

# **PRILOG**

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## **PRILOG 1**

Regionalni pristup – određivanje oblasti opservabilnosti (od uticaja na sigurnost rada) EES BiH

# Regionalni pristup – određivanje oblasti opservabilnosti (od uticaja na sigurnost rada) EES BiH

## REŽIM MAKSIMALNOG OPTEREĆENJA:

### EES Srbije

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E WED, MAR 05 2014 14:35  
REZIM MAKSIMALNOG OPTEREĆENJA EES BIH PAGE 1  
24.12.2013. U 18:00 SATI

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |              |           |         |       |
|---------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 14 | 241.5  | OPEN LINE FROM BUS 401 | [JSMIT212 | 400.00] | TO BUS 10986 | [XUG_SM11 | 400.00] | CKT 1 |
| CASE 15 | -544.3 | OPEN LINE FROM BUS 402 | [JSMIT211 | 400.00] | TO BUS 434   | [JRPMLA12 | 400.00] | CKT 1 |
| CASE 16 | 180.5  | OPEN LINE FROM BUS 402 | [JSMIT211 | 400.00] | TO BUS 746   | [XER_SM11 | 400.00] | CKT 1 |
| CASE 17 | 4.8    | OPEN LINE FROM BUS 434 | [JRPMLA12 | 400.00] | TO BUS 494   | [JOBREN12 | 400.00] | CKT 1 |
| CASE 18 | 289.7  | OPEN LINE FROM BUS 434 | [JRPMLA12 | 400.00] | TO BUS 507   | [JNSAD312 | 400.00] | CKT 2 |
| CASE 19 | 4.0    | OPEN LINE FROM BUS 435 | [JRPMLA11 | 400.00] | TO BUS 495   | [JOBREN11 | 400.00] | CKT 2 |

|               |                       | CONTINGENCY LABEL--> | BASE CASE MW | CASE 14 | CASE 15  | CASE 16  | CASE 17  | CASE 18  | CASE 19  |          |
|---------------|-----------------------|----------------------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |                       | POWER SHIFT (MW)-->  | AC           | DC      | 241.5    | -544.3   | 180.5    | 4.8      | 289.7    | 4.0      |
| <----- FROM   | <----- TO             | >CKT                 | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  |          |
| 10101 WUGLJE1 | 400.00 10121 WTUZLA1  | 400.00 1             | 406.8        | 400.3   | -0.37184 | 0.26062  | 0.05174  | 0.00676  | 0.00555  | 0.00684  |
| 10101 WUGLJE1 | 400.00 10976 XUG_ER11 | 400.00 1             | -19.7        | -16.0   | -0.55692 | 0.04164  | 0.53532  | -0.00118 | 0.03255  | -0.00120 |
| 10101 WUGLJE1 | 400.00 10986 XUG_SM11 | 400.00 1             | -241.5       | -235.8  | 1.00000  | -0.35623 | -0.58350 | -0.00713 | -0.03715 | -0.00721 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |            |           |         |       |
|---------|--------|------------------------|-----------|---------|------------|-----------|---------|-------|
| CASE 32 | -562.4 | OPEN LINE FROM BUS 525 | [JNIS2 11 | 400.00] | TO BUS 675 | [JBOR 21  | 400.00] | CKT 1 |
| CASE 33 | 199.5  | OPEN LINE FROM BUS 574 | [JKRAG21  | 400.00] | TO BUS 597 | [JJAG041  | 400.00] | CKT 1 |
| CASE 34 | 588.8  | OPEN LINE FROM BUS 620 | [JHDJE111 | 400.00] | TO BUS 675 | [JBOR 21  | 400.00] | CKT 1 |
| CASE 35 | -84.7  | OPEN LINE FROM BUS 300 | [JZREN22  | 220.00] | TO BUS 481 | [JPANC22  | 220.00] | CKT 1 |
| CASE 36 | -57.3  | OPEN LINE FROM BUS 300 | [JZREN22  | 220.00] | TO BUS 506 | [JNSAD321 | 220.00] | CKT 1 |
| CASE 37 | -100.0 | OPEN LINE FROM BUS 324 | [JVARDI22 | 220.00] | TO BUS 621 | [JHBIST2  | 220.00] | CKT 1 |

|               |                       | CONTINGENCY LABEL--> | BASE CASE MW | CASE 32 | CASE 33  | CASE 34  | CASE 35  | CASE 36  | CASE 37  |          |
|---------------|-----------------------|----------------------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |                       | POWER SHIFT (MW)-->  | AC           | DC      | -562.4   | 199.5    | 588.8    | -84.7    | -57.3    | -100.0   |
| <----- FROM   | <----- TO             | >CKT                 | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  |          |
| 10101 WUGLJE1 | 400.00 10121 WTUZLA1  | 400.00 1             | 406.8        | 400.3   | -0.06327 | 0.10639  | 0.05397  | 0.02900  | -0.01929 | -0.23754 |
| 10101 WUGLJE1 | 400.00 10976 XUG_ER11 | 400.00 1             | -19.7        | -16.0   | 0.02914  | -0.00898 | -0.03163 | -0.01944 | 0.00861  | 0.20424  |
| 10114 WTSVSG1 | 400.00 10121 WTUZLA1  | 400.00 1             | 88.5         | 91.3    | 0.01608  | -0.02083 | -0.01687 | -0.01559 | 0.00902  | 0.28640  |
| 10114 WTSVSG1 | 400.00 3WNDTR         | WND 1 1              | -59.1        | -62.4   | -0.01434 | 0.01726  | 0.01589  | 0.01624  | -0.00925 | -0.31814 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|           |        |                        |           |         |              |           |         |       |
|-----------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 38   | -93.4  | OPEN LINE FROM BUS 324 | [JVARDI22 | 220.00] | TO BUS 728   | [JBBAST21 | 220.00] | CKT 1 |
| CASE 39   | 133.0  | OPEN LINE FROM BUS 325 | [JVARDI21 | 220.00] | TO BUS 459   | [JPOZE62  | 220.00] | CKT 1 |
| CASE 40   | 59.3   | OPEN LINE FROM BUS 325 | [JVARDI21 | 220.00] | TO BUS 10984 | [XVI_VA21 | 220.00] | CKT 1 |
| CASE 41   | -115.6 | OPEN LINE FROM BUS 329 | [JVALJ321 | 220.00] | TO BUS 491   | [JOBREN23 | 220.00] | CKT 1 |
| CASE 42   | -27.1  | OPEN LINE FROM BUS 329 | [JVALJ321 | 220.00] | TO BUS 728   | [JBBAST21 | 220.00] | CKT 1 |
| OVRL0D 43 | 26.0   | OPEN LINE FROM BUS 352 | [JTKOSA2  | 220.00] | TO BUS 579   | [JKOSB 21 | 220.00] | CKT 1 |

|               |        | CONTINGENCY LABEL--> |          | BASE CASE MW |        | CASE 38  | CASE 39  | CASE 40  | CASE 41  | CASE 42  | OVRLD 43 |
|---------------|--------|----------------------|----------|--------------|--------|----------|----------|----------|----------|----------|----------|
|               |        | POWER SHIFT (MW)-->  |          | AC           |        | DC       | 133.0    | 59.3     | -115.6   | -27.1    | 26.0     |
| FROM          |        | TO                   | CKT      |              |        |          |          |          |          |          |          |
| 10101 WUGLJE1 | 400.00 | 10121 WTUZLA1        | 400.00 1 | 406.8        | 400.3  | -0.24213 | -0.10261 | 0.53237  | -0.11816 | 0.14222  | -0.00015 |
| 10101 WUGLJE1 | 400.00 | 10986 XUG_SM11       | 400.00 1 | -241.5       | -235.8 | 0.15495  | 0.05694  | -0.32911 | 0.11212  | -0.06981 | 0.00011  |
| 10114 WTSVSG1 | 400.00 | 10121 WTUZLA1        | 400.00 1 | 88.5         | 91.3   | 0.35568  | 0.22784  | -0.88431 | 0.08970  | -0.13608 | 0.00011  |
| 10114 WTSVSG1 | 400.00 | 3WNDTR               | WND 1 1  | -59.1        | -62.4  | -0.40024 | -0.26008 | 1.00000  | -0.09758 | 0.14894  | -0.00012 |
| 10126 WTSVSG2 | 220.00 | 10984 XVI_VA21       | 220.00 1 | -59.3        | -62.6  | -0.40024 | -0.26009 | 1.00000  | -0.09758 | 0.14894  | -0.00012 |

| CONTINGENCY LABEL | MW SHIFT | CONTINGENCY DESCRIPTION                                                     |
|-------------------|----------|-----------------------------------------------------------------------------|
| CASE 52           | -6.3     | OPEN LINE FROM BUS 389 [JSRB0B2 220.00] TO BUS 400 [JSMIT221 220.00] CKT 1  |
| CASE 53           | -92.9    | OPEN LINE FROM BUS 389 [JSRB0B2 220.00] TO BUS 505 [JNSAD322 220.00] CKT 1  |
| CASE 54           | -28.6    | OPEN LINE FROM BUS 400 [JSMIT221 220.00] TO BUS 728 [JBBAST21 220.00] CKT 1 |
| CASE 55           | -45.1    | OPEN LINE FROM BUS 407 [JSMED32 220.00] TO BUS 680 [JBGD8 21 220.00] CKT 1  |
| CASE 56           | -136.6   | OPEN LINE FROM BUS 424 [JSABA32 220.00] TO BUS 492 [JOBREN22 220.00] CKT 1  |
| CASE 57           | -0.0     | OPEN LINE FROM BUS 438 [JRHBA22 220.00] TO BUS 728 [JBBAST21 220.00] CKT 1  |

|                |        | CONTINGENCY LABEL--> |          | BASE CASE MW |        | CASE 52  | CASE 53  | CASE 54  | CASE 55  | CASE 56 | CASE 57  |
|----------------|--------|----------------------|----------|--------------|--------|----------|----------|----------|----------|---------|----------|
|                |        | POWER SHIFT (MW)-->  |          | AC           |        | DC       | -6.3     | -92.9    | -28.6    | -45.1   | -136.6   |
| FROM           |        | TO                   | CKT      |              |        |          |          |          |          |         |          |
| 10101 WUGLJE1  | 400.00 | 10121 WTUZLA1        | 400.00 1 | 406.8        | 400.3  | -0.04283 | 0.02414  | 0.23847  | -0.01802 | 0.04241 | 0.15353  |
| 10101 WUGLJE1  | 400.00 | 10986 XUG_SM11       | 400.00 1 | -241.5       | -235.8 | 0.08756  | -0.02881 | -0.20664 | 0.01879  | 0.08023 | 0.00692  |
| 10992 XBI_LE51 | 110.00 | 14196 WJANJA5        | 110.00 1 | 25.1         | 29.5   | -0.00810 | 0.00004  | 0.00725  | -0.00138 | 0.23251 | -0.01399 |

| CONTINGENCY LABEL | MW SHIFT | CONTINGENCY DESCRIPTION                                                     |
|-------------------|----------|-----------------------------------------------------------------------------|
| CASE 94-T-        | -117.9   | OPEN LINE FROM BUS 400 [JSMIT221 220.00] TO BUS 401 [JSMIT212 400.00] CKT 1 |
| CASE 95           | -151.6   | OPEN LINE FROM BUS 481 [JPANC22 220.00] TO BUS 482 [JPANC211 400.00] CKT 1  |
| CASE 97           | -95.2    | OPEN LINE FROM BUS 492 [JOBREN22 220.00] TO BUS 494 [JOBREN12 400.00] CKT 2 |
| CASE 98           | -87.9    | OPEN LINE FROM BUS 505 [JNSAD322 220.00] TO BUS 508 [JNSAD311 400.00] CKT 1 |
| CASE 99           | -121.3   | OPEN LINE FROM BUS 523 [JNIS2 11 220.00] TO BUS 525 [JNIS2 11 400.00] CKT 1 |
| CASE 100          | -83.0    | OPEN LINE FROM BUS 579 [JKOSB 21 220.00] TO BUS 581 [JKOSB 11 400.00] CKT 1 |

|               |        | CONTINGENCY LABEL--> |          | BASE CASE MW |        | CASE 94-T- | CASE 95 | CASE 97 | CASE 98  | CASE 99 | CASE 100 |
|---------------|--------|----------------------|----------|--------------|--------|------------|---------|---------|----------|---------|----------|
|               |        | POWER SHIFT (MW)-->  |          | AC           |        | DC         | -117.9  | -151.6  | -95.2    | -87.9   | -121.3   |
| FROM          |        | TO                   | CKT      |              |        |            |         |         |          |         |          |
| 10101 WUGLJE1 | 400.00 | 10986 XUG_SM11       | 400.00 1 | -241.5       | -235.8 | 0.21975    | 0.00361 | 0.05028 | -0.00268 | 0.03160 | 0.00270  |

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

| CONTINGENCY LABEL | MW SHIFT | CONTINGENCY DESCRIPTION                                                       |
|-------------------|----------|-------------------------------------------------------------------------------|
| CASE 14           | 241.5    | OPEN LINE FROM BUS 401 [JSMIT212 400.00] TO BUS 10986 [XUG_SM11 400.00] CKT 1 |
| CASE 15           | -544.3   | OPEN LINE FROM BUS 402 [JSMIT211 400.00] TO BUS 434 [JRPMLA12 400.00] CKT 1   |
| CASE 16           | 180.5    | OPEN LINE FROM BUS 402 [JSMIT211 400.00] TO BUS 746 [XER_SM11 400.00] CKT 1   |
| CASE 37           | -100.0   | OPEN LINE FROM BUS 324 [JWARDI22 220.00] TO BUS 621 [JHBIST2 220.00] CKT 1    |
| CASE 38           | -93.4    | OPEN LINE FROM BUS 324 [JWARDI22 220.00] TO BUS 728 [JBBAST21 220.00] CKT 1   |
| CASE 39           | 133.0    | OPEN LINE FROM BUS 325 [JWARDI21 220.00] TO BUS 459 [JPOZEG2 220.00] CKT 1    |
| CASE 40           | 59.3     | OPEN LINE FROM BUS 325 [JWARDI21 220.00] TO BUS 10984 [XVI_VA21 220.00] CKT 1 |
| CASE 54           | -28.6    | OPEN LINE FROM BUS 400 [JSMIT221 220.00] TO BUS 728 [JBBAST21 220.00] CKT 1   |
| CASE 56           | -136.6   | OPEN LINE FROM BUS 424 [JSABA32 220.00] TO BUS 492 [JOBREN22 220.00] CKT 1    |
| CASE 94-T-        | -117.9   | OPEN LINE FROM BUS 400 [JSMIT221 220.00] TO BUS 401 [JSMIT212 400.00] CKT 1   |

# EES Hrvatske

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E SUN, MAR 09 2014 20:38  
 REZIM MAKSIMALNOG OPTERECENJA EES BIH PAGE 1  
 24.12.2013. U 18:00 SATI

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                                  |         |                      |         |       |
|---------|--------|----------------------------------|---------|----------------------|---------|-------|
| CASE 8  | 162.8  | OPEN LINE FROM BUS 74 [XER_PE12  | 400.00] | TO BUS 880 [HERNES11 | 400.00] | CKT 1 |
| CASE 9  | 180.4  | OPEN LINE FROM BUS 402 [JSMT211  | 400.00] | TO BUS 746 [XER_SM11 | 400.00] | CKT 1 |
| CASE 10 | 180.4  | OPEN LINE FROM BUS 746 [XER_SM11 | 400.00] | TO BUS 880 [HERNES11 | 400.00] | CKT 1 |
| CASE 11 | 212.2  | OPEN LINE FROM BUS 761 [LKRSK01  | 400.00] | TO BUS 772 [XTU_KR11 | 400.00] | CKT 1 |
| CASE 12 | 212.2  | OPEN LINE FROM BUS 761 [LKRSK01  | 400.00] | TO BUS 774 [XTU_KR12 | 400.00] | CKT 2 |
| CASE 13 | -261.2 | OPEN LINE FROM BUS 765 [LDIVAC1  | 400.00] | TO BUS 778 [XME_DI11 | 400.00] | CKT 1 |

| CONTINGENCY LABEL--> |                       | BASE CASE MW |               | CASE 8   | CASE 9   | CASE 10  | CASE 11 | CASE 12 | CASE 13  |
|----------------------|-----------------------|--------------|---------------|----------|----------|----------|---------|---------|----------|
| POWER SHIFT (MW)-->  |                       | AC           | DC            | 162.8    | 180.4    | 180.4    | 212.2   | 212.2   | -261.2   |
| <----- FROM ----->   | <----- TO ----->      | CKT          | <----->       | <----->  | <----->  | <----->  | <-----> | <-----> | <----->  |
| 10101 WUGLJE1        | 400.00 10976 XUG_ER11 | 400.00 1     | -19.8 -16.1   | 0.07577  | 0.53532  | 0.53532  | 0.00717 | 0.00717 | -0.03538 |
| 10101 WUGLJE1        | 400.00 10986 XUG_SM11 | 400.00 1     | -241.5 -235.9 | -0.02627 | -0.58350 | -0.58350 | 0.00314 | 0.00314 | -0.01439 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                                  |         |                        |         |       |
|---------|--------|----------------------------------|---------|------------------------|---------|-------|
| CASE 14 | 212.2  | OPEN LINE FROM BUS 772 [XTU_KR11 | 400.00] | TO BUS 1004 [HTUMBR11  | 400.00] | CKT 1 |
| CASE 15 | 212.2  | OPEN LINE FROM BUS 774 [XTU_KR12 | 400.00] | TO BUS 1004 [HTUMBR11  | 400.00] | CKT 1 |
| CASE 16 | -261.2 | OPEN LINE FROM BUS 778 [XME_DI11 | 400.00] | TO BUS 921 [HMELIN11   | 400.00] | CKT 1 |
| CASE 17 | 166.9  | OPEN LINE FROM BUS 880 [HERNES11 | 400.00] | TO BUS 1033 [HZERJA11  | 400.00] | CKT 1 |
| CASE 18 | 19.8   | OPEN LINE FROM BUS 880 [HERNES11 | 400.00] | TO BUS 10976 [XUG_ER11 | 400.00] | CKT 1 |
| CASE 19 | -18.2  | OPEN LINE FROM BUS 901 [HKONJS11 | 400.00] | TO BUS 1010 [HVELEB11  | 400.00] | CKT 1 |

| CONTINGENCY LABEL--> |                       | BASE CASE MW |               | CASE 14  | CASE 15  | CASE 16  | CASE 17  | CASE 18  | CASE 19  |
|----------------------|-----------------------|--------------|---------------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                       | AC           | DC            | 212.2    | 212.2    | -261.2   | 166.9    | 19.8     | -18.2    |
| <----- FROM ----->   | <----- TO ----->      | CKT          | <----->       | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1  | 400.00 1     | 407.0 400.5   | -0.01012 | -0.01012 | 0.04903  | 0.26226  | -0.36030 | -0.19785 |
| 10101 WUGLJE1        | 400.00 10976 XUG_ER11 | 400.00 1     | -19.8 -16.1   | 0.00717  | 0.00717  | -0.03538 | -0.22979 | 1.00000  | 0.14570  |
| 10101 WUGLJE1        | 400.00 10986 XUG_SM11 | 400.00 1     | -241.5 -235.9 | 0.00314  | 0.00314  | -0.01439 | -0.04487 | -0.58376 | 0.05452  |
| 10120 WSAR101        | 400.00 10121 WTUZLA1  | 400.00 1     | -214.6 -211.2 | 0.00775  | 0.00775  | -0.04705 | -0.13590 | 0.12936  | 0.23711  |
| 10120 WSAR101        | 400.00 10124 WMOST41  | 400.00 1     | 119.7 118.6   | -0.00843 | -0.00843 | 0.05286  | 0.13180  | -0.09496 | -0.27588 |
| 10124 WMOST41        | 400.00 10975 XMO_K011 | 400.00 1     | 81.7 80.5     | -0.01380 | -0.01380 | 0.09160  | 0.17834  | -0.06358 | -0.52789 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                                   |         |                        |         |       |
|---------|--------|-----------------------------------|---------|------------------------|---------|-------|
| CASE 20 | -81.7  | OPEN LINE FROM BUS 901 [HKONJS11  | 400.00] | TO BUS 10975 [XMO_K011 | 400.00] | CKT 1 |
| CASE 21 | -192.5 | OPEN LINE FROM BUS 921 [HMELIN11  | 400.00] | TO BUS 1004 [HTUMBR11  | 400.00] | CKT 1 |
| CASE 22 | -44.9  | OPEN LINE FROM BUS 921 [HMELIN11  | 400.00] | TO BUS 1010 [HVELEB11  | 400.00] | CKT 1 |
| CASE 23 | -47.6  | OPEN LINE FROM BUS 1004 [HTUMBR11 | 400.00] | TO BUS 1033 [HZERJA11  | 400.00] | CKT 1 |
| CASE 24 | -65.4  | OPEN LINE FROM BUS 766 [LDIVAC21  | 220.00] | TO BUS 775 [XPE_DI21   | 220.00] | CKT 1 |
| CASE 25 | 40.7   | OPEN LINE FROM BUS 768 [LCIRK02   | 220.00] | TO BUS 773 [XZE_CI21   | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> |                      | BASE CASE MW |               | CASE 20  | CASE 21  | CASE 22  | CASE 23  | CASE 24  | CASE 25 |
|----------------------|----------------------|--------------|---------------|----------|----------|----------|----------|----------|---------|
| POWER SHIFT (MW)-->  |                      | AC           | DC            | -81.7    | -192.5   | -44.9    | -47.6    | -65.4    | 40.7    |
| <----- FROM ----->   | <----- TO ----->     | CKT          | <----->       | <----->  | <----->  | <----->  | <----->  | <----->  | <-----> |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1 | 400.00 1     | 407.0 400.5   | 0.16244  | -0.07605 | 0.23898  | -0.15724 | 0.04198  | 0.00254 |
| 10120 WSAR101        | 400.00 10121 WTUZLA1 | 400.00 1     | -214.6 -211.2 | -0.23828 | 0.06858  | -0.24478 | 0.11003  | -0.03126 | 0.02584 |

|       |         |        |        |          |        |   |       |       |          |          |          |          |          |          |
|-------|---------|--------|--------|----------|--------|---|-------|-------|----------|----------|----------|----------|----------|----------|
| 10120 | WSAR101 | 400.00 | 10124  | WMOST41  | 400.00 | 1 | 119.7 | 118.6 | 0.32823  | -0.07643 | 0.27847  | -0.11843 | 0.03337  | -0.03254 |
| 10124 | WMOST41 | 400.00 | 10975  | XMO_K011 | 400.00 | 1 | 81.7  | 80.5  | 1.00000  | -0.13056 | 0.49983  | -0.19225 | 0.04981  | -0.06363 |
| 10124 | WMOST41 | 400.00 | 3WNDTR |          | WND    | 1 | 41.5  | 42.7  | -0.24542 | 0.01073  | -0.05171 | 0.00998  | -0.00108 | 0.01006  |
| 10124 | WMOST41 | 400.00 | 3WNDTR |          | WND    | 1 | 41.3  | 42.5  | -0.24419 | 0.01068  | -0.05145 | 0.00993  | -0.00107 | 0.01001  |
| 10135 | WMOST42 | 220.00 | 10978  | XMO_ZA21 | 220.00 | 1 | 24.7  | 29.8  | -0.34287 | -0.02670 | 0.08068  | -0.04196 | 0.01747  | -0.01305 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                  |         |                       |         |       |
|---------|-------|----------------------------------|---------|-----------------------|---------|-------|
| CASE 26 | 40.7  | OPEN LINE FROM BUS 773 [XZE_CI21 | 220.00] | TO BUS 1034 [HZERJA21 | 220.00] | CKT 1 |
| CASE 27 | -65.4 | OPEN LINE FROM BUS 775 [XPE_DI21 | 220.00] | TO BUS 948 [HPEHLI21  | 220.00] | CKT 1 |
| CASE 28 | -33.8 | OPEN LINE FROM BUS 842 [HBILIC21 | 220.00] | TO BUS 902 [HKONJS21  | 220.00] | CKT 1 |
| CASE 29 | -33.8 | OPEN LINE FROM BUS 842 [HBILIC21 | 220.00] | TO BUS 902 [HKONJS21  | 220.00] | CKT 2 |
| CASE 30 | -17.1 | OPEN LINE FROM BUS 842 [HBILIC21 | 220.00] | TO BUS 1028 [HZAKUC21 | 220.00] | CKT 1 |
| CASE 31 | 17.6  | OPEN LINE FROM BUS 849 [HBRINJ21 | 220.00] | TO BUS 902 [HKONJS21  | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> |                  | BASE CASE MW | CASE 26 | CASE 27  | CASE 28 | CASE 29 | CASE 30 | CASE 31 |          |         |         |         |          |         |
|----------------------|------------------|--------------|---------|----------|---------|---------|---------|---------|----------|---------|---------|---------|----------|---------|
| POWER SHIFT (MW)-->  |                  | AC           | DC      | 40.7     | -65.4   | -33.8   | -33.8   | -17.1   | 17.6     |         |         |         |          |         |
| <----- FROM ----->   | <----- TO -----> | CKT          | <-----> | <----->  | <-----> | <-----> | <-----> | <-----> |          |         |         |         |          |         |
| 10124                | WMOST41          | 400.00       | 10975   | XMO_K011 | 400.00  | 1       | 81.7    | 80.5    | -0.06363 | 0.04981 | 0.04786 | 0.04786 | -0.08470 | 0.24419 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                  |         |                        |         |       |
|---------|-------|----------------------------------|---------|------------------------|---------|-------|
| CASE 32 | 21.5  | OPEN LINE FROM BUS 849 [HBRINJ21 | 220.00] | TO BUS 927 [HMRACL21   | 220.00] | CKT 1 |
| CASE 33 | -62.3 | OPEN LINE FROM BUS 849 [HBRINJ21 | 220.00] | TO BUS 976 [HSENJ 21   | 220.00] | CKT 1 |
| CASE 34 | -59.9 | OPEN LINE FROM BUS 857 [HDAKOV21 | 220.00] | TO BUS 10980 [XTU_DA21 | 220.00] | CKT 1 |
| CASE 35 | -12.3 | OPEN LINE FROM BUS 857 [HDAKOV21 | 220.00] | TO BUS 10981 [XGR_DA21 | 220.00] | CKT 1 |
| CASE 36 | -38.5 | OPEN LINE FROM BUS 902 [HKONJS21 | 220.00] | TO BUS 940 [HORLOV21   | 220.00] | CKT 1 |
| CASE 37 | -38.5 | OPEN LINE FROM BUS 902 [HKONJS21 | 220.00] | TO BUS 940 [HORLOV21   | 220.00] | CKT 2 |

| CONTINGENCY LABEL--> |                  | BASE CASE MW | CASE 32 | CASE 33  | CASE 34 | CASE 35 | CASE 36 | CASE 37 |          |          |          |          |         |         |
|----------------------|------------------|--------------|---------|----------|---------|---------|---------|---------|----------|----------|----------|----------|---------|---------|
| POWER SHIFT (MW)-->  |                  | AC           | DC      | 21.5     | -62.3   | -59.9   | -12.3   | -38.5   | -38.5    |          |          |          |         |         |
| <----- FROM ----->   | <----- TO -----> | CKT          | <-----> | <----->  | <-----> | <-----> | <-----> | <-----> |          |          |          |          |         |         |
| 10103                | WTETUZ2          | 220.00       | 10123   | WTSTUZ2  | 220.00  | 2       | 48.9    | 53.0    | -0.00768 | -0.00281 | -0.21843 | -0.11566 | 0.00000 | 0.00000 |
| 10103                | WTETUZ2          | 220.00       | 10128   | WGRADC2  | 220.00  | 1       | 101.4   | 94.4    | 0.00729  | 0.00245  | -0.53246 | 0.75905  | 0.00000 | 0.00000 |
| 10103                | WTETUZ2          | 220.00       | 10980   | XTU_DA21 | 220.00  | 1       | 59.9    | 55.2    | 0.00626  | 0.00246  | 1.00000  | -0.52894 | 0.00000 | 0.00000 |
| 10121                | WTUZLA1          | 400.00       | 3WNDTR  |          | WND     | 1       | 59.0    | 56.9    | 0.01580  | -0.01200 | 0.22677  | 0.13948  | 0.00000 | 0.00000 |
| 10128                | WGRADC2          | 220.00       | 10981   | XGR_DA21 | 220.00  | 1       | 12.3    | 10.0    | 0.00491  | 0.00240  | -0.58548 | 1.00000  | 0.00000 | 0.00000 |
| 10128                | WGRADC2          | 220.00       | 3WNDTR  |          | WND     | 1       | 88.1    | 83.4    | 0.00238  | 0.00006  | 0.05302  | -0.24095 | 0.00000 | 0.00000 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                  |         |                        |         |       |
|---------|-------|----------------------------------|---------|------------------------|---------|-------|
| CASE 38 | 20.8  | OPEN LINE FROM BUS 902 [HKONJS21 | 220.00] | TO BUS 1028 [HZAKUC21  | 220.00] | CKT 1 |
| CASE 39 | -43.6 | OPEN LINE FROM BUS 919 [HMEDUR21 | 220.00] | TO BUS 927 [HMRACL21   | 220.00] | CKT 1 |
| CASE 40 | -16.9 | OPEN LINE FROM BUS 919 [HMEDUR21 | 220.00] | TO BUS 10979 [XPR_ME21 | 220.00] | CKT 1 |
| CASE 41 | 24.2  | OPEN LINE FROM BUS 922 [HMELIN21 | 220.00] | TO BUS 948 [HPEHLI21   | 220.00] | CKT 1 |
| CASE 42 | 18.9  | OPEN LINE FROM BUS 922 [HMELIN21 | 220.00] | TO BUS 948 [HPEHLI21   | 220.00] | CKT 2 |
| CASE 43 | 3.9   | OPEN LINE FROM BUS 922 [HMELIN21 | 220.00] | TO BUS 971 [HRIJEK21   | 220.00] | CKT 1 |

|               |                       | CONTINGENCY LABEL--> |       | BASE CASE MW |          | CASE 38  | CASE 39  | CASE 40  | CASE 41  | CASE 42 | CASE 43 |
|---------------|-----------------------|----------------------|-------|--------------|----------|----------|----------|----------|----------|---------|---------|
|               |                       | POWER SHIFT (MW)-->  |       |              |          | 20.8     | -43.6    | -16.9    | 24.2     | 18.9    | 3.9     |
| FROM          | TO                    | CT                   | AC    | DC           |          |          |          |          |          |         |         |
| 10124 WMOST41 | 400.00 10975 XMO_K011 | 400.00 1             | 81.7  | 80.5         | -0.24822 | 0.07772  | -0.08327 | -0.00357 | -0.00301 | 0.00000 |         |
| 10125 WPRIJE2 | 220.00 10979 XPR_ME21 | 220.00 1             | 16.9  | 19.6         | -0.01099 | -0.64703 | 1.00000  | 0.00034  | 0.00028  | 0.00000 |         |
| 10125 WPRIJE2 | 220.00 10987 XPR_MR21 | 220.00 1             | -25.6 | -20.2        | -0.01406 | 0.34519  | -0.42648 | -0.00006 | -0.00005 | 0.00000 |         |
| 10135 WMOST42 | 220.00 10978 XMO_ZA21 | 220.00 1             | 24.7  | 29.8         | 0.32219  | 0.02478  | -0.02770 | -0.00103 | -0.00087 | 0.00000 |         |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

CASE 44 3.8 OPEN LINE FROM BUS 922 [HMEIN21 220.00] TO BUS 971 [HRIJEK21 220.00] CKT 2  
CASE 45 -67.8 OPEN LINE FROM BUS 922 [HMEIN21 220.00] TO BUS 976 [HSEJ 21 220.00] CKT 1  
CASE 46 -38.6 OPEN LINE FROM BUS 922 [HMEIN21 220.00] TO BUS 994 [HTEPLO21 220.00] CKT 1  
CASE 47 -139.7 OPEN LINE FROM BUS 927 [HMRACL21 220.00] TO BUS 1034 [HZERJA21 220.00] CKT 1  
CASE 48 25.6 OPEN LINE FROM BUS 927 [HMRACL21 220.00] TO BUS 10987 [XPR\_MR21 220.00] CKT 1  
CASE 49 -63.0 OPEN LINE FROM BUS 948 [HPEHLI21 220.00] TO BUS 994 [HTEPLO21 220.00] CKT 1

|               |                       | CONTINGENCY LABEL--> |       | BASE CASE MW |         | CASE 44 | CASE 45  | CASE 46  | CASE 47  | CASE 48  | CASE 49 |
|---------------|-----------------------|----------------------|-------|--------------|---------|---------|----------|----------|----------|----------|---------|
|               |                       | POWER SHIFT (MW)-->  |       |              |         | 3.8     | -67.8    | -38.6    | -139.7   | 25.6     | -63.0   |
| FROM          | TO                    | CT                   | AC    | DC           |         |         |          |          |          |          |         |
| 10125 WPRIJE2 | 220.00 10979 XPR_ME21 | 220.00 1             | 16.9  | 19.6         | 0.00000 | 0.01399 | 0.00004  | -0.07764 | -0.42403 | -0.00035 |         |
| 10125 WPRIJE2 | 220.00 10987 XPR_MR21 | 220.00 1             | -25.6 | -20.2        | 0.00000 | 0.03859 | -0.00026 | -0.16130 | 1.00000  | -0.00028 |         |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

CASE 50 -17.0 OPEN LINE FROM BUS 953 [HPLAT 21 220.00] TO BUS 10988 [XTR\_PL21 220.00] CKT 1  
CASE 51 -24.7 OPEN LINE FROM BUS 1028 [HZAKUC21 220.00] TO BUS 10978 [XMO\_ZA21 220.00] CKT 1  
CASE 52-T- 42.1 OPEN LINE FROM BUS 842 [HBILIC21 220.00] TO BUS 843 [HBILIC52 110.00] CKT 1  
CASE 53 42.5 OPEN LINE FROM BUS 842 [HBILIC21 220.00] TO BUS 843 [HBILIC52 110.00] CKT 2  
CASE 54 36.1 OPEN LINE FROM BUS 857 [HDAKOV21 220.00] TO BUS 858 [HDAKOV52 110.00] CKT 1  
CASE 55 35.7 OPEN LINE FROM BUS 857 [HDAKOV21 220.00] TO BUS 858 [HDAKOV52 110.00] CKT 2

|               |                       | CONTINGENCY LABEL--> |       | BASE CASE MW |          | CASE 50  | CASE 51  | CASE 52-T- | CASE 53  | CASE 54  | CASE 55 |
|---------------|-----------------------|----------------------|-------|--------------|----------|----------|----------|------------|----------|----------|---------|
|               |                       | POWER SHIFT (MW)-->  |       |              |          | -17.0    | -24.7    | 42.1       | 42.5     | 36.1     | 35.7    |
| FROM          | TO                    | CT                   | AC    | DC           |          |          |          |            |          |          |         |
| 10103 WTETU22 | 220.00 10980 XTU_DA21 | 220.00 1             | 59.9  | 55.2         | -0.00044 | -0.00871 | 0.00116  | 0.00117    | -0.20602 | -0.20559 |         |
| 10116 WTREBI2 | 220.00 10988 XTR_PL21 | 220.00 1             | 17.0  | 10.8         | 1.00000  | -0.02876 | 0.00080  | 0.00081    | 0.00029  | 0.00029  |         |
| 10116 WTREBI2 | 220.00 3WNDTR         | WND 1 1              | 57.2  | 60.6         | -0.61802 | -0.01598 | 0.00067  | 0.00068    | 0.00068  | 0.00068  |         |
| 10124 WMOST41 | 400.00 10975 XMO_K011 | 400.00 1             | 81.7  | 80.5         | -0.06582 | -0.60439 | -0.03037 | -0.03056   | 0.02016  | 0.02011  |         |
| 10124 WMOST41 | 400.00 3WNDTR         | WND 1 1              | 41.5  | 42.7         | 0.00502  | 0.29300  | -0.00310 | -0.00312   | -0.00962 | -0.00960 |         |
| 10124 WMOST41 | 400.00 3WNDTR         | WND 1 2              | 41.3  | 42.5         | 0.00500  | 0.29153  | -0.00308 | -0.00310   | -0.00957 | -0.00955 |         |
| 10128 WGRADC2 | 220.00 10981 XGR_DA21 | 220.00 1             | 12.3  | 10.0         | -0.00035 | -0.00704 | 0.00077  | 0.00078    | -0.25913 | -0.25860 |         |
| 10135 WMOST42 | 220.00 10978 XMO_ZA21 | 220.00 1             | 24.7  | 29.8         | -0.03564 | 1.00000  | -0.04289 | -0.04316   | 0.00725  | 0.00723  |         |
| 10137 WTREBI5 | 110.00 10994 XTR_K051 | 110.00 1             | -35.0 | -32.0        | -0.75222 | -0.01231 | 0.00007  | 0.00007    | -0.00050 | -0.00050 |         |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

CASE 56 50.1 OPEN LINE FROM BUS 901 [HKONJS11 400.00] TO BUS 902 [HKONJS21 220.00] CKT 1  
CASE 57 49.8 OPEN LINE FROM BUS 901 [HKONJS11 400.00] TO BUS 902 [HKONJS21 220.00] CKT 2  
CASE 58 53.2 OPEN LINE FROM BUS 902 [HKONJS21 220.00] TO BUS 903 [HKONJS51 110.00] CKT 1  
CASE 59 52.3 OPEN LINE FROM BUS 902 [HKONJS21 220.00] TO BUS 903 [HKONJS51 110.00] CKT 2  
CASE 60 60.5 OPEN LINE FROM BUS 919 [HMEDUR21 220.00] TO BUS 920 [HMEDUR51 110.00] CKT 1  
CASE 61 -24.2 OPEN LINE FROM BUS 921 [HMEIN21 400.00] TO BUS 922 [HMEIN21 220.00] CKT 1

CONTINGENCY LABEL--> BASE CASE MW CASE 56 CASE 57 CASE 58 CASE 59 CASE 60 CASE 61

|               |                       | POWER SHIFT (MW)--> |      | AC   | DC       | 50.1     | 49.8     | 53.2     | 52.3     | 60.5     | -24.2 |
|---------------|-----------------------|---------------------|------|------|----------|----------|----------|----------|----------|----------|-------|
| FROM          | TO                    | CKT                 |      |      |          |          |          |          |          |          |       |
| 10124 WMOST41 | 400.00 10975 XMO_K011 | 400.00 1            | 81.7 | 80.5 | -0.21446 | -0.21374 | -0.09755 | -0.09670 | 0.00793  | -0.03173 |       |
| 10125 WPRIJE2 | 220.00 10979 XPR_ME21 | 220.00 1            | 16.9 | 19.6 | -0.00110 | -0.00110 | -0.00447 | -0.00443 | -0.50048 | 0.01133  |       |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                  |         |                      |         |       |
|---------|-------|----------------------------------|---------|----------------------|---------|-------|
| CASE 64 | 30.8  | OPEN LINE FROM BUS 922 [HMEIN21  | 220.00] | TO BUS 923 [HMEIN51  | 110.00] | CKT 2 |
| CASE 65 | 46.2  | OPEN LINE FROM BUS 927 [HMRACL21 | 220.00] | TO BUS 928 [HMRACL51 | 110.00] | CKT 2 |
| CASE 68 | 8.5   | OPEN LINE FROM BUS 953 [HPLAT 21 | 220.00] | TO BUS 954 [HPLAT 51 | 110.00] | CKT 1 |
| CASE 69 | 8.5   | OPEN LINE FROM BUS 953 [HPLAT 21 | 220.00] | TO BUS 954 [HPLAT 51 | 110.00] | CKT 2 |
| CASE 70 | -61.6 | OPEN LINE FROM BUS 976 [HSENJ 21 | 220.00] | TO BUS 977 [HSENJ 51 | 110.00] | CKT 1 |
| CASE 71 | 42.7  | OPEN LINE FROM BUS 994 [HTEPLO21 | 220.00] | TO BUS 995 [HTEPLO51 | 110.00] | CKT 1 |

|               |                       | CONTINGENCY LABEL--> |       | BASE CASE MW | CASE 64 | CASE 65  | CASE 68  | CASE 69  | CASE 70 | CASE 71 |      |
|---------------|-----------------------|----------------------|-------|--------------|---------|----------|----------|----------|---------|---------|------|
|               |                       | POWER SHIFT (MW)-->  |       | AC           | DC      | 30.8     | 46.2     | 8.5      | 8.5     | -61.6   | 42.7 |
| FROM          | TO                    | CKT                  |       |              |         |          |          |          |         |         |      |
| 10116 WTREBI2 | 220.00 10988 XTR_PL21 | 220.00 1             | 17.0  | 10.8         | 0.00032 | -0.00017 | -0.39141 | -0.39141 | 0.00030 | 0.00004 |      |
| 10116 WTREBI2 | 220.00 3WNDTR         | WND 1 1              | 57.2  | 60.6         | 0.00008 | 0.00022  | 0.24190  | 0.24190  | 0.00000 | 0.00001 |      |
| 10137 WTREBI5 | 110.00 10994 XTR_K051 | 110.00 1             | -35.0 | -32.0        | 0.00025 | -0.00045 | 0.29443  | 0.29443  | 0.00032 | 0.00004 |      |

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                   |         |                        |         |       |
|---------|-------|-----------------------------------|---------|------------------------|---------|-------|
| CASE 9  | 180.4 | OPEN LINE FROM BUS 402 [JSMIT211  | 400.00] | TO BUS 746 [XER_SM11   | 400.00] | CKT 1 |
| CASE 10 | 180.4 | OPEN LINE FROM BUS 746 [XER_SM11  | 400.00] | TO BUS 880 [HERNES11   | 400.00] | CKT 1 |
| CASE 17 | 166.9 | OPEN LINE FROM BUS 880 [HERNES11  | 400.00] | TO BUS 1033 [HZERJA11  | 400.00] | CKT 1 |
| CASE 18 | 19.8  | OPEN LINE FROM BUS 880 [HERNES11  | 400.00] | TO BUS 10976 [XUG_ER11 | 400.00] | CKT 1 |
| CASE 19 | -18.2 | OPEN LINE FROM BUS 901 [HKONJS11  | 400.00] | TO BUS 1010 [HVELEB11  | 400.00] | CKT 1 |
| CASE 20 | -81.7 | OPEN LINE FROM BUS 901 [HKONJS11  | 400.00] | TO BUS 10975 [XMO_K011 | 400.00] | CKT 1 |
| CASE 22 | -44.9 | OPEN LINE FROM BUS 921 [HMEIN11   | 400.00] | TO BUS 1010 [HVELEB11  | 400.00] | CKT 1 |
| CASE 31 | 17.6  | OPEN LINE FROM BUS 849 [HBRINJ21  | 220.00] | TO BUS 902 [HKONJS21   | 220.00] | CKT 1 |
| CASE 34 | -59.9 | OPEN LINE FROM BUS 857 [HDAKOV21  | 220.00] | TO BUS 10980 [XTU_DA21 | 220.00] | CKT 1 |
| CASE 35 | -12.3 | OPEN LINE FROM BUS 857 [HDAKOV21  | 220.00] | TO BUS 10981 [XGR_DA21 | 220.00] | CKT 1 |
| CASE 38 | 20.8  | OPEN LINE FROM BUS 902 [HKONJS21  | 220.00] | TO BUS 1028 [HZAKUC21  | 220.00] | CKT 1 |
| CASE 39 | -43.6 | OPEN LINE FROM BUS 919 [HMEDUR21  | 220.00] | TO BUS 927 [HMRACL21   | 220.00] | CKT 1 |
| CASE 40 | -16.9 | OPEN LINE FROM BUS 919 [HMEDUR21  | 220.00] | TO BUS 10979 [XPR_ME21 | 220.00] | CKT 1 |
| CASE 48 | 25.6  | OPEN LINE FROM BUS 927 [HMRACL21  | 220.00] | TO BUS 10987 [XPR_MR21 | 220.00] | CKT 1 |
| CASE 50 | -17.0 | OPEN LINE FROM BUS 953 [HPLAT 21  | 220.00] | TO BUS 10988 [XTR_PL21 | 220.00] | CKT 1 |
| CASE 51 | -24.7 | OPEN LINE FROM BUS 1028 [HZAKUC21 | 220.00] | TO BUS 10978 [XMO_ZA21 | 220.00] | CKT 1 |
| CASE 54 | 36.1  | OPEN LINE FROM BUS 857 [HDAKOV21  | 220.00] | TO BUS 858 [HDAKOV52   | 110.00] | CKT 1 |
| CASE 55 | 35.7  | OPEN LINE FROM BUS 857 [HDAKOV21  | 220.00] | TO BUS 858 [HDAKOV52   | 110.00] | CKT 2 |
| CASE 56 | 50.1  | OPEN LINE FROM BUS 901 [HKONJS11  | 400.00] | TO BUS 902 [HKONJS21   | 220.00] | CKT 1 |
| CASE 57 | 49.8  | OPEN LINE FROM BUS 901 [HKONJS11  | 400.00] | TO BUS 902 [HKONJS21   | 220.00] | CKT 2 |
| CASE 60 | 60.5  | OPEN LINE FROM BUS 919 [HMEDUR21  | 220.00] | TO BUS 920 [HMEDUR51   | 110.00] | CKT 1 |
| CASE 68 | 8.5   | OPEN LINE FROM BUS 953 [HPLAT 21  | 220.00] | TO BUS 954 [HPLAT 51   | 110.00] | CKT 1 |
| CASE 69 | 8.5   | OPEN LINE FROM BUS 953 [HPLAT 21  | 220.00] | TO BUS 954 [HPLAT 51   | 110.00] | CKT 2 |



