1                |
| SLO             | 266                                | 286          | 406          | 958                       | 52                         | 0              | 1010                            | 5,3                | 12200             | 7,1                |
| HR              | 263                                | 0            | 522          | 785 <sup>2</sup>          | 373                        | 12             | 1146                            | 6,7                | 15015             | 1,3                |
| BiH             | 228                                | 0            | 601          | 829                       | 106                        | 0              | 935                             | n.a.               | n.a.              | n.a.               |
| FYROM           | 133                                | 0            | 278          | 411 <sup>2</sup>          | 2                          | 0              | 413                             | n.a.               | n.a.              | n.a.               |
| SCG             | 752                                | 0            | 1723         | 2475                      | 88                         | 12             | 2551                            | n.a.               | n.a.              | n.a.               |
| L               | 74                                 | 0            | 245          | 319                       | 257                        | 92             | 484                             | -0,6               | 6066              | -2,3               |
| NL              | 0                                  | 323          | 6849         | 7172 <sup>2</sup>         | 1568                       | 0              | 8740                            | 2,2                | 109459            | 3,1                |
| A               | 3352                               | 0            | 466          | 3818                      | 160                        | 276            | 3702                            | 0,1                | 51266             | 0,9                |
| P               | 668                                | 0            | 2595         | 3263 <sup>2</sup>         | 174                        | 57             | 3380                            | 5,6                | 41706             | 2,7                |
| CH              | 4312                               | 1647         | 224          | 6183 <sup>2</sup>         | -1280                      | 383            | 4520                            | 3,2                | 58873             | 2,4                |
| CZ              | 94                                 | 2209         | 3347         | 5650 <sup>2</sup>         | -1440                      | 23             | 4187                            | 2,3                | 59921             | 3,1                |
| H               | 11                                 | 747          | 1698         | 2456 <sup>2</sup>         | 597                        | 0              | 3053                            | 5,6                | 37914             | 1,7                |
| PL <sup>5</sup> | 236                                | 0            | 10243        | 10479 <sup>2</sup>        | -428                       | 181            | 9870                            | 3,2                | 137228            | 1,4                |
| SK              | 330                                | 1248         | 542          | 2120 <sup>2</sup>         | -222                       | 15             | 1883                            | -0,7               | 26352             | 3,9                |
| <b>UCTE</b>     | <b>26715</b>                       | <b>58571</b> | <b>98545</b> | <b>183831<sup>2</sup></b> | <b>40</b>                  | <b>3702</b>    | <b>180169</b>                   | <b>3,0</b>         | <b>2208916</b>    | <b>1,8</b>         |
| RO              | 1145                               | 0            | 2898         | 4043 <sup>2</sup>         | -188                       | 0              | 3855                            | n.a.               | n.a.              | n.a.               |
| BG              | 326                                | 1223         | 1107         | 2656 <sup>2</sup>         | -295                       | 19             | 2342                            | n.a.               | n.a.              | n.a.               |
| West-UA         | 3                                  | 0            | 514          | 517 <sup>2</sup>          | -267                       | 0              | 250                             | n.a.               | n.a.              | n.a.               |

<sup>1</sup> Percentage as referred to total values in %

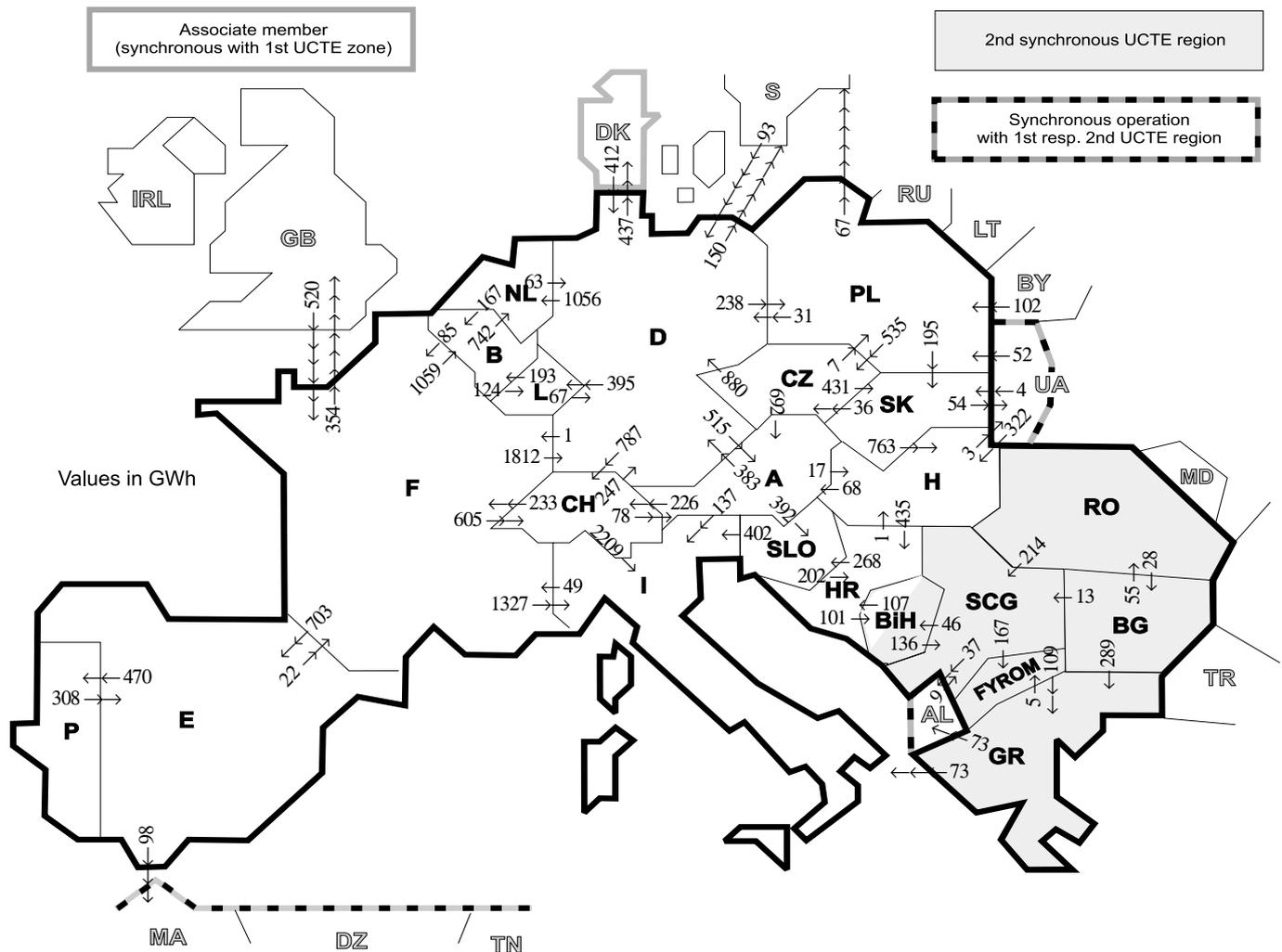
| Countries   | B  | D  | E  | F  | GR <sup>4</sup> | I   | SLO | HR  | BiH | FY-<br>ROM | SCG | L  | NL  | A  | P  | CH  | CZ  | H   | PL  | SK  | RO  | BG  | West-<br>UA |
|-------------|----|----|----|----|-----------------|-----|-----|-----|-----|------------|-----|----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-------------|
| Production  | 99 | 94 | 94 | 97 | 93              | 100 | 95  | 100 | 99  | 100        | 96  | 98 | 100 | 84 | 91 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100         |
| Consumption | 99 | 94 | 94 | 97 | 93              | 100 | 95  | 100 | 99  | 100        | 96  | 99 | 100 | 90 | 91 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100         |

<sup>2</sup> Including deliveries from industry

<sup>3</sup> Variation as compared to corresponding period of the previous year and representativity 100%

<sup>4</sup> The representativity of data referring to the whole country including the isolated systems of the Greek island is 93%.  
The representativity of data referring interconnected system on the mainland is 99%.