## EES Crne Gore:

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, MAR 10 2014 15:43  
 REZIM MAKSIMALNOG OPTERECENJA EES BIH PAGE 1  
 24.12.2013. U 18:00 SATI

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|        |        |                        |           |         |              |           |         |       |
|--------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 1 | 15.0   | OPEN LINE FROM BUS 470 | [JPEC3 1  | 400.00] | TO BUS 749   | [XRI_PE11 | 400.00] | CKT 1 |
| CASE 2 | 15.0   | OPEN LINE FROM BUS 749 | [XRI_PE11 | 400.00] | TO BUS 811   | [ORIBAR11 | 400.00] | CKT 1 |
| CASE 3 | -266.1 | OPEN LINE FROM BUS 779 | [XKA_PG11 | 400.00] | TO BUS 806   | [0PODG211 | 400.00] | CKT 1 |
| CASE 4 | 272.6  | OPEN LINE FROM BUS 802 | [0PLJE211 | 400.00] | TO BUS 811   | [ORIBAR11 | 400.00] | CKT 1 |
| CASE 5 | -248.3 | OPEN LINE FROM BUS 806 | [0PODG211 | 400.00] | TO BUS 811   | [ORIBAR11 | 400.00] | CKT 1 |
| CASE 6 | -229.4 | OPEN LINE FROM BUS 806 | [0PODG211 | 400.00] | TO BUS 10977 | [XTR_PG11 | 400.00] | CKT 1 |

|               |           | CONTINGENCY LABEL--> |          | BASE CASE MW |         | CASE 1   | CASE 2   | CASE 3   | CASE 4   | CASE 5   | CASE 6   |
|---------------|-----------|----------------------|----------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |           | POWER SHIFT (MW)-->  |          | AC           | DC      | 15.0     | 15.0     | -266.1   | 272.6    | -248.3   | -229.4   |
| <----- FROM   | <----- TO | <----->              | <----->  | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10102 WGACK01 | 400.00    | 10115 WTREBI1        | 400.00 1 | 178.9        | 176.7   | 0.13505  | 0.13505  | 0.15109  | 0.18693  | -0.26960 | 0.52529  |
| 10102 WGACK01 | 400.00    | 10124 WMOST41        | 400.00 1 | 45.1         | 47.4    | -0.13505 | -0.13505 | -0.15109 | -0.18693 | 0.26960  | -0.52529 |
| 10115 WTREBI1 | 400.00    | 10977 XTR_PG11       | 400.00 1 | 229.4        | 229.9   | 0.18329  | 0.18329  | 0.25862  | 0.25607  | -0.39218 | 1.00000  |
| 10115 WTREBI1 | 400.00    | 3WNDTR               | WND 1 1  | -50.9        | -53.6   | -0.04824 | -0.04824 | -0.10753 | -0.06914 | 0.12258  | -0.47471 |
| 10116 WTREBI2 | 220.00    | 10982 XTR_PE21       | 220.00 1 | 97.3         | 89.7    | 0.01473  | 0.01473  | -0.07368 | 0.00723  | 0.01913  | -0.32577 |
| 10120 WSAR101 | 400.00    | 10124 WMOST41        | 400.00 1 | 119.7        | 118.6   | 0.08185  | 0.08185  | 0.09335  | 0.17853  | -0.21044 | 0.32381  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |              |           |         |       |
|---------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 13 | -97.3  | OPEN LINE FROM BUS 794 | [0HPERU21 | 220.00] | TO BUS 10982 | [XTR_PE21 | 220.00] | CKT 1 |
| CASE 14 | 71.3   | OPEN LINE FROM BUS 796 | [0HPIVA21 | 220.00] | TO BUS 813   | [0TPLJE21 | 220.00] | CKT 1 |
| CASE 15 | 71.3   | OPEN LINE FROM BUS 796 | [0HPIVA21 | 220.00] | TO BUS 813   | [0TPLJE21 | 220.00] | CKT 2 |
| CASE 16 | 69.3   | OPEN LINE FROM BUS 796 | [0HPIVA21 | 220.00] | TO BUS 10985 | [XSA_PI21 | 220.00] | CKT 1 |
| CASE 17 | 81.8   | OPEN LINE FROM BUS 799 | [0MOJK021 | 220.00] | TO BUS 804   | [0PODG121 | 220.00] | CKT 1 |
| CASE 18 | -103.3 | OPEN LINE FROM BUS 799 | [0MOJK021 | 220.00] | TO BUS 813   | [0TPLJE21 | 220.00] | CKT 1 |

|               |           | CONTINGENCY LABEL--> |          | BASE CASE MW |         | CASE 13  | CASE 14  | CASE 15  | CASE 16  | CASE 17  | CASE 18  |
|---------------|-----------|----------------------|----------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |           | POWER SHIFT (MW)-->  |          | AC           | DC      | -97.3    | 71.3     | 71.3     | 69.3     | 81.8     | -103.3   |
| <----- FROM   | <----- TO | <----->              | <----->  | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1 | 400.00    | 10121 WTUZLA1        | 400.00 1 | 407.0        | 400.5   | 0.08445  | -0.06155 | -0.06155 | 0.27972  | 0.02447  | -0.01077 |
| 10102 WGACK01 | 400.00    | 10115 WTREBI1        | 400.00 1 | 178.9        | 176.7   | -0.04420 | 0.06118  | 0.06118  | -0.27806 | 0.08346  | -0.10235 |
| 10102 WGACK01 | 400.00    | 10124 WMOST41        | 400.00 1 | 45.1         | 47.4    | 0.04420  | -0.06118 | -0.06118 | 0.27806  | -0.08346 | 0.10235  |
| 10115 WTREBI1 | 400.00    | 10977 XTR_PG11       | 400.00 1 | 229.4        | 229.9   | -0.59322 | 0.06993  | 0.06993  | -0.31783 | -0.02867 | -0.04103 |
| 10115 WTREBI1 | 400.00    | 3WNDTR               | WND 1 1  | -50.9        | -53.6   | 0.54902  | -0.00875 | -0.00875 | 0.03978  | 0.11213  | -0.06132 |
| 10116 WTREBI2 | 220.00    | 10982 XTR_PE21       | 220.00 1 | 97.3         | 89.7    | 1.00000  | 0.02058  | 0.02058  | -0.09355 | 0.24095  | -0.16735 |
| 10118 WSAR202 | 220.00    | 10985 XSA_PI21       | 220.00 1 | -69.3        | -67.5   | -0.06920 | -0.22004 | -0.22004 | 1.00000  | -0.09917 | 0.11449  |
| 10119 WSAR201 | 400.00    | 10120 WSAR101        | 400.00 1 | -10.8        | -10.1   | 0.05674  | 0.19132  | 0.19132  | -0.86948 | 0.08704  | -0.10100 |
| 10119 WSAR201 | 400.00    | 3WNDTR               | WND 1 1  | -69.1        | -67.3   | -0.06920 | -0.22004 | -0.22004 | 1.00000  | -0.09917 | 0.11449  |
| 10120 WSAR101 | 400.00    | 10121 WTUZLA1        | 400.00 1 | -214.6       | -211.2  | -0.07566 | 0.09689  | 0.09689  | -0.44032 | -0.03532 | 0.02605  |
| 10120 WSAR101 | 400.00    | 10124 WMOST41        | 400.00 1 | 119.7        | 118.6   | 0.12730  | 0.08814  | 0.08814  | -0.40057 | 0.12126  | -0.12627 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                        |           |         |            |           |         |       |
|---------|-------|------------------------|-----------|---------|------------|-----------|---------|-------|
| CASE 25 | -13.7 | OPEN LINE FROM BUS 788 | [0BPOLJ51 | 110.00] | TO BUS 800 | [0MOJK051 | 110.00] | CKT 1 |
| CASE 26 | -18.0 | OPEN LINE FROM BUS 789 | [0BUDVA51 | 110.00] | TO BUS 790 | [0CETIN51 | 110.00] | CKT 1 |
| CASE 27 | -30.1 | OPEN LINE FROM BUS 789 | [0BUDVA51 | 110.00] | TO BUS 807 | [0PODG251 | 110.00] | CKT 1 |

CASE 28 5.9 OPEN LINE FROM BUS 789 [0BUDVA51 110.00] TO BUS 812 [0TIVAT51 110.00] CKT 1  
CASE 29 -30.5 OPEN LINE FROM BUS 790 [0CETIN51 110.00] TO BUS 807 [0PODG251 110.00] CKT 1  
CASE 30 -16.1 OPEN LINE FROM BUS 791 [0DANIL51 110.00] TO BUS 795 [0HPERU51 110.00] CKT 1

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |       | CASE 25  | CASE 26  | CASE 27  | CASE 28  | CASE 29  | CASE 30  |
|----------------------|-----------------------|----------|--|--------------|-------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC    | -13.7    | -18.0    | -30.1    | 5.9      | -30.5    | -16.1    |
| FROM                 | TO                    | CKT      |  |              |       |          |          |          |          |          |          |
| 10115 WTREBI1        | 400.00 10977 XTR_PG11 | 400.00 1 |  | 229.4        | 229.9 | -0.09328 | 0.10797  | 0.11480  | -0.49397 | 0.10797  | -0.06674 |
| 10115 WTREBI1        | 400.00 3WNDTR         | WND 1 1  |  | -50.9        | -53.6 | 0.06454  | -0.09008 | -0.09578 | 0.41212  | -0.09008 | 0.05521  |
| 10116 WTREBI2        | 220.00 10982 XTR_PE21 | 220.00 1 |  | 97.3         | 89.7  | 0.09050  | 0.06545  | 0.06959  | -0.29945 | 0.06545  | 0.09939  |
| 10116 WTREBI2        | 220.00 10988 XTR_PL21 | 220.00 1 |  | 17.0         | 10.8  | -0.00203 | -0.06726 | -0.07151 | 0.30769  | -0.06726 | -0.00674 |
| 10116 WTREBI2        | 220.00 3WNDTR         | WND 1 1  |  | 57.2         | 60.6  | -0.00158 | -0.13260 | -0.14098 | 0.60663  | -0.13260 | -0.01000 |
| 10137 WTREBI5        | 110.00 10983 XTR_HN51 | 110.00 1 |  | 66.2         | 66.5  | -0.00126 | -0.21859 | -0.23240 | 1.00000  | -0.21859 | -0.01466 |
| 10137 WTREBI5        | 110.00 10994 XTR_K051 | 110.00 1 |  | -35.0        | -32.0 | -0.00032 | 0.08598  | 0.09142  | -0.39337 | 0.08598  | 0.00466  |

-----CONTINGENCY LABEL-----> <-MW SHIFT-> -----CONTINGENCY DESCRIPTION----->  
CASE 31 4.0 OPEN LINE FROM BUS 791 [0DANIL51 110.00] TO BUS 805 [0PODG151 110.00] CKT 1  
CASE 32 11.5 OPEN LINE FROM BUS 792 [0ETREB51 110.00] TO BUS 805 [0PODG151 110.00] CKT 1  
CASE 33 32.5 OPEN LINE FROM BUS 793 [0HNOVI51 110.00] TO BUS 812 [0TIVAT51 110.00] CKT 1  
CASE 34 -66.2 OPEN LINE FROM BUS 793 [0HNOVI51 110.00] TO BUS 10983 [XTR\_HN51 110.00] CKT 1  
CASE 35 21.1 OPEN LINE FROM BUS 795 [0HPERU51 110.00] TO BUS 801 [0NIKSI51 110.00] CKT 1  
CASE 36 21.1 OPEN LINE FROM BUS 795 [0HPERU51 110.00] TO BUS 801 [0NIKSI51 110.00] CKT 2

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |       | CASE 31  | CASE 32  | CASE 33  | CASE 34  | CASE 35 | CASE 36 |
|----------------------|-----------------------|----------|--|--------------|-------|----------|----------|----------|----------|---------|---------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC    | 4.0      | 11.5     | 32.5     | -66.2    | 21.1    | 21.1    |
| FROM                 | TO                    | CKT      |  |              |       |          |          |          |          |         |         |
| 10115 WTREBI1        | 400.00 10977 XTR_PG11 | 400.00 1 |  | 229.4        | 229.9 | 0.06674  | 0.01059  | 0.49397  | -0.49397 | 0.00000 | 0.00000 |
| 10115 WTREBI1        | 400.00 3WNDTR         | WND 1 1  |  | -50.9        | -53.6 | -0.05521 | 0.04202  | -0.41212 | 0.41212  | 0.00000 | 0.00000 |
| 10116 WTREBI2        | 220.00 10982 XTR_PE21 | 220.00 1 |  | 97.3         | 89.7  | -0.09939 | 0.08068  | 0.29945  | -0.29945 | 0.00000 | 0.00000 |
| 10116 WTREBI2        | 220.00 10988 XTR_PL21 | 220.00 1 |  | 17.0         | 10.8  | 0.00674  | 0.00580  | -0.30769 | 0.30769  | 0.00000 | 0.00000 |
| 10116 WTREBI2        | 220.00 3WNDTR         | WND 1 1  |  | 57.2         | 60.6  | 0.01000  | 0.01768  | -0.60663 | 0.60663  | 0.00000 | 0.00000 |
| 10137 WTREBI5        | 110.00 10983 XTR_HN51 | 110.00 1 |  | 66.2         | 66.5  | 0.01466  | 0.03262  | -1.00000 | 1.00000  | 0.00000 | 0.00000 |
| 10137 WTREBI5        | 110.00 10994 XTR_K051 | 110.00 1 |  | -35.0        | -32.0 | -0.00466 | -0.01494 | 0.39337  | -0.39337 | 0.00000 | 0.00000 |

-----CONTINGENCY LABEL-----> <-MW SHIFT-> -----CONTINGENCY DESCRIPTION----->  
CASE 44 47.6 OPEN LINE FROM BUS 807 [0PODG251 110.00] TO BUS 809 [0PODG451 110.00] CKT 1  
CASE 45 35.5 OPEN LINE FROM BUS 807 [0PODG251 110.00] TO BUS 815 [0VIRPA51 110.00] CKT 1  
CASE 46 12.7 OPEN LINE FROM BUS 808 [0PODG351 110.00] TO BUS 810 [0PODG551 110.00] CKT 1  
CASE-T-47 -38.5 OPEN LINE FROM BUS 788 [0BPOLJ51 110.00] TO BUS 811 [0RIBAR11 400.00] CKT 1  
CASE 48 47.4 OPEN LINE FROM BUS 794 [0HPERU21 220.00] TO BUS 795 [0HPERU51 110.00] CKT 1  
CASE 50 -135.5 OPEN LINE FROM BUS 802 [0PLJE211 400.00] TO BUS 813 [0TPLJE21 220.00] CKT 1

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |       | CASE 44  | CASE 45  | CASE 46  | CASE-T-47 | CASE 48  | CASE 50  |
|----------------------|-----------------------|----------|--|--------------|-------|----------|----------|----------|-----------|----------|----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC    | 47.6     | 35.5     | 12.7     | -38.5     | 47.4     | -135.5   |
| FROM                 | TO                    | CKT      |  |              |       |          |          |          |           |          |          |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | 407.0        | 400.5 | -0.23807 | 0.01008  | 0.00030  | -0.02499  | -0.01790 | 0.01058  |
| 10102 WGACK01        | 400.00 10115 WTREBI1  | 400.00 1 |  | 178.9        | 176.7 | -0.24301 | -0.01464 | 0.00855  | 0.00271   | 0.03983  | -0.06328 |
| 10102 WGACK01        | 400.00 10124 WMOST41  | 400.00 1 |  | 45.1         | 47.4  | 0.24302  | 0.01464  | -0.00855 | -0.00271  | -0.03983 | 0.06328  |
| 10115 WTREBI1        | 400.00 10977 XTR_PG11 | 400.00 1 |  | 229.4        | 229.9 | -0.25617 | -0.08838 | 0.02737  | 0.07129   | 0.23052  | -0.08668 |
| 10116 WTREBI2        | 220.00 10982 XTR_PE21 | 220.00 1 |  | 97.3         | 89.7  | -0.11849 | -0.05357 | -0.03321 | -0.10466  | -0.34330 | -0.00245 |

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

| <-----CONTINGENCY LABEL-----> | <-MW SHIFT-> | <-----CONTINGENCY DESCRIPTION-----> |           |         |                                      |
|-------------------------------|--------------|-------------------------------------|-----------|---------|--------------------------------------|
| CASE 3                        | -266.1       | OPEN LINE FROM BUS 779              | [XKA_PG11 | 400.00] | TO BUS 806 [0PODG211 400.00] CKT 1   |
| CASE 4                        | 272.6        | OPEN LINE FROM BUS 802              | [0PLJE211 | 400.00] | TO BUS 811 [0RIBAR11 400.00] CKT 1   |
| CASE 5                        | -248.3       | OPEN LINE FROM BUS 806              | [0PODG211 | 400.00] | TO BUS 811 [0RIBAR11 400.00] CKT 1   |
| CASE 6                        | -229.4       | OPEN LINE FROM BUS 806              | [0PODG211 | 400.00] | TO BUS 10977 [XTR_PG11 400.00] CKT 1 |
| CASE 13                       | -97.3        | OPEN LINE FROM BUS 794              | [0HPERU21 | 220.00] | TO BUS 10982 [XTR_PE21 220.00] CKT 1 |
| CASE 14                       | 71.3         | OPEN LINE FROM BUS 796              | [0HPIVA21 | 220.00] | TO BUS 813 [0TPLJE21 220.00] CKT 1   |
| CASE 15                       | 71.3         | OPEN LINE FROM BUS 796              | [0HPIVA21 | 220.00] | TO BUS 813 [0TPLJE21 220.00] CKT 2   |
| CASE 16                       | 69.3         | OPEN LINE FROM BUS 796              | [0HPIVA21 | 220.00] | TO BUS 10985 [XSA_PI21 220.00] CKT 1 |
| CASE 17                       | 81.8         | OPEN LINE FROM BUS 799              | [0MOJK021 | 220.00] | TO BUS 804 [0PODG121 220.00] CKT 1   |
| CASE 26                       | -18.0        | OPEN LINE FROM BUS 789              | [0BUDVA51 | 110.00] | TO BUS 790 [0CETIN51 110.00] CKT 1   |
| CASE 27                       | -30.1        | OPEN LINE FROM BUS 789              | [0BUDVA51 | 110.00] | TO BUS 807 [0PODG251 110.00] CKT 1   |
| CASE 28                       | 5.9          | OPEN LINE FROM BUS 789              | [0BUDVA51 | 110.00] | TO BUS 812 [0TIVAT51 110.00] CKT 1   |
| CASE 29                       | -30.5        | OPEN LINE FROM BUS 790              | [0CETIN51 | 110.00] | TO BUS 807 [0PODG251 110.00] CKT 1   |
| CASE 33                       | 32.5         | OPEN LINE FROM BUS 793              | [0HNOVI51 | 110.00] | TO BUS 812 [0TIVAT51 110.00] CKT 1   |
| CASE 34                       | -66.2        | OPEN LINE FROM BUS 793              | [0HNOVI51 | 110.00] | TO BUS 10983 [XTR_HN51 110.00] CKT 1 |
| CASE 44                       | 47.6         | OPEN LINE FROM BUS 807              | [0PODG251 | 110.00] | TO BUS 809 [0PODG451 110.00] CKT 1   |
| CASE 48                       | 47.4         | OPEN LINE FROM BUS 794              | [0HPERU21 | 220.00] | TO BUS 795 [0HPERU51 110.00] CKT 1   |

# REŽIM MINIMALNOG OPTEREĆENJA:

## EES Srbije

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, MAR 10 2014 16:29  
 REZIM MINIMALNOG OPTEREĆENJA EES BIH PAGE 1  
 02.05.2013. U 06:00 SATI

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|        |        |                                 |         |                      |         |       |
|--------|--------|---------------------------------|---------|----------------------|---------|-------|
| CASE 1 | -327.7 | OPEN LINE FROM BUS 1 [XSA_SU11  | 400.00] | TO BUS 529 [JSUB0311 | 400.00] | CKT 1 |
| CASE 2 | -94.2  | OPEN LINE FROM BUS 37 [XPF_DJ11 | 400.00] | TO BUS 297 [JHDJE111 | 400.00] | CKT 1 |
| CASE 3 | -326.5 | OPEN LINE FROM BUS 48 [XSK_UR11 | 400.00] | TO BUS 569 [JUROS211 | 400.00] | CKT 1 |
| CASE 4 | -99.5  | OPEN LINE FROM BUS 49 [XSO_NI11 | 400.00] | TO BUS 388 [JNIS2 12 | 400.00] | CKT 1 |
| CASE 5 | 53.3   | OPEN LINE FROM BUS 68 [XRI_PE11 | 400.00] | TO BUS 441 [JPEC3 1  | 400.00] | CKT 1 |
| CASE 6 | -186.4 | OPEN LINE FROM BUS 72 [XER_SM11 | 400.00] | TO BUS 507 [JSMIT211 | 400.00] | CKT 1 |

|               |                       | CONTINGENCY LABEL--> | BASE CASE MW | CASE 1  | CASE 2   | CASE 3   | CASE 4   | CASE 5   | CASE 6   |          |
|---------------|-----------------------|----------------------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |                       | POWER SHIFT (MW)-->  | AC           | DC      | -327.7   | -94.2    | -326.5   | -99.5    | 53.3     | -186.4   |
| <----- FROM   | <----- TO             | <----->CKT           | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1 | 400.00 10121 WTUZLA1  | 400.00 1             | -274.0       | -283.6  | -0.00682 | -0.01412 | 0.08696  | 0.00883  | -0.28446 | -0.03773 |
| 10101 WUGLJE1 | 400.00 10976 XUG_ER11 | 400.00 1             | 216.6        | 223.5   | -0.19551 | -0.03483 | -0.02897 | -0.01366 | 0.07286  | -0.56348 |
| 10101 WUGLJE1 | 400.00 10986 XUG_SM11 | 400.00 1             | 45.2         | 49.4    | 0.18651  | 0.04414  | -0.05770 | 0.00345  | 0.20557  | 0.59720  |
| 10102 WGACKO1 | 400.00 10115 WTREBI1  | 400.00 1             | -19.4        | -17.7   | 0.03048  | -0.00726 | 0.07281  | 0.00471  | -0.27992 | 0.03215  |
| 10102 WGACKO1 | 400.00 10124 WMOST41  | 400.00 1             | 251.9        | 250.2   | -0.03048 | 0.00726  | -0.07281 | -0.00471 | 0.27992  | -0.03215 |
| 10115 WTREBI1 | 400.00 10977 XTR_PG11 | 400.00 1             | 16.2         | 22.0    | 0.03794  | -0.00931 | 0.09174  | 0.00577  | -0.35408 | 0.04111  |
| 10120 WSAR101 | 400.00 10121 WTUZLA1  | 400.00 1             | 140.2        | 145.2   | 0.02048  | 0.01651  | -0.06789 | -0.00237 | 0.25982  | 0.01719  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                                  |         |                      |         |       |
|---------|--------|----------------------------------|---------|----------------------|---------|-------|
| CASE 13 | 48.1   | OPEN LINE FROM BUS 317 [JJAG041  | 400.00] | TO BUS 339 [JKRAG21  | 400.00] | CKT 1 |
| CASE 14 | -107.0 | OPEN LINE FROM BUS 317 [JJAG041  | 400.00] | TO BUS 387 [JNIS2 11 | 400.00] | CKT 1 |
| CASE 15 | 138.1  | OPEN LINE FROM BUS 332 [JKOSB 11 | 400.00] | TO BUS 388 [JNIS2 12 | 400.00] | CKT 1 |
| CASE 5  | 53.3   | OPEN LINE FROM BUS 68 [XRI_PE11  | 400.00] | TO BUS 441 [JPEC3 1  | 400.00] | CKT 1 |
| CASE 6  | -186.4 | OPEN LINE FROM BUS 72 [XER_SM11  | 400.00] | TO BUS 507 [JSMIT211 | 400.00] | CKT 1 |
| CASE 17 | -269.0 | OPEN LINE FROM BUS 332 [JKOSB 11 | 400.00] | TO BUS 559 [JTKOSB11 | 400.00] | CKT 1 |
| CASE 18 | -269.0 | OPEN LINE FROM BUS 332 [JKOSB 11 | 400.00] | TO BUS 560 [JTKOSB12 | 400.00] | CKT 2 |

|               |                       | CONTINGENCY LABEL--> | BASE CASE MW | CASE 13 | CASE 14  | CASE 15  | CASE 16  | CASE 17  | CASE 18  |          |
|---------------|-----------------------|----------------------|--------------|---------|----------|----------|----------|----------|----------|----------|
|               |                       | POWER SHIFT (MW)-->  | AC           | DC      | 48.1     | -107.0   | 138.1    | -14.3    | -269.0   | -269.0   |
| <----- FROM   | <----- TO             | <----->CKT           | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1 | 400.00 10121 WTUZLA1  | 400.00 1             | -274.0       | -283.6  | -0.09938 | 0.13349  | -0.14161 | 0.23168  | -0.14619 | -0.14619 |
| 10102 WGACKO1 | 400.00 10115 WTREBI1  | 400.00 1             | -19.4        | -17.7   | -0.06426 | 0.08862  | -0.12200 | 0.22747  | -0.13325 | -0.13325 |
| 10102 WGACKO1 | 400.00 10124 WMOST41  | 400.00 1             | 251.9        | 250.2   | 0.06426  | -0.08862 | 0.12200  | -0.22747 | 0.13325  | 0.13325  |
| 10115 WTREBI1 | 400.00 10977 XTR_PG11 | 400.00 1             | 16.2         | 22.0    | -0.08063 | 0.11127  | -0.15392 | 0.28771  | -0.16730 | -0.16730 |
| 10120 WSAR101 | 400.00 10121 WTUZLA1  | 400.00 1             | 140.2        | 145.2   | 0.06764  | -0.09285 | 0.11578  | -0.21119 | 0.09559  | 0.09559  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                                  |         |                      |         |       |
|---------|--------|----------------------------------|---------|----------------------|---------|-------|
| CASE 32 | -261.8 | OPEN LINE FROM BUS 475 [JRPDRM12 | 400.00] | TO BUS 539 [JTDRMN12 | 400.00] | CKT 1 |
| CASE 33 | -487.6 | OPEN LINE FROM BUS 476 [JRPMLA11 | 400.00] | TO BUS 549 [JTENTB11 | 400.00] | CKT 1 |
| CASE 34 | 201.4  | OPEN LINE FROM BUS 477 [JRPMLA12 | 400.00] | TO BUS 507 [JSMIT211 | 400.00] | CKT 1 |

CASE 35 0.0 OPEN LINE FROM BUS 477 [JRPMLA12 400.00] TO BUS 550 [JTENTB12 400.00] CKT 1  
CASE 36 -45.2 OPEN LINE FROM BUS 508 [JSMIT212 400.00] TO BUS 10986 [XUG\_SM11 400.00] CKT 1  
CASE 37 -16.4 OPEN LINE FROM BUS 517 [JSOMB31 400.00] TO BUS 529 [JSUB0311 400.00] CKT 1

| CONTINGENCY LABEL--> |           |                |          | BASE CASE MW |         | CASE 32  | CASE 33  | CASE 34  | CASE 35  | CASE 36  | CASE 37  |
|----------------------|-----------|----------------|----------|--------------|---------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |           |                |          | AC           | DC      | -261.8   | -487.6   | 201.4    | 0.0      | -45.2    | -16.4    |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1        | 400.00    | 10121 WTUZLA1  | 400.00 1 | -274.0       | -283.6  | -0.02734 | 0.00478  | -0.25986 | 0.00478  | -0.35469 | 0.00086  |
| 10101 WUGLJE1        | 400.00    | 10976 XUG_ER11 | 400.00 1 | 216.6        | 223.5   | 0.12983  | 0.12832  | -0.03531 | 0.12832  | -0.57181 | 0.02948  |
| 10101 WUGLJE1        | 400.00    | 10986 XUG_SM11 | 400.00 1 | 45.2         | 49.4    | -0.08939 | -0.12387 | 0.35205  | -0.12387 | 1.00000  | -0.02729 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                |                              |               |
|---------|-------|--------------------------------|------------------------------|---------------|
| CASE 46 | -33.4 | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 420 [JOBREN22 | 220.00] CKT 1 |
| CASE 47 | -21.3 | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 452 [JPOZEG2  | 220.00] CKT 1 |
| CASE 48 | 280.0 | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 472 [JRHBA21  | 220.00] CKT 1 |
| CASE 49 | 274.0 | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 473 [JRHBA22  | 220.00] CKT 1 |
| CASE 50 | 17.2  | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 509 [JSMIT221 | 220.00] CKT 1 |
| CASE 51 | -18.3 | OPEN LINE FROM BUS 191 [JBBA21 | 220.00] TO BUS 580 [JVALJ321 | 220.00] CKT 1 |

| CONTINGENCY LABEL--> |           |                |          | BASE CASE MW |         | CASE 46  | CASE 47  | CASE 48  | CASE 49  | CASE 50  | CASE 51  |
|----------------------|-----------|----------------|----------|--------------|---------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |           |                |          | AC           | DC      | -33.4    | -21.3    | 280.0    | 274.0    | 17.2     | -18.3    |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1        | 400.00    | 10121 WTUZLA1  | 400.00 1 | -274.0       | -283.6  | -0.16739 | 0.05687  | -0.16265 | -0.16265 | -0.24475 | -0.14739 |
| 10101 WUGLJE1        | 400.00    | 10986 XUG_SM11 | 400.00 1 | 45.2         | 49.4    | 0.11564  | -0.04398 | 0.00643  | 0.00643  | 0.20906  | 0.07088  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                  |                              |               |
|---------|-------|----------------------------------|------------------------------|---------------|
| CASE 52 | -78.6 | OPEN LINE FROM BUS 191 [JBBA21   | 220.00] TO BUS 585 [JWARDI22 | 220.00] CKT 1 |
| CASE 53 | -96.7 | OPEN LINE FROM BUS 206 [JBGD1721 | 220.00] TO BUS 239 [JBGD8 21 | 220.00] CKT 1 |
| CASE 54 | -58.7 | OPEN LINE FROM BUS 208 [JBGD1723 | 220.00] TO BUS 240 [JBGD8 22 | 220.00] CKT 1 |
| CASE 55 | -15.4 | OPEN LINE FROM BUS 220 [JBGD3 21 | 220.00] TO BUS 239 [JBGD8 21 | 220.00] CKT 1 |
| CASE 56 | -15.5 | OPEN LINE FROM BUS 221 [JBGD3 22 | 220.00] TO BUS 240 [JBGD8 22 | 220.00] CKT 1 |
| CASE 57 | -71.2 | OPEN LINE FROM BUS 221 [JBGD3 22 | 220.00] TO BUS 419 [JOBREN21 | 220.00] CKT 1 |

| CONTINGENCY LABEL--> |           |                |          | BASE CASE MW |         | CASE 52  | CASE 53  | CASE 54  | CASE 55  | CASE 56  | CASE 57  |
|----------------------|-----------|----------------|----------|--------------|---------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |           |                |          | AC           | DC      | -78.6    | -96.7    | -58.7    | -15.4    | -15.5    | -71.2    |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->      | <-----> | <----->  | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10101 WUGLJE1        | 400.00    | 10121 WTUZLA1  | 400.00 1 | -274.0       | -283.6  | 0.25090  | 0.03038  | 0.03038  | -0.00742 | -0.00749 | -0.00666 |
| 10114 WTSVSG1        | 400.00    | 10121 WTUZLA1  | 400.00 1 | 147.9        | 152.1   | -0.35456 | -0.04685 | -0.04685 | 0.00672  | 0.00678  | -0.00091 |
| 10114 WTSVSG1        | 400.00    | 3WNDTR         | WND 1 1  | 103.0        | 99.6    | 0.39955  | 0.05268  | 0.05268  | -0.00741 | -0.00748 | 0.00172  |
| 10126 WTSVSG2        | 220.00    | 10984 XVI_VA21 | 220.00 1 | 102.8        | 99.4    | 0.39955  | 0.05268  | 0.05268  | -0.00741 | -0.00748 | 0.00172  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                                 |                              |               |
|---------|-------|---------------------------------|------------------------------|---------------|
| CASE 65 | 8.2   | OPEN LINE FROM BUS 259 [JCACAK2 | 220.00] TO BUS 349 [JKRALJ2  | 220.00] CKT 1 |
| CASE 66 | -27.9 | OPEN LINE FROM BUS 259 [JCACAK2 | 220.00] TO BUS 452 [JPOZEG2  | 220.00] CKT 1 |
| CASE 67 | 7.6   | OPEN LINE FROM BUS 288 [JFERON2 | 220.00] TO BUS 334 [JKOSB 21 | 220.00] CKT 1 |
| CASE 68 | 8.1   | OPEN LINE FROM BUS 288 [JFERON2 | 220.00] TO BUS 334 [JKOSB 21 | 220.00] CKT 2 |
| CASE 69 | -29.2 | OPEN LINE FROM BUS 288 [JFERON2 | 220.00] TO BUS 465 [JPRIZ22  | 220.00] CKT 1 |
| CASE 70 | -0.0  | OPEN LINE FROM BUS 296 [JHBIST2 | 220.00] TO BUS 585 [JWARDI22 | 220.00] CKT 1 |

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |        | CASE 65  | CASE 66  | CASE 67  | CASE 68  | CASE 69  | CASE 70  |
|----------------------|-----------------------|----------|--|--------------|--------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC     | 8.2      | -27.9    | 7.6      | 8.1      | -29.2    | -0.0     |
| FROM                 | TO                    | CKT      |  |              |        |          |          |          |          |          |          |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | -274.0       | -283.6 | -0.02394 | 0.02604  | -0.00038 | -0.00039 | 0.00609  | 0.24922  |
| 10101 WUGLJE1        | 400.00 10976 XUG_ER11 | 400.00 1 |  | 216.6        | 223.5  | 0.01073  | -0.01056 | 0.00006  | 0.00006  | -0.00100 | -0.20034 |
| 10114 WTSVSG1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | 147.9        | 152.1  | 0.03598  | -0.03861 | -0.00020 | -0.00020 | 0.00315  | -0.28343 |
| 10114 WTSVSG1        | 400.00 3WNDTR         | WND 1 1  |  | 103.0        | 99.6   | -0.04067 | 0.04360  | 0.00026  | 0.00027  | -0.00417 | 0.31557  |
| 10126 WTSVSG2        | 220.00 10984 XVI_VA21 | 220.00 1 |  | 102.8        | 99.4   | -0.04067 | 0.04360  | 0.00026  | 0.00027  | -0.00417 | 0.31557  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |            |           |         |       |
|---------|--------|------------------------|-----------|---------|------------|-----------|---------|-------|
| CASE 83 | -75.1  | OPEN LINE FROM BUS 406 | [JNSAD321 | 220.00] | TO BUS 420 | [JOBREN22 | 220.00] | CKT 1 |
| CASE 84 | 18.7   | OPEN LINE FROM BUS 406 | [JNSAD321 | 220.00] | TO BUS 610 | [JZREN22  | 220.00] | CKT 1 |
| CASE 85 | 57.2   | OPEN LINE FROM BUS 407 | [JNSAD322 | 220.00] | TO BUS 520 | [JSRBOB2  | 220.00] | CKT 1 |
| CASE 86 | -137.0 | OPEN LINE FROM BUS 419 | [JOBREN21 | 220.00] | TO BUS 544 | [JTENTA21 | 220.00] | CKT 1 |
| CASE 87 | -226.9 | OPEN LINE FROM BUS 419 | [JOBREN21 | 220.00] | TO BUS 546 | [JTENTA23 | 220.00] | CKT 1 |
| CASE 88 | 53.4   | OPEN LINE FROM BUS 420 | [JOBREN22 | 220.00] | TO BUS 487 | [JSABA32  | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> |                      |          |  | BASE CASE MW |      | CASE 83  | CASE 84 | CASE 85 | CASE 86 | CASE 87 | CASE 88  |
|----------------------|----------------------|----------|--|--------------|------|----------|---------|---------|---------|---------|----------|
| POWER SHIFT (MW)-->  |                      |          |  | AC           | DC   | -75.1    | 18.7    | 57.2    | -137.0  | -226.9  | 53.4     |
| FROM                 | TO                   | CKT      |  |              |      |          |         |         |         |         |          |
| 10992 XBI_LE51       | 110.00 14196 WJANJA5 | 110.00 1 |  | 15.5         | 14.9 | -0.01431 | 0.00039 | 0.00011 | 0.02520 | 0.02520 | -0.23117 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|           |       |                        |           |         |            |            |         |       |
|-----------|-------|------------------------|-----------|---------|------------|------------|---------|-------|
| CASE 91   | 4.6   | OPEN LINE FROM BUS 421 | [JOBREN23 | 220.00] | TO BUS 551 | [JTENTB2   | 220.00] | CKT 1 |
| CASE 92   | 52.7  | OPEN LINE FROM BUS 421 | [JOBREN23 | 220.00] | TO BUS 580 | [JVALJ321  | 220.00] | CKT 1 |
| CASE 93   | 35.2  | OPEN LINE FROM BUS 430 | [JPANC22  | 220.00] | TO BUS 469 | [JSPANIS21 | 220.00] | CKT 1 |
| CASE 94   | 84.0  | OPEN LINE FROM BUS 430 | [JPANC22  | 220.00] | TO BUS 610 | [JZREN22   | 220.00] | CKT 1 |
| CASE 95   | -23.8 | OPEN LINE FROM BUS 452 | [JPOZEG2  | 220.00] | TO BUS 584 | [JVARDI21  | 220.00] | CKT 1 |
| OVRLOD 96 | 42.4  | OPEN LINE FROM BUS 509 | [JSMTI221 | 220.00] | TO BUS 520 | [JSRBOB2   | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |       | CASE 91  | CASE 92  | CASE 93  | CASE 94  | CASE 95  | OVRLOD 96 |
|----------------------|-----------------------|----------|--|--------------|-------|----------|----------|----------|----------|----------|-----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC    | 4.6      | 52.7     | 35.2     | 84.0     | -23.8    | 42.4      |
| FROM                 | TO                    | CKT      |  |              |       |          |          |          |          |          |           |
| 10114 WTSVSG1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | 147.9        | 152.1 | 0.05110  | -0.09491 | -0.01253 | 0.01583  | -0.22606 | -0.00330  |
| 10114 WTSVSG1        | 400.00 3WNDTR         | WND 1 1  |  | 103.0        | 99.6  | -0.05775 | 0.10307  | 0.01369  | -0.01662 | 0.25856  | 0.00132   |
| 10126 WTSVSG2        | 220.00 10984 XVI_VA21 | 220.00 1 |  | 102.8        | 99.4  | -0.05775 | 0.10307  | 0.01369  | -0.01662 | 0.25856  | 0.00132   |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|             |        |                        |           |         |              |           |         |       |
|-------------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 97     | 78.9   | OPEN LINE FROM BUS 584 | [JVARDI21 | 220.00] | TO BUS 585   | [JVARDI22 | 220.00] | CKT 1 |
| CASE 98     | -102.8 | OPEN LINE FROM BUS 584 | [JVARDI21 | 220.00] | TO BUS 10984 | [XVI_VA21 | 220.00] | CKT 1 |
| CASE 99 -T- | 111.0  | OPEN LINE FROM BUS 237 | [JBGD8 11 | 400.00] | TO BUS 240   | [JBGD8 22 | 220.00] | CKT 2 |
| CASE 100    | 111.1  | OPEN LINE FROM BUS 238 | [JBGD8 12 | 400.00] | TO BUS 239   | [JBGD8 21 | 220.00] | CKT 1 |
| CASE 101    | -5.5   | OPEN LINE FROM BUS 244 | [JBOR 21  | 400.00] | TO BUS 247   | [JBOR2 51 | 110.00] | CKT 1 |
| CASE 102    | 33.4   | OPEN LINE FROM BUS 244 | [JBOR 21  | 400.00] | TO BUS 248   | [JBOR2 52 | 110.00] | CKT 2 |

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |        | CASE 97  | CASE 98  | CASE 99 -T- | CASE 100 | CASE 101 | CASE 102 |
|----------------------|-----------------------|----------|--|--------------|--------|----------|----------|-------------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC     | 78.9     | -102.8   | 111.0       | 111.1    | -5.5     | 33.4     |
| FROM                 | TO                    | CKT      |  |              |        |          |          |             |          |          |          |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | -274.0       | -283.6 | -0.25091 | 0.55684  | 0.01656     | 0.01657  | -0.00982 | -0.01667 |
| 10101 WUGLJE1        | 400.00 10986 XUG_SM11 | 400.00 1 |  | 45.2         | 49.4   | 0.15982  | -0.34355 | -0.01564    | -0.01565 | 0.00956  | 0.01623  |
| 10114 WTSVSG1        | 400.00 10121 WTUZLA1  | 400.00 1 |  | 147.9        | 152.1  | 0.35457  | -0.88290 | -0.01324    | -0.01324 | -0.00005 | -0.00008 |

|               |                       |          |       |      |          |         |         |         |         |         |
|---------------|-----------------------|----------|-------|------|----------|---------|---------|---------|---------|---------|
| 10114 WTSVSG1 | 400.00 3WNDTR         | WND 1 1  | 103.0 | 99.6 | -0.39956 | 1.00000 | 0.01447 | 0.01447 | 0.00079 | 0.00134 |
| 10126 WTSVSG2 | 220.00 10984 XVI_VA21 | 220.00 1 | 102.8 | 99.4 | -0.39956 | 1.00000 | 0.01447 | 0.01447 | 0.00079 | 0.00134 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|          |      |                                  |         |                      |         |       |
|----------|------|----------------------------------|---------|----------------------|---------|-------|
| CASE 121 | 80.2 | OPEN LINE FROM BUS 429 [JPANC211 | 400.00] | TO BUS 432 [JPANC252 | 110.00] | CKT 2 |
| CASE 122 | 39.0 | OPEN LINE FROM BUS 441 [JPEC3 1  | 400.00] | TO BUS 442 [JPEC3 51 | 110.00] | CKT 1 |
| CASE 123 | 59.4 | OPEN LINE FROM BUS 508 [JSMIT212 | 400.00] | TO BUS 509 [JSMIT221 | 220.00] | CKT 1 |
| CASE 124 | 16.3 | OPEN LINE FROM BUS 509 [JSMIT221 | 220.00] | TO BUS 511 [JSMIT251 | 110.00] | CKT 1 |
| CASE 125 | 17.6 | OPEN LINE FROM BUS 509 [JSMIT221 | 220.00] | TO BUS 512 [JSMIT252 | 110.00] | CKT 2 |
| CASE 126 | 16.3 | OPEN LINE FROM BUS 517 [JSOMB31  | 400.00] | TO BUS 518 [JSOMB351 | 110.00] | CKT 1 |

| CONTINGENCY LABEL--> |                       | BASE CASE MW | CASE 121 | CASE 122 | CASE 123 | CASE 124 | CASE 125 | CASE 126 |
|----------------------|-----------------------|--------------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                       | AC           | DC       | 80.2     | 39.0     | 59.4     | 16.3     | 17.6     |
| FROM                 | TO                    | CKT          |          |          |          |          |          |          |
| 10101 WUGLJE1        | 400.00 10986 XUG_SM11 | 400.00 1     | 45.2     | 49.4     | -0.00636 | 0.02103  | -0.21642 | -0.05609 |
|                      |                       |              |          |          |          |          | -0.05291 | 0.02729  |

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|           |        |                                  |         |                        |         |       |
|-----------|--------|----------------------------------|---------|------------------------|---------|-------|
| CASE 5    | 53.3   | OPEN LINE FROM BUS 68 [XRI_PE11  | 400.00] | TO BUS 441 [JPEC3 1    | 400.00] | CKT 1 |
| CASE 6    | -186.4 | OPEN LINE FROM BUS 72 [XER_SM11  | 400.00] | TO BUS 507 [JSMIT211   | 400.00] | CKT 1 |
| CASE 5    | 53.3   | OPEN LINE FROM BUS 68 [XRI_PE11  | 400.00] | TO BUS 441 [JPEC3 1    | 400.00] | CKT 1 |
| CASE 6    | -186.4 | OPEN LINE FROM BUS 72 [XER_SM11  | 400.00] | TO BUS 507 [JSMIT211   | 400.00] | CKT 1 |
| CASE 34   | 201.4  | OPEN LINE FROM BUS 477 [JRPMLA12 | 400.00] | TO BUS 507 [JSMIT211   | 400.00] | CKT 1 |
| CASE 36   | -45.2  | OPEN LINE FROM BUS 508 [JSMIT212 | 400.00] | TO BUS 10986 [XUG_SM11 | 400.00] | CKT 1 |
| CASE 50   | 17.2   | OPEN LINE FROM BUS 191 [JBBAST21 | 220.00] | TO BUS 509 [JSMIT221   | 220.00] | CKT 1 |
| CASE 52   | -78.6  | OPEN LINE FROM BUS 191 [JBBAST21 | 220.00] | TO BUS 585 [JWARDI22   | 220.00] | CKT 1 |
| OVRLOD 70 | -0.0   | OPEN LINE FROM BUS 296 [JHBIST2  | 220.00] | TO BUS 585 [JWARDI22   | 220.00] | CKT 1 |
| CASE 88   | 53.4   | OPEN LINE FROM BUS 420 [JOBREN22 | 220.00] | TO BUS 487 [JSABA32    | 220.00] | CKT 1 |
| CASE 95   | -23.8  | OPEN LINE FROM BUS 452 [JPOZEG2  | 220.00] | TO BUS 584 [JWARDI21   | 220.00] | CKT 1 |
| CASE 97   | 78.9   | OPEN LINE FROM BUS 584 [JWARDI21 | 220.00] | TO BUS 585 [JWARDI22   | 220.00] | CKT 1 |
| CASE 98   | -102.8 | OPEN LINE FROM BUS 584 [JWARDI21 | 220.00] | TO BUS 10984 [XVI_VA21 | 220.00] | CKT 1 |
| CASE 123  | 59.4   | OPEN LINE FROM BUS 508 [JSMIT212 | 400.00] | TO BUS 509 [JSMIT221   | 220.00] | CKT 1 |

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PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E      SAT, MAR 08 2014  18:43
REZIM MINIMALNOG OPTEREĆENJA EES BIH                  PAGE 1
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*** OTDF CONTINGENCY SUMMARY ***
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|                    |                  | CONTINGENCY LABEL--> |        | BASE CASE | MW     | CASE 15 | CASE 16  | CASE 17  | CASE 18  | CASE 19  | CASE 20  |          |
|--------------------|------------------|----------------------|--------|-----------|--------|---------|----------|----------|----------|----------|----------|----------|
|                    |                  | POWER SHIFT (MW)-->  |        | AC        | DC     | 51.9    | 25.9     | -53.4    | -33.4    | 125.9    | -216.6   |          |
| <----- FROM -----> | <----- TO -----> | <CKT                 |        |           |        |         |          |          |          |          |          |          |
| 10101 WUGLJE1      | 400.00           | 10121 WTUZLA1        | 400.00 | 1         | -274.0 | -283.6  | -0.09000 | -0.01893 | 0.20227  | 0.13709  | 0.24343  | -0.33584 |
| 10101 WUGLJE1      | 400.00           | 10976 XUG_ER11       | 400.00 | 1         | 216.6  | 223.5   | 0.06353  | 0.01319  | -0.13251 | -0.11409 | -0.23327 | 1.00000  |
| 10101 WUGLJE1      | 400.00           | 10986 XUG_SM11       | 400.00 | 1         | 45.2   | 49.4    | 0.02570  | 0.00718  | -0.06281 | -0.04970 | -0.02634 | -0.60609 |
| 10103 WTETU22      | 220.00           | 10123 WTSTU22        | 220.00 | 2         | -75.6  | -75.3   | -0.01331 | -0.00021 | -0.21702 | -0.11424 | 0.01634  | 0.04908  |
| 10103 WTETU22      | 220.00           | 10128 WGRADC2        | 220.00 | 1         | 69.7   | 69.1    | 0.01242  | 0.00008  | -0.53708 | 0.76633  | -0.01449 | -0.04521 |



|               |        |                |        |   |      |      |         |          |          |          |          |          |
|---------------|--------|----------------|--------|---|------|------|---------|----------|----------|----------|----------|----------|
| 10103 WTETU22 | 220.00 | 10980 XTU_DA21 | 220.00 | 1 | 53.4 | 52.3 | 0.01096 | 0.00029  | 1.00000  | -0.54270 | -0.01577 | -0.04432 |
| 10121 WTUZLA1 | 400.00 | 3WNDTR         | WND    | 1 | 12.8 | 12.3 | 0.01428 | -0.01085 | 0.22477  | 0.14421  | 0.05446  | -0.12695 |
| 10128 WGRADC2 | 220.00 | 10981 XGR_DA21 | 220.00 | 1 | 33.4 | 31.9 | 0.00897 | 0.00051  | -0.59617 | 1.00000  | -0.01671 | -0.04192 |
| 10128 WGRADC2 | 220.00 | 3WNDTR         | WND    | 1 | 36.0 | 36.9 | 0.00346 | -0.00043 | 0.05909  | -0.23367 | 0.00222  | -0.00329 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |              |           |         |       |
|---------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 21 | 309.7  | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] | TO BUS 781   | [HVELEB11 | 400.00] | CKT 1 |
| CASE 22 | -146.9 | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] | TO BUS 10975 | [XMO_KO11 | 400.00] | CKT 1 |
| CASE 23 | -78.7  | OPEN LINE FROM BUS 675 | [HKONJS21 | 220.00] | TO BUS 715   | [HORLOV21 | 220.00] | CKT 1 |
| CASE 24 | -78.7  | OPEN LINE FROM BUS 675 | [HKONJS21 | 220.00] | TO BUS 715   | [HORLOV21 | 220.00] | CKT 2 |
| CASE 25 | -62.6  | OPEN LINE FROM BUS 675 | [HKONJS21 | 220.00] | TO BUS 798   | [HZAKUC21 | 220.00] | CKT 1 |
| CASE 26 | 18.8   | OPEN LINE FROM BUS 692 | [HMEDUR21 | 220.00] | TO BUS 700   | [HMRACL21 | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> BASE CASE MW |                       |          |        | CASE 21 | CASE 22  | CASE 23  | CASE 24 | CASE 25 | CASE 26  |
|-----------------------------------|-----------------------|----------|--------|---------|----------|----------|---------|---------|----------|
| POWER SHIFT (MW)-->               |                       |          |        | 309.7   | -146.9   | -78.7    | -78.7   | -62.6   | 18.8     |
| FROM                              | TO                    | CKT      | AC     | DC      |          |          |         |         |          |
| 10101 WUGLJE1                     | 400.00 10121 WTUZLA1  | 400.00 1 | -274.0 | -283.6  | -0.23379 | 0.19228  | 0.00000 | 0.00000 | 0.02315  |
| 10120 WSAR101                     | 400.00 10121 WTUZLA1  | 400.00 1 | 140.2  | 145.2   | 0.23744  | -0.22630 | 0.00000 | 0.00000 | -0.00991 |
| 10120 WSAR101                     | 400.00 10124 WMOST41  | 400.00 1 | -83.0  | -85.6   | -0.27725 | 0.32449  | 0.00000 | 0.00000 | -0.00792 |
| 10124 WMOST41                     | 400.00 10975 XMO_KO11 | 400.00 1 | 146.9  | 144.0   | -0.51680 | 1.00000  | 0.00000 | 0.00000 | -0.25210 |
| 10124 WMOST41                     | 400.00 3WNDTR         | WND 1 2  | 10.5   | 9.7     | 0.06610  | -0.25289 | 0.00000 | 0.00000 | 0.10853  |
| 10124 WMOST41                     | 400.00 3WNDTR         | WND 1 1  | 10.4   | 9.7     | 0.06577  | -0.25162 | 0.00000 | 0.00000 | 0.10798  |
| 10125 WPRIJE2                     | 220.00 10979 XPR_ME21 | 220.00 1 | 61.3   | 61.4    | 0.08441  | -0.05655 | 0.00000 | 0.00000 | -0.01711 |
| 10135 WMOST42                     | 220.00 10978 XMO_ZA21 | 220.00 1 | -14.2  | -10.6   | -0.04525 | -0.33941 | 0.00000 | 0.00000 | 0.30108  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |        |                        |           |         |              |           |         |       |
|---------|--------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 27 | -61.3  | OPEN LINE FROM BUS 692 | [HMEDUR21 | 220.00] | TO BUS 10979 | [XPR_ME21 | 220.00] | CKT 1 |
| CASE 28 | 27.3   | OPEN LINE FROM BUS 694 | [HMELIN11 | 400.00] | TO BUS 776   | [HTUMBR11 | 400.00] | CKT 1 |
| CASE 29 | -156.8 | OPEN LINE FROM BUS 694 | [HMELIN11 | 400.00] | TO BUS 781   | [HVELEB11 | 400.00] | CKT 1 |
| CASE 30 | 39.7   | OPEN LINE FROM BUS 695 | [HMELIN21 | 220.00] | TO BUS 724   | [HPEHLI21 | 220.00] | CKT 1 |
| CASE 31 | 31.9   | OPEN LINE FROM BUS 695 | [HMELIN21 | 220.00] | TO BUS 724   | [HPEHLI21 | 220.00] | CKT 2 |
| CASE 32 | 0.0    | OPEN LINE FROM BUS 695 | [HMELIN21 | 220.00] | TO BUS 743   | [HRIJEK21 | 220.00] | CKT 1 |

| CONTINGENCY LABEL--> BASE CASE MW |                       |          |        | CASE 27 | CASE 28  | CASE 29  | CASE 30  | CASE 31  | CASE 32  |
|-----------------------------------|-----------------------|----------|--------|---------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->               |                       |          |        | -61.3   | 27.3     | -156.8   | 39.7     | 31.9     | 0.0      |
| FROM                              | TO                    | CKT      | AC     | DC      |          |          |          |          |          |
| 10101 WUGLJE1                     | 400.00 10121 WTUZLA1  | 400.00 1 | -274.0 | -283.6  | 0.24976  | -0.11816 | 0.27080  | 0.00020  | 0.00016  |
| 10120 WSAR101                     | 400.00 10121 WTUZLA1  | 400.00 1 | 140.2  | 145.2   | -0.09452 | 0.10591  | -0.25597 | -0.00006 | -0.00005 |
| 10120 WSAR101                     | 400.00 10124 WMOST41  | 400.00 1 | -83.0  | -85.6   | 0.01897  | -0.11489 | 0.28645  | -0.00001 | -0.00001 |
| 10124 WMOST41                     | 400.00 10975 XMO_KO11 | 400.00 1 | 146.9  | 144.0   | -0.14296 | -0.18290 | 0.48872  | -0.00026 | -0.00022 |
| 10125 WPRIJE2                     | 220.00 10130 WRPKAK2  | 220.00 1 | -66.3  | -63.2   | -0.36662 | -0.00571 | 0.03616  | -0.00020 | -0.00017 |
| 10125 WPRIJE2                     | 220.00 10133 WJAJCE2  | 220.00 1 | -53.9  | -51.6   | -0.27202 | -0.00827 | 0.03623  | -0.00013 | -0.00011 |
| 10125 WPRIJE2                     | 220.00 10979 XPR_ME21 | 220.00 1 | 61.3   | 61.4    | 1.00000  | 0.04001  | -0.13690 | -0.00023 | -0.00019 |
| 10129 WRPJAB2                     | 220.00 10133 WJAJCE2  | 220.00 1 | 62.7   | 61.4    | 0.22004  | 0.01095  | -0.04060 | 0.00013  | 0.00011  |
| 10129 WRPJAB2                     | 220.00 10134 WMOST32  | 220.00 1 | -26.0  | -24.6   | -0.21744 | -0.02902 | 0.08464  | -0.00013 | -0.00011 |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|            |       |                        |           |         |              |           |         |       |
|------------|-------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 40    | 14.2  | OPEN LINE FROM BUS 798 | [HZAKUC21 | 220.00] | TO BUS 10978 | [XMO_ZA21 | 220.00] | CKT 1 |
| CASE 41-T- | 36.4  | OPEN LINE FROM BUS 654 | [HERNES12 | 400.00] | TO BUS 655   | [HERNES51 | 110.00] | CKT 1 |
| CASE 42    | 36.4  | OPEN LINE FROM BUS 654 | [HERNES12 | 400.00] | TO BUS 655   | [HERNES51 | 110.00] | CKT 2 |
| CASE 43    | -81.8 | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] | TO BUS 675   | [HKONJS21 | 220.00] | CKT 1 |
| CASE 44    | -81.4 | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] | TO BUS 675   | [HKONJS21 | 220.00] | CKT 2 |
| CASE 45    | 27.8  | OPEN LINE FROM BUS 694 | [HMELIN11 | 400.00] | TO BUS 695   | [HMELIN21 | 220.00] | CKT 1 |

|                    |         | CONTINGENCY LABEL--> |                |          | BASE CASE MW | CASE 40 | CASE 41-T- | CASE 42  | CASE 43  | CASE 44  | CASE 45  |          |
|--------------------|---------|----------------------|----------------|----------|--------------|---------|------------|----------|----------|----------|----------|----------|
|                    |         | POWER SHIFT (MW)-->  |                |          | AC           | DC      | 14.2       | 36.4     | 36.4     | -81.8    | -81.4    | 27.8     |
| <----- FROM -----> |         | <----- TO ----->     |                |          | <----->      | <-----> | <----->    | <----->  | <----->  | <----->  | <----->  |          |
| 10124              | WMOST41 | 400.00               | 10975 XMO_K011 | 400.00 1 | 146.9        | 144.0   | -0.58488   | -0.00596 | -0.00596 | -0.21835 | -0.21763 | -0.01949 |
| 10124              | WMOST41 | 400.00               | 3WNDTR         | WND 1 2  | 10.5         | 9.7     | 0.28273    | 0.01127  | 0.01127  | 0.07304  | 0.07280  | 0.01481  |
| 10124              | WMOST41 | 400.00               | 3WNDTR         | WND 1 1  | 10.4         | 9.7     | 0.28131    | 0.01121  | 0.01121  | 0.07268  | 0.07243  | 0.01474  |
| 10135              | WMOST42 | 220.00               | 10978 XMO_ZA21 | 220.00 1 | -14.2        | -10.6   | 1.00000    | -0.00387 | -0.00387 | 0.13501  | 0.13456  | 0.02308  |

| <----- CONTINGENCY LABEL-----> |       | <-MW SHIFT->           |           | <----- CONTINGENCY DESCRIPTION-----> |                         |
|--------------------------------|-------|------------------------|-----------|--------------------------------------|-------------------------|
| CASE 47                        | 44.7  | OPEN LINE FROM BUS 776 | [HTUMBR11 | 400.00] TO BUS 777                   | [HTUMBR51 110.00] CKT 1 |
| CASE 48                        | 43.9  | OPEN LINE FROM BUS 776 | [HTUMBR11 | 400.00] TO BUS 777                   | [HTUMBR51 110.00] CKT 2 |
| CASE 50                        | 17.0  | OPEN LINE FROM BUS 781 | [HVELEB11 | 400.00] TO BUS 782                   | [HVELEB51 110.00] CKT 1 |
| CASE 51                        | -56.0 | OPEN LINE FROM BUS 798 | [HZAKUC21 | 220.00] TO BUS 799                   | [HZAKUC51 110.00] CKT 1 |
| CASE 52-T-                     | 32.1  | OPEN LINE FROM BUS 803 | [HZERJA11 | 400.00] TO BUS 804                   | [HZERJA21 220.00] CKT 1 |
| CASE 53                        | 12.8  | OPEN LINE FROM BUS 803 | [HZERJA11 | 400.00] TO BUS 805                   | [HZERJA51 110.00] CKT 1 |

|                    |         | CONTINGENCY LABEL--> |                | BASE CASE MW |   | CASE 47 | CASE 48 | CASE 50  | CASE 51  | CASE 52-T- | CASE 53  |         |         |
|--------------------|---------|----------------------|----------------|--------------|---|---------|---------|----------|----------|------------|----------|---------|---------|
|                    |         | POWER SHIFT (MW)-->  |                | AC           |   | DC      | 44.7    | 43.9     | 17.0     | -56.0      | 32.1     | 12.8    |         |
| <----- FROM -----> |         | <----- TO ----->     |                | <----->      |   | <-----> | <-----> | <----->  | <----->  | <----->    | <----->  |         |         |
| 10135              | WMOST42 | 220.00               | 10978 XMO_ZA21 | 220.00       | 1 | -14.2   | -10.6   | -0.00124 | -0.00123 | 0.03753    | -0.20783 | 0.01328 | 0.00327 |

\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

| <----- CONTINGENCY LABEL-----> |        | <-MW SHIFT->           |           | <----- CONTINGENCY DESCRIPTION-----> |                         |
|--------------------------------|--------|------------------------|-----------|--------------------------------------|-------------------------|
| CASE 2                         | -202.0 | OPEN LINE FROM BUS 71  | [XER_PE12 | 400.00] TO BUS 654                   | [HERNES12 400.00] CKT 1 |
| CASE 3                         | 186.4  | OPEN LINE FROM BUS 72  | [XER_SM11 | 400.00] TO BUS 654                   | [HERNES12 400.00] CKT 1 |
| CASE 14                        | -69.5  | OPEN LINE FROM BUS 624 | [HBRINJ21 | 220.00] TO BUS 675                   | [HKONJS21 220.00] CKT 1 |
| CASE 17                        | -53.4  | OPEN LINE FROM BUS 632 | [HDAKOV21 | 220.00] TO BUS 10980                 | [XTU_DA21 220.00] CKT 1 |
| CASE 18                        | -33.4  | OPEN LINE FROM BUS 632 | [HDAKOV21 | 220.00] TO BUS 10981                 | [XGR_DA21 220.00] CKT 1 |
| CASE 19                        | 125.9  | OPEN LINE FROM BUS 654 | [HERNES12 | 400.00] TO BUS 803                   | [HZERJA11 400.00] CKT 1 |
| CASE 20                        | -216.6 | OPEN LINE FROM BUS 654 | [HERNES12 | 400.00] TO BUS 10976                 | [XUG_ER11 400.00] CKT 1 |
| CASE 21                        | 309.7  | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] TO BUS 781                   | [HVELEB11 400.00] CKT 1 |
| CASE 22                        | -146.9 | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] TO BUS 10975                 | [XMO_K011 400.00] CKT 1 |
| CASE 25                        | -62.6  | OPEN LINE FROM BUS 675 | [HKONJS21 | 220.00] TO BUS 798                   | [HZAKUC21 220.00] CKT 1 |
| CASE 26                        | 18.8   | OPEN LINE FROM BUS 692 | [HMEDUR21 | 220.00] TO BUS 700                   | [HMRACL21 220.00] CKT 1 |
| CASE 27                        | -61.3  | OPEN LINE FROM BUS 692 | [HMEDUR21 | 220.00] TO BUS 10979                 | [XPR_ME21 220.00] CKT 1 |
| CASE 29                        | -156.8 | OPEN LINE FROM BUS 694 | [HMELIN11 | 400.00] TO BUS 781                   | [HVELEB11 400.00] CKT 1 |
| CASE 40                        | 14.2   | OPEN LINE FROM BUS 798 | [HZAKUC21 | 220.00] TO BUS 10978                 | [XMO_ZA21 220.00] CKT 1 |
| CASE 43                        | -81.8  | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] TO BUS 675                   | [HKONJS21 220.00] CKT 1 |
| CASE 44                        | -81.4  | OPEN LINE FROM BUS 674 | [HKONJS11 | 400.00] TO BUS 675                   | [HKONJS21 220.00] CKT 2 |
| CASE 51                        | -56.0  | OPEN LINE FROM BUS 798 | [HZAKUC21 | 220.00] TO BUS 799                   | [HZAKUC51 110.00] CKT 1 |

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\*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

| CASE   | CONTINGENCY LABEL | MW SHIFT                         | DESCRIPTION                                  |
|--------|-------------------|----------------------------------|----------------------------------------------|
| CASE 1 | -16.7             | OPEN LINE FROM BUS 21 [XKA_PG11  | 400.00] TO BUS 173 [0PODG211 400.00] CKT 1   |
| CASE 2 | -53.3             | OPEN LINE FROM BUS 68 [XRI_PE11  | 400.00] TO BUS 178 [0RIBAR11 400.00] CKT 1   |
| CASE 3 | -14.2             | OPEN LINE FROM BUS 169 [0PLJE211 | 400.00] TO BUS 178 [0RIBAR11 400.00] CKT 1   |
| CASE 4 | -16.2             | OPEN LINE FROM BUS 173 [0PODG211 | 400.00] TO BUS 10977 [XTR_PG11 400.00] CKT 1 |
| CASE 5 | 62.7              | OPEN LINE FROM BUS 58 [XVD_PO21  | 220.00] TO BUS 171 [0PODG121 220.00] CKT 1   |
| CASE 6 | -111.7            | OPEN LINE FROM BUS 65 [XPL_BB21  | 220.00] TO BUS 180 [0TPLJE21 220.00] CKT 1   |

| FROM          | TO                    | CT       | AC     | DC     | CASE 1   | CASE 2   | CASE 3   | CASE 4   | CASE 5   | CASE 6   |
|---------------|-----------------------|----------|--------|--------|----------|----------|----------|----------|----------|----------|
| 10101 WUGLJE1 | 400.00 10121 WTUZA1   | 400.00 1 | -274.0 | -283.6 | 0.26318  | 0.28446  | -0.03150 | 0.15501  | 0.26891  | 0.10378  |
| 10102 WGACK01 | 400.00 10115 WTREBI1  | 400.00 1 | -19.4  | -17.7  | 0.30773  | 0.27992  | 0.20649  | 0.52427  | 0.23851  | 0.12127  |
| 10102 WGACK01 | 400.00 10124 WMOST41  | 400.00 1 | 251.9  | 250.2  | -0.30773 | -0.27992 | -0.20649 | -0.52427 | -0.23851 | -0.12127 |
| 10115 WTREBI1 | 400.00 10977 XTR_PG11 | 400.00 1 | 16.2   | 22.0   | 0.40393  | 0.35408  | 0.28879  | 1.00000  | 0.15836  | 0.14171  |
| 10115 WTREBI1 | 400.00 3WNDTR         | WND 1 1  | -35.6  | -39.7  | -0.09619 | -0.07415 | -0.08230 | -0.47573 | 0.08015  | -0.02044 |
| 10116 WTREBI2 | 220.00 10982 XTR_PE21 | 220.00 1 | -45.8  | -46.9  | 0.05190  | 0.06875  | -0.00316 | -0.33639 | 0.29532  | 0.05155  |
| 10118 WSAR202 | 220.00 10985 XSA_PI21 | 220.00 1 | -70.4  | -69.5  | 0.04508  | 0.08718  | -0.20356 | -0.13809 | 0.05214  | 0.14954  |
| 10119 WSAR201 | 400.00 3WNDTR         | WND 1 1  | -70.2  | -69.3  | 0.04508  | 0.08718  | -0.20356 | -0.13809 | 0.05214  | 0.14954  |
| 10120 WSAR101 | 400.00 10121 WTUZA1   | 400.00 1 | 140.2  | 145.2  | -0.21297 | -0.25982 | -0.01577 | -0.19105 | -0.21365 | -0.19553 |
| 10120 WSAR101 | 400.00 10124 WMOST41  | 400.00 1 | -83.0  | -85.6  | 0.18087  | 0.19100  | 0.19556  | 0.32788  | 0.17125  | 0.07748  |

| CASE    | CONTINGENCY LABEL | MW SHIFT                         | DESCRIPTION                                  |
|---------|-------------------|----------------------------------|----------------------------------------------|
| CASE 7  | -103.5            | OPEN LINE FROM BUS 66 [XPL_PO21  | 220.00] TO BUS 180 [0TPLJE21 220.00] CKT 1   |
| CASE 8  | 15.3              | OPEN LINE FROM BUS 161 [0HPERU21 | 220.00] TO BUS 171 [0PODG121 220.00] CKT 1   |
| CASE 9  | 45.8              | OPEN LINE FROM BUS 161 [0HPERU21 | 220.00] TO BUS 10982 [XTR_PE21 220.00] CKT 1 |
| CASE 10 | 93.2              | OPEN LINE FROM BUS 163 [0HPIVA21 | 220.00] TO BUS 180 [0TPLJE21 220.00] CKT 1   |
| CASE 11 | 93.2              | OPEN LINE FROM BUS 163 [0HPIVA21 | 220.00] TO BUS 180 [0TPLJE21 220.00] CKT 2   |
| CASE 12 | 70.4              | OPEN LINE FROM BUS 163 [0HPIVA21 | 220.00] TO BUS 10985 [XSA_PI21 220.00] CKT 1 |

| FROM          | TO                    | CT       | AC    | DC    | CASE 7   | CASE 8   | CASE 9   | CASE 10  | CASE 11  | CASE 12  |
|---------------|-----------------------|----------|-------|-------|----------|----------|----------|----------|----------|----------|
| 10102 WGACK01 | 400.00 10115 WTREBI1  | 400.00 1 | -19.4 | -17.7 | 0.10102  | 0.01295  | -0.05322 | 0.06157  | 0.06157  | -0.28017 |
| 10102 WGACK01 | 400.00 10124 WMOST41  | 400.00 1 | 251.9 | 250.2 | -0.10102 | -0.01295 | 0.05322  | -0.06157 | -0.06157 | 0.28017  |
| 10115 WTREBI1 | 400.00 10977 XTR_PG11 | 400.00 1 | 16.2  | 22.0  | 0.11695  | 0.32180  | -0.61500 | 0.07001  | 0.07001  | -0.31856 |
| 10115 WTREBI1 | 400.00 3WNDTR         | WND 1 1  | -35.6 | -39.7 | -0.01593 | -0.30885 | 0.56177  | -0.00844 | -0.00844 | 0.03839  |
| 10118 WSAR202 | 220.00 10985 XSA_PI21 | 220.00 1 | -70.4 | -69.5 | 0.13466  | 0.05245  | -0.07583 | -0.21976 | -0.21976 | 1.00000  |
| 10119 WSAR201 | 400.00 10120 WSAR101  | 400.00 1 | 60.8  | 61.8  | -0.11375 | -0.04353 | 0.06188  | 0.19101  | 0.19101  | -0.86914 |
| 10119 WSAR201 | 400.00 3WNDTR         | WND 1 1  | -70.2 | -69.3 | 0.13466  | 0.05245  | -0.07583 | -0.21976 | -0.21976 | 1.00000  |
| 10120 WSAR101 | 400.00 10121 WTUZA1   | 400.00 1 | 140.2 | 145.2 | -0.17051 | 0.04448  | -0.06855 | 0.09588  | 0.09588  | -0.43627 |
| 10120 WSAR101 | 400.00 10124 WMOST41  | 400.00 1 | -83.0 | -85.6 | 0.06576  | -0.08460 | 0.12430  | 0.08876  | 0.08876  | -0.40388 |

| CASE    | CONTINGENCY LABEL | MW SHIFT                         | DESCRIPTION                                |
|---------|-------------------|----------------------------------|--------------------------------------------|
| CASE 13 | -42.4             | OPEN LINE FROM BUS 166 [0MOJK021 | 220.00] TO BUS 171 [0PODG121 220.00] CKT 1 |
| CASE 14 | 25.1              | OPEN LINE FROM BUS 166 [0MOJK021 | 220.00] TO BUS 180 [0TPLJE21 220.00] CKT 1 |

|         |      |                                  |         |                      |         |       |
|---------|------|----------------------------------|---------|----------------------|---------|-------|
| CASE 15 | 1.7  | OPEN LINE FROM BUS 67 [XPL_ZA51  | 110.00] | TO BUS 170 [0PLJEV51 | 110.00] | CKT 1 |
| CASE 16 | 6.3  | OPEN LINE FROM BUS 152 [0ANDRI51 | 110.00] | TO BUS 154 [0BERAN51 | 110.00] | CKT 1 |
| CASE 17 | -8.4 | OPEN LINE FROM BUS 152 [0ANDRI51 | 110.00] | TO BUS 159 [0ETREB51 | 110.00] | CKT 1 |
| CASE 18 | -4.0 | OPEN LINE FROM BUS 153 [0BAR 51  | 110.00] | TO BUS 156 [0BUDVA51 | 110.00] | CKT 1 |

| CONTINGENCY LABEL--> |           | BASE CASE MW   |          | CASE 13             | CASE 14  | CASE 15 | CASE 16  | CASE 17 | CASE 18  |
|----------------------|-----------|----------------|----------|---------------------|----------|---------|----------|---------|----------|
| POWER SHIFT (MW)-->  |           | AC             | DC       | -42.4               | 25.1     | 1.7     | 6.3      | -8.4    | -4.0     |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->             | <----->  | <-----> | <----->  | <-----> | <----->  |
| 10116 WTREBI2        | 220.00    | 10982 XTR_PE21 | 220.00 1 | -45.8 -46.9 0.34127 | -0.22407 | 0.03301 | -0.10638 | 0.10638 | -0.05100 |

| CONTINGENCY LABEL--> |       | <-MW SHIFT->                     |         | CONTINGENCY DESCRIPTION--> |         |       |  |  |  |
|----------------------|-------|----------------------------------|---------|----------------------------|---------|-------|--|--|--|
| CASE 19              | -9.1  | OPEN LINE FROM BUS 153 [0BAR 51  | 110.00] | TO BUS 182 [0VIRPA51       | 110.00] | CKT 1 |  |  |  |
| CASE 20              | 0.3   | OPEN LINE FROM BUS 154 [0BERAN51 | 110.00] | TO BUS 155 [0BPOLJ51       | 110.00] | CKT 1 |  |  |  |
| CASE 21              | -14.9 | OPEN LINE FROM BUS 155 [0BPOLJ51 | 110.00] | TO BUS 167 [0MOJK051       | 110.00] | CKT 1 |  |  |  |
| CASE 22              | -5.2  | OPEN LINE FROM BUS 156 [0BUDVA51 | 110.00] | TO BUS 157 [0CETIN51       | 110.00] | CKT 1 |  |  |  |
| CASE 23              | -8.3  | OPEN LINE FROM BUS 156 [0BUDVA51 | 110.00] | TO BUS 174 [0PODG251       | 110.00] | CKT 1 |  |  |  |
| CASE 24              | -4.2  | OPEN LINE FROM BUS 156 [0BUDVA51 | 110.00] | TO BUS 179 [0TIVAT51       | 110.00] | CKT 1 |  |  |  |

| CONTINGENCY LABEL--> |           | BASE CASE MW   |          | CASE 19              | CASE 20  | CASE 21  | CASE 22  | CASE 23  | CASE 24  |
|----------------------|-----------|----------------|----------|----------------------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |           | AC             | DC       | -9.1                 | 0.3      | -14.9    | -5.2     | -8.3     | -4.2     |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->              | <----->  | <----->  | <----->  | <----->  | <----->  |
| 10115 WTREBI1        | 400.00    | 10977 XTR_PG11 | 400.00 1 | 16.2 22.0 0.08620    | -0.01564 | -0.11048 | 0.10553  | 0.11228  | -0.50268 |
| 10115 WTREBI1        | 400.00    | 3WNDTR         | WND 1 1  | -35.6 -39.7 -0.06581 | -0.05073 | 0.08413  | -0.08057 | -0.08572 | 0.38376  |
| 10116 WTREBI2        | 220.00    | 10982 XTR_PE21 | 220.00 1 | -45.8 -46.9 0.05100  | -0.10638 | 0.12374  | 0.06244  | 0.06643  | -0.29740 |
| 10116 WTREBI2        | 220.00    | 3WNDTR         | WND 1 1  | -30.2 -32.8 -0.14274 | -0.02095 | -0.00304 | -0.17474 | -0.18592 | 0.83236  |
| 10137 WTREBI5        | 110.00    | 10983 XTR_HN51 | 110.00 1 | 25.3 25.1 -0.17149   | -0.03307 | 0.00023  | -0.20994 | -0.22337 | 1.00000  |

| CONTINGENCY LABEL--> |       | <-MW SHIFT->                     |         | CONTINGENCY DESCRIPTION--> |         |       |  |  |  |
|----------------------|-------|----------------------------------|---------|----------------------------|---------|-------|--|--|--|
| CASE 25              | -8.3  | OPEN LINE FROM BUS 157 [0CETIN51 | 110.00] | TO BUS 174 [0PODG251       | 110.00] | CKT 1 |  |  |  |
| CASE 26              | -54.6 | OPEN LINE FROM BUS 158 [0DANIL51 | 110.00] | TO BUS 162 [0HPERU51       | 110.00] | CKT 1 |  |  |  |
| CASE 27              | 49.9  | OPEN LINE FROM BUS 158 [0DANIL51 | 110.00] | TO BUS 172 [0PODG151       | 110.00] | CKT 1 |  |  |  |
| CASE 28              | -8.4  | OPEN LINE FROM BUS 159 [0ETREB51 | 110.00] | TO BUS 172 [0PODG151       | 110.00] | CKT 1 |  |  |  |
| CASE 29              | 14.6  | OPEN LINE FROM BUS 160 [0HNOVI51 | 110.00] | TO BUS 179 [0TIVAT51       | 110.00] | CKT 1 |  |  |  |
| CASE 30              | -25.3 | OPEN LINE FROM BUS 160 [0HNOVI51 | 110.00] | TO BUS 10983 [XTR_HN51     | 110.00] | CKT 1 |  |  |  |

| CONTINGENCY LABEL--> |           | BASE CASE MW   |          | CASE 25              | CASE 26  | CASE 27  | CASE 28 | CASE 29  | CASE 30  |
|----------------------|-----------|----------------|----------|----------------------|----------|----------|---------|----------|----------|
| POWER SHIFT (MW)-->  |           | AC             | DC       | -8.3                 | -54.6    | 49.9     | -8.4    | 14.6     | -25.3    |
| <----- FROM          | <----- TO | <----->        | <----->  | <----->              | <----->  | <----->  | <-----> | <----->  | <----->  |
| 10115 WTREBI1        | 400.00    | 10977 XTR_PG11 | 400.00 1 | 16.2 22.0 0.10553    | -0.07193 | 0.07193  | 0.01564 | 0.50268  | -0.50268 |
| 10115 WTREBI1        | 400.00    | 3WNDTR         | WND 1 1  | -35.6 -39.7 -0.08057 | 0.05951  | -0.05951 | 0.05073 | -0.38376 | 0.38376  |
| 10116 WTREBI2        | 220.00    | 10982 XTR_PE21 | 220.00 1 | -45.8 -46.9 0.06244  | 0.10320  | -0.10320 | 0.10638 | 0.29740  | -0.29740 |
| 10116 WTREBI2        | 220.00    | 3WNDTR         | WND 1 1  | -30.2 -32.8 -0.17474 | -0.01406 | 0.01406  | 0.02095 | -0.83236 | 0.83236  |
| 10137 WTREBI5        | 110.00    | 10983 XTR_HN51 | 110.00 1 | 25.3 25.1 -0.20994   | -0.01354 | 0.01354  | 0.03307 | -1.00000 | 1.00000  |

| CONTINGENCY LABEL--> |      | <-MW SHIFT->                     |         | CONTINGENCY DESCRIPTION--> |         |       |  |  |  |
|----------------------|------|----------------------------------|---------|----------------------------|---------|-------|--|--|--|
| CASE 38              | -0.0 | OPEN LINE FROM BUS 165 [0KAP 5T  | 110.00] | TO BUS 174 [0PODG251       | 110.00] | CKT 3 |  |  |  |
| CASE 39              | 0.0  | OPEN LINE FROM BUS 165 [0KAP 5T  | 110.00] | TO BUS 177 [0PODG551       | 110.00] | CKT 1 |  |  |  |
| CASE 40              | 91.1 | OPEN LINE FROM BUS 172 [0PODG151 | 110.00] | TO BUS 174 [0PODG251       | 110.00] | CKT 1 |  |  |  |
| CASE 41              | 90.2 | OPEN LINE FROM BUS 172 [0PODG151 | 110.00] | TO BUS 174 [0PODG251       | 110.00] | CKT 2 |  |  |  |
| CASE 42              | 11.0 | OPEN LINE FROM BUS 172 [0PODG151 | 110.00] | TO BUS 175 [0PODG351       | 110.00] | CKT 1 |  |  |  |
| CASE 43              | 10.0 | OPEN LINE FROM BUS 174 [0PODG251 | 110.00] | TO BUS 176 [0PODG451       | 110.00] | CKT 1 |  |  |  |

| CONTINGENCY LABEL--> |                      |          |  | BASE CASE MW |        | CASE 38  | CASE 39  | CASE 40  | CASE 41  | CASE 42  | CASE 43  |
|----------------------|----------------------|----------|--|--------------|--------|----------|----------|----------|----------|----------|----------|
| POWER SHIFT (MW)-->  |                      |          |  | AC           | DC     | -0.0     | 0.0      | 91.1     | 90.2     | 11.0     | 10.0     |
| FROM                 | TO                   | CKT      |  |              |        |          |          |          |          |          |          |
| 10101 WUGLJE1        | 400.00 10121 WTUZLA1 | 400.00 1 |  | -274.0       | -283.6 | 0.26678  | -0.26678 | -0.00085 | -0.00084 | -0.26723 | -0.26678 |
| 10102 WGACKO1        | 400.00 10115 WTREBI1 | 400.00 1 |  | -19.4        | -17.7  | 0.27647  | -0.27647 | 0.01752  | 0.01737  | -0.26707 | -0.27647 |
| 10102 WGACKO1        | 400.00 10124 WMOST41 | 400.00 1 |  | 251.9        | 250.2  | -0.27647 | 0.27647  | -0.01752 | -0.01737 | 0.26707  | 0.27647  |
| 10120 WSAR101        | 400.00 10121 WTUZLA1 | 400.00 1 |  | 140.2        | 145.2  | -0.21470 | 0.21470  | -0.00048 | -0.00048 | 0.21444  | 0.21470  |

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|            |       |                        |           |         |            |           |         |       |
|------------|-------|------------------------|-----------|---------|------------|-----------|---------|-------|
| CASE 44    | 10.1  | OPEN LINE FROM BUS 174 | [0PODG251 | 110.00] | TO BUS 182 | [0VIRPA51 | 110.00] | CKT 1 |
| CASE 46-T- | 8.2   | OPEN LINE FROM BUS 155 | [0BPOLJ51 | 110.00] | TO BUS 178 | [0RIBAR11 | 400.00] | CKT 1 |
| CASE 47    | -61.5 | OPEN LINE FROM BUS 161 | [0HPERU21 | 220.00] | TO BUS 162 | [0HPERU51 | 110.00] | CKT 1 |
| CASE 48    | 16.9  | OPEN LINE FROM BUS 166 | [0MOJKO21 | 220.00] | TO BUS 167 | [0MOJKO51 | 110.00] | CKT 1 |
| CASE 49    | -8.0  | OPEN LINE FROM BUS 170 | [0PLJEV51 | 110.00] | TO BUS 180 | [0TPLJE21 | 220.00] | CKT 1 |
| CASE 50    | 16.6  | OPEN LINE FROM BUS 171 | [0PODG121 | 220.00] | TO BUS 172 | [0PODG151 | 110.00] | CKT 1 |

| CONTINGENCY LABEL--> |                       |          |  | BASE CASE MW |       | CASE 44  | CASE 46-T- | CASE 47  | CASE 48  | CASE 49 | CASE 50  |
|----------------------|-----------------------|----------|--|--------------|-------|----------|------------|----------|----------|---------|----------|
| POWER SHIFT (MW)-->  |                       |          |  | AC           | DC    | 10.1     | 8.2        | -61.5    | 16.9     | -8.0    | 16.6     |
| FROM                 | TO                    | CKT      |  |              |       |          |            |          |          |         |          |
| 10115 WTREBI1        | 400.00 10977 XTR_PG11 | 400.00 1 |  | 16.2         | 22.0  | -0.08620 | 0.08368    | 0.24995  | 0.11048  | 0.08419 | 0.13801  |
| 10116 WTREBI2        | 220.00 10982 XTR_PE21 | 220.00 1 |  | -45.8        | -46.9 | -0.05100 | -0.14267   | -0.35864 | -0.12375 | 0.03301 | -0.16098 |