<sup>5</sup> Production values are gross values.



| Exporting countries | Importing countries |      |      |     |     |      |     |     |     |        |     |     |      |      |     |      |     |      |     | Σ Export |    |    |    |         |      |       |      |
|---------------------|---------------------|------|------|-----|-----|------|-----|-----|-----|--------|-----|-----|------|------|-----|------|-----|------|-----|----------|----|----|----|---------|------|-------|------|
|                     | B                   | D    | E    | F   | GR  | I    | SLO | HR  | BIH | FY-ROM | SCG | L   | NL   | A    | P   | CH   | CZ  | H    | PL  |          | SK | RO | BG | West-UA | DK³  | III¹  |      |
| B                   | -                   | -    | -    | 85  | -   | -    | -   | -   | -   | -      | -   | 124 | 742  | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 951  |
| D                   | -                   | -    | -    | 1   | -   | -    | -   | -   | -   | -      | -   | 395 | 1056 | 515  | -   | 787  | 0   | -    | 238 | -        | -  | -  | -  | -       | 437  | 587   | 3579 |
| E                   | -                   | -    | -    | 22  | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | 470 | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | 98    | 590  |
| F                   | 1059                | 1812 | 703  | -   | -   | 1327 | -   | -   | -   | -      | -   | -   | -    | -    | -   | 605  | -   | -    | -   | -        | -  | -  | -  | -       | -    | 354   | 5860 |
| GR                  | -                   | -    | -    | -   | -   | 73   | -   | -   | -   | 5      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | 0  | -       | -    | 73    | 151  |
| I                   | -                   | -    | -    | 49  | 0   | 0    | -   | -   | -   | -      | -   | -   | -    | 0    | 0   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 49   |
| SLO                 | -                   | -    | -    | -   | -   | 402  | -   | 202 | -   | -      | -   | -   | -    | 0    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 604  |
| HR                  | -                   | -    | -    | -   | -   | -    | 268 | -   | 101 | -      | 0   | -   | -    | -    | -   | -    | -   | 1    | -   | -        | -  | -  | -  | -       | -    | -     | 370  |
| BIH                 | -                   | -    | -    | -   | -   | -    | -   | 107 | -   | -      | 136 | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 243  |
| FYROM               | -                   | -    | -    | -   | 109 | -    | -   | -   | -   | -      | 0   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | 0  | -       | -    | -     | 109  |
| SCG                 | -                   | -    | -    | -   | -   | -    | -   | 0   | 46  | 167    | -   | -   | -    | -    | -   | -    | -   | 0    | -   | -        | -  | 0  | 36 | -       | -    | 37    | 286  |
| L                   | 193                 | 67   | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 260  |
| NL                  | 167                 | 63   | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 230  |
| A                   | -                   | 383  | -    | -   | -   | 137  | 392 | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 1155 |
| P                   | -                   | -    | 308  | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 308  |
| CH                  | -                   | 247  | -    | 233 | -   | 2209 | -   | -   | -   | -      | -   | -   | -    | 78   | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 2767 |
| CZ                  | -                   | 880  | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | 692  | -   | -    | -   | -    | 7   | 431      | -  | -  | -  | -       | -    | -     | 2010 |
| H                   | -                   | -    | -    | -   | -   | -    | -   | 435 | -   | -      | 0   | -   | -    | 68   | -   | -    | -   | -    | -   | 0        | 0  | -  | 3  | -       | -    | 3     | 506  |
| PL                  | -                   | 31   | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | 535 | -    | -   | 195      | -  | -  | 0  | -       | 0    | 0     | 828  |
| SK                  | -                   | -    | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | 36  | 763  | 0   | -        | -  | -  | -  | 54      | -    | 54    | 853  |
| RO                  | -                   | -    | -    | -   | -   | -    | -   | -   | -   | -      | 214 | -   | -    | -    | -   | -    | -   | -    | 0   | -        | -  | 28 | -  | -       | -    | 0     | 242  |
| BG                  | -                   | -    | -    | -   | 289 | -    | -   | -   | -   | 0      | 13  | -   | -    | -    | -   | -    | -   | -    | -   | -        | 55 | -  | -  | -       | -    | 0     | 357  |
| West-UA             | -                   | -    | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | 322  | 52  | 4        | 0  | -  | -  | -       | -    | 378   |      |
| DK²                 | -                   | 412  | -    | -   | -   | -    | -   | -   | -   | -      | -   | -   | -    | -    | -   | -    | -   | -    | -   | -        | -  | -  | -  | -       | -    | -     | 412  |
| III¹                | -                   | 505  | 0    | 520 | 0   | -    | -   | -   | -   | -      | 9   | -   | -    | -    | -   | -    | -   | 322  | 154 | 4        | 0  | 0  | -  | -       | -    | -     | 1514 |
| Σ Import            | 1419                | 3988 | 1011 | 910 | 398 | 4148 | 660 | 744 | 147 | 172    | 372 | 519 | 1798 | 1353 | 470 | 1618 | 571 | 1103 | 399 | 630      | 55 | 64 | 57 | 437     | 1273 | 23822 |      |

Sum of physical energy flows between UCTE countries = 21092 GWh

Total physical energy flows = 23822 GWh

¹ III = Third countries: Albania, Belarus, Denmark, Great Britain, Morocco, Republic of Moldavia, Sweden, Republic of Turkey and West-Ukraine

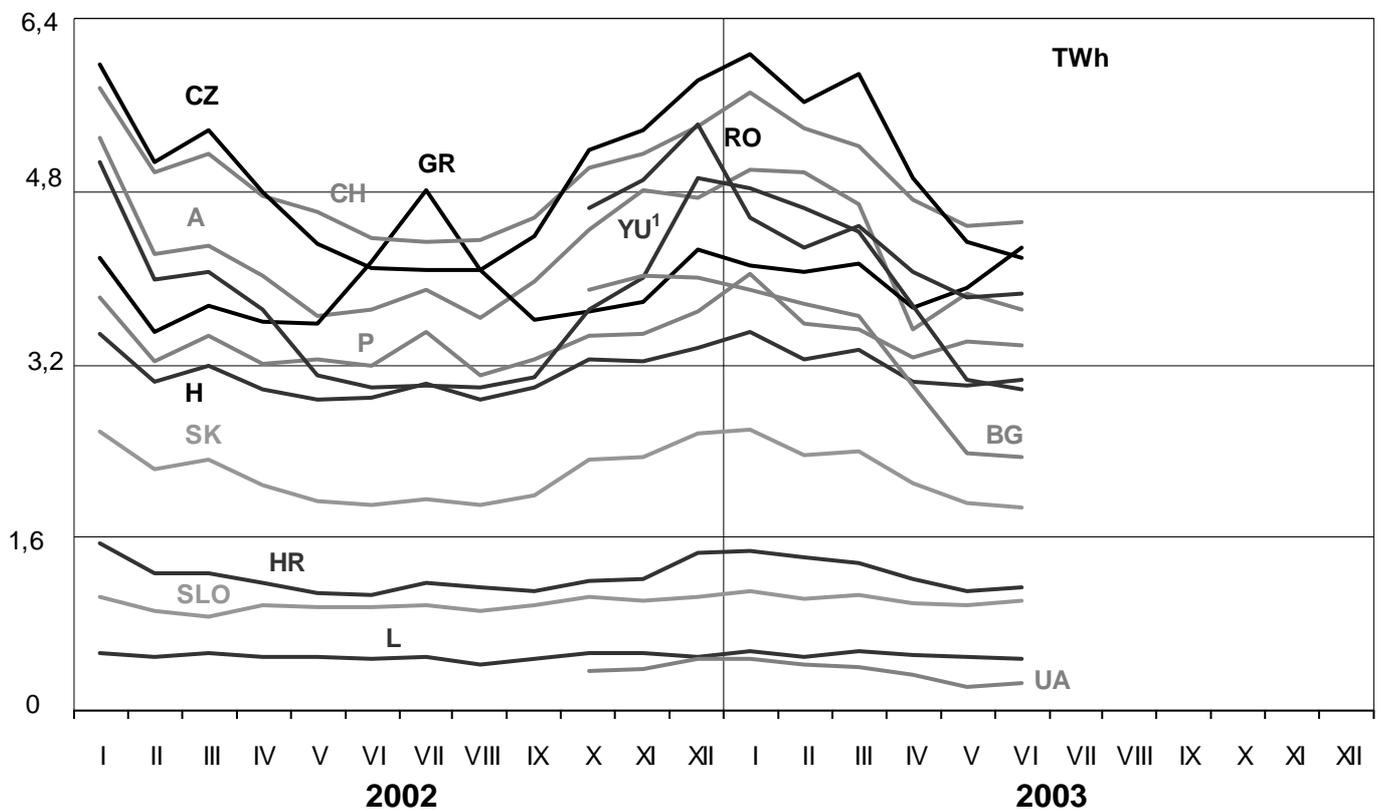
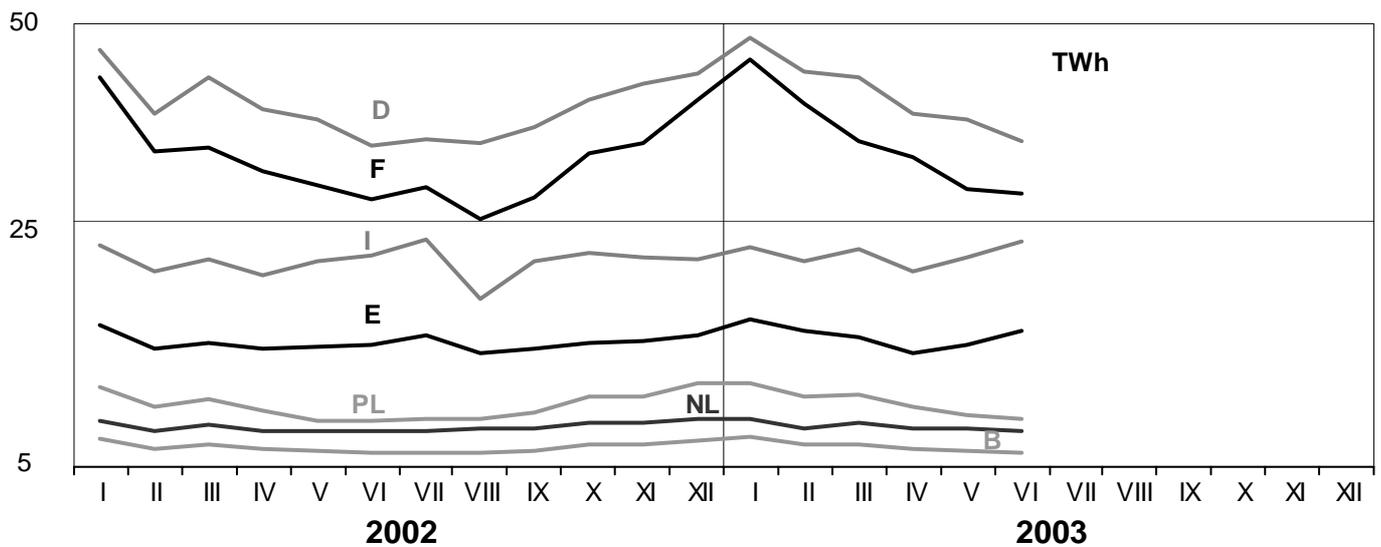
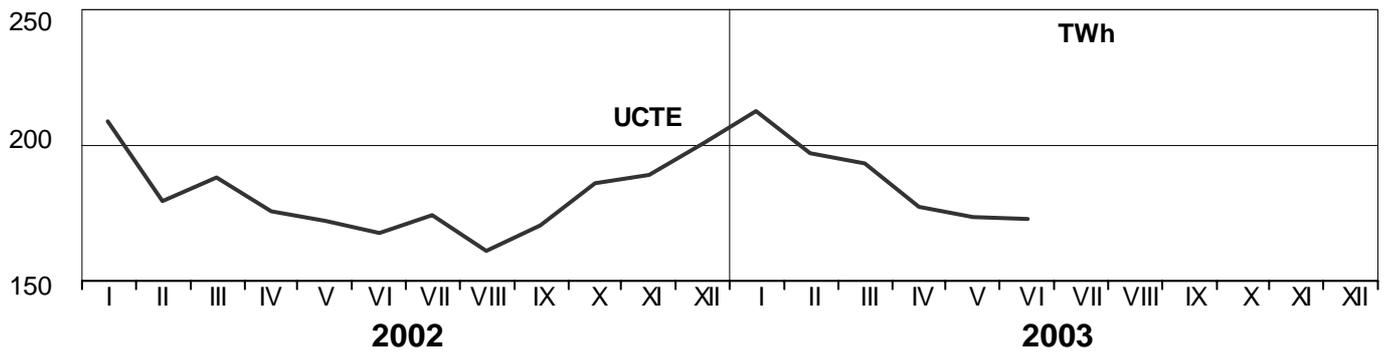
² Denmark (Jutland)

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.