### \*\*\* OTDF CONTINGENCY SUMMARY \*\*\*

<-----CONTINGENCY LABEL-----> <-MW SHIFT-> <-----CONTINGENCY DESCRIPTION----->

|         |       |                        |           |         |              |           |         |       |
|---------|-------|------------------------|-----------|---------|--------------|-----------|---------|-------|
| CASE 1  | -16.7 | OPEN LINE FROM BUS 21  | [XKA_PG11 | 400.00] | TO BUS 173   | [0PODG211 | 400.00] | CKT 1 |
| CASE 2  | -53.3 | OPEN LINE FROM BUS 68  | [XRI_PE11 | 400.00] | TO BUS 178   | [0RIBAR11 | 400.00] | CKT 1 |
| CASE 3  | -14.2 | OPEN LINE FROM BUS 169 | [0PLJE211 | 400.00] | TO BUS 178   | [0RIBAR11 | 400.00] | CKT 1 |
| CASE 4  | -16.2 | OPEN LINE FROM BUS 173 | [0PODG211 | 400.00] | TO BUS 10977 | [XTR_PG11 | 400.00] | CKT 1 |
| CASE 5  | 62.7  | OPEN LINE FROM BUS 58  | [XVD_PO21 | 220.00] | TO BUS 171   | [0PODG121 | 220.00] | CKT 1 |
| CASE 8  | 15.3  | OPEN LINE FROM BUS 161 | [0HPERU21 | 220.00] | TO BUS 171   | [0PODG121 | 220.00] | CKT 1 |
| CASE 9  | 45.8  | OPEN LINE FROM BUS 161 | [0HPERU21 | 220.00] | TO BUS 10982 | [XTR_PE21 | 220.00] | CKT 1 |
| CASE 10 | 93.2  | OPEN LINE FROM BUS 163 | [0HPIVA21 | 220.00] | TO BUS 180   | [0TPLJE21 | 220.00] | CKT 1 |
| CASE 11 | 93.2  | OPEN LINE FROM BUS 163 | [0HPIVA21 | 220.00] | TO BUS 180   | [0TPLJE21 | 220.00] | CKT 2 |
| CASE 12 | 70.4  | OPEN LINE FROM BUS 163 | [0HPIVA21 | 220.00] | TO BUS 10985 | [XSA_PI21 | 220.00] | CKT 1 |
| CASE 13 | -42.4 | OPEN LINE FROM BUS 166 | [0MOJKO21 | 220.00] | TO BUS 171   | [0PODG121 | 220.00] | CKT 1 |
| CASE 14 | 25.1  | OPEN LINE FROM BUS 166 | [0MOJKO21 | 220.00] | TO BUS 180   | [0TPLJE21 | 220.00] | CKT 1 |
| CASE 22 | -5.2  | OPEN LINE FROM BUS 156 | [0BUDVA51 | 110.00] | TO BUS 157   | [0CETIN51 | 110.00] | CKT 1 |
| CASE 23 | -8.3  | OPEN LINE FROM BUS 156 | [0BUDVA51 | 110.00] | TO BUS 174   | [0PODG251 | 110.00] | CKT 1 |
| CASE 24 | -4.2  | OPEN LINE FROM BUS 156 | [0BUDVA51 | 110.00] | TO BUS 179   | [0TIVAT51 | 110.00] | CKT 1 |
| CASE 25 | -8.3  | OPEN LINE FROM BUS 157 | [0CETIN51 | 110.00] | TO BUS 174   | [0PODG251 | 110.00] | CKT 1 |
| CASE 29 | 14.6  | OPEN LINE FROM BUS 160 | [0HNOVI51 | 110.00] | TO BUS 179   | [0TIVAT51 | 110.00] | CKT 1 |
| CASE 30 | -25.3 | OPEN LINE FROM BUS 160 | [0HNOVI51 | 110.00] | TO BUS 10983 | [XTR_HN51 | 110.00] | CKT 1 |
| CASE 38 | -0.0  | OPEN LINE FROM BUS 165 | [0KAP 5T  | 110.00] | TO BUS 174   | [0PODG251 | 110.00] | CKT 3 |
| CASE 39 | 0.0   | OPEN LINE FROM BUS 165 | [0KAP 5T  | 110.00] | TO BUS 177   | [0PODG551 | 110.00] | CKT 1 |
| CASE 41 | 90.2  | OPEN LINE FROM BUS 172 | [0PODG151 | 110.00] | TO BUS 174   | [0PODG251 | 110.00] | CKT 2 |
| CASE 42 | 11.0  | OPEN LINE FROM BUS 172 | [0PODG151 | 110.00] | TO BUS 175   | [0PODG351 | 110.00] | CKT 1 |
| CASE 43 | 10.0  | OPEN LINE FROM BUS 174 | [0PODG251 | 110.00] | TO BUS 176   | [0PODG451 | 110.00] | CKT 1 |
| CASE 47 | -61.5 | OPEN LINE FROM BUS 161 | [0HPERU21 | 220.00] | TO BUS 162   | [0HPERU51 | 110.00] | CKT 1 |

## **PRILOG 2**

Smanjenje opterećenja ručnim isključenjem potrošnje

iniciranim od strane NOSBIH

## Plan ručnog rasterećenja potrošnje - JP Elektroprivreda BiH; 2014. godina

| red. broj: | naziv TS:                         | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:      | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|-----------------------------------|-----------------------|---------------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                   |                       |                                 | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 1.         | <b>TS 110/35/10 kV Sarajevo 1</b> | <b>19.04</b>          | DV 35kV Bosanka                 |                                   | <b>1.90</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Ilidžanski Dijamant     |                                   |                      | <b>0.46</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Blažuj crkva            | <b>1.82</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Lužani 3                |                                   |                      | <b>1.11</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Lužani 4                |                                   |                      |                       | <b>0.81</b>          | Sarajevo      |
|            |                                   |                       | KO 10kV Lužani 8                |                                   |                      | <b>0.78</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Sokolović Kolonija      | <b>0.42</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Fizijatrija             |                                   | <b>1.15</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Tranzitexport           |                                   |                      |                       | <b>1.05</b>          | Sarajevo      |
|            |                                   |                       | KO 10kV Kamenjača 5             |                                   |                      |                       | <b>1.10</b>          | Sarajevo      |
| 2.         | <b>TS 110/35/10 kV Sarajevo 2</b> | <b>8.94</b>           | KO 10kV Kupreška                |                                   |                      |                       | <b>1.15</b>          | Sarajevo      |
|            |                                   |                       | KO 10kV Koševsko brdo 7         | <b>0.92</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Koševsko naselje 3      |                                   | <b>0.88</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Koševsko brdo 8         |                                   | <b>0.45</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Pandina                 |                                   |                      | <b>1.34</b>           |                      | Sarajevo      |
| 3.         | <b>TS 110/10 kV Sarajevo 4</b>    | <b>12.82</b>          | KO 10kV T. Mendeša 6            | <b>2.10</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Ugorsko (Menjak)        |                                   |                      | <b>1.96</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Hotonj (Hotonj 5)       |                                   | <b>2.16</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Hotonj 4                |                                   |                      |                       | <b>0.63</b>          | Sarajevo      |
|            |                                   |                       | KO 10kV Rosulje                 |                                   |                      |                       | <b>1.12</b>          | Sarajevo      |
| 4.         | <b>TS 110/10 kV Sarajevo 5</b>    | <b>26.53</b>          | A5 - Naselje park               |                                   |                      |                       | <b>1.40</b>          | Sarajevo      |
|            |                                   |                       | A6 - Ciglane 5                  |                                   |                      |                       | <b>1.00</b>          | Sarajevo      |
|            |                                   |                       | A7 - Breka 5                    |                                   | <b>0.50</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | A8 - Koševo brdo 2              |                                   |                      |                       | <b>0.40</b>          | Sarajevo      |
|            |                                   |                       | A15- Breka 11                   |                                   |                      |                       | <b>1.35</b>          | Sarajevo      |
|            |                                   |                       | A16 - Toromanova                |                                   | <b>1.80</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | B6 - Ferhatovića 4              | <b>1.93</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | B7 - Jukićeva 4                 |                                   |                      | <b>0.90</b>           |                      | Sarajevo      |
|            |                                   |                       | B8 - Nahorevska 1               | <b>1.65</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Bjelave 2               |                                   |                      | <b>1.65</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Breka 3                 |                                   | <b>0.65</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Z. Šarca 1              |                                   | <b>1.90</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Arapova (Nova mahala)   |                                   |                      | <b>1.25</b>           |                      | Sarajevo      |
|            |                                   |                       | B02 - Ciglane 3                 |                                   |                      | <b>0.45</b>           |                      | Sarajevo      |
| 5.         | <b>TS 110/10 kV Sarajevo 7</b>    | <b>29.41</b>          | KO 10kV Isovića                 | <b>1.60</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Nazorova                |                                   | <b>2.05</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | A3 - Bihaćka                    |                                   | <b>2.25</b>          |                       |                      | Sarajevo      |
|            |                                   |                       | B12- Kras                       |                                   |                      |                       | <b>1.20</b>          | Sarajevo      |
|            |                                   |                       | A8 - Paromlinska 5              |                                   |                      | <b>1.65</b>           |                      | Sarajevo      |
|            |                                   |                       | B8 - Čengiće Vila 1/9           |                                   |                      | <b>1.85</b>           |                      | Sarajevo      |
|            |                                   |                       | B15 - Adema Buće 8              |                                   |                      |                       | <b>1.50</b>          | Sarajevo      |
|            |                                   |                       | A6- Alfa                        | <b>1.30</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | A7- Paromlinska 12              |                                   |                      | <b>0.40</b>           |                      | Sarajevo      |
|            |                                   |                       | A14 - Otoka 8                   |                                   |                      |                       | <b>1.60</b>          | Sarajevo      |
| 6.         | <b>TS 110/10 kV Sarajevo 8</b>    | <b>19.35</b>          | A6 - Pejton                     |                                   |                      |                       | <b>1.00</b>          | Sarajevo      |
|            |                                   |                       | A17 (B17) - St.centar Nedžarići |                                   |                      |                       | <b>1.20</b>          | Sarajevo      |
|            |                                   |                       | A18 (B18) - Centrotans          |                                   |                      |                       | <b>1.20</b>          | Sarajevo      |
|            |                                   |                       | A35 - Stup 5                    |                                   |                      | <b>1.00</b>           |                      | Sarajevo      |
|            |                                   |                       | B27 - Vranica Stup              |                                   |                      | <b>0.60</b>           |                      | Sarajevo      |
|            |                                   |                       | KO 10kV Dom penzionera          |                                   |                      |                       |                      | Sarajevo      |
|            |                                   |                       | A09 - Otes 3                    |                                   |                      | <b>0.80</b>           |                      | Sarajevo      |
|            |                                   |                       | A35 - Azići 1                   |                                   |                      | <b>0.80</b>           |                      | Sarajevo      |
|            |                                   |                       | A3 - Stup 3                     | <b>1.80</b>                       |                      |                       |                      | Sarajevo      |
|            |                                   |                       | A38 - Riba rijeka               | <b>0.50</b>                       |                      |                       |                      | Sarajevo      |

| red. broj: | naziv TS:                      | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:  | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|--------------------------------|-----------------------|-----------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                |                       |                             | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
|            |                                |                       | B14 - GP Put 2              |                                   | 2.40                 |                       |                      | Sarajevo      |
|            |                                |                       | A08 - Pijačna               |                                   | 0.60                 |                       |                      | Sarajevo      |
| 7.         | TS 110/35/10 kV<br>Sarajevo 11 | 15.70                 | J10 Mujezinovića            | 1.40                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | J25 Bentbaša                |                                   |                      |                       | 0.20                 | Sarajevo      |
|            |                                |                       | J23 Isovića Sokak           |                                   | 2.35                 |                       |                      | Sarajevo      |
|            |                                |                       | J29 Šahinagića              |                                   |                      |                       | 1.80                 | Sarajevo      |
|            |                                |                       | J27 S.B. Bašagića           |                                   |                      | 1.60                  |                      | Sarajevo      |
|            |                                |                       | J26 Prijepoljčeva           |                                   |                      |                       | 0.40                 | Sarajevo      |
|            |                                |                       | J28 Telali                  |                                   |                      | 1.10                  |                      | Sarajevo      |
| 8.         | TS 110/10 kV<br>Sarajevo 13    | 20.61                 | B32 - Istarska              |                                   |                      |                       | 1.10                 | Sarajevo      |
|            |                                |                       | A06 - Radnička 2            |                                   | 1.80                 |                       |                      | Sarajevo      |
|            |                                |                       | B26 - Unioninvest           |                                   |                      |                       | 1.00                 | Sarajevo      |
|            |                                |                       | A17 - Terezija 2            | 1.90                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | A30 (B30) - Mazalića 2      |                                   |                      |                       | 0.70                 | Sarajevo      |
|            |                                |                       | A05 - Kovačići 4            |                                   |                      | 2.10                  |                      | Sarajevo      |
|            |                                |                       | B33 - I.G. Kovačića         |                                   | 1.30                 |                       |                      | Sarajevo      |
|            |                                |                       | A07 - Lenjinova 3           |                                   |                      | 1.50                  |                      | Sarajevo      |
| 9.         | TS 110/10 kV<br>Sarajevo 14    | 26.67                 | B10 - Al. Polje 20          | 0.90                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | B11 - Al. Polje 3           |                                   | 0.90                 |                       |                      | Sarajevo      |
|            |                                |                       | A03 - H. Soliter 19         |                                   | 1.30                 |                       |                      | Sarajevo      |
|            |                                |                       | A17 - Al. Polje 34          | 1.00                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | A04 - Al. Polje 33          | 0.60                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | B08 - E. Midžića            |                                   |                      | 2.40                  |                      | Sarajevo      |
|            |                                |                       | A909 - Otoka 4              | 0.30                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | A18 - Č. Vila 1/7           |                                   | 0.80                 |                       |                      | Sarajevo      |
|            |                                |                       | B13 - Al. Polje 1           |                                   | 0.90                 |                       |                      | Sarajevo      |
|            |                                |                       | B18 - S. Zajke 4            |                                   |                      |                       | 0.40                 | Sarajevo      |
|            |                                |                       | A06 - H. Soliter 18         |                                   |                      |                       | 1.70                 | Sarajevo      |
|            |                                |                       | B17 - Višegradska           |                                   |                      | 1.60                  |                      | Sarajevo      |
|            |                                |                       | B09 - Al. Polje 17          |                                   |                      |                       | 0.90                 | Sarajevo      |
|            |                                |                       | B12 - Al. Polje 2           |                                   |                      |                       | 1.10                 | Sarajevo      |
| 10.        | TS 110/10 kV<br>Sarajevo 15    | 16.62                 | A03 - Dobrinja 1            | 0.70                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | A14 - Nedžarići Naselje 12  |                                   |                      | 0.80                  |                      | Sarajevo      |
|            |                                |                       | A08 - Dobrinja 64           |                                   | 0.60                 |                       |                      | Sarajevo      |
|            |                                |                       | A04 - Dobrinja 12           | 0.50                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | B22 - Dobrinja 39           |                                   |                      |                       | 0.90                 | Sarajevo      |
|            |                                |                       | A09 - Dobrinja 63           |                                   | 0.60                 |                       |                      | Sarajevo      |
|            |                                |                       | A13 - Nedžarići Naselje 7   |                                   | 1.20                 |                       |                      | Sarajevo      |
|            |                                |                       | A16 - Nedžarići Naselje 10  |                                   |                      | 0.80                  |                      | Sarajevo      |
|            |                                |                       | A15 - Dobrinja 55           |                                   |                      |                       | 0.70                 | Sarajevo      |
|            |                                |                       | A19 - Nedžarići Naselje 8   |                                   |                      | 0.55                  |                      | Sarajevo      |
|            |                                |                       | A05 - Mojmiilo 10           |                                   | 0.40                 |                       |                      | Sarajevo      |
|            |                                |                       | B24 - Stup Brdo 3           |                                   |                      | 0.60                  |                      | Sarajevo      |
|            |                                |                       | B34 - Dobrinja 6            | 0.50                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | B25 - Dobrinja 66           |                                   |                      |                       | 0.60                 | Sarajevo      |
|            |                                |                       | B26 - Dobrinja 42           |                                   |                      |                       | 0.60                 | Sarajevo      |
| 11.        | TS 110/35/10 kV<br>Sarajevo 18 | 10.56                 | K19 - Bjelašnička 1         |                                   |                      |                       | 1.90                 | Sarajevo      |
|            |                                |                       | K20 - Buća Potok 2          |                                   |                      | 1.80                  |                      | Sarajevo      |
|            |                                |                       | K12 - Sokolović Kolonija 11 |                                   | 1.30                 |                       |                      | Sarajevo      |
|            |                                |                       | K13 - Hrasnica stadion 3    |                                   | 0.55                 |                       |                      | Sarajevo      |
|            |                                |                       | K21 - Hrasnica stadion 1    | 1.30                              |                      |                       |                      | Sarajevo      |
| 12.        | TS 110/35/10 kV<br>Pazarić     | 5.06                  | KO 10kV Pazarić             | 1.60                              |                      |                       |                      | Sarajevo      |
|            |                                |                       | KO 10kV Tarčin              |                                   | 2.00                 |                       |                      | Sarajevo      |
|            |                                |                       | DV 10 kV Krč                | 0.70                              |                      |                       |                      | Zenica        |
|            |                                |                       | DV 10 kV Ričice             |                                   | 1.00                 |                       |                      | Zenica        |
|            |                                |                       | DV 10 kV Zenica 1           |                                   |                      |                       | 1.00                 | Zenica        |



| red. broj: | naziv TS:                            | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:   | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|--------------------------------------|-----------------------|------------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                      |                       |                              | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 13.        | <b>TS 110/20/10 kV<br/>Zenica 3</b>  | <b>24.24</b>          | DV 10 kV Babino              | <b>0.80</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | DV 10 kV Hamida              |                                   | <b>1.50</b>          |                       |                      | Zenica        |
|            |                                      |                       | DV 10 kV Metalno             |                                   | <b>1.00</b>          |                       |                      | Zenica        |
|            |                                      |                       | KO 20 kV Dom porodica        |                                   |                      | <b>1.00</b>           |                      | Zenica        |
|            |                                      |                       | KO 20 kV Babina rijeka A-1   |                                   |                      | <b>1.00</b>           |                      | Zenica        |
|            |                                      |                       | KO 20 kV R-2                 | <b>0.80</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | KO 20 kV Grijanje            |                                   |                      |                       | <b>1.20</b>          | Zenica        |
|            |                                      |                       | KO 20 kV Fuad Isaković       |                                   |                      |                       |                      | Zenica        |
|            |                                      |                       | KO 20 kV Odmut 2             |                                   |                      |                       | <b>1.20</b>          | Zenica        |
|            |                                      |                       | KO 20 kV Odmut 3             |                                   |                      | <b>1.80</b>           |                      | Zenica        |
| 14.        | <b>TS 110/35/10 kV<br/>Travnik 1</b> | <b>14.84</b>          | DV 10kV Travnik              |                                   | <b>0.40</b>          |                       |                      | Zenica        |
|            |                                      |                       | DV 10kV Putičevo             |                                   | <b>0.40</b>          |                       |                      | Zenica        |
|            |                                      |                       | DV 35kV Mehurić              |                                   | <b>0.80</b>          |                       |                      | Zenica        |
|            |                                      |                       | DV 35kV Bratstvo             |                                   |                      | <b>1.30</b>           |                      | Zenica        |
|            |                                      |                       | KO 10kV Ciglana              |                                   |                      | <b>0.80</b>           |                      | Zenica        |
|            |                                      |                       | DV 10 kV Bila 1 (EP HzHB)    | <b>0.60</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | DV 10 kV Bila 2 (EP HzHB)    | <b>0.50</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | DV 35 kV Turbe               |                                   |                      |                       | <b>1.90</b>          | Zenica        |
|            |                                      |                       | DV 35 kV Travnik             |                                   |                      |                       | <b>0.40</b>          | Zenica        |
|            |                                      |                       | KO 10kV Dolac n/L            |                                   |                      |                       | <b>0.20</b>          | Zenica        |
| 15.        | <b>TS 110/35/10 kV<br/>Vareš</b>     | <b>2.80</b>           | KO 10kV Šijakovo (EP HzHB)   | <b>0.20</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | KO 10kV Željezara 2          |                                   | <b>0.40</b>          |                       |                      | Zenica        |
|            |                                      |                       | KO 10kV Pajtov Han           |                                   |                      | <b>0.20</b>           |                      | Zenica        |
|            |                                      |                       | KO 10kV S48                  | <b>0.10</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | KO 10kV Željezara 1          |                                   |                      | <b>0.20</b>           |                      | Zenica        |
|            |                                      |                       | KO 10 kV Vareš               |                                   |                      |                       | <b>0.40</b>          | Zenica        |
| 16.        | <b>TS 110/20/10 kV<br/>Bugojno</b>   | <b>9.89</b>           | DV 20kV Kupres 1             | <b>0.80</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | DV 20kV G. Vakuf 1           |                                   | <b>0.50</b>          |                       |                      | Zenica        |
|            |                                      |                       | KO 20kV Gračanica            |                                   |                      | <b>2.00</b>           |                      | Zenica        |
|            |                                      |                       | KO 10kV Bugojno 1            | <b>0.20</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | KO 10kV Ciglana              |                                   |                      |                       | <b>2.00</b>          | Zenica        |
|            |                                      |                       | KO 10kV Poljice              |                                   | <b>0.50</b>          |                       |                      | Zenica        |
| 17.        | <b>TS 110/35/10 kV<br/>Gračanica</b> | <b>14.32</b>          | DV 10 kV Malešići            | <b>1.20</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Miričina            | <b>1.20</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Gračanica 2         |                                   |                      |                       | <b>1.30</b>          | Tuzla         |
|            |                                      |                       | DV 10 kV Gračanica 3         |                                   | <b>1.20</b>          |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Brijesnica          | <b>1.00</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Pribava             |                                   | <b>1.90</b>          |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Klokočnica          | <b>0.80</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Luke                | <b>0.90</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Doborovci           | <b>1.00</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Širbegović          |                                   |                      |                       | <b>0.20</b>          | Tuzla         |
| 18.        | <b>TS 110/35/10 kV<br/>Srebrenik</b> | <b>10.59</b>          | DV 10 kV Pekara              |                                   |                      |                       | <b>0.20</b>          | Tuzla         |
|            |                                      |                       | DV 10 kV Špionica            |                                   |                      |                       | <b>1.80</b>          | Tuzla         |
|            |                                      |                       | DV 10 kV Babunovići          | <b>0.90</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Sladna              |                                   | <b>1.40</b>          |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Inerplet-Bosna      | <b>0.10</b>                       |                      |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Srebrenik sela      |                                   | <b>1.40</b>          |                       |                      | Tuzla         |
|            |                                      |                       | DV 10 kV Tinja               |                                   |                      |                       | <b>1.60</b>          | Tuzla         |
|            |                                      |                       | DV 10 kV Štab TO             |                                   | <b>0.40</b>          |                       |                      | Tuzla         |
| 19.        | <b>TS 110/35/6 kV<br/>Đurđevik</b>   | <b>13.68</b>          | DV 35kV Živinice 2           |                                   | <b>8.00</b>          |                       |                      | Tuzla         |
|            |                                      |                       | DV 35 kV Stupari             |                                   |                      |                       | <b>1.50</b>          | Tuzla         |
| 20.        | <b>TS 110/35/10 kV<br/>Maglaj</b>    | <b>7.29</b>           | DV 10kV Rječica              | <b>0.80</b>                       |                      |                       |                      | Zenica        |
|            |                                      |                       | DV 10kV Novi Šeher (EP HzHB) |                                   | <b>1.20</b>          |                       |                      | Zenica        |
|            |                                      |                       | KO 10 kV Maglaj 2 (TS 35)    |                                   |                      | <b>0.80</b>           |                      | Zenica        |
|            |                                      |                       | DV 35 kV Maglaj 1-Natron     |                                   |                      |                       | <b>0.80</b>          | Zenica        |

| red. broj: | naziv TS:                               | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:         | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|-----------------------------------------|-----------------------|------------------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                         |                       |                                    | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 21.        | <b>TS 220/110/35/10 kV<br/>Gradačac</b> | <b>15.07</b>          | DV 10 kV Okanovići vodovod         |                                   | <b>0.50</b>          |                       |                      | Tuzla         |
|            |                                         |                       | DV 10kV Ledence                    | <b>0.20</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 10 kV Škorići                   | <b>0.50</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Mljekara                  | <b>0.10</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 35kV Kerep                      |                                   |                      | <b>3.60</b>           |                      | Tuzla         |
|            |                                         |                       | DV 35kV Gradačac                   |                                   |                      |                       | <b>5.20</b>          | Tuzla         |
| 22.        | <b>TS 110/20/10 kV<br/>Hadžići</b>      | <b>6.57</b>           | K1 Legno                           |                                   |                      | <b>1.00</b>           |                      | Sarajevo      |
|            |                                         |                       | K3 DV Grivići                      | <b>0.50</b>                       |                      |                       |                      | Sarajevo      |
|            |                                         |                       | K5 S.Š.C.                          |                                   |                      |                       | <b>1.00</b>          | Sarajevo      |
|            |                                         |                       | K11 Oaza                           |                                   | <b>1.10</b>          |                       |                      | Sarajevo      |
|            |                                         |                       | K7 Stadion 2                       | <b>0.20</b>                       |                      |                       |                      | Sarajevo      |
| 23.        | <b>TS 110/35 kV<br/>Goražde 1</b>       | <b>6.89</b>           | K5 DV Ustikolina                   |                                   | <b>0.80</b>          |                       |                      | Sarajevo      |
|            |                                         |                       | 35 Pobjeda - J2 1. Maj             | <b>0.65</b>                       |                      |                       |                      | Sarajevo      |
|            |                                         |                       | 35 Pobjeda - J11 Servistrans       |                                   |                      | <b>0.50</b>           |                      | Sarajevo      |
|            |                                         |                       | 35 Pobjeda - J3 Potkovicica        |                                   |                      | <b>0.40</b>           |                      | Sarajevo      |
|            |                                         |                       | K3 Bačci                           |                                   |                      |                       | <b>0.90</b>          | Sarajevo      |
| 24.        | <b>TS 110/35/6 kV<br/>Tuzla 5</b>       | <b>18.58</b>          | DV 35 kV Aerodrom                  |                                   | <b>2.00</b>          |                       |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Kalesija                  |                                   |                      | <b>8.00</b>           |                      | Tuzla         |
| 25.        | <b>TS 110/35/6 kV<br/>Banovići</b>      | <b>9.87</b>           | ...                                |                                   |                      |                       |                      | Tuzla         |
|            |                                         |                       | ...                                |                                   |                      |                       |                      | Tuzla         |
| 26.        | <b>TS 110/35 kV<br/>Lukavac</b>         | <b>30.92</b>          | DV 35 kV Dobošnica                 | <b>3.50</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Svatovac                  | <b>3.50</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Cementara                 |                                   |                      | <b>2.60</b>           |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Brana Modrac              |                                   |                      |                       | <b>3.50</b>          | Tuzla         |
| 27.        | <b>TS 110/35/10 kV<br/>Tuzla Centar</b> | <b>42.87</b>          | KB 10 kV Stupine B12               |                                   | <b>0.40</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Zlokovac                  |                                   | <b>0.50</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Stara željeznička stanica |                                   | <b>0.10</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Sjenjak 5                 |                                   | <b>1.40</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Stupine B3/3              |                                   | <b>0.90</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Stupine B5/6              |                                   | <b>0.80</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Ši selo                   |                                   | <b>1.20</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV VPA                       |                                   | <b>0.70</b>          |                       |                      | Tuzla         |
|            |                                         |                       | KB 10 kV Hotel Tuzla               |                                   |                      |                       | <b>0.40</b>          | Tuzla         |
|            |                                         |                       | KB 10 kV Obdanište                 |                                   |                      |                       | <b>1.80</b>          | Tuzla         |
|            |                                         |                       | KB 10 kV Kula                      |                                   |                      |                       | <b>1.90</b>          | Tuzla         |
|            |                                         |                       | KB 10 kV C 10 Ušće                 |                                   |                      |                       | <b>0.20</b>          | Tuzla         |
|            |                                         |                       | KB 10 kV Mercator                  |                                   |                      |                       | <b>0.80</b>          | Tuzla         |
|            |                                         |                       | KB 10 kV Dom armije                |                                   |                      | <b>1.50</b>           |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Požarnica                 |                                   |                      | <b>8.00</b>           |                      | Tuzla         |
|            |                                         |                       | DV 35 kV Tuzla I                   |                                   | <b>0.30</b>          |                       |                      | Tuzla         |
| 28.        | <b>TS 110/35 kV<br/>Kladanj</b>         | <b>5.93</b>           | DV 10 kV Olovo                     | <b>0.10</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 10 kV Turalić                   | <b>0.30</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 10 kV FN Starić                 |                                   | <b>0.80</b>          |                       |                      | Tuzla         |
|            |                                         |                       | DV 10 kV Grad 1                    |                                   |                      |                       | <b>0.60</b>          | Tuzla         |
|            |                                         |                       | DV 10 kV Starić sela               | <b>0.10</b>                       |                      |                       |                      | Tuzla         |
|            |                                         |                       | DV 10 kV Tuholj                    | <b>0.40</b>                       |                      |                       |                      | Tuzla         |
| 29.        | <b>TS 110/35/10 kV<br/>Breza</b>        | <b>13.98</b>          | DV 10 kV Bukovik                   |                                   | <b>0.60</b>          |                       |                      | Zenica        |
|            |                                         |                       | DV 10 kV Založje                   |                                   | <b>0.40</b>          |                       |                      | Zenica        |
|            |                                         |                       | DV 10 kV Smailbegovići             | <b>0.80</b>                       |                      |                       |                      | Zenica        |
|            |                                         |                       | KO 10 kV Borovi                    |                                   |                      |                       | <b>1.20</b>          | Zenica        |
|            |                                         |                       | KO 10 kV Vitex                     |                                   |                      | <b>0.90</b>           |                      | Zenica        |
| 30.        | <b>TS 110/35/10 kV<br/>Tešanj</b>       | <b>16.17</b>          | DV 10 kV Srpska Varoš              | <b>1.20</b>                       |                      |                       |                      | Zenica        |
|            |                                         |                       | DV 10kV Krndija                    |                                   |                      |                       | <b>1.30</b>          | Zenica        |
|            |                                         |                       | KO 10 kV Univerzal                 |                                   | <b>1.00</b>          |                       |                      | Zenica        |
|            |                                         |                       | KO 10 kV Raduša                    |                                   |                      | <b>1.00</b>           |                      | Zenica        |
|            |                                         |                       | DV 35 kV Jelah                     | <b>0.60</b>                       | <b>1.20</b>          | <b>1.20</b>           | <b>1.00</b>          | Zenica        |

| red. broj: | naziv TS:                      | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:    | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|--------------------------------|-----------------------|-------------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                |                       |                               | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 31.        | TS 110/35 kV<br>Zenica 1       | 4.22                  | DV 10 kV Zenica 3             |                                   |                      | 1.20                  |                      | Zenica        |
|            |                                |                       | DV 35 kV Nemila               | 0.40                              | 0.60                 |                       |                      | Zenica        |
| 32.        | TS 110/35/20 kV<br>Zenica 4    | 14.47                 | KO 20 kV Zenicatrans          |                                   |                      |                       | 1.40                 | Zenica        |
|            |                                |                       | KO 20 kV Blatuša              |                                   |                      | 2.10                  |                      | Zenica        |
|            |                                |                       | KO 20 kV Preporod             |                                   | 1.40                 |                       |                      | Zenica        |
|            |                                |                       | KO 35 kV 12 April             | 1.40                              | 0.50                 |                       | 0.50                 | Zenica        |
| 33.        | TS 110/35/10 kV<br>Zavidovići  | 18.72                 | DV 10 kV RP Ekonomija         |                                   |                      | 0.90                  |                      | Zenica        |
|            |                                |                       | KO 10 kV Zavidovići 35        |                                   |                      |                       | 0.60                 | Zenica        |
|            |                                |                       | DV 10 kV Čumurana             |                                   |                      |                       | 0.50                 | Zenica        |
|            |                                |                       | DV 10 kV Dolina               |                                   |                      | 0.70                  |                      | Zenica        |
|            |                                |                       | DV 10 kV Žišci                |                                   | 1.50                 |                       |                      | Zenica        |
|            |                                |                       | DV 10 kV Brankovići (EP HZHB) | 1.30                              |                      |                       |                      | Zenica        |
|            |                                |                       | KO 10 kV 14 April             |                                   |                      |                       | 0.50                 | Zenica        |
| 34.        | TS 110/35/10 kV<br>Visoko      | 19.10                 | DV 10 kV Moštre 1             | 1.70                              |                      |                       |                      | Zenica        |
|            |                                |                       | DV 10 kV Topuzovo polje       |                                   | 0.60                 |                       |                      | Zenica        |
|            |                                |                       | DV 10 kV Arnautovići          |                                   |                      | 2.10                  |                      | Zenica        |
|            |                                |                       | DV 10 kV Moštre 2             |                                   | 1.50                 |                       |                      | Zenica        |
| 35.        | TS 110/20 kV<br>Donji Vakuf    | 2.82                  | KO 20kV D.Vakuf 2             | 0.30                              |                      |                       |                      | Zenica        |
|            |                                |                       | KO 20kV D.Vakuf 1             |                                   | 0.30                 |                       |                      | Zenica        |
|            |                                |                       | KO 20 kV Prusac               |                                   |                      | 0.40                  |                      | Zenica        |
|            |                                |                       | KO 20kV Bugojno 1             |                                   |                      |                       | 0.40                 | Zenica        |
| 36.        | TS 110/20/10 kV<br>Travnik 2   | 7.37                  | KO 10kV Željeznička stanica   | 0.70                              |                      |                       |                      | Zenica        |
|            |                                |                       | DV 10kV Vilenica              | 0.10                              |                      |                       |                      | Zenica        |
|            |                                |                       | KO 10kV RS Borac              |                                   | 1.10                 |                       |                      | Zenica        |
|            |                                |                       | KO 10kV Ina                   |                                   |                      | 1.40                  |                      | Zenica        |
|            |                                |                       | KO 10kV Pirota                |                                   |                      |                       | 0.40                 | Zenica        |
|            |                                |                       | KO 10kV Škola                 |                                   |                      |                       | 0.60                 | Zenica        |
|            |                                |                       | KO 10kV Toplana               |                                   |                      |                       | 0.10                 | Zenica        |
| 37.        | TS 110/35/10 kV<br>Cementara   | 0.88                  | KO 35 kV 4 Juli               | 0.15                              | 0.20                 | 0.20                  |                      | Zenica        |
| 38.        | TS 110/35/10 kV<br>Konjic      | 7.53                  | KO 10 kV Rudar                | 0.84                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Donje Selo           | 0.34                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Radava               |                                   | 0.86                 |                       |                      | Mostar        |
|            |                                |                       | DV 35 kV Musla                |                                   |                      | 1.10                  |                      | Mostar        |
|            |                                |                       | DV 35 kV Trbića Polje         |                                   |                      |                       | 1.00                 | Mostar        |
| 39.        | TS 110/35/10 kV<br>Jablanica   | 2.20                  | KO 10 kV Granit               | 0.17                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV UNIS                 |                                   |                      | 0.17                  |                      | Mostar        |
|            |                                |                       | KO 10 kV Grad III             |                                   | 0.76                 |                       |                      | Mostar        |
| 40.        | TS 110/35/10 kV<br>Mostar 2    | 22.97                 | KO 10 kV Autoprevoz           | 0.50                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Zlatka Vuković       | 0.90                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Sokara               | 0.30                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Podveležje           | 0.20                              |                      |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV El Tarik Oil         |                                   | 0.70                 |                       |                      | Mostar        |
|            |                                |                       | DV 35 kV Blagaj               |                                   | 3.00                 |                       |                      | Mostar        |
|            |                                |                       | KO 10 kV Opine III - Komos    |                                   |                      | 1.60                  |                      | Mostar        |
|            |                                |                       | KO 10 kV Opine I              |                                   |                      | 0.50                  |                      | Mostar        |
|            |                                |                       | KO 10 kV Južni Logor          |                                   |                      |                       | 0.10                 | Mostar        |
|            |                                |                       | KO 10 kV Pumpa Opine          |                                   |                      |                       | 0.80                 | Mostar        |
|            |                                |                       | KO 10 kV Donja Mahala II      |                                   |                      |                       | 2.20                 | Mostar        |
| 41.        | TS 220/110/35/10 kV<br>Bihać 1 | 12.32                 | DV 10kV Pokoj                 |                                   | 2.10                 |                       |                      | Bihać         |
|            |                                |                       | DV 10kV Kralje                | 0.80                              |                      |                       |                      | Bihać         |
|            |                                |                       | KO 10 kV Gorenje 1, 2         | 0.90                              |                      |                       |                      | Bihać         |
|            |                                |                       | KO 10kV DIP 4. nov.           |                                   |                      | 2.20                  |                      | Bihać         |
|            |                                |                       | DV 35kV Žitoprerađa           |                                   |                      |                       | 2.50                 | Bihać         |
|            | TS 110/20 kV                   |                       | KO 20 kV Ceravci              | 0.70                              |                      |                       |                      | Bihać         |
|            |                                |                       | KO 10kV Ozimice 1             |                                   |                      |                       | 1.70                 | Bihać         |

| red. broj: | naziv TS:                                    | P <sub>max</sub> [MW] | izlaz kojeg se isključuje:    | stepeni rasterećenja (redukcije): |                      |                       |                      | distribucija: |
|------------|----------------------------------------------|-----------------------|-------------------------------|-----------------------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                              |                       |                               | P <sub>I</sub> [MW]               | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 42.        | <b>TS 110/20 kV<br/>Bihać 2</b>              | <b>8.72</b>           | DV 10kV Žegar                 |                                   | <b>0.41</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 20kV Ozimice 2             |                                   |                      | <b>1.50</b>           |                      | Bihać         |
|            |                                              |                       | DV 10kV Vedro Polje           |                                   | <b>0.42</b>          |                       |                      | Bihać         |
| 43.        | <b>TS 110/35/10 kV<br/>Bosanska Krupa</b>    | <b>5.81</b>           | KO 10kV Jasenica              | <b>0.66</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | KO 10 kV Bosna vozila         |                                   |                      | <b>0.78</b>           |                      | Bihać         |
|            |                                              |                       | KO 10kV Grad                  |                                   |                      |                       | <b>0.42</b>          | Bihać         |
|            |                                              |                       | KO 10kV RMK                   |                                   | <b>0.56</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 10kV Halkići               |                                   | <b>0.35</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 10kV Pilana 3              |                                   |                      |                       | <b>0.38</b>          | Bihać         |
| 44.        | <b>TS 110/35/10 kV<br/>Bosanski Petrovac</b> | <b>3.99</b>           | DV 20kV Kolunić-Revenik       | <b>0.41</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 20kV Klenovac              |                                   | <b>0.63</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 20kV Skakavac              |                                   |                      |                       | <b>0.94</b>          | Bihać         |
|            |                                              |                       | KO 20kV Bosnaplast            |                                   |                      | <b>0.90</b>           |                      | Bihać         |
| 45.        | <b>TS 110/35/10 kV<br/>Cazin 1</b>           | <b>16.78</b>          | DV 10kV Koprivna              | <b>1.60</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Mala Lisa             |                                   | <b>0.50</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 10kV Hasan Brkić           |                                   | <b>0.70</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 10 kV Čuprija              |                                   | <b>0.25</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 35 kV Incel                |                                   | <b>0.14</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV RP Čoralići           |                                   |                      | <b>1.70</b>           |                      | Bihać         |
|            |                                              |                       | DV 10 kV RP Gnjlavac          |                                   |                      |                       | <b>4.10</b>          | Bihać         |
| 46.        | <b>TS 110/20/10 kV<br/>Cazin 2</b>           | <b>4.01</b>           | KO 10kV Tržac 2               |                                   | <b>1.20</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 20kV Crnaja                | <b>0.73</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 20kV Gata                  |                                   |                      | <b>0.26</b>           |                      | Bihać         |
| 47.        | <b>TS 110/20/10 kV<br/>Ključ</b>             | <b>5.02</b>           | DV 20 kV Rejzovići            | <b>0.10</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | KO 10 kV Autoservis           | <b>0.20</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 20 kV Previja              | <b>0.21</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10 kV Velagići             |                                   |                      | <b>1.25</b>           |                      | Bihać         |
|            |                                              |                       | DV 20 kV Sanica               |                                   | <b>0.90</b>          |                       |                      | Bihać         |
| 48.        | <b>TS 110/20/10 kV<br/>Sanski Most</b>       | <b>11.14</b>          | DV 20kV Podvidača             |                                   |                      | <b>0.80</b>           |                      | Bihać         |
|            |                                              |                       | KO 20kV Oštra Luka            |                                   | <b>0.95</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 20 kV Dabar                |                                   |                      | <b>0.10</b>           |                      | Bihać         |
|            |                                              |                       | DV 10 kV Lušci Palanka        |                                   | <b>0.75</b>          |                       |                      | Bihać         |
|            |                                              |                       | KO 20kV Pekara                |                                   |                      | <b>0.30</b>           |                      | Bihać         |
|            |                                              |                       | DV 10KV Krečana               |                                   |                      |                       | <b>1.90</b>          | Bihać         |
|            |                                              |                       | DV 10kV Kamengrad             | <b>1.20</b>                       |                      |                       |                      | Bihać         |
| 49.        | <b>TS 110/35/10 kV<br/>Velika Kladuša</b>    | <b>9.86</b>           | DV 10kV Rudnik                |                                   |                      | <b>1.26</b>           |                      | Bihać         |
|            |                                              |                       | KO 10kV Tvor. metal. namješt. | <b>0.25</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Trnovi                | <b>0.55</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Polje - Podzvizd      |                                   | <b>0.95</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 10 kV TPA                  | <b>0.10</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Tvor. stočne hrane    |                                   |                      |                       | <b>2.60</b>          | Bihać         |
| 50.        | <b>TS 110/35/10 kV<br/>Vrnograč</b>          | <b>7.52</b>           | DV 10kV Sela Bojna            | <b>0.17</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10 kV Sela Golubovići      | <b>0.21</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Hajrat                |                                   | <b>1.20</b>          |                       |                      | Bihać         |
|            |                                              |                       | DV 10kV Grad                  |                                   |                      | <b>0.78</b>           |                      | Bihać         |
|            |                                              |                       | DV 10 kV Industrija Bojna     | <b>0.10</b>                       |                      |                       |                      | Bihać         |
|            |                                              |                       | KO 10kV Saniteks              | <b>0.10</b>                       |                      |                       |                      | Bihać         |