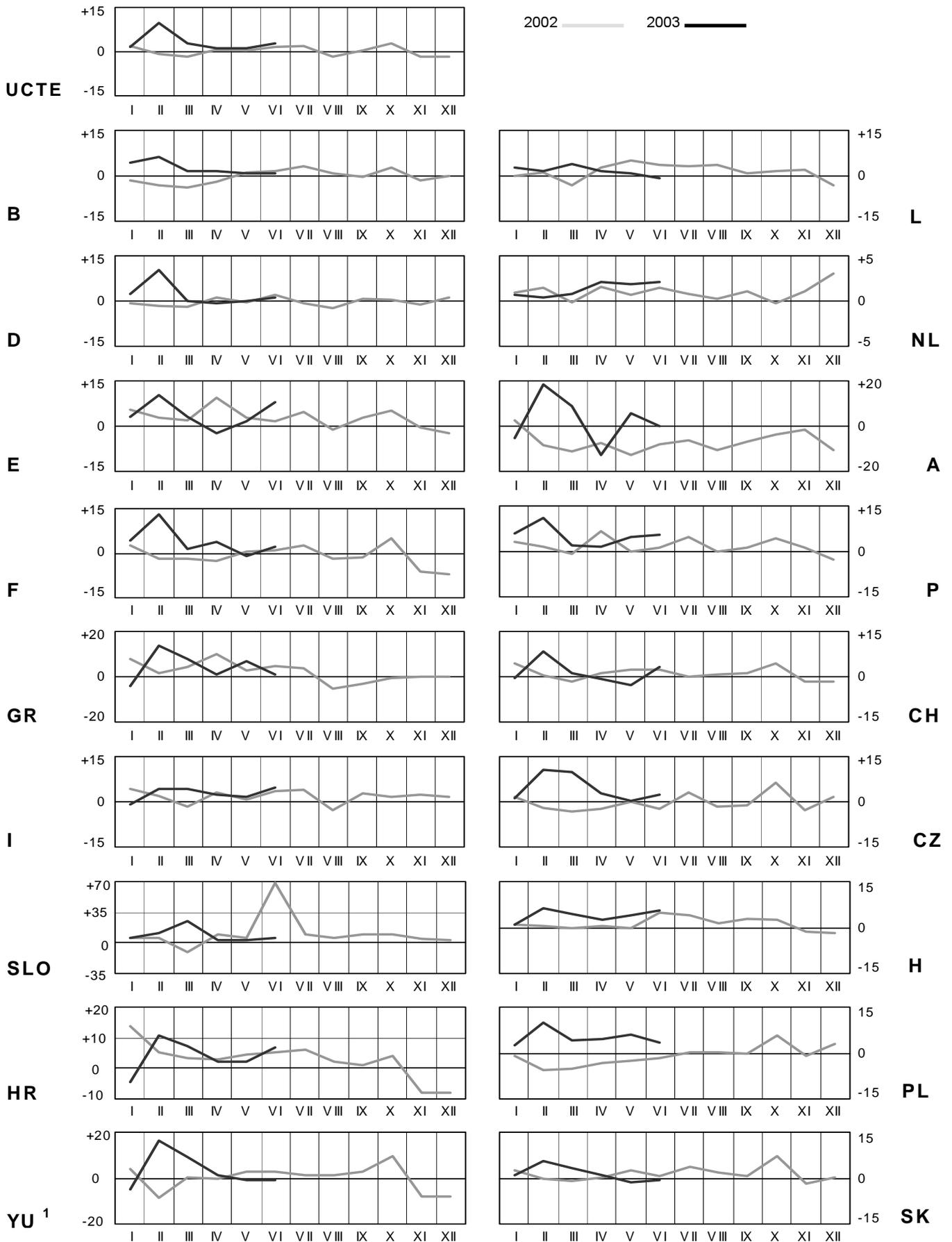
# 3

## Monthly consumption

June 2003



<sup>1</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

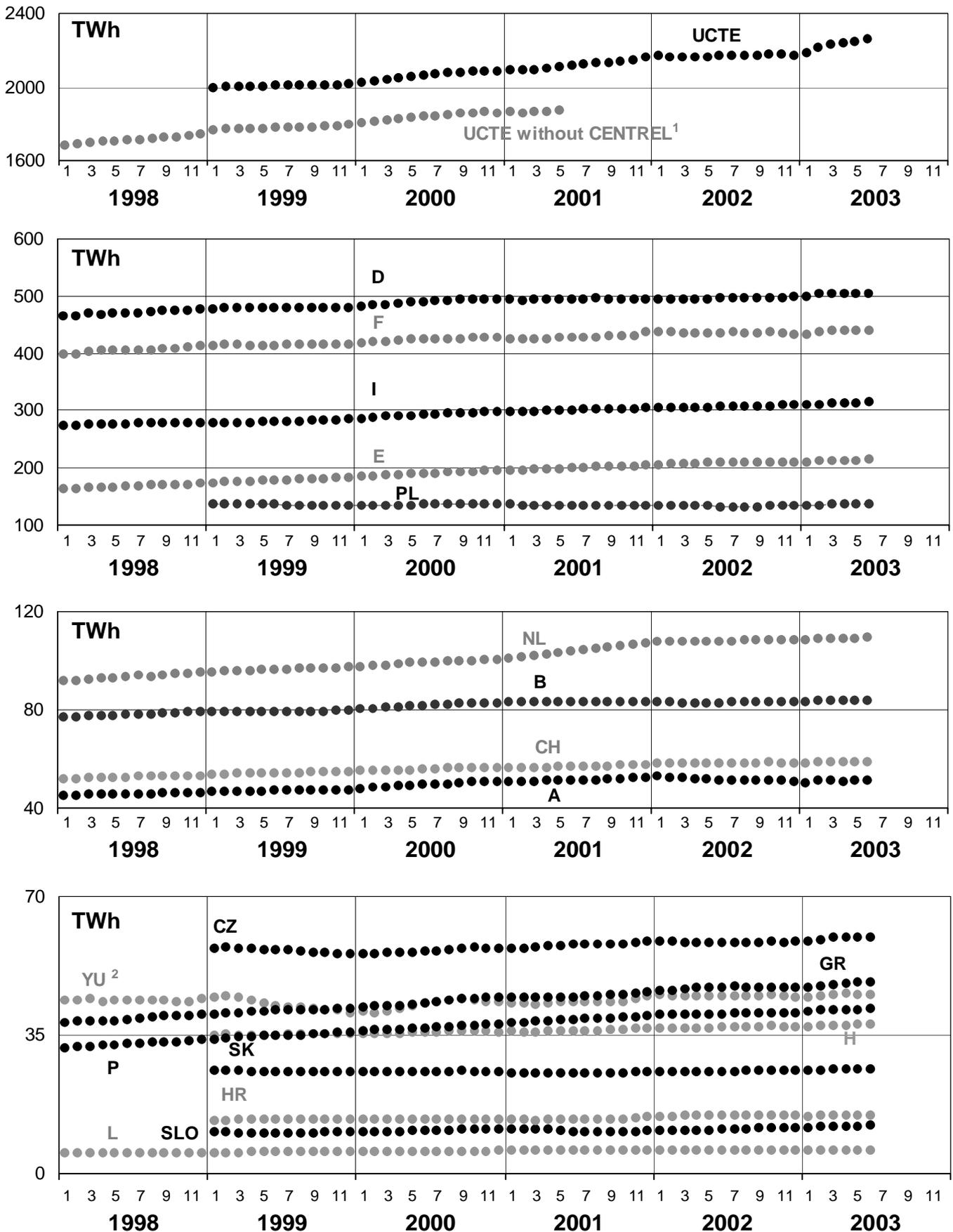


<sup>1</sup>YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)

# 5

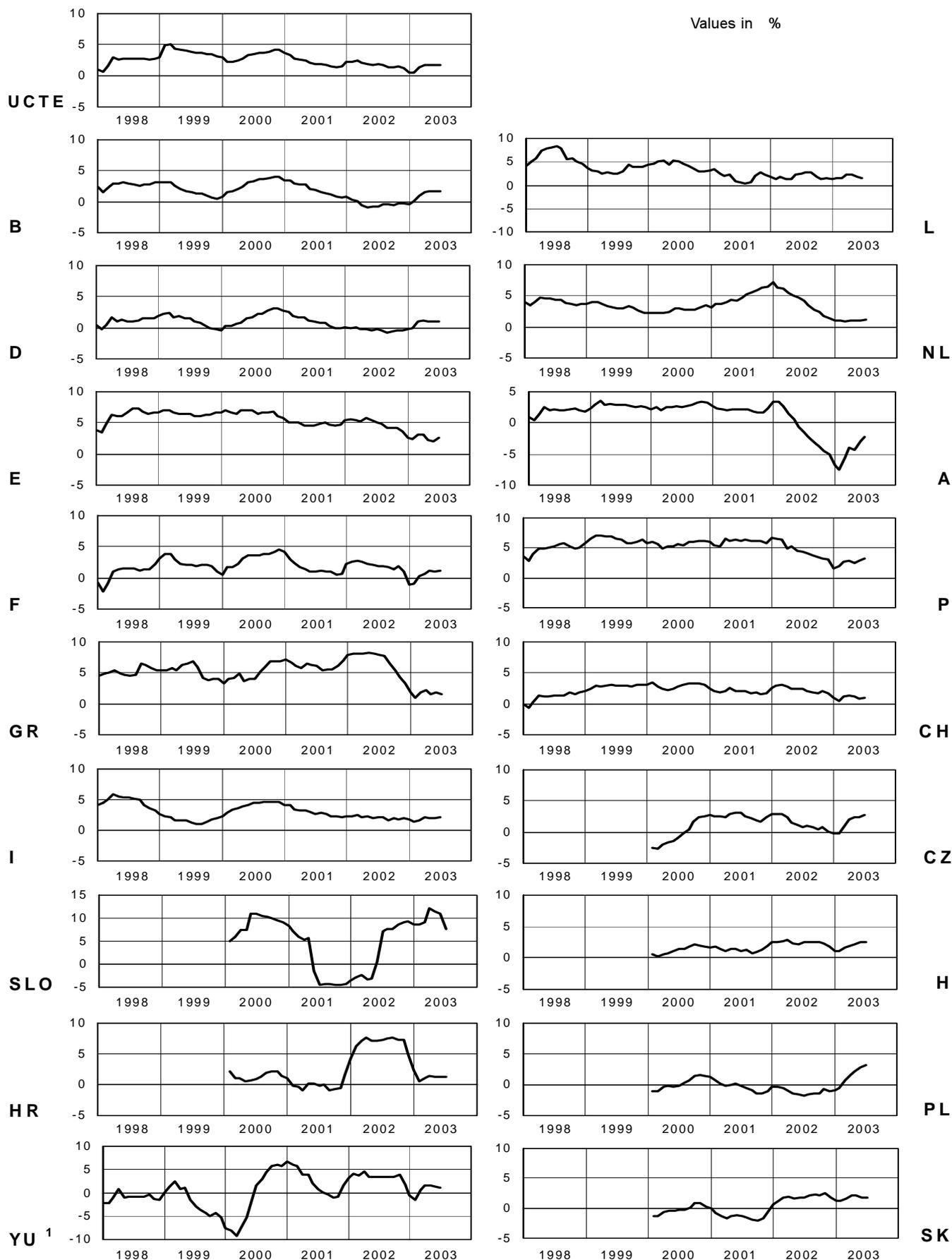
## Consumption of last 12 months

June 2003

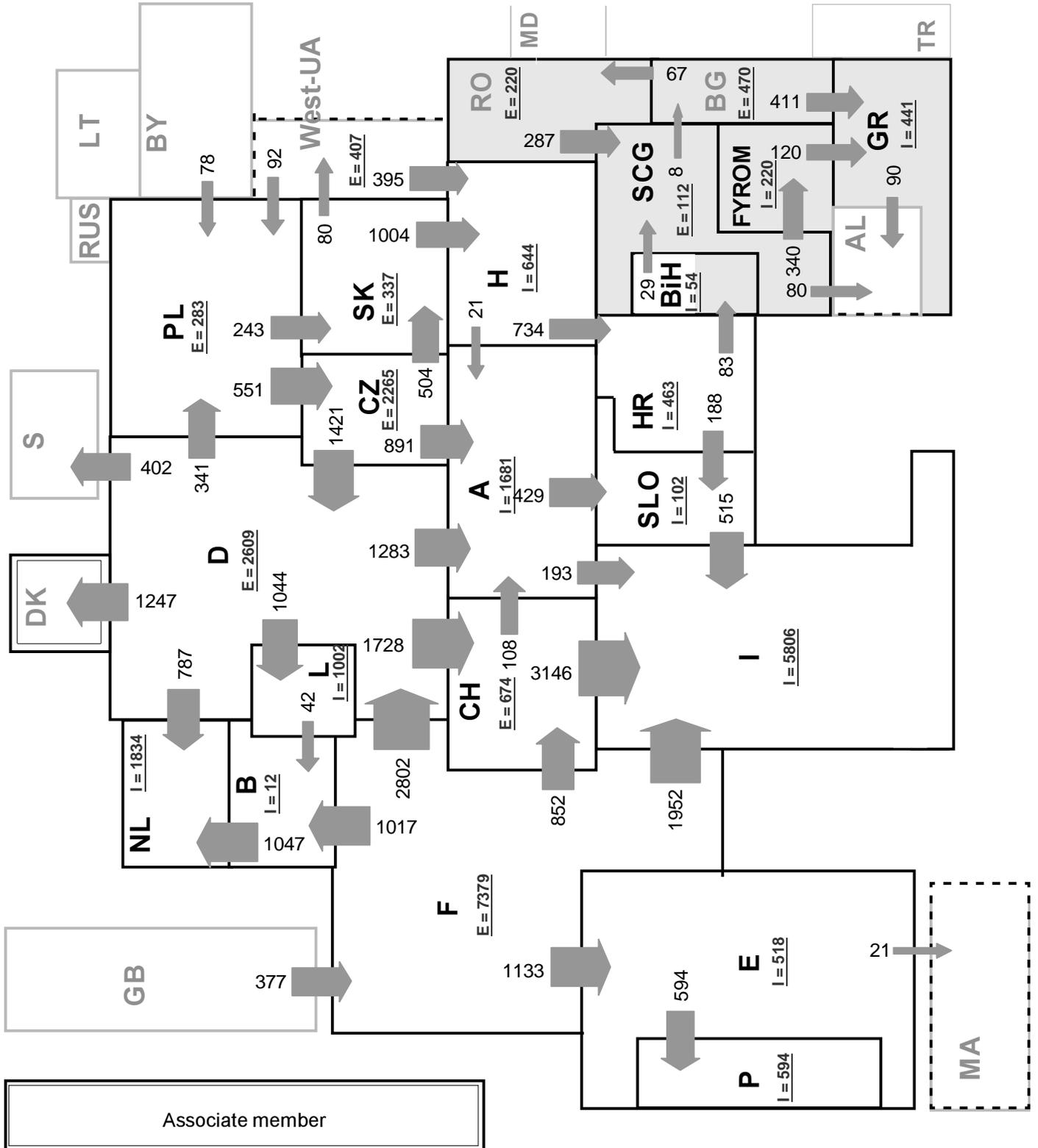


<sup>1</sup> CENTREL countries CZ, H, PL and SK member of UCTE from May 2001

<sup>2</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



<sup>1</sup> YU = FRY + FYROM (Federal Republic of Yugoslavia and former Yugoslav Republic of Macedonia)



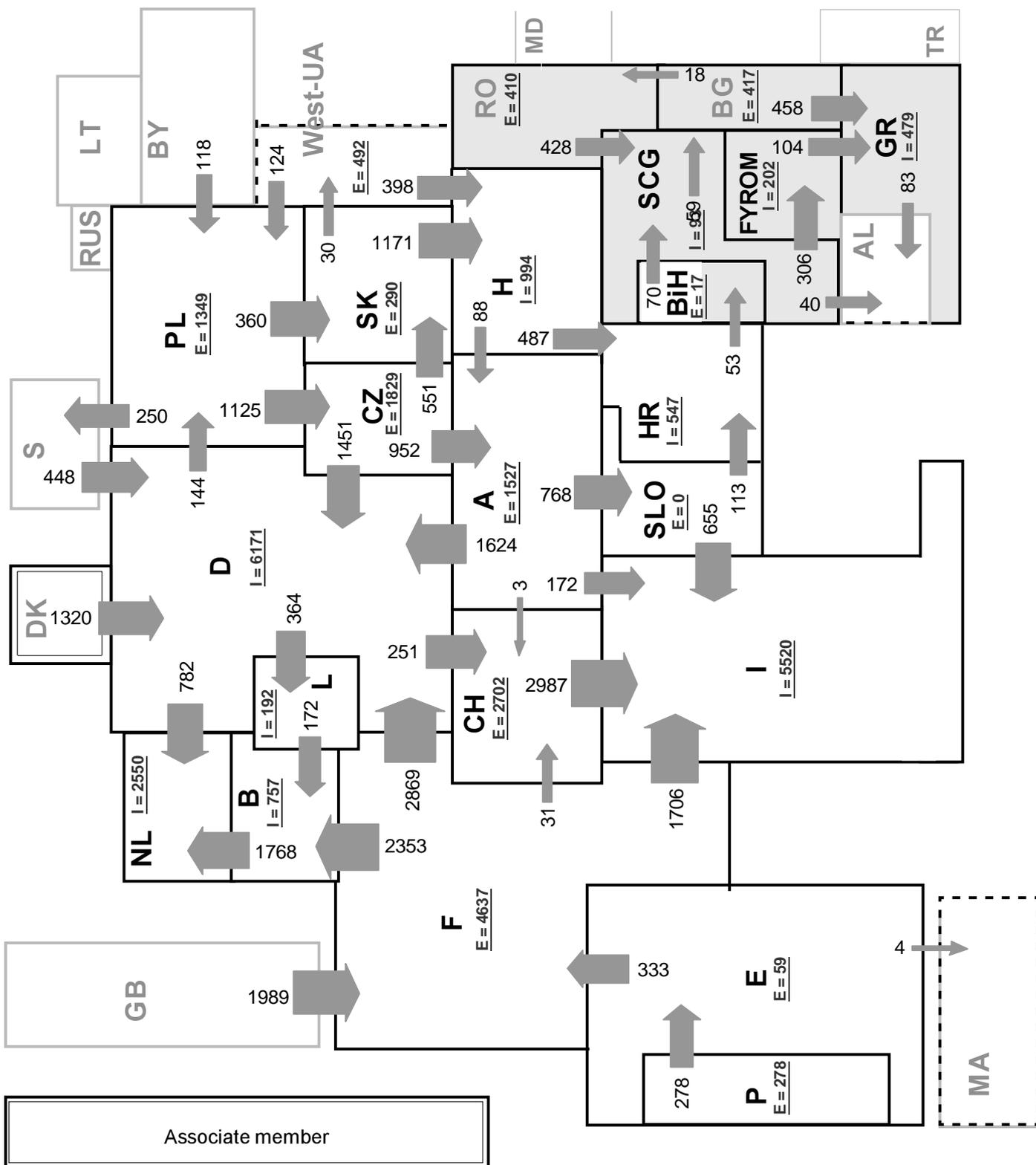
**Sum of load flows in MW:**

UCTE = 25915      Total = 28777

\* Central European Time (CET)