Prijedlog Plana ručnog rasterećenja SN izvoda HZHB 2014. godina

|                                         |                                   |                                         |                        |                       | Stepen delovanja |          |           |          |              |
|-----------------------------------------|-----------------------------------|-----------------------------------------|------------------------|-----------------------|------------------|----------|-----------|----------|--------------|
| Naziv TS                                | Pmax (MW) istovremeno opterećenje | Izlaz na koji deluje zaštita            | Redoslijed isključenja | Snaga izlaza Piz (MW) | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) | distribucija |
| TS 400/220/110/35/10 kV Mostar 4 - Čule | 1.3                               | DV 10kV Miljkovići                      | 1                      | 0.40                  | 0.4              |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Kruševo                         | 2                      | 0.80                  |                  | 0.8      |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Mostarsko blato                 | 3                      | 0.10                  |                  | 0.1      |           |          | Pogon Mostar |
| TS 110/35/10 kV Mostar 5 - Rodoč        | 8.50                              | KO 10kV Jurum                           | 1                      | 0.50                  | Isključen        |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Hala sklopova                   | 2                      | -                     | Isključen        |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Montaža zrakoplova              | 3                      | 0.30                  | Isključen        |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Farbara                         | 4                      | 0.50                  | 0.50             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Transmisije                     | 5                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Šipad 2                         | 6                      | 0.10                  | 0.10             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Šipad Luka                      | 7                      | 0.50                  |                  | 0.50     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Mik                             | 8                      | 0.50                  |                  | 0.50     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Merkur                          | 9                      | 0.30                  |                  | 0.30     |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Miljkovići                      | 10                     | -                     |                  |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Kruševo                         | 11                     | 0.20                  |                  |          |           | 0.20     | Pogon Mostar |
|                                         |                                   | DV 10kV Rodoč                           | 12                     | 2.00                  |                  |          | 2.00      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Heliodrom                       | 13                     | 0.20                  |                  |          | 0.20      |          | Pogon Mostar |
|                                         |                                   | DV 10kV Jasenica                        | 14                     | 2.00                  |                  |          | 6.00      |          | Pogon Mostar |
|                                         |                                   | KO 10kV AX Soling (zračna luka)         | 15                     | 0.60                  |                  |          |           | 0.60     | Pogon Mostar |
|                                         |                                   | KO 10kV SFOR (vojarna)                  | 16                     | 0.10                  |                  |          |           | 0.10     | Pogon Mostar |
|                                         |                                   | DV 35kV Buna                            | * U TS Buna            | 3.50                  |                  |          |           |          | Pogon Mostar |
|                                         |                                   | DV 35kV Mostar 4                        | Rezerva                | -                     |                  |          |           |          | Pogon Mostar |
| TS 110/35/10 kV Mostar 6 - Rudnik       | 28.30                             | DV 10kV Goranci                         | 1                      | 0.50                  | 0.50             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Vihovići                        | 2                      | 2.00                  | 2.00             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Raštani                         | 3                      | 1.50                  | 1.50             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Centar 8                        | 4                      | 1.40                  | 1.40             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Vukovarska                      | 5                      | 1.90                  |                  | 1.90     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Rudnik crpka                    | 6                      | 2.10                  |                  | 2.10     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Stambena zadruga                | 7                      | 2.13                  |                  | 2.13     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Auto moto                       | 8                      | 3.00                  |                  | 3.00     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Zvijezda 3                      | 9                      | 2.30                  |                  |          | 2.30      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Centar 11                       | 10                     | 2.20                  |                  |          | 2.20      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Poslovna zgrada                 | 11                     | 0.50                  |                  |          | 0.50      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Rudnik 1                        | 12                     | 2.20                  |                  |          | 2.20      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Rudnik kolonija                 | 13                     | 1.20                  |                  |          |           | 1.20     | Pogon Mostar |
|                                         |                                   | KO 10kV Smrčenjaci                      | 14                     | 2.20                  |                  |          |           | 2.20     | Pogon Mostar |
|                                         |                                   | KO 10kV Rudnik 3 (vatrogasni dom)       | 15                     | 2.40                  |                  |          |           | 2.40     | Pogon Mostar |
|                                         |                                   | KO 10kV Studenac (vodocrpilište)        | 16                     | 0.80                  |                  |          |           | 0.80     | Pogon Mostar |
|                                         |                                   | DV 35kV HE Mostar                       | -                      | -                     |                  |          |           |          | Pogon Mostar |
| TS 110/10 kV Balinovac                  | 22.40                             | KO 10kV Vukodol                         | 1                      | 2.00                  | 2.00             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Ilička 2                        | 2                      | 2.10                  | 2.10             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Augusta Šenoe                   | 3                      | 1.80                  | 1.80             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Ciglana                         | 4                      | 1.70                  |                  | 1.70     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Trg Tihomira Mišića             | 5                      | 1.60                  |                  | 1.60     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Strelčevina                     | 6                      | 2.40                  |                  | 2.40     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Šetalište                       | 7                      | 2.50                  |                  |          | 2.50      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Zagrebačka 1                    | 8                      | 1.90                  |                  |          | 1.90      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Franjevačka 1                   | 9                      | 0.90                  |                  |          | 0.90      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Podhum (vodocrpilište)          | 10                     | 1.30                  |                  |          |           | 1.30     | Pogon Mostar |
|                                         |                                   | KO 10kV Panjevina (dispanzer)           | 11                     | 2.40                  |                  |          |           | 2.40     | Pogon Mostar |
|                                         |                                   | KO 10kV Bolnica Bijeli Brijeg (bolnica) | 12                     | 1.70                  |                  |          |           | 1.70     | Pogon Mostar |
| TS 110/10 kV Mostar 9 - Buna            | 3.50                              | DV 10kV Staklenici 1                    | 1                      | 0.10                  | 0.10             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Staklenici 2                    | Nije u funkciji        |                       |                  |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV EAL                             | 2                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Gubavica                        | 3                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Hodbina                         | 4                      | 0.50                  |                  |          | 0.50      |          | Pogon Mostar |
|                                         |                                   | DV 10kV Žitomislići                     | 5                      | 0.80                  |                  |          |           | 0.80     | Pogon Mostar |
| TS 110/10 kV Čitluk                     | 18.20                             | KO 10kV Buna                            | 6                      | 1.50                  |                  |          |           | 1.50     | Pogon Mostar |
|                                         |                                   | DV 10kV Žitomislići                     | 1                      | 0.40                  | 0.40             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV gradnići                        | 2                      | 1.50                  | 1.50             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Služanj                         | 3                      | 2.50                  | 2.50             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Međugorje                       | 4                      | 1.90                  |                  | 1.90     |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Blatnica                        | 5                      | 2.50                  |                  | 2.50     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Grad                            | 6                      | 0.50                  |                  | 0.50     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Tromeđa                         | 7                      | 2.00                  |                  | 2.00     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Bungalovi                       | 8                      | 1.60                  |                  |          | 1.60      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Vinarija (policija)             | 9                      | 1.40                  |                  |          | 1.40      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Bijakovići (svetište)           | 10                     | 1.90                  |                  |          | 1.90      |          | Pogon Mostar |
|                                         |                                   | DV 10kV Vodozahvat (vodocrpilište)      | 11                     | 0.40                  |                  |          |           | 0.40     | Pogon Mostar |
| TS 110/35/10 kV Čapljina                | 16.70                             | KO 10kV Dom Zdravlja (dom zdravlja)     | 12                     | 1.80                  |                  |          |           | 1.80     | Pogon Mostar |
|                                         |                                   | DV 10kV Domanovići                      | 1                      | 2.00                  | 2.00             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Gabela                          | 2                      | 2.30                  | 2.30             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Višići                          | 3                      | 2.30                  | 2.30             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Bulevar                         | 4                      | 2.40                  |                  | 2.40     |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Grad 3                          | 5                      | 1.00                  |                  | 1.00     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Energoinvest 2                  | 6                      | 0.10                  |                  |          | 0.10      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Veterinarska                    | 7                      | 1.30                  |                  |          | 1.30      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Blok 5                          | 8                      | 2.80                  |                  |          | 2.80      |          | Pogon Mostar |
| TS 110/35/10kV Stolac                   | 6.90                              | KO 10kV Peline (dom.zdrav. ,policija)   | 9                      | 2.50                  |                  |          |           | 2.50     | Pogon Mostar |
|                                         |                                   | DV 35kV Stolac - rezerva                | -                      | 6.90                  |                  |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Stolac 1                        | 1                      | 0.40                  | 0.40             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV RMK                             | 2                      | 0.50                  | 0.50             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Burmazi                         | 3                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Vidovo Polje                    | 4                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Stolac 2                        | 5                      | 1.00                  |                  | 1.00     |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Stolac 3                        | 6                      | 0.40                  |                  |          | 0.40      |          | Pogon Mostar |
|                                         |                                   | DV 10kV Domanovići                      | 7                      | 1.50                  |                  |          | 1.50      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Aladinići                       | 8                      | 1.30                  |                  |          | 1.30      |          | Pogon Mostar |
|                                         |                                   | KO 10kV Stolac 4 (dom zdravlja)         | 9                      | 1.00                  |                  |          |           | 1.00     | Pogon Mostar |
|                                         |                                   | DV 35kV Ljubinje                        | -                      | U TS Ljubinje         |                  |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Bregovi                         | 1                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                                         |                                   | DV 10kV Hotel Neum                      | 2                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                                         |                                   | KO 10kV Bregovi 2 Stare zidine          | 3                      | 0.40                  | 0.40             |          |           |          | Pogon Mostar |

|                               |                                   |                                           |                        |                       | Stepen delovanja |          |           |          |              |
|-------------------------------|-----------------------------------|-------------------------------------------|------------------------|-----------------------|------------------|----------|-----------|----------|--------------|
| Naziv TS                      | Pmax (MW) istovremeno opterećenje | Izlaz na koji deluje zaštita              | Redoslijed isključenja | Snaga izlaza Piz (MW) | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) | distribucija |
| TS 110/10 kV Neum             | 3.50                              | KO 10kV Neum 2 Surdup                     | 4                      | 0.90                  |                  | 0.90     |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Jazine                            | 5                      | 0.20                  |                  | 0.20     |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Hutovo                            | 6                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV Centralni Neum                    | 7                      | 0.40                  |                  |          | 0.40      |          | Pogon Mostar |
|                               |                                   | KO 10kV Tiha Luka ( <b>dom zdravlja</b> ) | 8                      | 0.40                  |                  |          |           | 0.40     | Pogon Mostar |
| TS 110/35/10 kV Rama - Prozor | 5.10                              | DV 10kV Ogoje                             | 1                      | 0.30                  | 0.30             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Borovnica                         | 2                      | 0.30                  | 0.30             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Makljen                           | 3                      | 0.30                  | 0.30             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Lug                               | 4                      | 0.60                  |                  | 0.60     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV UNIS                              | 5                      | 0.10                  |                  | 0.10     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV Grad 2                            | 6                      | 0.70                  |                  | 0.70     |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Krupić                            | 7                      | 0.60                  |                  |          | 0.60      |          | Pogon Mostar |
|                               |                                   | DV 10kV Varvara                           | 8                      | 1.20                  |                  |          | 1.20      |          | Pogon Mostar |
|                               |                                   | KO 10kV Distribucija                      | 9                      | 0.20                  |                  |          | 0.20      |          | Pogon Mostar |
|                               |                                   | KO 10kV SIZ ( <b>dom zdravlja</b> )       | 10                     | 0.80                  |                  |          |           | 0.80     | Pogon Mostar |
| TS 35/10kV Mluša - Rama       | 0.90                              | DV 35kV Mluša                             | 11                     | 0.70                  |                  |          |           | 0.70     | Pogon Mostar |
|                               |                                   | DV 10kV Kovačevo polje                    | 1                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Ripci                             | 2                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Prozor                            | 3                      | 0.20                  |                  | 0.20     |           |          | Pogon Mostar |
| TS 35/10kV Risovac - Doljani  | 1.00                              | KO 10kV Crima                             | 4                      | 0.10                  |                  |          | 0.10      |          | Pogon Mostar |
|                               |                                   | DV 10kV Dugo polje                        | 1                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Vrleti                            | 2                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Risovac                           | 3                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
| TS 35/10kV Svitava - Čapljina | 0.80                              | DV 10kV Ski lift                          | 4                      | 0.20                  |                  | 0.20     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV Bajovci                           | 1                      | 0.10                  | 0.10             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Gornje Hrasno - Neum              | 2                      | 0.10                  | 0.10             |          |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Svitava                           | 3                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
| TS 35/10kV Hutovo - Neum      | 0.40                              | DV 35kV Hutovo                            | 4                      | 0.40                  |                  | 0.40     |           |          | Pogon Mostar |
|                               |                                   | DV 10kV Glumina                           | 1                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
| TS 35/10kV Ivanjica - Ravno   | 0.25                              | DV 10kV Ravno - Neum                      | 2                      | 0.20                  | 0.20             |          |           |          | Pogon Mostar |
|                               |                                   | KO 10kV TS Ledenica                       | 1                      | 0.10                  | 0.10             |          |           |          | Pogon Mostar |
|                               |                                   | KO 10kV TS Glavica                        | 2                      | 0.05                  | 0.05             |          |           |          | Pogon Mostar |
| RP 10kV Tromeđa - Čitluk      | 4.00                              | DV 10kV Šćenica                           | 3                      | 0.10                  |                  | 0.10     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV Industrijska zona                 | 1                      | 0.90                  | 0.90             |          |           |          | Pogon Mostar |
|                               |                                   | KO 10kV MBTS Dodig                        | 2                      | 2.20                  |                  | 2.20     |           |          | Pogon Mostar |
|                               |                                   | KO 10kV MBTS Tromeđa i Ledo               | 3                      | 0.90                  |                  |          | 0.90      |          | Pogon Mostar |
|                               |                                   | KO 10kV dovod Tromeđa                     | dovod                  |                       |                  |          |           |          | Pogon Mostar |
|                               |                                   | KO 10kV dovod Bungalovi                   | dovod                  |                       |                  |          |           |          | Pogon Mostar |
| TS 110/35/10 kV Livno         | 16.4                              | DV 10 kV Pilana                           | 1                      | 0.8                   | 0.8              |          |           |          | Pogon Livno  |
|                               |                                   | KO 10 kV Žiškuše                          | 2                      | 1.5                   | 1.5              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Tušnica                          | 3                      | 1.1                   | 1.1              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Dobro                            | 4                      | 1                     |                  | 1        |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Biła                             | 5                      | 1                     |                  | 1        |           |          | Pogon Livno  |
|                               |                                   | DV 35 kV                                  | 6                      | 2.2                   |                  | 2.2      |           |          | Pogon Livno  |
|                               |                                   | DV 35 kV RP Podgradina                    | 7                      | 1.5                   |                  |          | 1.5       |          | Pogon Livno  |
|                               |                                   | DV 10 kV Krznara                          | 8                      | 1.5                   |                  |          | 1.5       |          | Pogon Livno  |
|                               |                                   | KO 10 kV Matin pod                        | 9                      | 0.6                   |                  |          | 0.6       |          | Pogon Livno  |
|                               |                                   | KO 10 kV Podvornice                       | 10                     | 1.7                   |                  |          |           | 1.7      | Pogon Livno  |
|                               |                                   | KO 10 kV Centar                           | 11                     | 1.8                   |                  |          |           | 1.8      | Pogon Livno  |
|                               |                                   | KO 10 kV Livtex                           | 12                     | 1.7                   |                  |          |           | 1.7      | Pogon Livno  |
| TS 110/35/10 kV Tomislavgrad  | 13.3                              | DV 10 kV Eminovo selo                     | 1                      | 1.5                   | 1.5              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Kolo - Čavarov stan              | 2                      | 1.6                   | 1.6              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Jošanica                         | 3                      | 1.2                   | 1.2              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Zelići                           | 4                      | 0.5                   |                  | 0.5      |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Šujica                           | 5                      | 1.1                   |                  | 1.1      |           |          | Pogon Livno  |
|                               |                                   | DV 35 kV Podgradina (Zidine)              | 6                      | 1.4                   |                  | 1.4      |           |          | Pogon Livno  |
|                               |                                   | KO 10 kV Plastika                         | 7                      | 1.6                   |                  |          | 1.6       |          | Pogon Livno  |
|                               |                                   | KO 10 kV Grad II                          | 8                      | 1.2                   |                  |          | 1.2       |          | Pogon Livno  |
|                               |                                   | KO 10 kV Latice                           | 9                      | 1                     |                  |          | 1         |          | Pogon Livno  |
|                               |                                   | KO 10 kV Tvoronica kabela                 | 10                     | 1.4                   |                  |          |           | 1.4      | Pogon Livno  |
| TS 110/20/10 kV Kupres        | 4.2                               | KO 10 kV Grad I                           | 11                     | 0.8                   |                  |          |           | 0.8      | Pogon Livno  |
|                               |                                   | KO 10 kV MIK                              | 1                      | 0.2                   | 0.2              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Zvirnjača                        | 2                      | 0.2                   | 0.2              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Malovan                          | 3                      | 1.1                   |                  | 1.1      |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Blagaj                           | 4                      | 0.9                   |                  |          | 0.9       |          | Pogon Livno  |
|                               |                                   | DV 10 kV Otinovci                         | 5                      | 0.5                   |                  |          | 0.5       |          | Pogon Livno  |
|                               |                                   | DV 10 kV Grad                             | 6                      | 1                     |                  |          |           | 1        | Pogon Livno  |
| TS 35/10 kV Glamoč            | 1.8                               | KO 10 kV Industrijska zona                | 7                      | 0.3                   |                  |          |           | 0.3      | Pogon Livno  |
|                               |                                   | DV 10 kV Vitorog                          | 1                      | 0.05                  | 0.05             |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Crni vrh                         | 2                      | 0.25                  | 0.25             |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Radaslije                        | 3                      | 0.35                  |                  | 0.35     |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Dragnić                          | 4                      | 0.25                  |                  | 0.25     |           |          | Pogon Livno  |
|                               |                                   | KB 10 kV Šiljina pleća 0.2                | 5                      | 0.2                   |                  |          | 0.2       |          | Pogon Livno  |
|                               |                                   | DV 10 kV Glama                            | 6                      | 0.05                  |                  |          | 0.05      |          | Pogon Livno  |
| TS 110/35/10 kV Drvar         | 3.5                               | DV 10 kV Pilana                           | 7                      | 0.45                  |                  |          |           | 0.45     | Pogon Livno  |
|                               |                                   | KB 10 kV Grad                             | 8                      | 0.2                   |                  |          |           | 0.2      | Pogon Livno  |
|                               |                                   | DV10 kV Bastasi                           | 1                      | 0.3                   | 0.3              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Kamenica                         | 2                      | 0.1                   | 0.1              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Podovi                           | 3                      | 0.2                   |                  | 0.2      |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Mlin                             | 4                      | 0.5                   |                  | 0.5      |           |          | Pogon Livno  |
|                               |                                   | KO 10 kV Unis                             | 5                      | 0.3                   |                  |          | 0.3       |          | Pogon Livno  |
| TS 110/35/10 kV Grahovo       | 0.9                               | KO 10 kV Grad                             | 6                      | 0.2                   |                  |          | 0.2       |          | Pogon Livno  |
|                               |                                   | DV 35 kV Drvar II                         | 7                      | 1.6                   |                  |          |           | 1.6      | Pogon Livno  |
|                               |                                   | DV 10 kV Bolnica                          | 8                      | 0.3                   |                  |          |           | 0.3      | Pogon Livno  |
|                               |                                   | DV 10 kV Preodac                          | 1                      | 0.1                   | 0.1              |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Resanovci                        | 2                      | 0.13                  | 0.13             |          |           |          | Pogon Livno  |
|                               |                                   | KO 10 kV D. Kazanci                       | 3                      | 0.46                  |                  | 0.46     |           |          | Pogon Livno  |
|                               |                                   | KO 10 kV Grad                             | 4                      | 0.21                  |                  |          | 0.21      |          | Pogon Livno  |
|                               |                                   | DV 10 kV Unis                             | 5                      | 0                     |                  |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Pilana                           | 6                      | 0                     |                  |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Ciglana                          | 7                      | 0                     |                  |          |           |          | Pogon Livno  |
|                               |                                   | DV 10 kV Kočerin                          | 1                      | 1.26                  |                  |          |           | 1.26     | Pogon Grude  |
|                               |                                   | DV 10 kV Ledinac                          | 2                      | 1.17                  | 1.17             |          |           |          | Pogon Grude  |
|                               |                                   | DV 10 kV Ružići                           | 3                      | 1.32                  |                  | 1.32     |           |          | Pogon Grude  |
|                               |                                   | DV 10 kV Drinovci                         | 4                      | 2.06                  |                  |          | 2.06      |          | Pogon Grude  |



|                                          |                                   |                               |                        |                       | Stepen delovanja            |          |           |          |              |
|------------------------------------------|-----------------------------------|-------------------------------|------------------------|-----------------------|-----------------------------|----------|-----------|----------|--------------|
| Naziv TS                                 | Pmax (MW) istovremeno opterećenje | Izlaz na koji deluje zaštita  | Redoslijed isključenja | Snaga izlaza Piz (MW) | PI (MW)                     | PII (MW) | PIII (MW) | PIV (MW) | distribucija |
| TS 110/35/10 kV Grude                    | 13                                | KO 10 kV Pivovara-Tihaljina   | 5                      | 1.41                  | ni ne smiju biti isključeni |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Boboška              | 6                      | 1.17                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Grude                | 7                      | 1.17                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Gorica               | 8                      | 2.42                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Grude 7              | 9                      | 1.02                  |                             |          |           |          | Pogon Grude  |
| TS 110/35/10 kV Posušje                  | 12                                | DV 10 kV Lipovice             |                        | 1.17                  | 1.17                        |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Broćanac             |                        | 1.21                  |                             | 1.21     |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Femis                |                        | 0.24                  | 0.24                        |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Zavelim              |                        | 2.17                  |                             |          | 2.17      |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Rakitno              |                        | 1.29                  |                             |          |           | 1.29     | Pogon Grude  |
|                                          |                                   | DV 10 kV Stuedena Vrila       |                        | 0.48                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Jug                  |                        | 1.09                  |                             | 1.09     |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Durmišuša            |                        | 1.37                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Meljakuša            |                        | 1.53                  |                             |          |           | 1.53     | Pogon Grude  |
| TS 110/35/10 kV Široki Brijeg            | 18.04                             | KO 10 kV Marasov Brig         |                        | 1.45                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Dužice               |                        | 0 PH                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Rasno                |                        | 1.17                  | 1.17                        |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Gradac               |                        | 0.73                  | 0.73                        |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Crnač                |                        | 0.37                  |                             |          | 0.37      |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Trn                  |                        | 1.46                  |                             | 1.46     |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Lišto                |                        | 1.16                  |                             | 1.16     |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Ljuti Dolac          |                        | 1.37                  |                             |          | 1.37      |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Stadion              |                        | 1.67                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Polog                |                        | 1.33                  |                             |          |           | 1.33     | Pogon Grude  |
|                                          |                                   | KO 10 kV Feal                 |                        | 2.26                  |                             |          |           | 2.26     | Pogon Grude  |
|                                          |                                   | DV 10 kV Knešpolja            |                        | 0.65                  |                             |          | 0.65      |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Hotel                |                        | 1.84                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Rasklopnica 35       |                        | 2.05                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Lištica 6            |                        | 1.65                  |                             |          |           |          | Pogon Grude  |
| TS 110/35/10 kV Ljubuški                 | 15.6                              | DV 10 kV Crne Lokve           |                        | 0.33                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Orah                 |                        | 2.14                  |                             | 2.14     |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Greda                |                        | 0.49                  |                             | 0.49     |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Veljaci              |                        | 1.12                  |                             |          | 1.12      |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Studenci             |                        | 1.69                  |                             |          | 1.69      |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Proboj               |                        | 1.78                  |                             |          |           | 1.78     | Pogon Grude  |
|                                          |                                   | KO 10 kV Unis                 |                        | 0.13                  |                             |          |           | 0.13     | Pogon Grude  |
|                                          |                                   | KO 10 kV Hladnjača            |                        | 0.75                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Jug                  |                        | 1.16                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Vitina               |                        | 1.71                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Obilaznica           |                        | 1.26                  | 1.26                        |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Humac                |                        | 1.13                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | KO 10 kV Famos                |                        | 0.43                  | 0.43                        |          |           |          | Pogon Grude  |
| TS 110/20/10 kV "Vitez" Vitez            | 18.61                             | KO 10 kV Grad                 |                        | 1.81                  |                             |          |           |          | Pogon Grude  |
|                                          |                                   | DV 10 kV Busovača             | 1                      | 2.74                  | 2.74                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Biła 2               | 2                      | 3.03                  | 3.03                        |          |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Kimtec               | 3                      | 2.7                   | 2.7                         |          |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Divjak               | 4                      | 2.32                  |                             | 2.32     |           |          | DP Centar    |
|                                          |                                   | KO 20 kV UNIS rezerva         | 5                      | 0.48                  |                             | 0.48     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Vitez rezerva        | 6                      | 0.8                   |                             | 0.8      |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Lovac                | 7                      | 0.1                   |                             |          | 0.1       |          | DP Centar    |
|                                          |                                   | KO 10 kV Vitez                | 8                      | 5.3                   |                             |          | 5.3       |          | DP Centar    |
|                                          |                                   | KO 20 kV Stari Vitez          | 9                      | 0.31                  |                             |          |           | 0.31     | DP Centar    |
|                                          |                                   | DV 10 kV Biła 1               | 10                     | 0.83                  |                             |          |           | 0.83     | DP Centar    |
|                                          |                                   | KO 20 kV MHE Vitez            |                        | Priključena mini HE   |                             |          |           |          | DP Centar    |
| TS 110/10 kV "Kaonik" "Busovača"         | 6.99                              | DV 10 kV Poslovni centar      |                        |                       |                             |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Merdani              | 1                      | 0.87                  | 0.27                        |          |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Kačuni               | 2                      | 2.25                  | 2.25                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Kačuni               | 3                      | 0.71                  |                             | 0.71     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Ciglana              | 4                      | 0.69                  |                             |          | 0.69      |          | DP Centar    |
|                                          |                                   | DV 10 kV Vatrostalna          | 5                      | 0.05                  |                             |          | 0.05      |          | DP Centar    |
| TS 110/20/10 kV "Uskoplje" Uskoplje      | 8.66                              | DV 10 kV Busovača             | 6                      | 2.42                  |                             |          |           | 2.42     | DP Centar    |
|                                          |                                   | KO 10 kV RP Uskoplje          | 1                      | 1.33                  | 1.33                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Trnovača             | 2                      | 2.03                  | 2.03                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Paloč                | 3                      | 0.38                  |                             | 0.38     |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Omladinska           | 4                      | 0.07                  |                             | 0.07     |           |          | DP Centar    |
|                                          |                                   | KO 20 kV Borac                | 5                      | 0.52                  |                             |          | 0.52      |          | DP Centar    |
|                                          |                                   | KO 20 kV RP Uskoplje          | 6                      | 4.33                  |                             |          |           | 4.33     | DP Centar    |
| TS 110/35/10 kV "Kiseljak" Kiseljak      | 19.53                             | KO 20 kV RP Voljevac          | Priključene mini HE    |                       |                             |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Gromiljak 2          | 1                      | 1.42                  | 1.42                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Gromiljak 3          | 2                      | 1.82                  | 1.82                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Lepenica             | 3                      | 3.29                  |                             | 3.29     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Kreševo stari        | 4                      | 0.35                  |                             | 0.35     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Kamenolom            | 5                      | 0.03                  |                             | 0.03     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Gromiljak            | 6                      | 0.69                  |                             |          | 0.69      |          | DP Centar    |
|                                          |                                   | DV 10 kV Kiseljak grad        | 7                      | 2.42                  |                             |          | 2.42      |          | DP Centar    |
|                                          |                                   | KO 10 kV Dalmacija            | 8                      | 1.56                  |                             |          | 1.56      |          | DP Centar    |
| TS 110/10 kV "Novi Travnik" Novi Travnik | 8.44                              | DV 35 kV Fojnica              | EP BiH                 | 4.43                  |                             |          |           | 4.43     | DP Centar    |
|                                          |                                   | DV 35 kV Kreševo              |                        | 3.52                  |                             |          |           | 3.52     | DP Centar    |
|                                          |                                   | DV 10 kV Sebešić              | 1                      | 1.14                  | 1.14                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Nević polje          | 2                      | 0.69                  | 0.69                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Rastovci             | 3                      | 1.65                  |                             | 1.65     |           |          | DP Centar    |
|                                          |                                   | KO 10 kV Međuvode             | 4                      | 1.11                  |                             | 1.11     |           |          | DP Centar    |
| TS 110/35/10 kV Jajce 1                  | 6.36                              | KO 10 kV Servis               | 5                      | 1.94                  |                             |          | 1.94      |          | DP Centar    |
|                                          |                                   | KO 10 kV H Zgrada             | 6                      | 1.91                  |                             |          |           | 1.91     | DP Centar    |
|                                          |                                   | DV 10 kV Bravnice             | 1                      | 1.39                  | 1.39                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Rika                 | 2                      | 0.52                  | 0.52                        |          |           |          | DP Centar    |
|                                          |                                   | KO 10 kV Elektrobosna radione | 3                      | 0.1                   |                             | 0.1      |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Divičani             | 4                      | 0.26                  |                             | 0.26     |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Buliči               | 5                      | 0.12                  |                             |          | 0.12      |          | DP Centar    |
|                                          |                                   | KO 10 kV Kozluk               | 6                      | 1.66                  |                             |          | 1.66      |          | DP Centar    |
|                                          |                                   | KO 10 kV Bus                  | 7                      | 1.82                  |                             |          |           | 1.82     | DP Centar    |
|                                          |                                   | DV 10 kV Ulazna građevina     | 8                      | 0.49                  |                             |          |           | 0.49     | DP Centar    |
|                                          |                                   | DV 10 kV Begov Han            | 1                      | 2.08                  | 2.08                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Ozimica              | 2                      | 1.56                  | 1.56                        |          |           |          | DP Centar    |
|                                          |                                   | DV 10 kV Vinište              | 3                      | 1.47                  |                             | 1.47     |           |          | DP Centar    |

|                                  |                                   |                              |                        |                       | Stepen delovanja |          |           |          |              |
|----------------------------------|-----------------------------------|------------------------------|------------------------|-----------------------|------------------|----------|-----------|----------|--------------|
| Naziv TS                         | Pmax (MW) istovremeno opterećenje | Izlaz na koji deluje zaštita | Redoslijed isključenja | Snaga izlaza Piz (MW) | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) | distribucija |
| TS 35/10 kV Žepče                | 8.75                              | KO 10 kV N. Trgovina         | 4                      | 1.21                  |                  | 1.21     |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Telekomanda         | 5                      | 0.87                  |                  |          | 0.87      |          | DP Centar    |
|                                  |                                   | KO 10 kV Žepčanka            | 6                      | 0.52                  |                  |          | 0.52      |          | DP Centar    |
|                                  |                                   | KO 10 kV Obdanište           | 7                      | 1.04                  |                  |          |           | 1.04     | DP Centar    |
| TS 35/10 kV "Divičani" Jajce     | 4.22                              | DV 10 kV Doribaba            | 1                      | 0.57                  | 0.57             |          |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Dobretići           | 2                      | 0.73                  | 0.73             |          |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Bešpelj             | 3                      | 0.69                  |                  | 0.69     |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Baščeluci           | 4                      | 0.57                  |                  |          | 0.57      |          | DP Centar    |
|                                  |                                   | DV 10 kV Aluminika           | 5                      | 1.66                  |                  |          |           | 1.66     | DP Centar    |
|                                  |                                   | DV 10 kV Ekonomija           |                        | 0                     |                  |          |           |          | DP Centar    |
| TS 35/10 kV "Kreševo" Kreševo    | 3.52                              | DV 10 kV Crnići              | 1                      | 1.23                  | 1.23             |          |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Kreševo             | 2                      | 0.8                   |                  | 0.8      |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Kiseljak            | 3                      | 1.02                  |                  |          | 1.02      |          | DP Centar    |
|                                  |                                   | DV 10 kV Čelik               | 4                      | 0.47                  |                  |          |           | 0.47     | DP Centar    |
| RS 10 kV "Vitez" Vitez           | 6.21                              | DV 10 kV Lupac 2             | 1                      | 1.44                  | 1.44             |          |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Lupac 1             | 2                      | 1.91                  |                  | 1.91     |           |          | DP Centar    |
|                                  |                                   | KO 10 kV Kolonija 1          | 3                      | 1.47                  |                  |          | 1.47      |          | DP Centar    |
|                                  |                                   | KO 10 kV Kolonija 2          | 4                      | 1.39                  |                  |          |           | 1.39     | DP Centar    |
|                                  |                                   | DV 10 kV Busovača            |                        | 0                     |                  |          |           |          | DP Centar    |
|                                  |                                   | DV 10 kV Impregnacija        |                        | 0                     |                  |          |           |          | DP Centar    |
| RTS 20/10 kV "Uskoplje" Uskoplje | 4.43                              | DV 10 kV Privor              | 1                      | 1.14                  | 1.14             |          |           |          | DP Centar    |
|                                  |                                   | KO 20 kV Ležajevi            | 2                      | 0.52                  |                  | 0.52     |           |          | DP Centar    |
|                                  |                                   | DV 20 kV Bugojno             | 3                      | 0.26                  |                  |          | 0.26      |          | DP Centar    |
|                                  |                                   | KO 20 kV Hotel               | 4                      | 2.51                  |                  |          |           | 2.51     | DP Centar    |
| TS 110/35/10kV Orašje            | 17.12                             | DV 10kV Vidovice             | 1                      | 1.25                  | 1.25             |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV D. Mahala            | 2                      | 2.08                  | 2.08             |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Dusine               | 3                      | 0.05                  | 0.05             |          |           |          | DP Sjever    |
|                                  |                                   | Dv 10kV Ugljara              | 4                      | 1.41                  |                  | 1.41     |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Kostrč               | 5                      | 0.51                  |                  | 0.51     |           |          | DP Sjever    |
|                                  |                                   | KB 10kV N.Naselje            | 6                      | 0.98                  |                  | 0.98     |           |          | DP Sjever    |
|                                  |                                   | KB 10kV TSH                  | 7                      | 0.8                   |                  | 0.8      |           |          | DP Sjever    |
|                                  |                                   | KB 10kV Jug I                | 8                      | 0.65                  |                  | 0.65     |           |          | DP Sjever    |
|                                  |                                   | KB 10kV Mehanika             | 9                      | 0.11                  |                  | 0.11     |           |          | DP Sjever    |
|                                  |                                   | KB 10kV Poduzetnička zona    | 10                     | 0.1                   |                  |          | 0.1       |          | DP Sjever    |
|                                  |                                   | KB 10kV Bosanac              | 11                     | 0.6                   |                  |          | 0.6       |          | DP Sjever    |
|                                  |                                   | KB 10kV Centar               | 12                     | 1.4                   |                  |          |           | 1.4      | DP Sjever    |
|                                  |                                   | DV 35kV Tolisa               | 13                     | 7.18                  |                  |          |           | 7.18     | DP Sjever    |
| TS 35/10kV Tolisa                | 7.18                              | DV 10kV Tolisa naselje       | 1                      | 1.19                  | 1.19             |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Matići               | 2                      | 0.52                  | 0.52             |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Oštra luka           | 3                      | 1.56                  |                  | 1.56     |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Crpne pumpe          | 4                      | 0.97                  |                  |          | 0.97      |          | DP Sjever    |
|                                  |                                   | DV 10kV Donja mahala         | 5                      | 0                     |                  |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Kostrč               | 6                      | 0                     |                  |          |           |          | DP Sjever    |
|                                  |                                   | DV 35kV Domaljevac           | 7                      | 2.94                  |                  |          |           | 2.94     | DP Sjever    |
| TS 35/10kV Domaljevac            | 2.92                              | DV 10kV Turjak               | 1                      | 0.28                  | 0.28             |          |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Šamac                | 2                      | 0.56                  |                  | 0.56     |           |          | DP Sjever    |
|                                  |                                   | DV 10kV Bazik                | 3                      | 1.18                  |                  |          | 1.18      |          | DP Sjever    |
|                                  |                                   | DV 10kV Centar               | 4                      | 0.9                   |                  |          |           | 0.9      | DP Sjever    |



| Prijedlog Plana ručnog rasterećenja SN izvoda MH ERS 2014. godina |                                                             |                                   |            |                               |                                                           |                  |          |           |          |                |
|-------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------|------------|-------------------------------|-----------------------------------------------------------|------------------|----------|-----------|----------|----------------|
| Naziv TS                                                          | Pmax (MW) istovremeno opterećenje 20.02.2013. god. U 13.00h | Izlaz na koji deluje zaštita      | Prioriteti | Vrsta kupca                   | Snaga izlaza Piz (MW) izmjerena 20.02.2013. god. U 13.00h | Stepen delovanja |          |           |          | distribucija   |
|                                                                   |                                                             |                                   |            |                               |                                                           | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                |
| TS 110/35/10 kV Banja Luka 1                                      | 27.96                                                       | DV 35 kV Sitari                   | 1          | vodovod                       | 4.14                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A1 Jelšingrad 1          | 2          | livnica                       | 0.40                                                      |                  |          | 0.40      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A2 Jelšingrad 2          | 2          | livnica                       | 0.30                                                      |                  |          | 0.30      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A3 Jelšingrad 3          | 2          | livnica                       | 0.31                                                      |                  |          | 0.33      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A4 Jelšingrad 4          | 2          | livnica                       | 0.30                                                      |                  | 0.30     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A5 Jelšingrad 5          | 2          | livnica                       | 0.30                                                      |                  | 0.32     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A9 TAS 3                 | 3          | ostali                        | 0.11                                                      | 0.11             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV A10 TAS 1                | 3          | ostali                        | 0.30                                                      | 0.30             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B2 Budžak 3/1            | 1          | mljekara                      | 2.18                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B3 Petričevac            | 3          | ostali                        | 1.73                                                      |                  | 1.73     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B5 Vlade Vitjuka 2       | 1          | klinika                       | 1.11                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B6 Vlade Vitjuka         | 2          | dom za stara i iznemogla lica | 2.21                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B7 Predgrađe 2           | 2          | javni saobraćaj               | 2.04                                                      |                  |          | 2.04      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B8 Predgrađe 10          | 3          | ostali                        | 3.28                                                      | 3.28             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B9 Budžak 2              | 3          | ostali                        | 3.20                                                      |                  |          |           | 3.28     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B10 Budžak 3/2           | 3          | ostali                        | 2.65                                                      |                  |          | 2.65      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV B11 Budžak 1             | 2          | vojni objekti                 | 3.40                                                      |                  |          |           | 3.40     | Elektrokrajina |
| TS 110/10 kV Banja Luka 2                                         | 36.44                                                       | KO 10 kV Borik TS-9               | 2          | namjenska proizvodnja         | 2.86                                                      |                  |          | 2.86      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Kralja Alfonsa           | 3          | ostali                        | 1.08                                                      | 1.08             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Alternatvna TV           | 2          | PTT                           | 3.06                                                      |                  |          |           | 3.06     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Starčevića A-2           | 3          | ostali                        | 1.42                                                      | 1.42             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Rotas                    | 2          | namjenska proizvodnja         | 0.24                                                      |                  |          | 0.24      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Toplana                  | 2          | toplana                       | 3.06                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Rebrovački most          | 3          | ostali                        | 2.13                                                      |                  | 2.13     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Save Kovačevića          | 3          | ostali                        | 0.83                                                      |                  | 0.83     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Vodovod                  | 3          | ostali                        | 0.17                                                      | 0.17             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Starčevića 6             | 2          | PTT                           | 2.27                                                      |                  |          |           | 2.27     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Krajina Rebrovac         | 1          | vodovod                       | 1.35                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Vrbaski put 2            | 3          | ostali                        | 0.17                                                      |                  |          | 0.17      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Policijska Akademija     | 2          | MUP                           | 0.94                                                      |                  |          | 0.94      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Bulevar Srpske vojske    | 3          | ostali                        | 0.88                                                      |                  |          | 0.88      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Starčevića 5             | 3          | ostali                        | 1.60                                                      |                  |          |           | 1.60     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Borik 1                  | 2          | konzulat                      | 1.53                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Filipovića polje         | 2          | MUP                           | 3.68                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Vrbaski put              | 3          | ostali                        | 1.03                                                      | 1.03             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Zgrada Ministarstva      | 2          | RTRS                          | 1.31                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Univerzitetski grad      | 2          | studentski dom                | 0.15                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Borik 8                  | 2          | namjenska proizvodnja         | 1.34                                                      |                  |          | 1.34      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Borik 16                 | 1          | bolnica                       | 2.57                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Ada restoran             | 2          | pekara                        | 2.14                                                      |                  |          | 2.14      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Borik stari              | 3          | ostali                        | 0.63                                                      |                  | 0.63     |           |          | Elektrokrajina |
| TS 110/20/10 kV Banja Luka 3                                      | 35.89                                                       | KO 10 kV Šipkini brdo             | 3          | ostali                        | 2.55                                                      |                  | 2.55     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV BTS Drage Lange          | 1          | bolnica                       | 1.88                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV BTS Rudarska 2           | 3          | ostali                        | 1.57                                                      | 1.57             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Energomont               | 2          | MUP                           | 2.66                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Petra Mečave             | 2          | pošta                         | 1.43                                                      |                  |          | 1.43      |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV MBTS Plastika nova       | 3          | ostali                        | 2.45                                                      |                  |          |           | 2.45     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Petričevac               | 3          | ostali                        | 1.20                                                      | 1.20             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV TS Sertića imanje niz 4  | 1          | dom zdravlja                  | 1.40                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Čajevac                  | 2          | narodna skupština             | 3.65                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Medicina                 | 1          | dom zdravlja                  | 0.35                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV MBTS Romanijska          | 1          | vodovod                       | 2.10                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV TS Vlada                 | 2          | vlada                         | 1.31                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Hiseta blok A            | 2          | dječija ustanova              | 2.39                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Maksima Gorkog           | 3          | ostali                        | 0.13                                                      |                  | 0.13     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Ante Jakića L3           | 2          | palata predsjednika           | 1.00                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV MBTS Branka Radičevića   | 2          | SO Banjaluka                  | 1.05                                                      |                  |          |           | 1.05     | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV MBTS Rade Marijanca      | 3          | ostali                        | 0.08                                                      |                  | 0.08     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 10 kV Vidovdanska              | 3          | ostali                        | 0.30                                                      |                  | 0.30     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV TS Medicinski Centar     | 1          | bolnica                       | 0.62                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV TS TEB Medicinski Centar | 1          | bolnica                       | 0.73                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Bronzani Majdan          | 3          | ostali                        | 1.52                                                      | 1.52             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Saračica                 | 3          | ostali                        | 2.18                                                      |                  | 2.18     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV MBTS Paprikovac 18       | 3          | ostali                        | 1.80                                                      |                  | 1.80     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Milorada Umjenovića      | 3          | ostali                        | 1.54                                                      |                  | 1.54     |           |          | Elektrokrajina |
| TS 110/20 kV Banja Luka 4                                         | 9.26                                                        | KO 20 kV Ciglana Tunjice          | 2          | namjenska proizvodnja         | 0.43                                                      |                  |          | 0.43      |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Dragočaj-Stranjani       | 2          | dom za stara i iznemogla lica | 1.20                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Sintetik                 | 3          | ostali                        | 0.17                                                      | 0.17             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Zalužani Trn             | 3          | ostali                        | 1.51                                                      |                  |          | 1.51      |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV MBTS Kozaraputevi Zatvor | 2          | MUP                           | 1.44                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Šargovac-Daljka          | 3          | ostali                        | 0.13                                                      | 0.13             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Ivanjska (Potkozarje)    | 3          | ostali                        | 1.51                                                      |                  | 1.51     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Tunjice 2-Kuljani        | 2          | vojni objekti                 | 1.28                                                      |                  |          |           | 1.28     | Elektrokrajina |
|                                                                   |                                                             | DV Unis 1                         | 3          | ostali                        | 0.06                                                      |                  |          | 0.06      |          | Elektrokrajina |
|                                                                   |                                                             | DV Unis 2                         | 3          | ostali                        | 0.06                                                      |                  |          |           | 0.06     | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Tunjice 6                | 3          | ostali                        | 0.09                                                      |                  | 0.09     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Branka Popovića 4        | 3          | ostali                        | 0.30                                                      | 0.30             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Ramići-Barlovci          | 3          | ostali                        | 1.08                                                      | 1.08             |          |           |          | Elektrokrajina |
| TS 110/20 kV Banja Luka 5                                         | 7.56                                                        | DV 35 kV Sitari                   | 1          | vodovod                       | 1.30                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Švrakava                 | 3          | ostali                        | 0.11                                                      |                  | 0.11     |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Karanovac                | 2          | namjenska proizvodnja         | 2.21                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Fabrika vode             | 1          | vodovod                       | 0.65                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Vodozahvat               | 1          | vodovod                       | 0.81                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Dobrnja                  | 2          | vojni objekti                 | 1.74                                                      |                  |          | 1.74      |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Bukvalek                 | 3          | ostali                        | 0.74                                                      |                  | 0.74     |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Han Kola                 | 3          | ostali                        | 0.00                                                      |                  |          |           |          | Elektrokrajina |
| TS 400/110/20 kV Banja Luka 6                                     | 3.50                                                        | DV 20 kV Rekavice Mišići          | 3          | ostali                        | 0.00                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Miši Han                 | 3          | ostali                        | 0.37                                                      | 0.37             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Ivanjska (Potkozarje)    | 3          | ostali                        | 1.51                                                      |                  | 1.51     |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Ina plin                 | 3          | ostali                        | 0.42                                                      |                  | 0.42     |           |          | Elektrokrajina |
| TS 110/20/6 kV Banja Luka 7                                       | 2.24                                                        | DV 20 kV Dragočaj-Stranjani       | 2          | dom za stara i iznemogla lica | 1.20                                                      |                  |          | 1.20      |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Bazen                    | 3          | ostali                        | 0.30                                                      |                  |          |           | 0.30     | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Celex 1                  | 2          | fabrika papira                | 0.82                                                      |                  |          |           | 0.82     | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Celex 2                  | 2          | fabrika papira                | 0.82                                                      |                  |          | 0.82      |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Ekvator Incel            | 3          | ostali                        | 0.17                                                      |                  | 0.17     |           |          | Elektrokrajina |
| TS 110/20 kV Čelinac                                              | 4.80                                                        | KO 6 kV Poslovna zona (Magrel)    | 3          | ostali                        | 0.13                                                      |                  | 0.13     |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Džombe-Barakovac         | 1          | kolektor otpadnih voda        | 0.22                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Čelinac-centar           | 1          | dom zdravlja                  | 0.70                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Laništa Fačo             | 1          | vodovod                       | 1.40                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Ukrina                   | 1          | vodovod                       | 0.50                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Svilara                  | 2          | toplana                       | 0.52                                                      |                  |          |           |          | Elektrokrajina |
|                                                                   |                                                             | KO 20 kV Čelinac 1                | 3          | ostali                        | 0.17                                                      | 0.25             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Mermer Štrbe             | 2          | željeznička stanica           | 0.25                                                      |                  |          |           | 0.25     | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Banjaluka                | 3          | ostali                        | 0.85                                                      | 0.85             |          |           |          | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Skatavice Popovac        | 2          | RTV                           | 0.19                                                      |                  |          |           | 0.19     | Elektrokrajina |
|                                                                   |                                                             | DV 20 kV Vijačani                 | 3          | ostali                        | 0.01                                                      | 0.01             |          |           |          | Elektrokrajina |