I = Import balance

E = Export balance



Associate member

Synchronous operation with 1st resp. 2nd UCTE region

2nd synchronous UCTE region

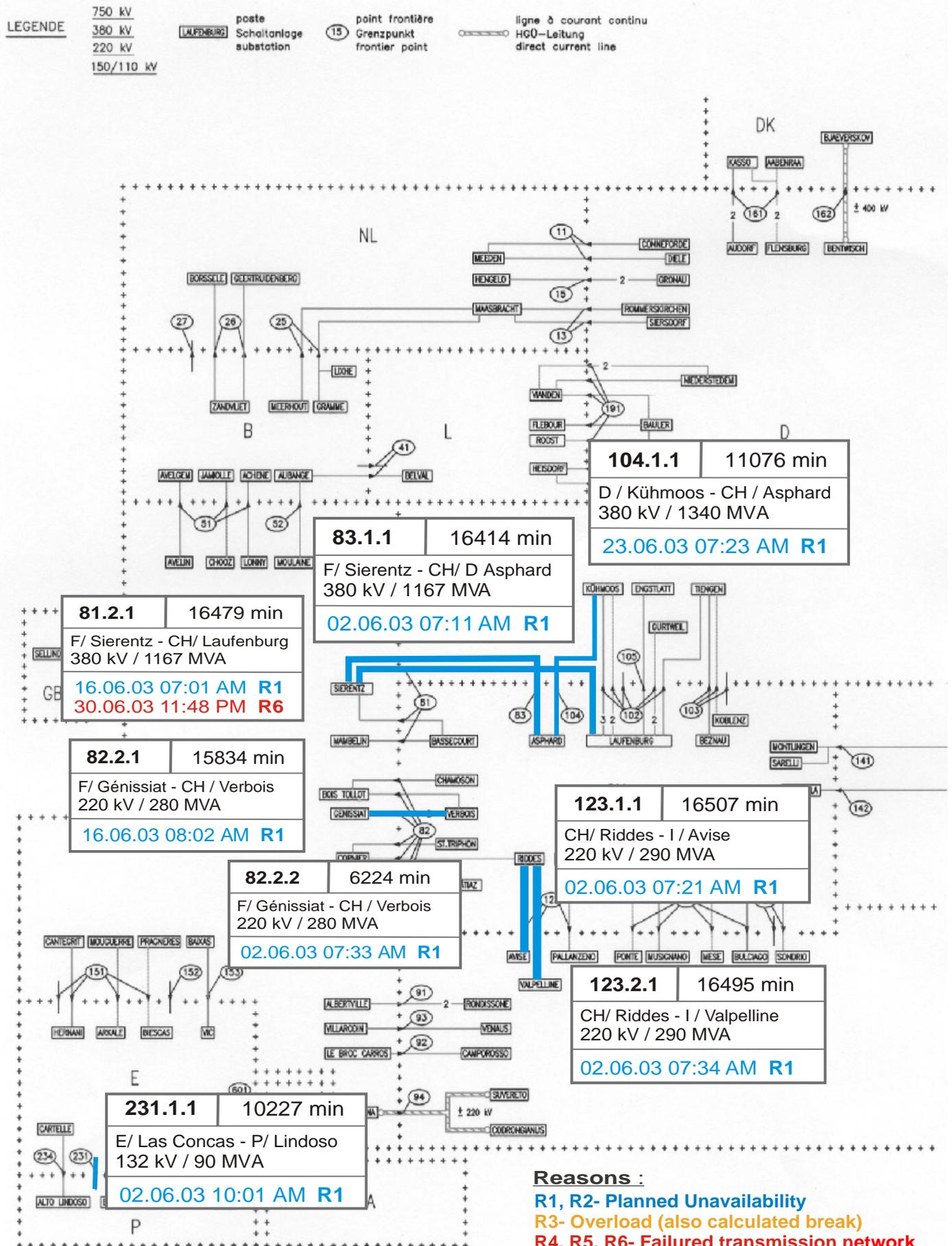
**Sum of load flows in MW:**

UCTE = 25054      Total = 29858

\* Central European Time (CET)

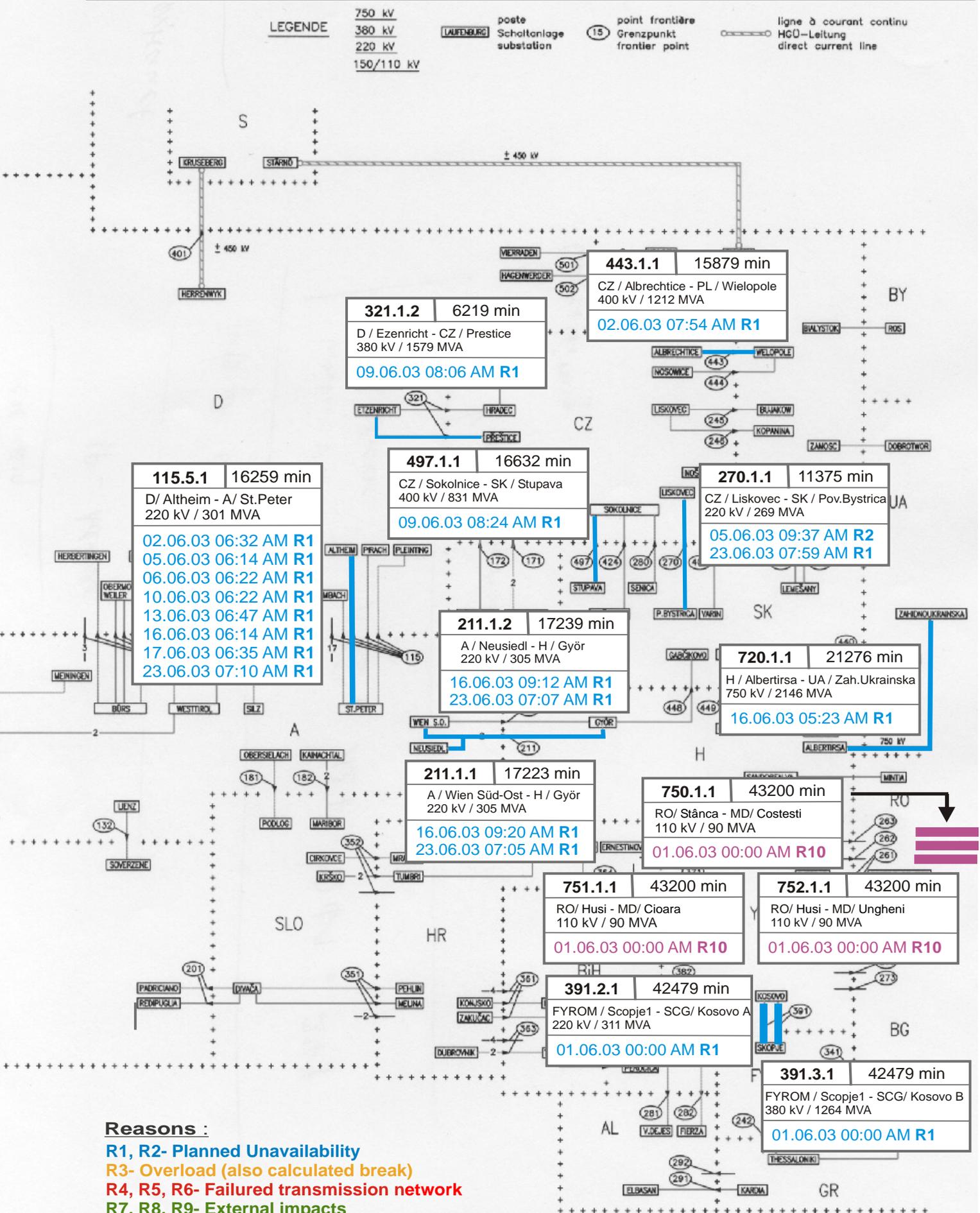
I = Import balance

E = Export balance



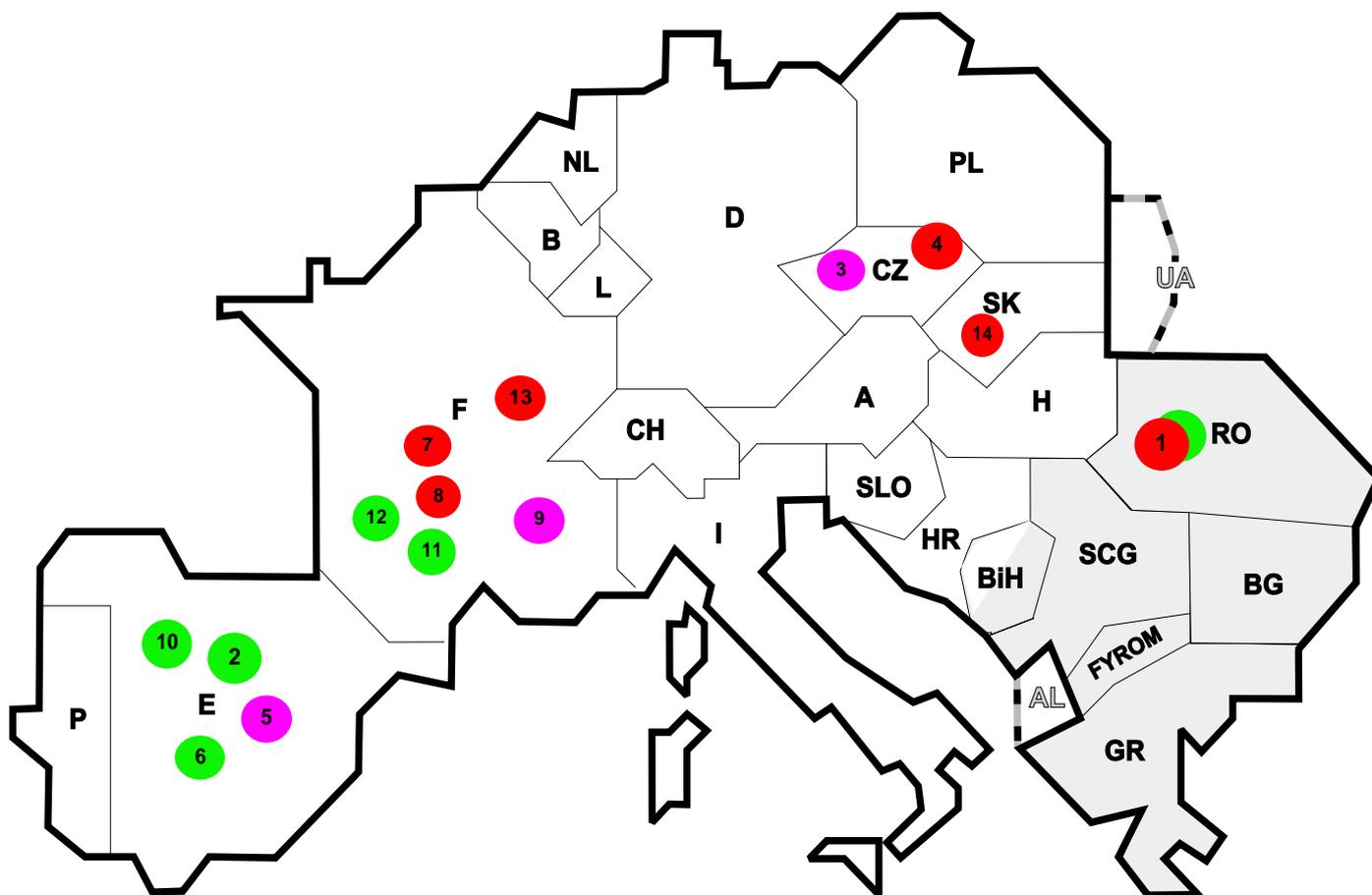
**Reasons :**

- R1, R2- Planned Unavailability
- R3- Overload (also calculated break)
- R4, R5, R6- Failed transmission network
- R7, R8, R9- External impacts
- R10, R11- Other reasons



**Reasons :**

- R1, R2- Planned Unavailability
- R3- Overload (also calculated break)
- R4, R5, R6- Failed transmission network
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- R10, R11- Other reasons



Reasons:

**R3** Overload

**R7, R8, R9** External impacts (animals...)

**R4, R5, R6** Failure in the transmission network

**R10, R11** Other reasons

| Nbr | Country | Substation     | Reason | Energie not supplied [ MWh ] | Total loss of power [ MW ] | Restoration time [ min ] | Equivalent time of interruption <sup>1</sup> |
|-----|---------|----------------|--------|------------------------------|----------------------------|--------------------------|--|
| 1   | RO      | Tantareni      | R5, R8 | 265                          | 300                        | 53                       | 6,30   |
| 2   | E       | Aluminio       | R8     | 165                          | 0                          | 45                       | 0,00   |
| 3   | CZ      | Sokolnice      | R10    | 88                           | 24                         | 30                       | 0,21   |
| 4   | CZ      | Chrast         | R4     | 84                           | 60                         | 36                       | 0,53   |
| 5   | E       | Canyet         | R10    | 42                           | 1320                       | 9                        | 3,23   |
| 6   | E       | Meson          | R8     | 35                           | 0                          | 21                       | 0,00   |
| 7   | F       | Quatre-écluses | R4     | 34                           | 17                         | 121                      | 0,02   |
| 8   | F       | Verlhaguet     | R4     | 25                           | 76                         | 31                       | 0,09   |
| 9   | F       | Peyrou         | R10    | 21                           | 63                         | 20                       | 0,08   |
| 10  | E       | San Celoni     | R8     | 20                           | 0                          | 10                       | 0,00   |
| 11  | F       | Boutre         | R7     | 13                           | 2                          | 380                      | 0,00   |
| 12  | F       | Plaud          | R8     | 10                           | 16                         | 40                       | 0,02   |
| 13  | F       | Belle de Mai   | R4     | 9                            | 42                         | 21                       | 0,05   |
| 14  | SK      | R. Sobota      | R5     | 6                            | 116                        | 3                        | 2,31   |