| Naziv TS                        | Pmax (MW) istovremeno opterećenje 20.02.2013. god. U 13.00h | Izlaz na koji deluje zaštita        | Prioriteti | Vrsta kupca                     | Snaga izlaza Piz (MW) izmjerena 20.02.2013. god. U 13.00h | Stepen delovanja |          |           |          | distribucija   |
|---------------------------------|-------------------------------------------------------------|-------------------------------------|------------|---------------------------------|-----------------------------------------------------------|------------------|----------|-----------|----------|----------------|
|                                 |                                                             |                                     |            |                                 |                                                           | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                |
| TS 110/20 kV Ukrina             | 0.38                                                        | DV 20 kV Branešci                   | 3          | ostali                          | 0.14                                                      |                  | 0.14     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Ukrina 3                   | 3          | ostali                          | 0.01                                                      | 0.01             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Ukrina                     | 1          | dom zdravlja                    | 0.22                                                      |                  |          |           |          | Elektrokrajina |
| TS 110/20 kV Kotor Varoš        | 7.31                                                        | DV 20 kV Šiprage                    | 3          | ostali                          | 0.50                                                      |                  | 0.50     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Maslovare                  | 2          | hladnjača                       | 1.23                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Čelinac                    | 3          | ostali                          | 0.17                                                      |                  | 0.17     |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Jelšingrad                 | 3          | ostali                          | 1.82                                                      |                  |          | 1.82      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Kneževo                    | 1          | dom zdravlja                    | 0.75                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Zabrdje                    | 3          | ostali                          | 0.63                                                      | 0.63             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Hotel                      | 1          | dom zdravlja                    | 0.64                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Sokoline Kneževo           | 3          | ostali                          | 0.18                                                      | 0.18             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Bregovi 3                  | 3          | ostali                          | 1.27                                                      | 1.27             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Kožara                     | 2          | dječija ustanova                | 0.12                                                      |                  |          | 0.12      |          | Elektrokrajina |
| TS 110/20 kV Laktaši            | 14.91                                                       | DV 20 kV Aleksandrovac              | 3          | ostali                          | 2.47                                                      |                  |          | 2.47      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Riječani                   | 3          | ostali                          | 0.62                                                      | 0.62             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Niskogradnja Asfaltna baza | 3          | ostali                          | 0.41                                                      |                  |          |           | 0.41     | Elektrokrajina |
|                                 |                                                             | DV 20 kV Topola                     | 2          | aerodrom                        | 1.80                                                      |                  |          | 1.80      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Z. Zadruga                 | 3          | ostali                          | 2.00                                                      |                  | 2.00     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Slatina                    | 3          | ostali                          | 1.45                                                      |                  | 1.45     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Milosavci stari dio        | 3          | ostali                          | 0.06                                                      | 0.06             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Čajevac                    | 1          | bolnica                         | 2.35                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Sportska dvorana           | 3          | ostali                          | 0.17                                                      |                  |          | 0.17      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Trn                        | 3          | ostali                          | 2.84                                                      |                  | 2.84     |           |          | Elektrokrajina |
| TS 110/20 kV Banja Luka 8       | 6.59                                                        | KO 20 kV Miloševci                  | 3          | ostali                          | 0.74                                                      |                  |          | 0.74      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Trn-Crkva                  | 1          | ambulanta                       | 2.63                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Autoput-Jablan             | 3          | ostali                          | 1.32                                                      |                  |          | 1.32      |          | Elektrokrajina |
| TS 110/20 kV Prijedor 1         | 11.56                                                       | DV 20 kV Slatina                    | 1          | bolnica                         | 2.64                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Trnopolje                  | 1          | bolnica                         | 0.86                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Kozarac                    | 1          | bolnica                         | 2.42                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Svale Keraterm             | 1          | dom zdravlja                    | 2.76                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Kozara putevi Kolska       | 1          | dom zdravlja                    | 0.00                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Žitopromet                 | 2          | pekara                          | 2.07                                                      |                  |          |           | 2.07     | Elektrokrajina |
|                                 |                                                             | KO 20 kV BTS Bosna Montaža          | 2          | RTV                             | 0.00                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Tomašica                   | 3          | ostali                          | 0.00                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Tukovi                     | 1          | bolnica                         | 3.45                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Gomjenica Čela             | 3          | ostali                          | 0.00                                                      |                  |          |           |          | Elektrokrajina |
| TS 110/20 kV Prijedor 3         | 9.86                                                        | KO 20 kV Vrbice                     | 3          | ostali                          | 0.00                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Hladnjača                  | 1          | dom zdravlja                    | 1.80                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Pečani                     | 2          | MUP                             | 2.26                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Velepromet                 | 1          | vodovod                         | 0.56                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Čerjenci                   | 3          | ostali                          | 1.77                                                      | 1.77             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Tukovi                     | 3          | ostali                          | 2.44                                                      |                  | 2.44     |           |          | Elektrokrajina |
| TS 110/20/6 kV Prijedor 5       | 5.03                                                        | DV 20 kV Brežićani                  | 1          | vodovod                         | 0.63                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Raškovac                   | 1          | dom zdravlja                    | 0.40                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Kevljani                   | 3          | ostali                          | 0.52                                                      |                  | 0.52     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Drenovača                  | 2          | pekara                          | 1.28                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Omarska                    | 1          | dom zdravlja                    | 1.07                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Konjevići                  | 3          | ostali                          | 0.24                                                      | 0.24             |          |           |          | Elektrokrajina |
| TS 110/20/10 kV Novi Grad       | 8.69                                                        | KO 6 kV Sumarno                     | 2          | rudnik                          | 1.92                                                      |                  |          |           | 1.92     | Elektrokrajina |
|                                 |                                                             | KO 20 kV Unametal                   | 2          | namjenska proizvodnja           | 0.10                                                      |                  |          | 0.10      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Lignošper                  | 2          | namjenska proizvodnja           | 0.48                                                      |                  |          | 0.48      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Kostajnica                 | 1          | dom zdravlja                    | 1.03                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Blatna                     | 1          | dom zdravlja                    | 1.38                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Dobrljin                   | 3          | ostali                          | 0.90                                                      | 0.90             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 10 kV Svodna                     | 3          | ostali                          | 1.45                                                      |                  | 1.45     |           |          | Elektrokrajina |
|                                 |                                                             | KO 10 kV Ograde                     | 1          | vodovod                         | 2.14                                                      |                  |          |           |          | Elektrokrajina |
| TS 110/20/10 kV Kozarska Dubica | 14.44                                                       | KO 10 kV Željeznička stanica        | 1          | dom zdravlja                    | 1.21                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Bačvani                    | 1          | vodovod                         | 0.53                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Draksenić                  | 1          | vodovod                         | 1.47                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Tranzit Urije              | 3          | ostali                          | 0.57                                                      | 0.57             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Moštanica Rakovica         | 2          | namjenska proizvodnja           | 0.58                                                      |                  |          | 0.58      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Knežica                    | 1          | specijalna zdravstvena ustanova | 0.83                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Peltovac                   | 2          | nanjenska proizvodnja           | 1.05                                                      |                  |          | 1.05      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Peltovac TIK-Knežopoljka   | 2          | hladnjača                       | 0.14                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Predionica                 | 2          | namjenska proizvodnja           | 4.40                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Dolovi 2                   | 3          | ostali                          | 0.21                                                      | 0.21             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 10 kV Kostajnica                 | 3          | ostali                          | 0.35                                                      | 0.35             |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 10 kV Knežica                    | 2          | pekara                          | 0.51                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 10 kV MBTS Papirnica             | 2          | MUP                             | 2.17                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 10 kV BTS Šip                    | 2          | namjenska proizvodnja           | 0.44                                                      |                  | 0.44     |           |          | Elektrokrajina |
|                                 |                                                             | KO 10 kV RTS Mehanika Dubička ravan | 1          | hitna pomoć                     | 1.19                                                      |                  |          |           |          | Elektrokrajina |
| TS 110/20/10 kV Mrkonjić Grad   | 11.40                                                       | DV 20 kV Rajakovo brdo              | 1          | vodovod                         | 0.01                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Jezero                     | 3          | ostali                          | 0.02                                                      |                  |          | 0.02      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Ribnik                     | 1          | opština Ribnik                  | 1.22                                                      |                  |          | 1.22      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Barači                     | 1          | dom zdravlja                    | 0.68                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Metalac                    | 3          | ostali                          | 0.01                                                      | 0.01             |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Grad 2                     | 1          | dom zdravlja                    | 0.87                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Grad 1                     | 1          | vodovod                         | 1.52                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Izlaz Distribucija         | 1          | dom zdravlja                    | 1.73                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Novo naselje               | 1          | vodovod                         | 0.35                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 35 kV Šipovo                     | 1          | opština Jezero i Šipovo         | 4.99                                                      |                  |          |           | 4.99     | Elektrokrajina |
| TS 110/20 kV Srbac              | 7.23                                                        | DV 20 kV Toka raskršće              | 2          | RTV                             | 0.36                                                      |                  | 0.36     |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Ina pumpa Srbac            | 2          | pumpna stanica za odvodnjavanje | 0.10                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Kobaš                      | 3          | ostali                          | 0.28                                                      |                  | 0.28     |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Srbac centar               | 1          | dom zdravlja                    | 0.90                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Prebljezi                  | 1          | vodovod                         | 1.79                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Bajinci-Pumpa              | 2          | pumpna stanica za odvodnjavanje | 0.45                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Nova Topola                | 2          | pumpna stanica za odvodnjavanje | 1.13                                                      |                  |          | 1.13      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Sitneši Lepenica           | 3          | ostali                          | 0.75                                                      | 0.75             |          |           |          | Elektrokrajina |
| TS 110/20/10 kV Gradiška        | 13.40                                                       | KO 20 kV Benzinska pumpa            | 2          | javni saobraćaj                 | 1.47                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Demirača                   | 3          | ostali                          | 0.55                                                      |                  | 0.55     |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Metal 3                    | 2          | RTV                             | 1.02                                                      |                  |          | 1.02      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Toplana                    | 2          | toplana                         | 0.71                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Vodovod                    | 1          | vodovod                         | 0.12                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Levita                     | 2          | hladnjača                       | 0.10                                                      |                  |          | 0.10      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Zanatski centar            | 3          | ostali                          | 0.18                                                      |                  |          | 0.18      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Tabakovića                 | 2          | MUP                             | 0.73                                                      |                  |          |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Merkator                   | 3          | ostali                          | 0.09                                                      |                  |          | 0.09      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Metal 4                    | 3          | ostali                          | 1.28                                                      |                  |          | 1.28      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Distributivni centar       | 3          | ostali                          | 0.47                                                      |                  |          | 0.47      |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Krošnja                    | 3          | ostali                          | 0.77                                                      |                  |          | 0.77      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Trebovljani                | 3          | ostali                          | 1.06                                                      |                  | 1.06     |           |          | Elektrokrajina |
|                                 |                                                             | KO 20 kV Stadion                    | 3          | ostali                          | 0.09                                                      |                  |          | 0.09      |          | Elektrokrajina |
|                                 |                                                             | DV 20 kV Brestovčina                | 3          | ostali                          | 0.52                                                      | 0.52             |          |           |          | Elektrokrajina |

| Naziv TS                    | Pmax (MW) istovremeno opterećenje 20.02.2013. god. U 13.00h | Izlaz na koji deluje zaštita | Stepen delovanja |                                  |                                                           |      | PI (MW) | PII (MW) | PIII (MW) | PIV (MW) | distribucija      |
|-----------------------------|-------------------------------------------------------------|------------------------------|------------------|----------------------------------|-----------------------------------------------------------|------|---------|----------|-----------|----------|-------------------|
|                             |                                                             |                              | Prioriteti       | Vrsta kupca                      | Snaga izlaza Piz (MW) izmjerena 20.02.2013. god. U 13.00h |      |         |          |           |          |                   |
|                             |                                                             | KO 20 kV G-3                 | 1                | bolnica                          | 0.67                                                      |      |         |          |           |          | Elektrokrajina    |
|                             |                                                             | KO 20 kV Hiseta-Škola        | 3                | ostali                           | 0.77                                                      |      |         |          | 0.77      |          | Elektrokrajina    |
|                             |                                                             | KO 20 kV Jelšingrad novi     | 3                | ostali                           | 0.32                                                      |      |         | 0.32     |           |          | Elektrokrajina    |
|                             |                                                             | KO 10 kV Stadion Triko       | 3                | ostali                           | 0.48                                                      |      |         |          | 0.48      |          | Elektrokrajina    |
|                             |                                                             | DV 10 kV Ciglana             | 3                | ostali                           | 1.04                                                      |      |         | 1.04     |           |          | Elektrokrajina    |
|                             |                                                             | DV 10 kV Liman               | 3                | ostali                           | 0.56                                                      |      |         | 0.56     |           |          | Elektrokrajina    |
|                             |                                                             | DV 10 kV Topola              | 3                | ostali                           | 0.83                                                      |      |         | 0.83     |           |          | Elektrokrajina    |
| TS 110/20 kV Nova Topola    | 8.43                                                        | DV 10 kV Čatrnja             | 3                | ostali                           | 1.04                                                      |      |         |          | 1.04      |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Laktaši             | 3                | ostali                           | 0.88                                                      |      |         | 0.88     |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Matura              | 3                | ostali                           | 0.19                                                      | 0.19 |         |          |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Topola centar       | 3                | ostali                           | 0.61                                                      |      |         |          | 0.61      |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Kočićevo            | 3                | ostali                           | 0.41                                                      | 0.41 |         |          |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Laminici            | 3                | ostali                           | 0.58                                                      |      |         | 0.58     |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Podgradci           | 3                | ostali                           | 1.93                                                      |      |         |          |           | 1.93     | Elektrokrajina    |
|                             |                                                             | KO 20 kV Gradiška            | 3                | ostali                           | 1.12                                                      |      |         |          |           | 1.12     | Elektrokrajina    |
|                             |                                                             | KO 20 kV Berek               | 3                | ostali                           | 1.47                                                      |      |         | 1.47     |           |          | Elektrokrajina    |
| TS 110/20/10 kV Prnjavor    | 13.49                                                       | DV 20 kV Topola              | 3                | ostali                           | 1.24                                                      |      |         |          | 1.24      |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Kojin Han           | 3                | ostali                           | 0.87                                                      |      |         |          | 0.87      |          | Elektrokrajina    |
|                             |                                                             | KO 20 kV Standard            | 3                | ostali                           | 2.50                                                      | 2.50 |         |          |           |          | Elektrokrajina    |
|                             |                                                             | KO 20 kV Pionir              | 1                | dom zdravlja                     | 2.06                                                      |      |         |          |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Hrvačani            | 3                | ostali                           | 1.39                                                      |      |         |          | 1.39      |          | Elektrokrajina    |
|                             |                                                             | KO 20 kV Unis                | 3                | ostali                           | 0.15                                                      |      |         | 0.15     |           |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Klaonica            | 2                | pekara                           | 1.57                                                      |      |         |          | 1.57      |          | Elektrokrajina    |
|                             |                                                             | DV 20 kV Šibovska            | 3                | ostali                           | 1.40                                                      |      |         | 1.40     |           |          | Elektrokrajina    |
|                             |                                                             | KO 10 kV Prnjavor 2          | 3                | ostali                           | 0.00                                                      |      |         |          |           |          | Elektrokrajina    |
| TS 110/35/10 kV Doboj 1     | 3.87                                                        | KO 10 kV Prnjavor 1          | 1                | vodovod                          | 3.55                                                      |      |         |          |           |          | Elektrokrajina    |
|                             |                                                             | 10 kV Boljanić               | 3                | Objekti krajnjih kupaca          | 0.43                                                      |      |         |          | 0.43      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Suvo Polje             | 3                | Objekti krajnjih kupaca          | 0.18                                                      |      |         | 0.18     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Željeznička Stanica    | 2                | Objekti javnog saobraćaja        | 0.36                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Pridjel                | 2                | Veliki toplotni izvori           | 0.19                                                      |      |         | 0.19     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Vrtlić                 | 3                | Objekti krajnjih kupaca          | 0.03                                                      |      |         |          | 0.03      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Rječica                | 3                | Objekti krajnjih kupaca          | 0.51                                                      |      |         |          | 0.51      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Lipac                  | 3                | Objekti krajnjih kupaca          | 0.22                                                      |      |         |          |           | 0.22     | Elektro Doboj     |
|                             |                                                             | 25 kV EVP                    | 2                | Objekti javnog saobraćaja        | 1.95                                                      |      |         |          |           |          | Elektro Doboj     |
| TS 110/35/10 kV Doboj 2     | 7.68                                                        | 10 kV Trudbenik - Bare       | 2                | Objekti krajnjih kupaca          | 0.08                                                      |      |         |          |           | 0.08     | Elektro Doboj     |
|                             |                                                             | 10 kV Otpadne vode           | 1                | Objekti vodovoda                 | 0.57                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Bolnica                | 1                | Bolnica                          | 0.42                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Pijeskovi              | 2                | Objekti krajnjih kupaca          | 0.46                                                      |      |         | 0.46     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Sunčana Padina         | 2                | Objekti krajnjih kupaca          | 0.19                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Pijaca                 | 1                | Objekti krajnjih kupaca          | 1.39                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Centar 2               | 1                | Objekti krajnjih kupaca          | 1.45                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Lovac                  | 1                | Dom zdravlja                     | 1.14                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Džungla                | 2                | Objekti krajnjih kupaca          | 1.13                                                      |      |         |          |           | 1.13     | Elektro Doboj     |
|                             |                                                             | 10 kV Usora                  | 2                | Veliki toplotni izvori           | 0.15                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Svjetlića              | 2                | Objekti radija i televizije      | 0.17                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Radnik                 | 2                | Objekti krajnjih kupaca          | 0.52                                                      |      |         | 0.52     |           |          | Elektro Doboj     |
| TS 110/35/10 kV Doboj 3     | 1.47                                                        | 10 kV Industrija             | 1                | Objekti vodovoda                 | 0.26                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Kožuhe                 | 2                | Objekti krajnjih kupaca          | 0.17                                                      |      |         |          |           | 0.17     | Elektro Doboj     |
|                             |                                                             | 10 kV Osječkanske Čivčije    | 3                | Objekti krajnjih kupaca          | 0.30                                                      | 0.30 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Osječani               | 2                | Objekti krajnjih kupaca          | 0.31                                                      |      |         |          | 0.31      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Bušletić               | 3                | Objekti krajnjih kupaca          | 0.12                                                      | 0.12 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Paležnica              | 3                | Objekti krajnjih kupaca          | 0.31                                                      | 0.31 |         |          |           |          | Elektro Doboj     |
|                             |                                                             |                              |                  |                                  |                                                           |      |         |          |           |          |                   |
| TS 110/35/10 kV Modriča 1   | 5.05                                                        | 10 kV Rafinerija 1           | 2                | Pogoni petrohemije               | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Rafinerija 2           | 2                | Pogoni petrohemije               | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Jakeš                  | 3                | Objekti krajnjih kupaca          | 0.88                                                      |      |         | 0.88     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Industrija             | 3                | Objekti krajnjih kupaca          | 0.38                                                      |      |         |          |           | 0.38     | Elektro Doboj     |
|                             |                                                             | 10 kV Miloševac              | 3                | Objekti krajnjih kupaca          | 0.38                                                      |      |         |          | 0.38      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Vodovod                | 1                | Objekti vodovoda                 | 0.21                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Skugrić                | 3                | Objekti krajnjih kupaca          | 0.67                                                      | 0.67 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Modriča 3              | 1                | Objekti krajnjih kupaca          | 0.77                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Modriča 30             | 3                | Objekti krajnjih kupaca          | 1.59                                                      |      |         | 1.59     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Prepumpna              | 1                | Objekti vodovoda                 | 0.17                                                      |      |         |          |           |          | Elektro Doboj     |
| TS 110/35/10 kV Derventa    | 10.42                                                       | 10 kV Modran                 | 3                | Objekti krajnjih kupaca          | 0.17                                                      |      |         | 0.17     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Dubočac                | 3                | Objekti krajnjih kupaca          | 0.86                                                      | 0.86 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Sajmište 1             | 3                | Objekti krajnjih kupaca          | 0.69                                                      |      |         |          | 0.69      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Ukrina                 | 3                | Objekti krajnjih kupaca          | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Obuća                  | 3                | Objekti krajnjih kupaca          | 0.80                                                      |      |         |          |           | 0.80     | Elektro Doboj     |
|                             |                                                             | 10 kV Nova Mehanika          | 3                | Objekti krajnjih kupaca          | 0.17                                                      |      |         |          |           | 0.17     | Elektro Doboj     |
|                             |                                                             | 10 kV Mehanika               | 3                | Objekti krajnjih kupaca          | 0.17                                                      |      |         |          | 0.17      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Unis                   | 3                | Objekti krajnjih kupaca          | 1.38                                                      |      |         | 1.38     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Brod                   | 2                | Objekti krajnjih kupaca          | 0.43                                                      |      |         |          |           | 0.43     | Elektro Doboj     |
|                             |                                                             | 10 kV Kalenderovci           | 3                | Objekti krajnjih kupaca          | 0.69                                                      |      |         | 0.69     |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Kulina                 | 3                | Objekti krajnjih kupaca          | 0.43                                                      |      |         |          | 0.43      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Derventa 1             | 1                | Bolnica                          | 0.65                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Derventa 2             | 2                | Objekti krajnjih kupaca          | 1.56                                                      |      |         |          |           | 1.56     | Elektro Doboj     |
|                             |                                                             | 10 kV Derventa 3             | 2                | Dječije ustanove                 | 1.21                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Derventa 4             | 2                | Objekti krajnjih kupaca          | 1.21                                                      |      |         |          |           | 1.21     | Elektro Doboj     |
| TS 110/35/10/6 kV Brod 1    | 3.14                                                        | 10 kV Kričanovo              | 3                | Objekti krajnjih kupaca          | 0.47                                                      | 0.47 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Derventa               | 2                | Objekti krajnjih kupaca          | 0.35                                                      |      |         |          |           | 0.35     | Elektro Doboj     |
|                             |                                                             | 10 kV Klaonica               | 3                | Objekti krajnjih kupaca          | 0.35                                                      |      |         |          | 0.35      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Grad 2                 | 1                | Objekti vodovoda                 | 0.89                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Industrija             | 2                | Objekti krajnjih kupaca          | 0.10                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 5 x 6 kV Rafinerija          | 2                | Pogoni petrohemije               | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Grad 1                 | 2                | Objekti krajnjih kupaca          | 0.98                                                      |      |         |          |           | 0.98     | Elektro Doboj     |
| TS 110/35/10 kV Teslić      | 8.53                                                        | 10 kV Grad - Kabal           | 1                | Dom zdravlja                     | 1.26                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Grad - Zrak            | 2                | Objekti krajnjih kupaca          | 1.90                                                      |      |         |          | 1.90      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Vodovod                | 2                | Objekti vodovoda                 | 2.33                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Borija 1               | 1                | Objekti krajnjih kupaca          | 0.10                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Čečava                 | 3                | Objekti krajnjih kupaca          | 0.78                                                      |      |         |          | 0.78      |          | Elektro Doboj     |
|                             |                                                             | 10 kV Buletić                | 3                | Objekti krajnjih kupaca          | 1.38                                                      | 1.38 |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Čečava                 | 3                | Objekti krajnjih kupaca          | 0.12                                                      |      |         |          |           |          | Elektro Doboj     |
| TS 110/35/10 kV Šamac       | 0.70                                                        | 10 kV Crkvina 2              | 3                | Objekti krajnjih kupaca          | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Uniglas 1              | 3                | Objekti krajnjih kupaca          | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 10 kV Uniglas 2              | 3                | Objekti krajnjih kupaca          | 0.00                                                      |      |         |          |           |          | Elektro Doboj     |
|                             |                                                             | 25 kV EVP                    | 2                | Objekti javnog saobraćaja        | 0.70                                                      |      |         |          |           |          | Elektro Doboj     |
| TS 110/35/10 kV Bijeljina 1 | 18.11                                                       | KO 10 kV Bolnica             | 2                | SUP                              | 1.64                                                      |      |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Ekonomija           | 3                |                                  | 2.30                                                      | 2.30 |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Janja Stara         | 3                |                                  | 0.66                                                      |      |         |          |           | 0.66     | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Ciglana             | 3                |                                  | 0.99                                                      | 0.99 |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Industrija II       | 2                | Toplotni izvor gradskog grijanja | 1.09                                                      |      |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Centar              | 2                | Dječija ustanova, pošta, telekom | 2.76                                                      |      |         | 2.76     |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 35 kV Bijeljina IV        |                  |                                  | 6.66                                                      |      |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 35 kV Šečerana            |                  |                                  | 2.01                                                      |      |         | 2.01     |           |          | Elektro-Bijeljina |
| TS 110/35/10 kV Bijeljina 2 | 0.45                                                        | KO 35 kV Bijeljina II        |                  |                                  | 0.00                                                      |      |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | transformator 110/20 kV/kV   | 3                |                                  | 0.45                                                      | 0.45 |         |          |           |          | Elektro-Bijeljina |
|                             |                                                             | KO 10 kV Željeznička         | 2                | Dispečerski centar               | 1.74                                                      |      |         |          |           |          | Elektro-Bijeljina |



| Naziv TS                           | Pmax (MW) istovremeno opterećenje 20.02.2013. god. U 13.00h | Izlaz na koji deluje zaštita    | Prioriteti | Vrsta kupca                          | Snaga izlaza Piz (MW) izmjerena 20.02.2013. god. U 13.00h | Stepen delovanja |          |           |          | distribucija             |
|------------------------------------|-------------------------------------------------------------|---------------------------------|------------|--------------------------------------|-----------------------------------------------------------|------------------|----------|-----------|----------|--------------------------|
|                                    |                                                             |                                 |            |                                      |                                                           | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                          |
| TS 110/35/10 kV Bijeljina 3        | 14.63                                                       | KO 10 kV Sava                   | 2          | Prehrambena industrija               | 0.10                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Koviljuša              | 1          | Kanalizacija                         | 0.41                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Mesoprodukt            | 3          |                                      | 0.85                                                      | 0.85             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Dvorovi                |            |                                      | 2.59                                                      |                  | 2.59     |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Ostojićevo             |            |                                      | 2.63                                                      |                  | 2.63     |           |          | Elektro-Bijeljina        |
| TS 110/35/10 kV Janja              | 3.13                                                        | KO 35 kV Bijeljina II           |            |                                      | 6.30                                                      |                  |          |           | 6.30     | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Janja VI               | 3          |                                      | 1.05                                                      |                  | 1.05     |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Janja IV               | 1          | Dom zdravlja                         | 0.59                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV FSP                    | 3          |                                      | 0.50                                                      | 0.50             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Industrija             | 3          |                                      | 0.53                                                      |                  | 0.53     |           |          | Elektro-Bijeljina        |
| TS 110/35 kV RP Ugljevik           | 9.03                                                        | KO 10 kV Glavičice              | 3          |                                      | 0.46                                                      | 0.46             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Bogutovo Selo 1        | 2          | Rudnik                               | 4.00                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Bogutovo Selo 2        | 2          | Rudnik                               | 0.40                                                      |                  |          |           |          | Elektro-Bijeljina        |
| TS 110/35/10 kV Lopare             | 3.31                                                        | KO 35 kV Modran                 | 2          |                                      | 4.63                                                      |                  |          | 4.63      |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 35 kV Čelić                  | 3          | Napaja konzum ED Tuzla               | 1.55                                                      | 1.55             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Šibošnica              | 3          |                                      | 0.31                                                      |                  |          | 0.31      |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Mačkovac               | 3          |                                      | 0.13                                                      |                  | 0.13     |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Tobut                  | 2          | RTV (relej Udrigovo)                 | 0.41                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Gornja Tuzla           | 3          |                                      | 0.12                                                      |                  | 0.12     |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Tvor.radijatora-Termal | 3          |                                      | 0.33                                                      |                  |          | 0.33      |          | Elektro-Bijeljina        |
| TS 110/35 kV Zvornik               | 13.61                                                       | DV 10 kV Lopare                 | 1          | Dom zdravlja                         | 0.46                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 35 kV Karakaj                |            |                                      | 7.31                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 35 kV Zvornik                |            |                                      | 5.55                                                      |                  |          |           | 5.55     | Elektro-Bijeljina        |
| TS 110/35/10 kV Srebrenica         | 8.88                                                        | DV 35 kV Caparde                | 1          | Vodovod                              | 0.75                                                      |                  | 0.75     |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Sase                   | 2          | Rudnik                               | 2.70                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Srebrenica             |            |                                      | 1.30                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Bratunac I             |            |                                      | 3.74                                                      |                  |          |           | 3.74     | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV G.Potočari             | 3          |                                      | 0.07                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Cinkara                | 2          | Metalo – prerađivačka industrija     | 0.58                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Srebrenica             | 3          |                                      | 0.08                                                      | 0.08             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Bratunac               | 2          | Hladnjača                            | 0.23                                                      |                  |          |           |          | Elektro-Bijeljina        |
| TS 110/35/10 kV Vlasenica          | 9.20                                                        | KO 10 kV Feros                  | 3          |                                      | 0.18                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Akumulatori 2          | 2          |                                      | 0.00                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Benzinska stanica      | 2          | SUP                                  | 0.89                                                      |                  |          | 0.89      |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Finali                 | 3          |                                      | 0.00                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Alpro 1                | 2          | Aluminijumska industrija             | 0.55                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 10 kV Alpro 2                | 2          | Aluminijumska industrija             | 0.55                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV Vlasenica II           | 3          |                                      | 0.00                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 10 kV SŠC                    | 1          | Dom zdravlja                         | 0.49                                                      |                  |          | 0.49      |          | Elektro-Bijeljina        |
| TS 110/35/10kV Pale                | 13.33                                                       | DV 10 kV Piskavice              | 3          |                                      | 0.08                                                      | 0.08             |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Gornji Zalukovik       |            |                                      | 2.30                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Šekovići               |            |                                      | 1.93                                                      |                  |          |           | 1.93     | Elektro-Bijeljina        |
|                                    |                                                             | KO 35 kV Milići                 |            |                                      | 2.42                                                      |                  |          |           |          | Elektro-Bijeljina        |
|                                    |                                                             | DV 35kV Jahorina                |            |                                      | 2.05                                                      |                  |          | 2.05      |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Sokolac                 |            |                                      | 3.12                                                      |                  |          |           | 3.12     | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Famos K2                | 2          | kotl., vojna ind.,                   | 2.00                                                      |                  | 2.00     |           |          | Elektrodistribucija Pale |
| TS 110/35/10kV Sokolac             | 4.42                                                        | KO 10kV Pale-Koran              | 3          |                                      |                                                           |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Intal                   | 3          |                                      |                                                           |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Famos K1                | 3          |                                      | 1.34                                                      | 1.34             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Krivače                 | 3          |                                      |                                                           |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 35kV Sokolac                 | 3          |                                      | 0.77                                                      |                  |          |           | 0.77     | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Pilana                  | 3          |                                      | 0.56                                                      |                  | 0.56     |           |          | Elektrodistribucija Pale |
| TS 110/35/10kV Foča                | 6.70                                                        | KO 10kV Stolarija               | 3          |                                      |                                                           |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Kaljina                 | 3          |                                      |                                                           |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Unis                    | 1          | bolnica                              | 0.99                                                      |                  |          | 0.99      |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Auto baza               | 3          |                                      | 0.97                                                      | 0.97             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Buk bijela              | 3          |                                      | 0.69                                                      | 0.69             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Maglić                  | 3          |                                      |                                                           |                  | 0.90     |           |          | Elektrodistribucija Pale |
| TS 400/220/110/35/10kV Sarajevo 20 | 10.33                                                       | DV 10kV Tjentište               | 3          |                                      | 0.90                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Foča                    | 3          |                                      |                                                           |                  |          | 0.91      |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Velečevo                | 3          |                                      | 0.91                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Tabaci                  | 1          | dom zdravlja, telekom,pošta          | 2.10                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Energoinvest            | 2          | stud.dom+ telek.                     |                                                           | 1.30             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Ivanići                 | 3          |                                      | 1.30                                                      |                  |          |           |          | Elektrodistribucija Pale |
| TS 110/35/10kV Rogatica            | 3.12                                                        | KO 10kV Konstruktor             | 1          | bolnica, telekom                     | 2.10                                                      |                  |          |           | 2.10     | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Automatika (Lamela)     | 2          | fakultet, stud. Dom                  | 1.52                                                      |                  | 1.52     |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Mladice                 | 2          | dom penz.,telekom, vod.pumpa         | 1.20                                                      |                  |          | 1.20      |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Višegrad                | 3          |                                      |                                                           | 0.37             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Matino brdo             | 3          |                                      | 0.37                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Pilana sladara          | 3          |                                      | 0.38                                                      |                  |          | 0.38      |          | Elektrodistribucija Pale |
| TS 400/220/110/35/10kV Višegrad    | 5.01                                                        | KO 10kV Rudo                    | 2          | jav.saobr.,policija, obdanište       | 0.44                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 10kV Kozići                  | 3          |                                      | 0.69                                                      |                  | 0.69     |           |          | Elektrodistribucija Pale |
|                                    |                                                             | DV 35kV Rogatica                | 2          | TV relej Lijeska                     | 0.50                                                      | 0.50             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Međeđa                  | 2          | TV relej Mirlovići                   |                                                           |                  | 0.80     |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Župa                    | 3          |                                      | 0.80                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Alhos                   | 3          |                                      | 0.70                                                      |                  |          | 0.70      |          | Elektrodistribucija Pale |
| TS 110/20/10kV Goražde 2           | 0.43                                                        | KO 10kV Socijalno               | 2          | pošta, zavod za ret.djecu, lok.kotl. | 0.84                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 20kV Žica I                  | 3          |                                      | 0.11                                                      |                  |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Grad                    | 3          |                                      | 0.20                                                      |                  |          | 0.20      |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10kV Živojevići              | 3          |                                      |                                                           | 0.05             |          |           |          | Elektrodistribucija Pale |
| TS 110/35/10 kV Trebinje 1         | 6.57                                                        | KO 10kV Čajniče                 | 3          |                                      | 0.05                                                      | 0.05             |          |           |          | Elektrodistribucija Pale |
|                                    |                                                             | KO 10 kV Dom penzionera         | 2          | dom penzionera                       | 0.17                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Stari grad             | 1          | vodovod                              | 0.81                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Hrupjela               | 3          | vodovod                              | 1.14                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Staro streljište       | 3          | krajnji kupci                        | 0.04                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Leotar                 | 2          | repetitor                            | 0.04                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Elektroprivreda        | 2          | elektroprivreda                      | 1.04                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Vinogradi              | 3          | krajnji kupci                        | 1.04                                                      | 1.04             |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Ljubomir-Lastva        | 1          | vodovod                              | 0.04                                                      |                  | 0.04     |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Ind. alata nova        | 3          | krajnji kupci                        | 2.25                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 35 kV TS Trebinje 2          | 3          | krajnji kupci                        | 0.00                                                      |                  |          |           |          | Elektro-Hercegovina      |
| TS 400/220/110/35/10 kV Trebinje   | 1.66                                                        | DV 35 kV Veličani               | 3          | krajnji kupci                        | 0.49                                                      |                  |          | 0.49      |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 35 kV Industrijska zona      | 3          | krajnji kupci                        | 0.73                                                      |                  | 0.73     |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Prostor-Dživar         |            | krajnji kupci                        |                                                           |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Zubci                  | 3          | krajnji kupci                        | 0.45                                                      | 0.45             |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Crnač                  |            | krajnji kupci                        |                                                           |                  |          |           |          | Elektro-Hercegovina      |
| TS 110/35/10 kV Bileća             | 3.08                                                        | DV 10 kV Aleksina Međa          |            | krajnji kupci                        |                                                           |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Baļjci                 | 3          | krajnji kupci                        | 0.09                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Podtuhor               | 3          | krajnji kupci                        | 0.28                                                      |                  |          | 0.28      |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Orah                   | 3          | krajnji kupci                        | 0.05                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | DV 10 kV Vranjska               | 3          | krajnji kupci                        | 0.09                                                      | 0.09             |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Bilećanka2             | 3          | krajnji kupci                        | 0.04                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Grad                   | 2          | prehrana                             | 1.18                                                      |                  |          |           | 1.18     | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Heljdište              | 1          | vodovod                              | 0.66                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Donje Grabovice        | 3          | krajnji kupci                        | 0.38                                                      |                  |          | 0.38      |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Selišta                | 3          | krajnji kupci                        | 0.09                                                      |                  |          |           |          | Elektro-Hercegovina      |
|                                    |                                                             | KO 10 kV Bilećanka1             | 3          | krajnji kupci                        | 0.00                                                      |                  |          |           |          | Elektro-Hercegovina      |

|                        |                                                             |                              |            |               |                                                           | Stepen delovanja |          |           |          |                     |
|------------------------|-------------------------------------------------------------|------------------------------|------------|---------------|-----------------------------------------------------------|------------------|----------|-----------|----------|---------------------|
| Naziv TS               | Pmax (MW) istovremeno opterećenje 20.02.2013. god. U 13.00h | Izlaz na koji deluje zaštita | Prioriteti | Vrsta kupca   | Snaga izlaza Piz (MW) izmjerena 20.02.2013. god. U 13.00h | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) | distribucija        |
| TS 400/110/35 kV Gacko | 5.46                                                        | DV 35 kV Bileća              | 3          | krajnji kupci | 0.24                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             | DV 35 kV Rudnik              | 2          | rudnik        | 2.30                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             | DV 35 kV Gacko               | 3          | krajnji kupci | 3.15                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             |                              |            |               |                                                           |                  |          |           |          |                     |
| TS 110/10 kV Nevesinje | 2.77                                                        | DV 10 kV Jezero              | 1          | vodovod       | 0.09                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             | KO 10 kV Sportska dvorana    | 1          | bolnica       | 0.35                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             | DV 10 kV Luka                | 3          | krajnji kupci | 0.17                                                      |                  |          |           |          | Elektro-Hercegovina |
|                        |                                                             | KO 10 kV Alat                | 3          | krajnji kupci | 0.17                                                      |                  | 0.17     |           |          | Elektro-Hercegovina |
|                        |                                                             | DV 10 kV Kifino selo         | 3          | krajnji kupci | 0.26                                                      |                  |          |           | 0.35     | Elektro-Hercegovina |
|                        |                                                             | DV 10 kV Rast                | 3          | krajnji kupci | 0.61                                                      |                  |          |           | 0.09     | Elektro-Hercegovina |
|                        |                                                             | KO 10 kV Drežanj             | 3          | krajnji kupci | 0.17                                                      |                  |          |           | 0.43     | Elektro-Hercegovina |
|                        |                                                             | KO 10 kV Nevesinje           | 3          | krajnji kupci | 0.69                                                      |                  |          |           | 0.52     | Elektro-Hercegovina |
|                        |                                                             | DV 10 kV Kilavci             | 3          | krajnji kupci | 0.26                                                      |                  | 0.26     |           |          | Elektro-Hercegovina |
|                        |                                                             |                              |            |               |                                                           |                  |          |           |          |                     |
| 444.44                 |                                                             |                              |            |               | 428.07                                                    | 44.46            | 66.66    | 66.67     | 66.67    |                     |
|                        |                                                             |                              |            |               |                                                           | 10.00%           | 15.00%   | 15.00%    | 15.00%   |                     |