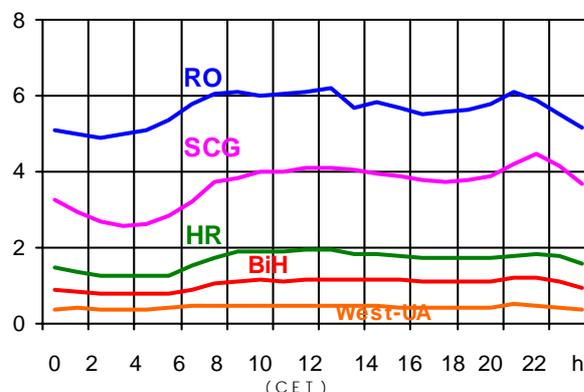
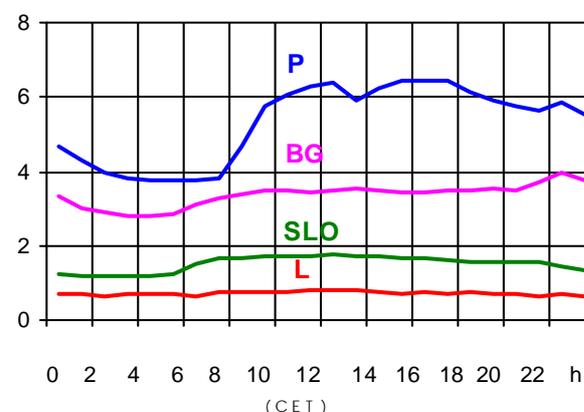
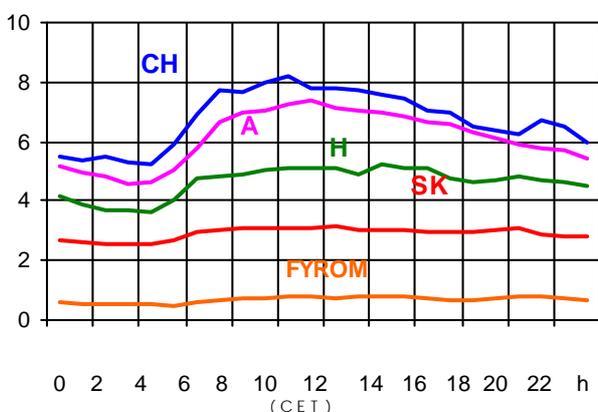
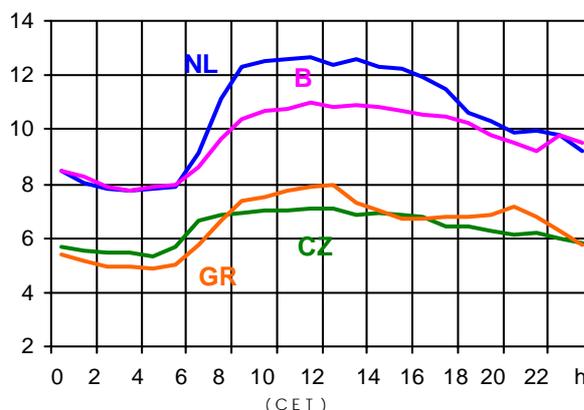
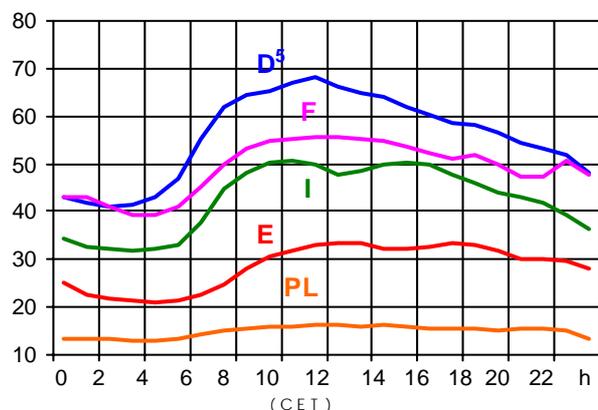
<sup>1</sup> ( year [in min] \* power loss ) / consumption last 12 months

| Control area | Prog_exp | Prog_imp | Prog_exp3 | Prog_imp3 | Prog_exp11 | Prog_imp11 |
|--------------|----------|----------|-----------|-----------|------------|------------|
| B            | 420198   | 982863   | 815       | 1056      | 547        | 1238       |
| D            | 2454258  | 2932001  | 2772      | 3431      | 2779       | 6075       |
| E            | 341695   | 748009   | 609       | 1200      | 388        | 258        |
| F            | 7143062  | 2184569  | 9363      | 1965      | 8622       | 4101       |
| GR           | 73810    | 329856   | 0         | 488       | 0          | 518        |
| I            | 48881    | 4148372  | 0         | 5806      | 5          | 5525       |
| SLO          | 460842   | 514793   | 623       | 687       | 710        | 677        |
| HR           | n.a.     | n.a.     | n.a.      | n.a.      | n.a.       | n.a.       |
| BiH          | 79       | 119      | 273       | 213       | 183        | 194        |
| FYROM        | n.a.     | n.a.     | n.a.      | n.a.      | n.a.       | n.a.       |
| SCG          | 309719   | 388418   | 581       | 519       | 539        | 629        |
| NL           | 371511   | 1940184  | 433       | 2286      | 454        | 3010       |
| A            | 891529   | 411096   | 1363      | 539       | 1060       | 608        |
| P            | 194289   | 368069   | 0         | 601       | 813        | 546        |
| CH           | 2728521  | 1584404  | 2728      | 2208      | 4777       | 2396       |
| CZ           | 1778451  | 332007   | 2537      | 250       | 2481       | 625        |
| H            | 327134   | 923955   | 547       | 1192      | 400        | 1393       |
| PL           | 630968   | 137985   | 450       | 185       | 1521       | 125        |
| SK           | 582420   | 328492   | 730       | 372       | 930        | 592        |
| RO           | 208418   | 24624    | 209       | 25        | 360        | 43         |
| BG           | n.a.     | n.a.     | n.a.      | n.a.      | n.a.       | n.a.       |
| UA           | 267044   | 0        | 324       | 0         | 370        | 0          |

- Control areas can differ from national borders ( i.e. German block which includes parts of A, L 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.
- Prog\_exp: Sum of all positive values of every hour of every border
- Prog\_imp: Sum of all negative values of every hour of every border
- Prog\_exp3: Sum of all positive values the third Wednesday from 02:00 to 03:00 a.m.
- Prog\_imp3: Sum of all negative values the third Wednesday from 02:00 to 03:00 a.m.
- Prog\_exp11: Sum of all positive values the third Wednesday from 10:00 to 11:00 a.m.
- Prog\_imp11: Sum of all negative values the third Wednesday from 10:00 to 11:00 a.m.

### Consumption hourly load curves<sup>1</sup> on 18.06.03

Values in GW



|                 | Peak load<br>MW | $\Delta$ % <sup>2</sup> | Cons_load_repr <sup>1</sup><br>% | Parallel load <sup>3</sup><br>MW |
|-----------------|-----------------|-------------------------|----------------------------------|----------------------------------|
| B               | 10954           | -0,9                    | 100                              | 10035                            |
| D               | 68200           | 1,0                     | 91                               | 74700                            |
| E               | 33459           | 8,3                     | 94                               | 31741                            |
| F <sup>4</sup>  | 55898           | 2,0                     | 97                               | 63208                            |
| GR <sup>4</sup> | 7942            | 3,4                     | 93                               | 7275                             |
| I               | 50587           | 0,1                     | 100                              | 44065                            |
| SLO             | 1749            | 4,6                     | 95                               | 1710                             |
| HR              | 1950            | 1,6                     | 100                              | 1439                             |
| BIH             | 1202            | n.a.                    | 100                              | 1136                             |
| FYROM           | 829             | n.a.                    | 100                              | 570                              |
| SCG             | 4450            | n.a.                    | 96                               | 3929                             |
| L               | 796             | 7,3                     | 99                               | 779                              |
| NL              | 12708           | 1,0                     | 90                               | 10018                            |
| A               | 7406            | 2,2                     | 82                               | 7130                             |
| P               | 6453            | 14,0                    | 92                               | 6008                             |
| CH              | 8195            | -0,1                    | 100                              | 11280                            |
| CZ              | 7115            | 2,0                     | 100                              | 9407                             |
| H               | 5221            | 2,5                     | 100                              | 4094                             |
| PL              | 16298           | 0,9                     | 100                              | 17313                            |
| SK              | 3136            | -2,3                    | 100                              | 3380                             |
| <b>UCTE</b>     | <b>311633</b>   | <b>2,6</b>              |                                  | <b>319123</b>                    |
| DK <sup>6</sup> |                 |                         |                                  | 2050                             |
| RO              | 6228            | n.a.                    | 100                              | 6027                             |
| BG              | 3972            | n.a.                    | 100                              | 3879                             |
| West-UA         | 505             | n.a.                    | 100                              | 859                              |

<sup>1</sup> Percentage as referred to total values in %

<sup>2</sup> Variation as compared to corresponding month of the previous year

<sup>3</sup> Including autoproduction

<sup>4</sup> The representativity of data referring to the whole country, including the systems of the Greek islands, is 93%. The representativity of data to the interconnected system is 99%.

<sup>5</sup> Values estimated on the basis of former data from the German Federal Office for Statistics

<sup>6</sup> Denmark (Jutland)



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