## **PRILOG 3**

Automatsko podfrekventno rasterecenje

## **PRILOG 3.1**

Pregled podfrekventnih zastita SN odvoda

# Plan automatskog podfrkventnog rasterećenja - JP Elektroprivreda BiH; 2013. godina

| red. broj: | naziv TS:                  | ugrađen podfrekventni relej? | P <sub>max</sub> [MW] | izlaz na kojeg deluje zaštita:  | stepen djelovanja:  |                      |                       |                      | distribucija: |
|------------|----------------------------|------------------------------|-----------------------|---------------------------------|---------------------|----------------------|-----------------------|----------------------|---------------|
|            |                            |                              |                       |                                 | P <sub>I</sub> [MW] | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 1.         | TS 110/35/10 kV Sarajevo 1 | da                           | 19.04                 | DV 35kV Ilijaš                  | 9.35                |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | DV 35kV Bosanka                 |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Ilidžanski Dijamant     |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Blažuj crkva            |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Lužani 3                |                     | 5.62                 |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Lužani 4                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Lužani 8                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Sokolović Kolonija      |                     |                      |                       |                      | Sarajevo      |
| 2.         | TS 110/35/10 kV Sarajevo 2 | da                           | 8.94                  | KO 10kV Fizijatrija             |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Kupreška                |                     |                      |                       | 5.14                 | Sarajevo      |
|            |                            |                              |                       | KO 10kV Koševsko brdo 7         |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Koševsko naselje 3      |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Koševsko brdo 8         |                     |                      |                       |                      | Sarajevo      |
| 3.         | TS 110/10 kV Sarajevo 4    | da                           | 12.824                | KO 10kV Pandina                 |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV T. Mendeša 5            |                     | 7.21                 |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV T. Mendeša 8            |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Vatrogasni dom          |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Ugorsko (Menjak)        |                     |                      |                       |                      | Sarajevo      |
| 4.         | TS 110/10 kV Sarajevo 5    | da                           | 26.526                | KO 10kV Hotonj (Hotonj 5)       |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A5 - Naselje park               |                     |                      | 9.92                  |                      | Sarajevo      |
|            |                            |                              |                       | A6 - Ciglane 5 / Bolnička 3     |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A7 - Ciglane 3 / Breka 5        |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A8 - Koševo brdo 2              |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A10 - Sutjeska 1                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A16 - Toromanova                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B4 - Patriotske lige 1          |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B6 - Ferhatovića 4              |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B7 - Jukićeva 4                 |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B8 - Nahorevska 1               |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B15 - Dalmatinska               |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Bjelave 2               |                     |                      |                       | 8.15                 | Sarajevo      |
|            |                            |                              |                       | KO 10kV Breka 3                 |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Z. Šarca 1              |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Studentski domovi       |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Breka 11                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Arapova (Nova mahala)   |                     |                      |                       |                      | Sarajevo      |
| 5.         | TS 110/10 kV Sarajevo 7    | da                           | 29.408                | KO 10kV Nikolići (Isovića)      |                     |                      |                       | 14.56                | Sarajevo      |
|            |                            |                              |                       | KO 10kV Nazorova                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A3 - Bihačka                    |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A4 - Podvožnjak 3               |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A8 - Paromlinska 5              |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A9 - Malta                      |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | B8 - Čengić Vila 1/9            |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV EVP 1                   |                     |                      |                       |                      | Sarajevo      |
| 6.         | TS 110/10 kV Sarajevo 8    | da                           | 19.35                 | A4 - Bojnička 2                 |                     |                      |                       | 8.27                 | Sarajevo      |
|            |                            |                              |                       | A6 - Pejton                     |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A7 - Vodovod Pejton             |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A13 (B13) - Džemala Bijedića 5  |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A15 (B15) SFOR 1                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A16 (B16) - Megamix (SFOR 8)    |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A17 (B17) - St.centar Nedžarići |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A18 (B18) - Centrotans          |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A20 (B20) - JKP Rad             |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A22 (B22) - Viza                |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | A27 (B27) - Vranica Stup        |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Dom penzionera          |                     | 3.89                 |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Otes 3                  |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Otes kol. I (Azići 1)   |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Stup 3                  |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Stup. brdo 1            |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Vojničko Polje 9        |                     |                      |                       |                      | Sarajevo      |
|            |                            |                              |                       | KO 10kV Lenjinova 3             |                     |                      |                       |                      | Sarajevo      |



# Plan automatskog podfrkventnog rasterećenja - JP Elektroprivreda BiH; 2013. godina

| red. broj: | naziv TS:                               | ugrađen podfrekventni relej? | P <sub>max</sub> [MW] | izlaz na kojeg deluje zaštita:            | stepen djelovanja:  |                      |                       |                      | distribucija: |
|------------|-----------------------------------------|------------------------------|-----------------------|-------------------------------------------|---------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                         |                              |                       |                                           | P <sub>I</sub> [MW] | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 7.         | TS 110/10 kV Sarajevo 13 <sup>*1)</sup> | da                           | 20.606                | KO 10kV Vraca 2 (Radnička 2)              |                     |                      |                       | 8.66                 | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Kovačići 4                        |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV M. Sokolović (Terezija 2)         |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A3 - Željeznička stanica 2                |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A15 - Dositejeva                          |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A16 - Radnik                              |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A29 (B29) - Marijin dvor 1                |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A30 (B30) - Mazalića 2                    |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | A35 (B35) - Marijin dvor 3 <sup>*1)</sup> |                     |                      |                       |                      | Sarajevo      |
| 8.         | TS 110/10 kV Sarajevo 14                | da                           | 26.666                | KO 10kV Al. Polje 1, 2, 3 (Grawe)         |                     |                      | 16.35                 |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Al. Polje 17, 19, 20              |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Otoka                             |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Mladeni (Višegradska)             |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Č. Vila 1/7                       |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Hepok                             |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Hrasno soliter 18                 |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Hrasno soliter 19                 |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Al. Polje 33, 34, 47              |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV E. Midžica (Tv. Armatura 1)       |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Geoinstitut                       |                     |                      |                       | 2.02                 | Sarajevo      |
| 9.         | TS 110/10 kV Sarajevo 15                | da                           | 16.618                | KO 10kV Dobrinja 1, 6, 11, 12             |                     | 14.28                |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Dobrinja 23, 28                   |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Dobrinja 32, 33, 39               |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Dobrinja 42                       |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Dobrinja 54, 55                   |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Dobrinja 63, 64, 66               |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Krtelj 2 (Krtelj 3)               |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Nedžarići 7 (D. Selo) 8, 10, 12   |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Mojmiro 1, 6, 10                  |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Vojničko Poje 7                   |                     |                      |                       |                      | Sarajevo      |
| 10.        | TS 110/35/10 kV Sarajevo 18             | da                           | 10.56                 | KO 10kV Bjelašnica 4                      | 6.69                |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV B. Potok 2                        |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Sok. Kolonija 11                  |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Hrasnica stadion 3                |                     |                      |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Hrasnica stadion 1                |                     |                      |                       |                      | Sarajevo      |
| 11.        | TS 110/35/10 kV Pazarić                 | da                           | 5.058                 | KO 10kV Pazarić                           |                     | 3.70                 |                       |                      | Sarajevo      |
|            |                                         |                              |                       | KO 10kV Tarčin                            |                     |                      |                       |                      | Sarajevo      |
| 12.        | TS 110/20/10 kV Zenica 3                | da                           | 24.243                | DV 10 kV Babino                           | 3.50                |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 10 kV Nemila                           |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 10 kV Krč                              |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV Dom porodica                     |                     | 5.40                 |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 10 kV Hamida                           |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 10 kV Metalno                          |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV R-12                             |                     |                      | 5.20                  |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV Odmut 2                          |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV R-2                              |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV Babina rijeka A-1                |                     |                      |                       | 4.00                 | Zenica        |
|            |                                         |                              |                       | KO 20 kV Odmut 3                          |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV Grijanje                         |                     |                      |                       |                      | Zenica        |
| 13.        | TS 110/35/10 kV Travnik 1               | da                           | 14.837                | KO 20 kV Šup Bilmište                     |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 10 kV Bila 2 (EP HzHB)                 | 2.00                |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 35 kV Travnik 1 - Travnik              |                     | 1.04                 |                       |                      | Zenica        |
| 14.        | TS 110/35/10 kV Vareš                   | da                           | 2.804                 | DV 10 kV Bila 1 (EP HzHB)                 |                     |                      | 1.00                  |                      | Zenica        |
|            |                                         |                              |                       | KO 10kV Šijakovo (EP HzHB)                | 0.10                |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 10kV Željezara 2                       |                     | 0.60                 |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 10kV Pajtov Han                        |                     |                      | 0.80                  |                      | Zenica        |
|            |                                         |                              |                       | KO 10kV S48                               |                     |                      |                       |                      | Zenica        |
| 15.        | TS 110/20/10 kV Bugojno                 | da                           | 9.889                 | KO 10kV Željezara                         |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 20 kV D.Vakuf 1                        | 1.30                |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 20 kV D.Vakuf 2                        |                     |                      |                       |                      | Zenica        |
|            |                                         |                              |                       | DV 20 kV Gračanica                        |                     | 2.30                 |                       |                      | Zenica        |
|            |                                         |                              |                       | KO 20 kV SFOR                             |                     |                      |                       |                      | Zenica        |

**Plan automatskog podfrkventnog rasterećenja - JP Elektroprivreda BiH; 2013. godina**

| red. broj: | naziv TS:                    | ugrađen podfrekventni relej? | P <sub>max</sub> [MW] | izlaz na kojeg deluje zaštita:                                | stepen djelovanja:  |                      |                       |                      | distribucija:  |
|------------|------------------------------|------------------------------|-----------------------|---------------------------------------------------------------|---------------------|----------------------|-----------------------|----------------------|----------------|
|            |                              |                              |                       |                                                               | P <sub>I</sub> [MW] | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |                |
|            |                              |                              |                       | KO 10 kV Rodić 101                                            |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Rodić 104                                            |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Rodić 105                                            |                     |                      | 0.00                  |                      | Zenica         |
| 16.        | TS 110/35/10 kV Gračanica    | da                           | 14.322                | svi odvođi 10 kV osim odvođa Gračanica 1, Grades i Širbegović | 11.50               |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Grades                                               |                     | 1.00                 |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Širbegović                                           |                     |                      |                       |                      | Tuzla          |
| 17.        | TS 110/35/10 kV Srebrenik    | da                           | 10.588                | svi 10kV odvođi osim Pekara, Ingram i Komunalac               |                     |                      | 7.50                  |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Ingram                                               |                     |                      |                       | 2.80                 | Tuzla          |
|            |                              |                              |                       | DV 10 kV Komunalac                                            |                     |                      |                       |                      | Tuzla          |
| 18.        | TS 110/35/6 kV Đurdevik      | da                           | 13.68                 | DV 35kV Živinice 2                                            |                     |                      |                       | 9.80                 | Tuzla          |
| 19.        | TS 110/35/10 kV Maglaj       | da                           | 7.287                 | DV 10kV Rječica                                               | 0.20                |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10kV Novi Šeher (EP HzHB)                                  |                     | 1.90                 |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10kV Telekomanda                                           |                     |                      | 1.30                  |                      | Zenica         |
| 20.        | TS 220/110/35/10 kV Gradačac | da                           | 15.072                | DV 35kV Kerep                                                 |                     | 6.00                 |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10kV Ledence                                               |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 35kV Gradačac                                              |                     |                      | 8.00                  |                      | Tuzla          |
| 21.        | TS 110/20/10 kV Hadžići      | da                           | 6.567                 | K1 Legno                                                      |                     |                      |                       |                      | Sarajevo       |
|            |                              |                              |                       | K3 DV Grivići                                                 |                     |                      |                       |                      | Sarajevo       |
|            |                              |                              |                       | K5 S.Š.C.                                                     |                     |                      |                       |                      | Sarajevo       |
|            |                              |                              |                       | K11 Oaza                                                      |                     |                      |                       |                      | Sarajevo       |
| 22.        | TS 110/35 kV Goražde 1 *2)   | da (nije u funkciji)         |                       |                                                               |                     |                      |                       |                      | Sarajevo       |
| 23.        | TS 110/35/6 kV Tuzla 5 *2)   | da (nije u funkciji)         |                       |                                                               |                     |                      |                       |                      | Tuzla          |
| 24.        | TS 110/35/6 kV Banovići      | ne                           |                       |                                                               |                     |                      |                       |                      | Tuzla - Zenica |
| 25.        | TS 110/35 kV Lukavac         | da                           | 30.915                | DV 35 kV Dobošnica                                            |                     | 7.50                 |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 35 kV Svatovac                                             |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 35 kV Cementara                                            |                     |                      |                       | 13.00                | Tuzla          |
| 26.        | TS 110/35/10 kV Tuzla Centar | da                           | 42.868                | DV 10 kV Stupine B12                                          |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Zlokovac                                             |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Stara željeznička stanica                            |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Sjenjak 5                                            |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Stupine B3/3                                         |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Stupine B5/6                                         |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Ši selo                                              |                     |                      |                       |                      | Tuzla          |
|            |                              |                              |                       | DV 10 kV Pivara nova                                          |                     |                      | 11.00                 |                      | Tuzla          |
| 27.        | TS 110/35 kV Kladanj         | ne                           |                       |                                                               |                     |                      |                       |                      | Tuzla          |
| 28.        | TS 110/35/10 kV Breza        | da                           | 13.979                | DV 10 kV Bukovik                                              | 0.80                |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Založje                                              |                     | 0.90                 |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Smailbegovići                                        |                     |                      | 1.40                  |                      | Zenica         |
| 29.        | TS 110/35/10 kV Tešanj       | da                           | 16.166                | DV 10 kV Srpska Varoš                                         | 2.80                |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Tešanj, zračni                                       |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10kV Krndija                                               |                     | 1.60                 |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Univerzal                                            |                     |                      | 0.80                  |                      | Zenica         |
| 30.        | TS 110/35 kV Zenica 1        | ne                           |                       |                                                               |                     |                      |                       |                      | Zenica         |
| 31.        | TS 110/35/20 kV Zenica 4     | da                           | 14.471                | KO 20 kV Zenicatrans                                          | 1.60                |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 20 kV Blatuša                                              |                     | 3.10                 |                       |                      | Zenica         |
|            |                              |                              |                       | KO 20 kV Preporod                                             |                     |                      | 2.00                  |                      | Zenica         |
| 32.        | TS 110/35/10 kV Zavidovići   | da                           | 18.724                | DV 10 kV Čumurana                                             |                     | 2.70                 |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Žišci                                                |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Brankovići                                           |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV RP Ekonomija                                         |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Zavidovići 35                                        |                     | 3.00                 |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Dolina                                               |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV RP Vodovod                                           |                     |                      | 2.00                  |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV TMK (Krivaja 2)                                      |                     |                      |                       |                      | Zenica         |
|            |                              |                              |                       | KO 10 kV Krivaja 1                                            |                     |                      |                       | 0.30                 | Zenica         |
|            |                              |                              |                       | DV 10 kV Topuzovo polje                                       | 2.10                |                      |                       |                      | Zenica         |
|            |                              |                              |                       | DV 10 kV Moštre 1                                             |                     |                      |                       |                      | Zenica         |

**Plan automatskog podfrkventnog rasterećenja - JP Elektroprivreda BiH; 2013. godina**

| red. broj: | naziv TS:                     | ugrađen podfrekventni relej? | P <sub>max</sub> [MW] | izlaz na kojeg deluje zaštita: | stepen djelovanja:  |                      |                       |                      | distribucija: |
|------------|-------------------------------|------------------------------|-----------------------|--------------------------------|---------------------|----------------------|-----------------------|----------------------|---------------|
|            |                               |                              |                       |                                | P <sub>I</sub> [MW] | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
| 33.        | TS 110/35/10 kV Visoko        | da                           | 19.096                | DV 10 kV Armutovići            |                     | 2.10                 |                       |                      | Zenica        |
|            |                               |                              |                       | DV 10 kV Moštre 2              |                     |                      | 2.50                  |                      | Zenica        |
|            |                               |                              |                       | KO 10 kV Kovina                |                     |                      |                       |                      | Zenica        |
| 34.        | TS 110/20 kV Donji Vakuf      | da                           | 2.819                 | KO 20 kV Bugojno 1             | 0.27                |                      |                       |                      | Zenica        |
|            |                               |                              |                       | KO 20 kV Prusac                |                     | 0.23                 |                       |                      | Zenica        |
| 35.        | TS 110/20/10 kV Travnik 2     | da                           | 7.371                 | KO 10 kV Željeznička stanica   | 1.80                |                      |                       |                      | Zenica        |
|            |                               |                              |                       | KO 10 kV Enterijeri            |                     | 0.70                 |                       |                      | Zenica        |
|            |                               |                              |                       | KO 10 kV SRC                   |                     |                      |                       |                      | Zenica        |
|            |                               |                              |                       | KO 10 kV Škola                 |                     |                      | 2.00                  |                      | Zenica        |
| 36.        | TS 110/35/10 kV Cementara     | ne                           |                       |                                |                     |                      |                       |                      | Zenica        |
| 37.        | TS 110/35/10 kV Konjic        | da                           | 7.531                 | KO 10 kV Rudar                 | 1.18                |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Donje Selo            |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Sportski centar       |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Radava                |                     | 0.86                 |                       |                      | Mostar        |
|            |                               |                              |                       | DV 35 kV Jablanica             |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | DV 35 kV Musla                 |                     |                      |                       | 2.10                 | Mostar        |
| 38.        | TS 110/35/10 kV Jablanica *3) | ne                           |                       | DV 35 kV Trbića Polje          |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       |                                |                     |                      |                       |                      |               |
|            |                               |                              |                       |                                |                     |                      |                       |                      |               |
|            |                               |                              |                       |                                |                     |                      |                       |                      |               |
|            |                               |                              |                       |                                |                     |                      |                       |                      |               |
|            |                               |                              |                       |                                |                     |                      |                       |                      |               |
| 39.        | TS 110/35/10 kV Mostar 2      | da                           | 22.972                | KO 10 kV Autoprevoz            | 1.90                |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Zlatka Vuković        |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Sokara                |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Podveležje            |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV El Tarik Oil          |                     | 3.70                 |                       |                      | Mostar        |
|            |                               |                              |                       | DV 35 kV Blagaj                |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Opine III - Komos     |                     |                      | 2.10                  |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Opine I               |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | KO 10 kV Južni Logor           |                     |                      |                       | 3.10                 | Mostar        |
|            |                               |                              |                       | KO 10 kV Pampa Opine           |                     |                      |                       |                      | Mostar        |
| 40.        | TS 220/110/35/10 kV Bihać 1   | da                           | 12.324                | KO 10 kV Donja Mahala II       |                     |                      |                       |                      | Mostar        |
|            |                               |                              |                       | DV 10kV Pokoj                  | 3.10                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10kV Kralje                 |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10 kV Kombiteks 1, 2        |                     | 0.30                 |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10 kV Gorenje 1, 2          |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10kV DIP 4. nov.            |                     |                      | 2.70                  |                      | Bihać         |
| 41.        | TS 110/20 kV Bihać 2          | da                           | 8.724                 | DV 35kV Žitoprerada            |                     |                      |                       | 2.50                 | Bihać         |
|            |                               |                              |                       | KO 20 kV Ceravci               | 0.55                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10kV Ozimice 1              |                     | 1.40                 |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10kV Žegar                  |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 20kV Ozimice 2              |                     |                      |                       | 1.48                 | Bihać         |
|            |                               |                              |                       | DV 10kV Vedro Polje            |                     |                      |                       |                      | Bihać         |
| 42.        | TS 110/35/10 kV B. Krupa      | da                           | 5.814                 | KO 10kV Jasenica               | 0.60                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10 kV Bosna vozila          |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10kV Otoka                  |                     | 1.91                 |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10kV Grad                   |                     |                      | 0.73                  |                      | Bihać         |
|            |                               |                              |                       | KO 10kV RMK                    |                     |                      |                       | 0.56                 | Bihać         |
| 43.        | TS 110/35/10 kV B. Petrovac   | ne                           |                       |                                |                     |                      |                       |                      | Bihać         |
| 44.        | TS 110/35/10 kV Cazin 1       | da                           | 16.782                | DV 10kV Slatina                | 3.50                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10kV Koprivna               |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10kV Mala Lisa              |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10kV Hasan Brkić            |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10 kV Čuprija               |                     | 2.00                 |                       |                      | Bihać         |
|            |                               |                              |                       | DV 35 kV Incel                 |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10kV RP Čoralići            |                     |                      |                       |                      | Bihać         |
| 45.        | TS 110/20/10 kV Cazin 2       | da                           | 4.013                 | DV 10 kV RP Gnjilavac          |                     |                      | 4.70                  |                      | Bihać         |
|            |                               |                              |                       | KO 10kV Tržac 2                | 1.03                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 20kV Crnaja                 |                     | 0.63                 |                       |                      | Bihać         |
|            |                               |                              |                       | DV 20kV Gata                   |                     |                      | 0.21                  |                      | Bihać         |
| 46.        | TS 110/20/10 kV Ključ         | da                           | 5.021                 | DV 20 kV Rejzovići             | 0.10                |                      |                       |                      | Bihać         |
|            |                               |                              |                       | KO 10 kV Autoservis            |                     | 0.40                 |                       |                      | Bihać         |
|            |                               |                              |                       | DV 20 kV Previša               |                     |                      |                       |                      | Bihać         |
|            |                               |                              |                       | DV 10 kV Velagići              |                     |                      | 1.40                  |                      | Bihać         |

## Plan automatskog podfrkventnog rasterećenja - JP Elektroprivreda BiH; 2013. godina

| red. broj: | naziv TS:                      | ugrađen podfrekventni relej? | P <sub>max</sub> [MW] | izlaz na kojeg deluje zaštita: | stepen djelovanja:  |                      |                       |                      | distribucija: |
|------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------|----------------------|-----------------------|----------------------|---------------|
|            |                                |                              |                       |                                | P <sub>I</sub> [MW] | P <sub>II</sub> [MW] | P <sub>III</sub> [MW] | P <sub>IV</sub> [MW] |               |
|            |                                |                              |                       | DV 20 kV Sanica                |                     |                      |                       | 0.90                 | Bihać         |
| 47.        | TS 110/20/10 kV Sanski Most    | da                           | 11.14                 | DV 20kV Podvidača              | 0.70                |                      |                       |                      | Bihać         |
|            |                                |                              |                       | KO 20kV Oštra Luka             |                     | 1.40                 |                       |                      | Bihać         |
|            |                                |                              |                       | DV 20 kV Dabar                 |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10 kV Lušci Palanka         |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | KO 20kV Pekara                 |                     |                      | 2.10                  |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Krečana                |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Kamengrad              |                     |                      |                       | 2.80                 | Bihać         |
|            |                                |                              |                       | KO 10 kV Banka                 |                     |                      |                       |                      | Bihać         |
| 48.        | TS 110/35/10 kV Velika Kladuša | da                           | 9.864                 | DV 10kV Rudnik                 | 1.26                |                      |                       |                      | Bihać         |
|            |                                |                              |                       | KO 10kV Tvor. metal. namješt.  |                     | 0.68                 |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Trnovi                 |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Polje - Podzvizd       |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10 kV TPA                   |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Tvor. stočne hrane     |                     |                      | 2.31                  |                      | Bihać         |
| 49.        | TS 110/35/10 kV Vrnograč       | da                           | 7.524                 | KO 10kV Grad                   |                     |                      |                       | 4.20                 | Bihać         |
|            |                                |                              |                       | DV 10kV Sela Bojna             | 0.33                |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10 kV Sela Golubovići       |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Hajrat                 |                     | 1.18                 |                       |                      | Bihać         |
|            |                                |                              |                       | DV 10kV Grad                   |                     |                      |                       | 0.79                 | Bihać         |
|            |                                |                              |                       | DV 10 kV Industrija Bojna      |                     |                      |                       |                      | Bihać         |
|            |                                |                              |                       | KO 10kV Saniteks               |                     |                      |                       |                      | Bihać         |

**\*1):** U naznačeni iznos od 8,66MW nije uključena snaga odvoda "A35 (B35) - Marijin dvor 3", obzirom da je na ovom odvodu konstatovano neispravno mjerenje

**\*2):** Zbog specifičnosti svog položaja, TS neće biti u sistemu podfrekventne zaštite

**\*3):** Trenutna konfiguracija zaštitno upravljačkog terminala u TS ne podržava funkciju podfrekventne zaštite

## Plan automatskog podfrkventnog rasterećenja; EP HZHB 2013. godina

| Naziv TS                               | Ima li relej pfr | Pmax (MW) | Izlaz na koji deluje zaštita     | stepen djelovanja |          |           |          | elektroprivreda | distribucija | REALIZACIJA |
|----------------------------------------|------------------|-----------|----------------------------------|-------------------|----------|-----------|----------|-----------------|--------------|-------------|
|                                        |                  |           |                                  | PI (MW)           | PII (MW) | PIII (MW) | PIV (MW) |                 |              |             |
| TS 110/10 kV Neum                      | da               | 2.616     | DV 10 kV Bregovi 1               | 0.13              |          |           |          | EP HZHB         | NHŽ          | da          |
|                                        |                  |           | DV 10 kV Jazine                  | 0.14              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Bregovi 2, Stare zidine |                   | 0.34     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Hotel Neum              |                   |          | 0.20      |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Centralni Neum          |                   |          |           | 0.12     |                 |              | da          |
| TS 110/10 kV Čapljina                  | da               | 14.256    | DV 10 kV Domanovići              | 1.81              |          |           |          | EP HZHB         | NHŽ          | da          |
|                                        |                  |           | DV 10 kV Gabela                  |                   | 1.82     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Višići                  |                   |          | 1.61      |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Bulevar                 |                   |          |           | 2.00     |                 |              | da          |
| TS 110/35/10 kV Stolac                 | da               | 6.100     | DV 10 kV Stolac 1                | 0.02              |          |           |          | EP HZHB         | NHŽ          | da          |
|                                        |                  |           | DV 10 kV RMK                     | 0.01              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Burmazi                 |                   | 0.12     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Vidovo Polje            |                   | 0.31     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Stolac 2                |                   |          | 0.53      |          |                 |              | da          |
| TS 110/10 kV Čitluk                    | da               | 20.448    | DV 10 kV Stolac 3                |                   |          |           | 0.20     | EP HZHB         | NHŽ          | da          |
|                                        |                  |           | DV 10 kV Žitomislić              | 0.18              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Gradinići               | 1.21              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Služanj                 |                   | 1.63     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Međugorje               |                   |          | 2.56      |          |                 |              | da          |
| TS 110/35/10 kV Ljubuški               | da               | 20.716    | DV 10 kV Blatnica                |                   |          |           | 2.08     | EP HZHB         | ZHŽ          | da          |
|                                        |                  |           | DV 10 kV Orah                    |                   | 2.12     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Greda                   |                   | 0.47     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Veljaci                 |                   |          | 1.07      |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Studenci                |                   |          | 1.72      |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Proboj                  |                   |          |           | 1.84     |                 |              | da          |
|                                        |                  |           | DV 10 kV Unis                    |                   |          |           | 0.03     |                 |              | da          |
|                                        |                  |           | DV 10 kV Obilaznica              | 1.16              |          |           |          |                 |              | da          |
| TS 110/20/10 kV Mostar 5 <sup>13</sup> | da/nije u f-ji   | 8.144     | DV 10 kV Famos                   | 0.35              |          |           |          | EP HZHB         | NHŽ          | ne          |
|                                        |                  |           | DV 10 kV Mijakovići              |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Jurum                   |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Montaža zrakoplova      |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Frabare                 |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Transmisije             |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Šipad Luka              |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Mik                     |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV AX Soling               |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Merkur                  |                   |          |           |          |                 |              | ne          |
| TS 110/35/10 kV Mostar 6 <sup>13</sup> | da/nije u f-ji   | 22.416    | DV 10 kV Heliodrom               |                   |          |           |          | EP HZHB         | NHŽ          | ne          |
|                                        |                  |           | DV 10 kV Kruševo                 |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Šipad 2                 |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Cim - Goranci           |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Raštani                 |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Vihovići                |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Rudnik crpka            |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Stambena zadruga        |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Vukovarska              |                   |          |           |          |                 |              | ne          |
| TS 110/10 kV Mostar 7 <sup>13</sup>    | da/nije u f-ji   | 18.048    | DV 10 kV Centar 8 (Splitska 1)   |                   |          |           |          | EP HZHB         | NHŽ          | ne          |
|                                        |                  |           | DV 10 kV Auto Moto               |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Rudnik kolonija         |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Zvijezda 3              |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Vukodol                 |                   |          |           |          |                 |              | ne          |
|                                        |                  |           | DV 10 kV Ilička 2                |                   |          |           |          |                 |              | ne          |
| TS 110/10 kV Široki Brijeg             | da               | 17.808    | DV 10 kV Ciglanja 2              |                   |          |           |          | EP HZHB         | ZHŽ          | da          |
|                                        |                  |           | DV 10 kV Panjevin                |                   |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Trg T. Mišića           |                   |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Strelčevina             |                   |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Dužice                  | 1.04              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Rasno                   |                   | 1.33     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Gradac                  |                   | 0.76     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Crnač                   |                   | 0.46     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Trn                     |                   |          | 1.46      |          |                 |              | da          |
| TS 110/35/10 kV Tomislavgrad           | da               | 11.212    | DV 10 kV Lišto                   |                   |          | 1.00      |          | EP HZHB         | HBŽ          | da          |
|                                        |                  |           | DV 10 kV Ljuti Dolac             |                   |          |           | 2.36     |                 |              | da          |
|                                        |                  |           | DV 10 kV Stadion                 |                   |          |           | 1.44     |                 |              | da          |
|                                        |                  |           | DV 10 kV Jošanica                | 1.38              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Eminovo selo            |                   | 1.08     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Grad II                 |                   | 0.71     |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Sujica                  |                   |          | 0.83      |          |                 |              | da          |
| TS 110/35/10 kV Orašje                 | ne               | 14.608    | DV 10 kV Latice                  |                   |          | 0.63      |          | EP HZHB         | PŽ           | da          |
|                                        |                  |           | DV 10 kV Zelići                  |                   |          |           | 0.43     |                 |              | da          |
|                                        |                  |           | DV 10 kV Kolo-Čavarov stan       |                   |          |           | 1.38     |                 |              | da          |
|                                        |                  |           | DV 10 kV Žižkuše                 | 1.68              |          |           |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Bila                    |                   | 1.06     |           |          |                 |              | da          |
| TS 110/35/10 kV Livno                  | da               | 14.304    | DV 10 kV Pilana                  |                   | 0.92     |           |          | EP HZHB         | HBŽ          | da          |
|                                        |                  |           | DV 10 kV Matin pod               |                   | 0.32     |           |          |                 |              | da          |
|                                        |                  |           | DV 35 kV Peruća                  |                   |          | 0         |          |                 |              | da          |
|                                        |                  |           | DV 10 kV Tušnica                 |                   |          |           | 1.23     |                 |              | da          |
|                                        |                  |           | DV 10 kV Dobro                   |                   |          |           | 0.53     |                 |              | da          |
|                                        |                  |           | DV 10 kV Drvar                   |                   |          |           |          |                 |              | da          |
| TS 110/35/10 kV Drvar                  | ne               | 2.324     |                                  |                   |          |           |          | EP HZHB         | HBŽ          |             |
| TS 110/10 kV B. Grahovo                | ne               | 0.576     |                                  |                   |          |           |          | EP HZHB         | HBŽ          |             |

# Plan automatskog podfrkventnog rasterećenja - *Distrikt Brčko 2013. godina*

| Naziv TS                | Ima li relej pfr | Pmax<br>31.12.2012. u<br>18:00 h | Pmax<br>20.02.2013. u<br>19:00 h | Izlaz                   | Pmax<br>31.12.2012 u<br>18:00 h | P (MW) dana<br>20.02.2013. u<br>19:00 h | Q (MVA) dana<br>20.02.2013. u<br>19:00 h | Djeluje<br>podvrekventna<br>zaštita (DA/NE) | P <sub>I</sub> |        | P <sub>II</sub> |       | P <sub>III</sub> |        | P <sub>IV</sub> |        |
|-------------------------|------------------|----------------------------------|----------------------------------|-------------------------|---------------------------------|-----------------------------------------|------------------------------------------|---------------------------------------------|----------------|--------|-----------------|-------|------------------|--------|-----------------|--------|
|                         |                  |                                  |                                  |                         |                                 |                                         |                                          |                                             | (MW)           | (%)    | (MW)            | (%)   | (MW)             | (%)    | (MW)            | (%)    |
| TS 110/10/35 kV Brčko 1 | DA               | 32.364                           | 25.9                             | DV 35 kV Seonjac1       | 5.94547923                      | 4.758                                   | 1.388                                    | DA                                          |                |        | 5.95            | 18.37 |                  |        |                 |        |
|                         | DA               |                                  |                                  | DV 35 kV Krepšić        | 2.18675676                      | 1.75                                    | 0.506                                    | DA                                          |                |        | 2.19            | 6.757 |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 35 kV Rijeke         | 10.9550266                      | 8.767                                   | 2.206                                    | DA                                          |                |        |                 |       | 10.96            | 33.85  |                 |        |
|                         | DA               |                                  |                                  | KO 35 kV Brčko III      | 10.7088602                      | 8.57                                    | 2.017                                    | DA                                          |                |        |                 |       |                  |        | 10.71           | 33.09  |
|                         | DA               |                                  |                                  | DV 35 kV Brčko 2        |                                 | nije u funkciji                         | nije u funkciji                          | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10kV Lipovac         | 1.1733512                       | 0.939                                   | 0.223                                    | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10kV Brka            | 1.25082486                      | 1.001                                   | 0.29                                     | DA                                          |                |        | 1.25            | 3.86  |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10kV McGowern 1      | 0.08871985                      | 0.071                                   | 0                                        | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10kV McGowern 2      |                                 | nije u funkciji                         | nije u funkciji                          | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | 35 kV Trafo ćelija TR 1 | 8.19971305                      | 6.562                                   | 1.888                                    | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | 10 kV Trafo ćelija TR 1 | 2.46666162                      | 1.974                                   | 0.519                                    | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | 35 kV Trafo ćelija TR 2 | 21.6801313                      | 17.35                                   | 4.216                                    | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | 10 kV Trafo ćelija TR 2 |                                 | isključen                               | isključen                                | NE                                          |                |        |                 |       |                  |        |                 |        |
| TS 110/35/10 kV Brčko 2 | DA               | 28.688                           | 24.1                             | DV 35 kV Brčko I-A      | 8.570689                        | 7.2                                     | 2.1                                      | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | DV 35 kV Brčko I-B      | 8.690                           | 7.3                                     | 2.1                                      | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | DV 35 kV Rijeke         | 0.000                           | 0                                       | 0                                        | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | NE               |                                  |                                  | KO 35 kV Gornji Rahlč   | 4.047                           | 3.4                                     | 0.2                                      | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | DV 35 kV Brčko 1        |                                 | nije u funkciji                         | nije u funkciji                          | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | DV 10 kV Potočari       | 1.6308116                       | 1.37                                    | 0.46                                     | DA                                          | 6.083          | 21.20  |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10 kV Grčica         | 2.9521261                       | 2.48                                    | 0.42                                     | DA                                          |                |        |                 |       |                  |        |                 |        |
|                         | DA               |                                  |                                  | KO 10 kV Dizdaruša      | 1.4998705                       | 1.26                                    | 0.35                                     | DA                                          |                |        |                 |       |                  |        |                 |        |
|                         | NE               |                                  |                                  | 35 kV Trafo ćelija TR 1 | 13.3321826                      | 11.2                                    | 2.2                                      | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | NE               |                                  |                                  | 10 kV Trafo ćelija TR 1 | 6.4280166                       | 5.4                                     | 1.1                                      | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | NE               |                                  |                                  | 35 kV Trafo ćelija TR 2 | 8.92780083                      | 7.5                                     | nema podatak                             | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         | NE               |                                  |                                  | 10 kV Trafo ćelija TR 2 |                                 | isključeno                              | isključeno                               | NE                                          |                |        |                 |       |                  |        |                 |        |
|                         |                  |                                  |                                  |                         |                                 |                                         |                                          |                                             |                |        |                 |       |                  |        |                 |        |
| UKUPNO                  |                  | 61.052                           | 50.0                             |                         |                                 |                                         |                                          |                                             | 6.0828         | 9.9633 | 9.38            | 15.37 | 10.955           | 17.944 | 10.709          | 17.541 |

## Napomena:

- U TS Brčko 1 aktivirati predložene podvrekventne zaštite a u TS Brčko 2 aktivirati prvi stepen podvrekventne zaštite na predloženim odvodima
- U skladu sa dopisom Elektroprenos BiH / OP Tuzla od 21.05.2013. god., ovako su podešene podvrekventne zaštite u TS Brčko 1 i Brčko 2.

$$P_I + P_{II} + P_{III} + P_{IV} = 37.13 \text{ MW} \quad 37.13$$

$$P_I + P_{II} + P_{III} + P_{IV} = 60.815 \text{ \%}$$

| Naziv TS                              | Ima li relej pfr      | Pmax (MW) | Pmax (MW)<br>31.12.2012. u<br>18:00h | Izlaz na koji deluje zaštita | Snaga izlaza Piz (MW)<br>izmjerena 20.02.2013. u<br>13,00h | Snaga izlaza Piz (MW)<br>izmjerena 31.12.2012. u<br>18,00h | Prioriteti | Vrsta kupca                                 | stepen delovanja |          |           |          | elektroprivreda | distribucija |        |        |
|---------------------------------------|-----------------------|-----------|--------------------------------------|------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------|---------------------------------------------|------------------|----------|-----------|----------|-----------------|--------------|--------|--------|
|                                       |                       |           |                                      |                              |                                                            |                                                            |            |                                             | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                 |              |        |        |
| TS 110/35/10kV Pale                   | da                    | 13.325    | 16.992                               | DV 35kV Jahorina             | 2.05                                                       | 2.62                                                       |            |                                             | 2.615            |          |           |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | DV 35kV Sokolac              | 3.12                                                       | 3.98                                                       |            |                                             |                  | 3.984    |           |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | DV 35kV Koran                | 1.21                                                       | 1.54                                                       | 1          | vod.+stud.dom                               |                  |          |           |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Famos K2             | 1.58                                                       | 2.01                                                       | 2          | kotl., vojna ind.,                          |                  |          |           | 2.008    | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Intal                | 0.47                                                       | 0.60                                                       | 3          |                                             |                  |          | 0.604     |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Kompes               | 1.00                                                       | 1.27                                                       | 2          | stud.dom                                    |                  |          |           | 1.270    | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Famos K1             | 0.07                                                       | 0.09                                                       | 3          |                                             |                  |          | 0.089     |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | DV 10kV Krivače              | 0.51                                                       | 0.65                                                       | 3          |                                             |                  |          | 0.650     |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Šip pilana           | 1.76                                                       | 2.24                                                       | 1          | dom.zdr.,kotl., CJB<br>tel.,pošta,st.dom... |                  |          |           |          | ERS             | EDPale       |        |        |
|                                       |                       |           |                                      | KO 10kV Pale grad 3          | 1.13                                                       | 1.44                                                       | 3          |                                             |                  | 1.442    |           |          | ERS             | EDPale       |        |        |
| TS 110/35/10kV Sokolac                | da                    | 4.423     | 5.396                                | KO 10kV Pale-Koran           | 0.42                                                       | 0.54                                                       | 3          |                                             |                  |          |           | 0.539    |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 35kV Sokolac              | 0.77                                                       | 0.94                                                       | 3          |                                             |                  |          | 0.943     |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 10kV Pilana               | 0.37                                                       | 0.46                                                       | 3          |                                             |                  | 0.456    |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 10kV Stolarija            | 0.09                                                       | 0.11                                                       | 3          |                                             |                  | 0.110    |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 10kV Iverica              | 0.00                                                       | 0.00                                                       | 3          |                                             |                  | 0.000    |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 10kV Unis                 | 0.99                                                       | 1.21                                                       | 1          | bolnica                                     |                  |          |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | KO 10kV Auto baza            | 0.97                                                       | 1.18                                                       | 3          |                                             |                  |          |           | 1.185    |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 10kV Kaljina              | 0.05                                                       | 0.05                                                       | 3          |                                             |                  |          |           | 0.055    |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 10kV Novo selo            | 0.38                                                       | 0.46                                                       | 1          | vodovod pump.stan.                          |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Bare                 | 0.80                                                       | 0.97                                                       | 1          | dom zdr.,obdanište                          |                  |          |           |          |                 |              | ERS    | EDPale |
| TS 110/35/10kV Foča                   | da                    | 6.696     | 8.424                                | DV 35kV Foča                 | 2.70                                                       | 3.40                                                       | 1          | bolnica                                     |                  |          |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 35kV Buk bijela           | 0.55                                                       | 0.69                                                       | 3          |                                             | 0.693            |          |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 35kV Maglić               | 0.29                                                       | 0.37                                                       | 3          |                                             | 0.367            |          |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 10kV Foča                 | 0.00                                                       | 0.00                                                       | 3          |                                             |                  | 0.000    |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 10kV Tjentište            | 0.31                                                       | 0.39                                                       | 3          |                                             |                  | 0.390    |           |          |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 10kV Tabaci               | 2.10                                                       | 2.65                                                       | 1          | dom zdravlja, telekom,pošta                 |                  |          |           |          |                 |              | ERS    | EDPale |
| TS 400/220/110/35/10kV<br>Sarajevo 20 | da/nije u<br>funkciji | 10.327    | 22.253                               | DV 10kV Velečevu             | 0.69                                                       | 0.86                                                       | 3          |                                             |                  |          |           | 0.864    |                 | ERS          | EDPale |        |
|                                       |                       |           |                                      | DV 35kV Energoinvest         | 0.23                                                       | 0.50                                                       | 2          | stud.dom+ telek.                            |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 35kV Bogatići             | -3.52                                                      | -7.59                                                      | 3          |                                             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Ivanići              | 0.39                                                       | 0.83                                                       | 3          |                                             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Ozrenska             | 1.74                                                       | 3.75                                                       | 1          | poliç.,telekom,<br>stud.dom,pošta           |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Jaslice              | 2.20                                                       | 4.74                                                       | 1          | dom zdr.,kotl.,RTV<br>pošta,polic.,SIPA     |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Tilava               | 0.95                                                       | 2.05                                                       | 1          | vodovod                                     |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Vlastita potrošnja   | 0.01                                                       | 0.02                                                       | 3          |                                             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Konstruktor          | 2.10                                                       | 4.53                                                       | 1          | bolnica, telekom                            |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | KO 10kV Automatika (Lamela)  | 1.52                                                       | 3.28                                                       | 2          | fakultet, stud. Dom                         |                  |          |           |          |                 |              | ERS    | EDPale |
| TS 110/35/10kV Rogatica               | ne                    | 3.117     | 3.796                                | KO 10kV Mladice              | 1.20                                                       | 2.59                                                       | 2          | dom penz.,telekom,<br>vod.pumpa             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 35kV Višegrad             | 0.17                                                       | 0.21                                                       | 3          |                                             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 35kV Mesići               | -2.70                                                      | -3.29                                                      | 3          |                                             |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 10kV Silos                | 0.80                                                       | 0.97                                                       | 1          | dom zdr. telek.,pošta                       |                  |          |           |          |                 |              | ERS    | EDPale |
|                                       |                       |           |                                      | DV 10kV Pilana sladara       | 0.31                                                       | 0.38                                                       |            |                                             |                  |          |           |          |                 |              |        |        |

|                        |                               |       |       |                                     |                                 |       |       |                                    |     |        |  |  |     |        |        |        |
|------------------------|-------------------------------|-------|-------|-------------------------------------|---------------------------------|-------|-------|------------------------------------|-----|--------|--|--|-----|--------|--------|--------|
| TS 110/20/10kV 2       | Goražde                       | ne    | 0.425 | 0.784                               | KO 20kV TS 35/20/10 kV Kopači   | 0.00  | 0.00  | 3                                  |     |        |  |  |     |        | ERS    | EDPale |
|                        |                               |       |       |                                     | KO 20kV Elektrane (MHE Sućeska) | -1.59 | -2.93 | 3                                  |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       |                                     | KO 10kV Grad                    | 0.28  | 0.51  | 3                                  |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       |                                     | KO 10kV Živojevići              | 0.04  | 0.07  | 3                                  |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       |                                     | KO 10kV Čajniče                 | 0.00  | 0.00  | 3                                  |     |        |  |  |     | ERS    | EDPale |        |
| TS 35/10kV Buk bijela  | isklj. U TS 110/35/10 kV Foča | 0.330 |       | TS 110/35/10 kV Foča                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Naselje                     | 0.04                            | 0.04  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Čelikovo polje              | 0.03                            | 0.03  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | Transfr. vlast. potr.               | 0.02                            | 0.02  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Kompresorska                | 0.02                            | 0.02  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| DV 10kV Tjentište      | 0.22                          | 0.22  | 2     | telekom+ pošta                      |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
| TS 35/10kV Foča        |                               | 1.52  |       | TS 110/35/10 kV Foča                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Bolnica                     | 0.68                            | 0.68  | 1     | bolnica+ stud.dom                  |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Duvanska                    | 0.49                            | 0.49  | 2     | zatvor                             |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Centar                      | 0.35                            | 0.35  | 2     | obdanište                          |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Miljevina   |                               | 0.656 |       | TS 110/35/10 kV Foča                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | KO 10kV Mermerana                   | 0.04                            | 0.04  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Budanj (Kozja Luka)         | 0.03                            | 0.03  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | Transf.35/10kV rudnik uglja         | 0.21                            | 0.21  | 2     | rudnik uglja                       |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Naselje (Kalinovik)         | 0.37                            | 0.37  | 1     | telek.,pošt.MUP, ambulanta         |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Jažići      |                               | 0.548 |       | TS 400/220/110/35/10 kV Sarajevo 20 |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Miljevina - rezerva     |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Dobro polje             |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Kalinovik                   | 0.43                            | 0.43  | 1     | dom zdr., policija                 |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Ulog                        | 0.06                            | 0.06  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Jažići pilana               | 0.00                            | 0.00  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Miljevina                   | 0.06                            | 0.06  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Dobro polje |                               | 0.020 |       | TS 400/220/110/35/10 kV Sarajevo 20 |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Jažići                  |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Trnovo                  |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Mušići                      | 0.01                            | 0.01  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Boljanovići                 | 0.01                            | 0.01  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Trnovo      |                               | 0.682 |       | TS 400/220/110/35/10 kV Sarajevo 20 |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Dobro polje             |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Bogatići                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Deliaši                     | 0.00                            | 0.00  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Trnovo 4                    | 0.43                            | 0.43  | 1     | dom zdr., policija, telekom, pošta |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Milje                       | 0.01                            | 0.01  |       |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Čilimara                    | 0.00                            | 0.00  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| KO 10kV Kućni trafo    | 0.25                          | 0.25  |       |                                     |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
| TS 35/10kV Bogatići    |                               | 0.210 |       | TS 400/220/110/35/10 kV Sarajevo 20 |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 35/10 kV Trnovo                  |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Brana                       | 0.01                            | 0.01  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| DV 10kV Kijevo         | 0.20                          | 0.20  | 3     |                                     |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
| TS 35/10kV Vojkovići   | isključenje u TS Sarajevo 20  | 2.950 |       | TS 400/220/110/35/10 kV Sarajevo 20 |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Krupac                      | 0.16                            | 0.16  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Kasindo                     | 0.12                            | 0.12  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Lukavica                    | 2.14                            | 2.14  | 1     | pošta Vojk.+ ambulanta             |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Grlica                      | 0.51                            | 0.51  | 2     | telek.Vojk.                        |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Jahorina    |                               | 3.300 |       | TS 110/35/10 kV Pale                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | KO 10kV Hotel Bistrica              | 0.70                            | 0.70  | 1     | vodovod                            |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Rajska dolina               | 0.94                            | 0.94  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Ogorjelica                  | 0.76                            | 0.76  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Dom JNA                     | 0.90                            | 0.90  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
| TS 35/10kV Podgrab     |                               | 0.460 |       | TS 35/10 kV Koran                   |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | DV 10kV Koran (Stambolčić)          | 0.16                            | 0.16  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Bogovići                    | 0.10                            | 0.10  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Prača                       | 0.05                            | 0.05  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Tv. Panel                   | 0.08                            | 0.08  | 3     | ambulanta                          |     |        |  |  | ERS | EDPale |        |        |
| DV 10kV Jahorina       | 0.07                          | 0.07  | 3     |                                     |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
| TS 35/10kV Koran       |                               | 0.874 |       | TS 110/35/10 kV Pale                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | KO 10kV Famos KB1                   | 0.00                            | 0.00  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | KO 10kV Famos KB2                   | 0.00                            | 0.00  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Jahorina-Trebević           | 0.45                            | 0.45  | 1     | vodovod, repet.Treb.               |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Podgrab                     | 0.34                            | 0.34  | 2     | stud.dom                           |     |        |  |  | ERS | EDPale |        |        |
| KO Kućni trafo         | 0.09                          | 0.09  |       |                                     |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
| TS 35/10kV Hreša       |                               | 1.035 |       | TS 110/35/10 kV Pale                |                                 |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |
|                        |                               |       |       | TS 110/35/10 kV Sokolac - rezerva   |                                 |       |       |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | DV 10kV Bulozi                      | 0.73                            | 0.73  | 3     |                                    |     |        |  |  | ERS | EDPale |        |        |
|                        |                               |       |       | Transfr. vlast. potr.               | 0.07                            | 0.07  | 1     | dom zdr., policija                 |     |        |  |  | ERS | EDPale |        |        |
| DV 10kV Vučja luka     | 0.24                          | 0.24  | 3     |                                     |                                 |       |       |                                    | ERS | EDPale |  |  |     |        |        |        |
|                        |                               |       |       |                                     | TS 110/35/10 kV Pale            |       |       |                                    |     |        |  |  |     | ERS    | EDPale |        |



|                          |                                       |        |        |                                     |      |        |        |                                        |  |                       |       |        |        |       |
|--------------------------|---------------------------------------|--------|--------|-------------------------------------|------|--------|--------|----------------------------------------|--|-----------------------|-------|--------|--------|-------|
| TS 35/10kV Mokro         |                                       | 2.170  |        | TS 110/35/10 kV Sokolac - rezerva   |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Jajino brdo                 | 0.08 | 0.08   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Kadino selo                 | 0.48 | 0.48   | 1      | vodovod Kržulj                         |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Šumbulovac                  | 0.84 | 0.84   | 3      | ambulanta                              |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Gumitehnika                 | 0.77 | 0.77   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
| TS 35/10kV Sokolac       | isključenje u TS 110/35/10 kV Sokolac | 0.750  |        | TS 110/35/10 kV Sokolac             |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Žljebovi                    | 0.07 | 0.07   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Dom zdravlja                | 0.00 | 0.00   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Danila Dokića               | 0.25 | 0.25   | 2      | policija                               |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Sokolovići                  | 0.20 | 0.20   | 2      |                                        |  |                       |       | ERS    | EDPale |       |
| TS 35/10kV Borike        |                                       | 0.234  |        | TS 110/35/10 kV Rogatica            |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Stara Gora                  | 0.07 | 0.07   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Pešurici                    | 0.03 | 0.03   | 2      | releji Tmor                            |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Žepa-Sjeversko              | 0.11 | 0.11   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Setici                      | 0.02 | 0.02   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
| TS 35/10kV Rudo-Gojava   |                                       | 1.894  |        | TS 400/220/110/35/10 kV Višegrad    |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Strgačina                   | 0.14 | 0.14   | 2      | telekom                                |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Uvac                        | 0.80 | 0.80   | 2      | stanice mob.tel., TV rel., hladnj.,MHE |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Autodijelovi                | 0.01 | 0.01   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Rudo                        | 0.94 | 0.94   | 1      | dom zdr.,vod.,tel., pošta, policija    |  |                       |       | ERS    | EDPale |       |
| TS 35/10kV Čajniče- Luke | napajanje iz Crne Gore                | 1.021  |        | DV 35 kV - EP Crne Gore             |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Miljeno                     | 0.20 | 0.20   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Stakorina                   | 0.00 | 0.00   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | DV 10kV Čajniče                     | 0.76 | 0.76   | 1      | dom zdr.,policija, obdanište           |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | KO 10kV Kućni trafo                 | 0.05 | 0.05   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
| TS 35/10 kV Energoinvest | isključenje u TS Sarajevo 20          | 0.231  |        | TS 400/220/110/35/10 kV Sarajevo 20 |      |        |        |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | RAOP                                | 0.17 | 0.17   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       |        |        | IRCE                                | 0.06 | 0.06   | 3      |                                        |  |                       |       | ERS    | EDPale |       |
|                          |                                       | 62.205 | 64.861 |                                     |      | 54.307 | 69.840 |                                        |  | Rasterećenje          | 4.775 | 8.625  | 4.799  | 3.649 |
|                          |                                       |        |        |                                     |      |        |        |                                        |  | Procenat rasterećenja | 7.36% | 13.30% | 7.40%  | 5.63% |

Pregled podfrekventnih zaštita u MH ERS - Pregled stanja 2013. godina

| Naziv TS                     | Ima li relej pfr | Pmax (MW) | Pmax (MW)<br>31.12.2012. u<br>18:00h | Izlaz na koji deluje zaštita      | Snaga izlaza Piz (MW)<br>izmjerena 20.02.2013. u<br>13,00h | Snaga izlaza Piz (MW)<br>izmjerena 31.12.2012. u<br>18,00h | Prioriteti | Vrsta kupca                   | stepen delovanja |          |           |          | elektroprivreda | distribucija   |
|------------------------------|------------------|-----------|--------------------------------------|-----------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------|-------------------------------|------------------|----------|-----------|----------|-----------------|----------------|
|                              |                  |           |                                      |                                   |                                                            |                                                            |            |                               | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                 |                |
| TS 110/35/10 kV Banja Luka 1 | da               | 27.960    | 30.187                               | DV 35 kV Sitari                   | 4.14                                                       | 4.47                                                       | 1          | vodovod                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A1 Jelšingrad 1          | 0.4                                                        | 0.43                                                       | 2          | livnica                       |                  |          |           | 0.43     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A2 Jelšingrad 2          | 0.3                                                        | 0.32                                                       | 2          | livnica                       |                  |          |           | 0.32     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A3 Jelšingrad 3          | 0.31                                                       | 0.33                                                       | 2          | livnica                       |                  |          |           | 0.33     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A4 Jelšingrad 4          | 0.3                                                        | 0.32                                                       | 2          | livnica                       |                  |          |           | 0.32     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A5 Jelšingrad 5          | 0.3                                                        | 0.32                                                       | 2          | livnica                       |                  |          |           | 0.32     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A9 TAS 3                 | 0.11                                                       | 0.12                                                       | 3          | ostali                        |                  | 0.12     |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV A10 TAS 1                | 0.3                                                        | 0.32                                                       | 3          | ostali                        |                  | 0.32     |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B2 Budžak 3/1            | 2.18                                                       | 2.35                                                       | 1          | mljekara                      |                  |          |           | 2.35     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B3 Petričevac            | 1.73                                                       | 1.87                                                       | 3          | ostali                        |                  | 1.87     |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B5 Vlade Vitjuka 2       | 1.11                                                       | 1.20                                                       | 1          | klinika                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B6 Vlade Vitjuka         | 2.21                                                       | 2.39                                                       | 2          | dom za stara i iznemogla lica |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B7 Predgrade 2           | 2.04                                                       | 2.20                                                       | 2          | javni saobraćaj               |                  |          |           | 2.20     | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B8 Predgrade 10          | 3.28                                                       | 3.54                                                       | 3          | ostali                        | 3.54             |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B9 Budžak 2              | 3.2                                                        | 3.45                                                       | 3          | ostali                        | 3.45             |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B10 Budžak 3/2           | 2.65                                                       | 2.86                                                       | 3          | ostali                        | 2.86             |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV B11 Budžak 1             | 3.4                                                        | 3.67                                                       | 2          | vojni objekti                 |                  |          |           | 3.67     | ERS             | Elektrokrajina |
| TS 110/10 kV Banja Luka 2    | ne               | 36.440    | 42.326                               | KO 10 kV Borik TS-9               | 2.86                                                       | 3.32                                                       | 2          | namjenska proizvodnja         |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Kralja Alfonsa           | 1.08                                                       | 1.25                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Alternatvna TV           | 3.06                                                       | 3.55                                                       | 2          | PTT                           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Starčevića A-2           | 1.42                                                       | 1.65                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Rotas                    | 0.24                                                       | 0.28                                                       | 2          | namjenska proizvodnja         |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Toplana                  | 3.06                                                       | 3.55                                                       | 2          | toplana                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Rebrovački most          | 2.13                                                       | 2.47                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Save Kovačevića          | 0.83                                                       | 0.96                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Vodovod                  | 0.17                                                       | 0.20                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Starčevića 6             | 2.27                                                       | 2.64                                                       | 2          | PTT                           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Krajina Rebrovac         | 1.35                                                       | 1.57                                                       | 1          | vodovod                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Vrbaski put 2            | 0.17                                                       | 0.20                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Policijska Akademija     | 0.94                                                       | 1.09                                                       | 2          | MUP                           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Bulevar Srpske vojske    | 0.88                                                       | 1.02                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Starčevića 5             | 1.6                                                        | 1.86                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Borik 1                  | 1.53                                                       | 1.78                                                       | 2          | konzulat                      |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Filipovića polje         | 3.68                                                       | 4.27                                                       | 2          | MUP                           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Vrbaski put              | 1.03                                                       | 1.20                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Zgrada Ministarstva      | 1.31                                                       | 1.52                                                       | 2          | RTRS                          |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Univerzitetski grad      | 0.15                                                       | 0.17                                                       | 2          | studentski dom                |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Borik 8                  | 1.34                                                       | 1.56                                                       | 2          | namjenska proizvodnja         |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Borik 16                 | 2.57                                                       | 2.99                                                       | 1          | bolnica                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Ada restoran             | 2.14                                                       | 2.49                                                       | 2          | pekara                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Borik stari              | 0.63                                                       | 0.73                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Šipkini brdo             | 2.55                                                       | 3.29                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
| TS 110/20/10 kV Banja Luka 3 | ne               | 35.890    | 46.371                               | KO 10 kV BTS Drage Lange          | 1.88                                                       | 2.43                                                       | 1          | bolnica                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV BTS Rudarska 2           | 1.57                                                       | 2.03                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Energomont               | 2.66                                                       | 3.44                                                       | 2          | MUP                           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Petra Mečave             | 1.43                                                       | 1.85                                                       | 2          | pošta                         |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV MBTS Plastika nova       | 2.45                                                       | 3.17                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Petričevac               | 1.2                                                        | 1.55                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV TS Sertića imanje niz 4  | 1.4                                                        | 1.81                                                       | 1          | dom zdravlja                  |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Čajevac                  | 3.65                                                       | 4.72                                                       | 2          | narodna skupština             |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Medicina                 | 0.35                                                       | 0.45                                                       | 1          | dom zdravlja                  |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV MBTS Romanijska          | 2.1                                                        | 2.71                                                       | 1          | vodovod                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV TS Vlada                 | 1.31                                                       | 1.69                                                       | 2          | vlada                         |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Hiseta blok A            | 2.39                                                       | 3.09                                                       | 2          | dječija ustanova              |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Maksima Gorkog           | 0.13                                                       | 0.17                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Ante Jakića L3           | 1                                                          | 1.29                                                       | 2          | palata predsjednika           |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV MBTS Branka Radičevića   | 1.05                                                       | 1.36                                                       | 2          | SO Banjaluka                  |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV MBTS Rade Marijanca      | 0.08                                                       | 0.10                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 10 kV Vidovdanska              | 0.3                                                        | 0.39                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 20 kV TS Medicinski Centar     | 0.62                                                       | 0.80                                                       | 1          | bolnica                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 20 kV TS TEB Medicinski Centar | 0.73                                                       | 0.94                                                       | 1          | bolnica                       |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | DV 20 kV Bronzani Majdan          | 1.52                                                       | 1.96                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | DV 20 kV Saračica                 | 2.18                                                       | 2.82                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 20 kV MBTS Paprikovac 18       | 1.8                                                        | 2.33                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 20 kV Milorada Umjenjovića     | 1.54                                                       | 1.99                                                       | 3          | ostali                        |                  |          |           |          | ERS             | Elektrokrajina |
|                              |                  |           |                                      | KO 20 kV Ciglana Tunjice          | 0.43                                                       | 0.45                                                       | 2          | namjenska proizvodnja         |                  |          |           |          | ERS             | Elektrokrajina |



|                                 |      |        |        |                                      |      |        |        |                                 |      |      |      |         |                |                |
|---------------------------------|------|--------|--------|--------------------------------------|------|--------|--------|---------------------------------|------|------|------|---------|----------------|----------------|
|                                 |      |        |        | DV 20 kV Tukovi                      | 3.45 | 7.85   | 1      | bolnica                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Gomjenica Čela              | 0    | 0.00   | 3      | ostali                          | 0.00 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Vrbiće                      | 0    | 0.00   | 3      | ostali                          | 0.00 |      |      |         | ERS            | Elektrokrajina |
| TS 110/20 kV Prijedor 3         | ne   | 9.860  | 14.314 | KO 20 kV Hladnjača                   | 1.8  | 2.61   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Pečani                      | 2.26 | 3.28   | 2      | MUP                             |      |      |      | ERS     | Elektrokrajina |                |
|                                 |      |        |        | KO 20 kV Velepromet                  | 0.56 | 0.81   | 1      | vodovod                         |      |      |      | ERS     | Elektrokrajina |                |
|                                 |      |        |        | DV 20 kV Čerjeći                     | 1.77 | 2.57   | 3      | ostali                          |      |      |      | ERS     | Elektrokrajina |                |
|                                 |      |        |        | DV 20 kV Tukovi                      | 2.44 | 3.54   | 3      | ostali                          |      |      |      | ERS     | Elektrokrajina |                |
|                                 |      |        |        | DV 20 kV Brežićani                   | 0.63 | 0.91   | 1      | vodovod                         |      |      |      | ERS     | Elektrokrajina |                |
|                                 |      |        |        | KO 20 kV Raškovac                    | 0.4  | 0.58   | 1      | dom zdravlja                    |      |      |      | ERS     | Elektrokrajina |                |
| TS 110/20/6 kV Prijedor 5       | da   | 5.030  | 6.496  | DV 20 kV Kevljani                    | 0.52 | 0.67   | 3      | ostali                          | 0.67 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Drenovača                   | 1.28 | 1.65   | 2      | pekara                          |      |      |      | 1.65    | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Omarska                     | 1.07 | 1.38   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Konjevići                   | 0.24 | 0.31   | 3      | ostali                          |      | 0.31 |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 6 kV Sumarno                      | 1.92 | 2.48   | 2      | rudnik                          |      |      | 2.48 |         | ERS            | Elektrokrajina |
| TS 110/20/10 kV Novi Grad       | ne   | 8.690  | 13.386 | KO 20 kV Unametal                    | 0.1  | 0.15   | 2      | namjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Lignošper                   | 0.48 | 0.74   | 2      | namjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Kostajnica                  | 1.03 | 1.59   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Blatna                      | 1.38 | 2.13   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Dobrljin                    | 0.9  | 1.39   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 10 kV Svodna                      | 1.45 | 2.23   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 10 kV Ograde                      | 2.14 | 3.30   | 1      | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 10 kV Željeznička stanica         | 1.21 | 1.86   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
| TS 110/20/10 kV Kozarska Dubica | ne   | 14.440 | 13.954 | DV 20 kV Bačvani                     | 0.53 | 0.51   | 1      | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Draksenić                   | 1.47 | 1.42   | 1      | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Tranzit Urije               | 0.57 | 0.55   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Moštanica Rakovica          | 0.58 | 0.56   | 2      | namjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Knežica                     | 0.83 | 0.80   | 1      | specijalna zdravstvena ustanova |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Peltovac                    | 1.05 | 1.01   | 2      | nanjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Peltovac TIK-Knežopoljka    | 0.14 | 0.14   | 2      | hladnjača                       |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Predionica                  | 4.4  | 4.25   | 2      | namjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Dolovi 2                    | 0.21 | 0.20   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 10 kV Kostajnica                  | 0.35 | 0.34   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 10 kV Knežica                     | 0.51 | 0.49   | 2      | pekara                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 10 kV MBTS Papirnica              | 2.17 | 2.10   | 2      | MUP                             |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 10 kV BTS Šip                     | 0.44 | 0.43   | 2      | namjenska proizvodnja           |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 10 kV RTS Mehhanika Dubička ravan | 1.19 | 1.15   | 1      | hitna pomoć                     |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | TS 110/20/10 kV Mrkonjić Grad        | ne   | 11.400 | 15.108 | DV 20 kV Rajakovo brdo          | 0.01 | 0.01 | 1    | vodovod |                |                |
| DV 20 kV Jezero                 | 0.02 | 0.03   | 3      |                                      |      |        |        | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
| DV 20 kV Ribnik                 | 1.22 | 1.62   | 1      |                                      |      |        |        | opština Ribnik                  |      |      |      |         | ERS            | Elektrokrajina |
| DV 20 kV Barači                 | 0.68 | 0.90   | 1      |                                      |      |        |        | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
| KO 20 kV Metalac                | 0.01 | 0.01   | 3      |                                      |      |        |        | ostali                          |      |      |      |         |                |                |
| KO 20 kV Grad 2                 | 0.87 | 1.15   | 1      |                                      |      |        |        | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
| KO 20 kV Grad 1                 | 1.52 | 2.01   | 1      |                                      |      |        |        | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
| KO 20 kV Izlaz Distribucija     | 1.73 | 2.29   | 1      |                                      |      |        |        | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
| KO 20 kV Novo naselje           | 0.35 | 0.46   | 1      |                                      |      |        |        | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
| TS 110/20 kV Srbac              | ne   | 7.230  | 10.550 | DV 35 kV Šipovo                      | 4.99 | 6.61   | 1      | opština Jezero i Šipovo         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Toka raskršće               | 0.36 | 0.53   | 2      | RTV                             |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Ina pumpa Srbac             | 0.1  | 0.15   | 2      | pumpna stanica za odvodnjavanje |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Kobaš                       | 0.28 | 0.41   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Srbac centar                | 0.9  | 1.31   | 1      | dom zdravlja                    |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Prebljezi                   | 1.79 | 2.61   | 1      | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Bajinci-Pumpa               | 0.45 | 0.66   | 2      | pumpna stanica za odvodnjavanje |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Nova Topola                 | 1.13 | 1.65   | 2      | pumpna stanica za odvodnjavanje |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Sineši Lepenica             | 0.75 | 1.09   | 3      | ostali                          |      |      |      |         | ERS            | Elektrokrajina |
| TS 110/20/10 kV Gradiška        | da   | 13.400 | 17.506 | KO 20 kV Benzinska pumpa             | 1.47 | 2.15   | 2      | javni saobraćaj                 |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Demirača                    | 0.55 | 0.72   | 3      | ostali                          | 0.72 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Metal 3                     | 1.02 | 1.33   | 2      | RTV                             |      |      |      | 1.33    | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Toplana                     | 0.71 | 0.93   | 2      | toplana                         |      |      |      | 0.93    | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Vodovod                     | 0.12 | 0.16   | 1      | vodovod                         |      |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Levita                      | 0.1  | 0.13   | 2      | hladnjača                       |      |      |      | 0.13    | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Zanski centar               | 0.18 | 0.24   | 3      | ostali                          | 0.24 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Tabakovića                  | 0.73 | 0.95   | 2      | MUP                             |      |      |      | 0.95    | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Merkator                    | 0.09 | 0.12   | 3      | ostali                          | 0.12 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Metal 4                     | 1.28 | 1.67   | 3      | ostali                          | 1.67 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Distributivni centar        | 0.47 | 0.61   | 3      | ostali                          | 0.61 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | KO 20 kV Krošnja                     | 0.77 | 1.01   | 3      | ostali                          | 1.01 |      |      |         | ERS            | Elektrokrajina |
|                                 |      |        |        | DV 20 kV Trebovljani                 | 1.06 | 1.38   | 3      | ostali                          |      | 1.38 |      |         | ERS            | Elektrokrajina |

|                          |    |        |        |                         |      |      |   |              |                       |      |         |       |              |                |
|--------------------------|----|--------|--------|-------------------------|------|------|---|--------------|-----------------------|------|---------|-------|--------------|----------------|
|                          |    |        |        | KO 20 kV Stadion        | 0.09 | 0.12 | 3 | ostali       |                       | 0.12 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Brestovčina    | 0.52 | 0.68 | 3 | ostali       |                       | 0.68 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV G-3            | 0.67 | 0.88 | 1 | bolnica      |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Hiseta-Škola   | 0.77 | 1.01 | 3 | ostali       |                       | 1.01 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Ješingrad novi | 0.32 | 0.42 | 3 | ostali       |                       | 0.42 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 10 kV Stadion Triko  | 0.48 | 0.63 | 3 | ostali       |                       | 0.63 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 10 kV Ciglanja       | 1.04 | 1.36 | 3 | ostali       |                       | 1.36 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 10 kV Liman          | 0.56 | 0.73 | 3 | ostali       |                       | 0.73 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 10 kV Topola         | 0.83 | 1.08 | 3 | ostali       |                       |      | 1.08    |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 10 kV Čatrnja        | 1.04 | 1.36 | 3 | ostali       |                       |      | 1.36    |       | ERS          | Elektrokrajina |
| TS 110/20 kV Nova Topola | da | 8.430  | 12.365 | DV 20 kV Laktaši        | 0.88 | 1.29 | 3 | ostali       | 1.29                  |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Matura         | 0.19 | 0.28 | 3 | ostali       | 0.28                  |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Topola centar  | 0.61 | 0.89 | 3 | ostali       |                       | 0.89 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Kočićevo       | 0.41 | 0.60 | 3 | ostali       |                       | 0.60 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Laminci        | 0.58 | 0.85 | 3 | ostali       |                       | 0.85 |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Podgradci      | 1.93 | 2.83 | 3 | ostali       |                       |      | 2.83    |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Gradiška       | 1.12 | 1.64 | 3 | ostali       |                       |      | 1.64    |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Berek          | 1.47 | 2.16 | 3 | ostali       |                       |      | 2.16    |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Topola         | 1.24 | 1.82 | 3 | ostali       |                       |      | 1.82    |       | ERS          | Elektrokrajina |
| TS 110/20/10 kV Prnjavor | ne | 13.490 | 20.102 | DV 20 kV Kojin Han      | 0.87 | 1.30 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Standard       | 2.5  | 3.73 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Pionir         | 2.06 | 3.07 | 1 | dom zdravlja |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Hrvučani       | 1.39 | 2.07 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 20 kV Unis           | 0.15 | 0.22 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Klaonica       | 1.57 | 2.34 | 2 | pekara       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | DV 20 kV Šibovska       | 1.4  | 2.09 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 10 kV Prnjavor 2     | 0    | 0.00 | 3 | ostali       |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | KO 10 kV Prnjavor 1     | 3.55 | 5.29 | 1 | vodovod      |                       |      |         |       | ERS          | Elektrokrajina |
|                          |    |        |        | 260.370                 |      |      |   | 333.034      | 260.370               |      | 333.034 |       | Rasterećenje |                |
|                          |    |        |        |                         |      |      |   |              | Procenat rasterećenja |      | 6.45%   | 3.69% | 4.16%        | 6.10%          |

Pregled podfrekventnih zaštita u MH ERS - Pregled stanja 2013. godina

| Naziv TS                    | Ima li relej pfr | Pmax (MW) | Pmax (MW)<br>31.12.2012. u<br>18:00h | Izlaz na koji deluje zaštita    | Snaga izlaza Piz (MW)<br>izmjerena 20.02.2013. u<br>13,00h | Snaga izlaza Piz (MW)<br>izmjerena 31.12.2012. u<br>18,00h | Prioriteti | Vrsta kupca                      | stepen delovanja |          |           |          | elektroprivreda | distribucija |
|-----------------------------|------------------|-----------|--------------------------------------|---------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------|----------------------------------|------------------|----------|-----------|----------|-----------------|--------------|
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                 |              |
| TS 110/35/10 kV Bijeljina 1 | ne               | 9.44      | 33.71                                | KO 10 kV Bolnica                | 1.64                                                       | 5.87                                                       | 2          | SUP                              |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Ekonomija              | 2.30                                                       | 8.22                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Janja Stara            | 0.66                                                       | 2.35                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Ciglena                | 0.99                                                       | 3.52                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Industrija II          | 1.09                                                       | 3.90                                                       | 2          | Toplotni izvor gradskog grijanja |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Centar                 | 2.76                                                       | 9.86                                                       | 2          | Dječija ustanova, pošta, telekom |                  |          |           |          | ERS             | Bijeljina    |
| TS 110/35/10 kV Bijeljina 2 | ne               | 0.00      | 0.048                                | transformator 110/20 kV/KV      | 0.00                                                       | 0.00                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
| TS 110/35/10 kV Bijeljina 3 | da               | 3.11      | 24.73                                | KO 10 kV Željeznička            | 1.74                                                       | 13.85                                                      | 2          | Dispečerski centar               |                  |          | 13.85     |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Sava                   | 0.10                                                       | 0.78                                                       | 2          | Prehrambena industrija           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Koviljuša              | 0.41                                                       | 3.27                                                       | 1          | Kanalizacija                     |                  |          |           | 3.27     | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Mesoprodukt            | 0.85                                                       | 6.80                                                       | 3          |                                  | 6.80             |          |           |          | ERS             | Bijeljina    |
| TS 110/35/10 kV Janja       | da               | 3.13      | 5.80                                 | KO 10 kV Janja VI               | 1.05                                                       | 1.94                                                       | 3          |                                  | 1.94             |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Janja IV               | 0.59                                                       | 1.10                                                       | 1          | Dom zdravlja                     |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV FSP                    | 0.50                                                       | 0.93                                                       | 3          |                                  |                  |          | 0.93      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Industrija             | 0.53                                                       | 0.98                                                       | 3          |                                  |                  | 0.98     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Glavičice              | 0.46                                                       | 0.85                                                       | 3          |                                  |                  |          | 0.85      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
| TS 110/35 kV RP Ugljevik    | da/nije u fu-ji  | 4.40      | 10.02                                | KO 35 kV Bogutovo Selo 1        | 4.00                                                       | 9.11                                                       | 2          | Rudnik                           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 35 kV Bogutovo Selo 2        | 0.40                                                       | 0.91                                                       | 2          | Rudnik                           |                  |          |           |          | ERS             | Bijeljina    |
| TS 110/35/10 kV Lopare      | da/nije u fu-ji  | 3.31      | 2.24                                 | DV 35 kV Čelić                  | 1.55                                                       | 1.05                                                       | 3          | Napaja konzum ED Tuzla           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Šibošnica              | 0.31                                                       | 0.21                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Mačkovac               | 0.13                                                       | 0.09                                                       | 3          |                                  |                  |          |           |          |                 |              |
|                             |                  |           |                                      | DV 10 kV Tobut                  | 0.41                                                       | 0.28                                                       | 2          | RTV (relej Udrigovo)             |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Gornja Tuzla           | 0.12                                                       | 0.08                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Tvor.radijatora-Termal | 0.33                                                       | 0.22                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Lopare                 | 0.46                                                       | 0.31                                                       | 1          | Dom zdravlja                     |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
| TS 110/35/10 kV Zvornik     | da/nije u fu-ji  | 0.75      | 14.036                               | DV 35 kV Caparde                | 0.75                                                       | 13.99                                                      | 1          | Vodovod                          |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 35 kV Sase                   | 2.70                                                       | 7.63                                                       | 2          | Rudnik                           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV G. Potočari            | 0.07                                                       | 0.19                                                       | 3          |                                  | 0.19             |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Cinkara                | 0.58                                                       | 1.62                                                       | 2          | Metalo – prerađivačka industrija |                  |          | 1.62      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Srebrenica             | 0.08                                                       | 0.23                                                       | 3          |                                  | 0.23             |          |           |          |                 |              |
|                             |                  |           |                                      | KO 10 kV Bratunac               | 0.23                                                       | 0.65                                                       | 2          | Hladnjača                        |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Feros                  | 0.18                                                       | 0.51                                                       | 3          |                                  |                  |          | 0.51      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Akumulatori 2          | 0.00                                                       | 0.00                                                       | 2          |                                  |                  | 0.00     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
| TS 110/35/10 kV Vlasenica   | ne               | 2.55      | 9.70                                 | KO 10 kV Benzinska stanica      | 0.89                                                       | 3.38                                                       | 2          | SUP                              |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Finali                 | 0.00                                                       | 0.00                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Alpro 1                | 0.55                                                       | 2.08                                                       | 2          | Aluminijska industrija           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Alpro 2                | 0.55                                                       | 2.08                                                       | 2          | Aluminijska industrija           |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Vlasenica II           | 0.00                                                       | 0.00                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV SŠC                    | 0.49                                                       | 1.88                                                       | 1          | Dom zdravlja                     |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Piskavice              | 0.08                                                       | 0.31                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Novo Selo              | 1.36                                                       | 1.36                                                       | 3          |                                  |                  | 1.36     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Gojsovac II            | 1.47                                                       | 1.47                                                       | 2          | Industrijska zona                |                  |          |           | 1.47     | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Novi mlin              | 0.53                                                       | 0.53                                                       | 2          | Pekara                           |                  |          |           | 0.53     | ERS             | Bijeljina    |
| TS 35/10 kV Bijeljina II    | da               | 7.12      |                                      | KO 10 kV RMK                    | 0.43                                                       | 0.43                                                       | 2          | Fabrika metalnih proizvoda       |                  |          | 0.43      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Srednjoškolski centar  | 1.05                                                       | 1.05                                                       | 2          | Studentski dom                   |                  |          | 1.05      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV D. Tucovica            | 0.22                                                       | 0.22                                                       | 3          |                                  | 0.22             |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Kruševlje              | 1.29                                                       | 1.29                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Industrija 1           | 0.00                                                       | 0.00                                                       | 2          | Hladnjača                        |                  |          |           | 0.00     | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Orao                   | 0.22                                                       | 0.22                                                       | 2          | Vazduhoplovni zavod              |                  |          |           | 0.22     | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Poslovnica             | 0.08                                                       | 0.08                                                       | 3          |                                  |                  |          | 0.08      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Gojsovac               | 0.47                                                       | 0.47                                                       | 3          |                                  | 0.47             |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
| TS 35/10 kV Bijeljina III   | ne               | 7.11      |                                      | KO 10 kV Stadion                | 1.26                                                       | 1.26                                                       | 1          | Bolnica                          |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Park                   | 1.76                                                       | 1.76                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Centar II              | 1.34                                                       | 1.34                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Karadjordjeva          | 1.68                                                       | 1.68                                                       | 2          | Javni saobraćaj                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Zenit                  | 0.60                                                       | 0.60                                                       | 1          | Vodovod                          |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Kruševlje III          | 0.47                                                       | 0.47                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
| TS 35/10 kV Bijeljina IV    | da               | 4.68      |                                      | KO 10 kV Pučile                 | 1.28                                                       | 1.28                                                       | 3          |                                  |                  | 1.28     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Raskršće 2             | 1.12                                                       | 1.12                                                       | 3          |                                  |                  | 1.12     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Filip Višnjić          | 0.70                                                       | 0.70                                                       | 3          |                                  |                  |          |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Patkovača              | 0.77                                                       | 0.77                                                       | 3          |                                  |                  | 0.77     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | KO 10 kV Gvozdevići             | 0.81                                                       | 0.81                                                       | 3          |                                  |                  |          | 0.81      |          | ERS             | Bijeljina    |
|                             |                  |           |                                      |                                 |                                                            |                                                            |            |                                  |                  |          |           |          |                 |              |
|                             |                  |           |                                      | DV 10 kV Brodac                 | 0.68                                                       | 0.68                                                       | 3          |                                  |                  | 0.68     |           |          | ERS             | Bijeljina    |
|                             |                  |           |                                      | DV 10 kV Batković               | 0.76                                                       | 0.76                                                       | 3          |                                  |                  | 0.76     |           |          | ERS             | Bijeljina    |

|                          |      |      |   |                                  |      |      |   |                                  |      |      |      |           |           |           |           |           |
|--------------------------|------|------|---|----------------------------------|------|------|---|----------------------------------|------|------|------|-----------|-----------|-----------|-----------|-----------|
| TS 35/10 kV Ostoječivo   | da   | 2.49 |   | DV 10 kV Topolovac               | 0.12 | 0.12 | 2 | Pumpna stanica                   | 0.84 |      |      |           | ERS       | Bijeljina |           |           |
|                          |      |      |   | DV 10 kV Crnjelovo               | 0.84 | 0.84 | 3 |                                  | 0.84 |      |      | ERS       | Bijeljina |           |           |           |
|                          |      |      |   | DV 10 kV Begov Put               | 0.09 | 0.09 | 2 | Pumpna stanica                   | 0.87 |      |      | ERS       | Bijeljina |           |           |           |
|                          |      |      |   | KO 10 kV Medaši                  | 0.87 | 0.87 | 3 |                                  | 0.87 |      |      | ERS       | Bijeljina |           |           |           |
| TS 35/10 kV Dvorovi      | da   | 2.56 |   | KO 10 kV Kriva Bara              | 0.20 | 0.20 | 3 |                                  |      | 0.20 |      |           | ERS       | Bijeljina |           |           |
|                          |      |      |   | KO 10 kV Dvorovi škola           | 0.49 | 0.49 | 3 |                                  |      |      | 0.49 |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Dvorovi centar          | 1.00 | 1.00 | 2 | Dom zdravlja                     |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Obarska                 | 0.42 | 0.42 | 3 |                                  |      | 0.42 |      |           | ERS       | Bijeljina |           |           |
| TS 35/10 kV Čadavica     | da   | 2.11 |   | KO 10 kV Crnjelovo               | 0.63 | 0.63 | 3 |                                  |      | 0.63 |      |           | ERS       | Bijeljina |           |           |
|                          |      |      |   | KO 10 kV Dragaljevac             | 0.62 | 0.62 | 3 |                                  |      |      | 0.62 |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Čadavica                | 0.44 | 0.44 | 3 |                                  |      |      | 0.44 |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | 10 kV DV Blaževac                | 0.23 | 0.23 | 3 |                                  | 0.23 |      |      |           |           | ERS       | Bijeljina |           |
| TS 35/10 kV Pelagićevo   | da   | 1.93 |   | 10 kV DV Silos                   | 0.27 | 0.27 | 1 | Vodovod                          |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | 10 kV DV Pelagićevo              | 1.36 | 1.36 | 1 | Dom zdravlja                     |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | 10 kV DV Krepišić-Lončari        | 0.06 | 0.06 | 3 |                                  |      | 0.06 |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Pilica                  | 0.80 | 0.80 | 3 |                                  |      |      | 0.80 |           |           | ERS       | Bijeljina |           |
| TS 35/10 kV Branjevo     | da   | 1.63 |   | KO 10 kV Lokanj                  | 0.33 | 0.33 | 3 |                                  | 0.33 |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Šepak                   | 0.26 | 0.26 | 1 | Vodovod                          |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Branjevo 1              | 0.17 | 0.17 | 3 |                                  |      | 0.17 |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | KO 10 kV Branjevo 2              | 0.07 | 0.07 | 3 |                                  |      | 0.07 |      |           |           | ERS       | Bijeljina |           |
| TS 35/10 kV Kozluk       | da   | 1.67 |   | KO 10 kV Standard                | 0.16 | 0.16 | 2 | Fabrika vode                     |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | DV 10 kV Karakaj                 | 0.89 | 0.89 | 1 | Vodovod                          |      |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | DV 10 kV Ročević                 | 0.20 | 0.20 | 3 |                                  | 0.20 |      |      |           |           | ERS       | Bijeljina |           |
|                          |      |      |   | DV 10 kV Kiseljak                | 0.42 | 0.42 | 3 |                                  | 0.42 |      |      |           |           | ERS       | Bijeljina |           |
| TS 35/10 kV Karakaj      | da   | 4.88 |   | DV 10 kV Kozluk                  | 1.49 | 1.49 | 3 |                                  |      |      | 1.49 |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Sapna                   | 0.68 | 0.68 | 3 |                                  |      | 0.68 |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Grbavci                 | 0.78 | 0.78 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Rasklopnica             | 0.29 | 0.29 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Glinica I               | 0.00 | 0.00 | 3 |                                  | 0.00 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Glinica II              | 0.00 | 0.00 | 3 |                                  | 0.00 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Glinica III             | 0.00 | 0.00 | 3 |                                  | 0.00 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Pekara                  | 0.55 | 0.55 | 2 | Pekara                           |      |      |      | 0.55      |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV DC Univerzal            | 0.36 | 0.36 | 2 | Javni saobraćaj                  |      |      |      |           |           |           | ERS       | Bijeljina |
| KO 10 kV Ciglena         | 0.72 | 0.72 | 2 | Hladnjača                        |      |      |   |                                  |      |      | ERS  | Bijeljina |           |           |           |           |
| TS 35/10 kV Zvornik      | da   | 5.48 |   | DV 10 kV Industrija I            | 0.01 | 0.01 | 3 |                                  |      | 0.01 |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Kula grad               | 0.04 | 0.04 | 3 |                                  | 0.04 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Industrija III          | 0.33 | 0.33 | 1 | Vodovod                          | 0.33 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Fetija                  | 1.10 | 1.10 | 2 | SUP                              |      |      |      | 1.10      |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Ada                     | 1.64 | 1.64 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Medicinski centar novi  | 0.24 | 0.24 | 1 | Bolnica                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Medicinski centar stari | 0.62 | 0.62 | 3 |                                  |      |      | 0.62 |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Blok B1                 | 1.33 | 1.33 | 2 | Toplotni izvor gradskog grijanja |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Grobnice III            | 0.17 | 0.17 | 3 |                                  | 0.17 |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Kamenica     | da   | 0.56 |   | KO 10 kV Petrovići               | 0.15 | 0.15 | 3 |                                  | 0.15 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Uzovnica                | 0.15 | 0.15 | 3 |                                  |      | 0.15 |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Drinjača                | 0.26 | 0.26 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Šekovići                | 0.00 | 0.00 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Caparde      | da   | 0    |   | KO 10 kV Osmaci                  | 0.00 | 0.00 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   |                                  |      |      |   |                                  |      |      |      |           |           |           |           |           |
| TS 35/10 kV Dušanovo     | ne   | 0.67 |   | KO 10 kV Farma brojlera          | 0.30 | 0.30 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Zabrdje                 | 0.21 | 0.21 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Bohem-Cerska            | 0.16 | 0.16 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Milići       | ne   | 2.57 |   | DV 35 kV Gunjaci-rudnik          | 0.29 | 0.29 | 2 | Rudnik                           |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Derventa                | 0.25 | 0.25 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Vukovići                | 0.53 | 0.53 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Pilana                  | 0.64 | 0.64 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Alfa trejd              | 0.29 | 0.29 | 1 | Dom zdravlja                     |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Milići                  | 0.58 | 0.58 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Šekovići     | da   | 1.4  |   | KO 10 kV Taševac                 | 0.16 | 0.16 | 1 | Dom zdravlja                     |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Akmačići                | 0.05 | 0.05 | 3 |                                  | 0.05 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Vlasenica               | 0.15 | 0.15 | 3 |                                  |      | 0.15 |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Paprača                 | 0.24 | 0.24 | 3 |                                  | 0.24 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Šekovići                | 0.45 | 0.45 | 2 | SUP                              |      |      |      | 0.45      |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Fagum                   | 0.17 | 0.17 | 3 |                                  |      |      |      | 0.17      |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV FUK                     | 0.17 | 0.17 | 3 |                                  |      |      | 0.17 |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV G.Zalukovik  | da   | 0.22 |   | DV 10 kV Han Pijesak             | 0.08 | 0.08 | 3 |                                  | 0.08 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Vlasenica               | 0.01 | 0.01 | 3 |                                  | 0.01 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Šekovići                | 0.13 | 0.13 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Han Pijesak  | da   | 1.02 |   | DV 10 kV G.Zalukovik             | 0.14 | 0.14 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Han Pijesak I           | 0.34 | 0.34 | 2 | SUP                              |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Han Pijesak II          | 0.19 | 0.19 | 1 | Dom zdravlja                     |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Han Kram                | 0.06 | 0.06 | 3 |                                  |      |      | 0.06 |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Pienovac                | 0.09 | 0.09 | 1 | Vodovod                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Ljeskovac               | 0.12 | 0.12 | 2 | RTV                              |      |      | 0.12 |           |           |           | ERS       | Bijeljina |
| MHE Tišća                | ne   | 0.7  |   | DV 10 kV Mekote                  | 0.08 | 0.08 | 3 |                                  |      |      | 0.08 |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | DV 10 kV Sekovići                | 0.70 | 0.70 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Klotjevac               | 0.07 | 0.07 | 3 |                                  | 0.07 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Osmaće                  | 0.10 | 0.10 | 3 |                                  |      |      |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Zeleni Jadar | da   | 0.35 |   | KO 10 kV Ljubisavići             | 0.03 | 0.03 | 3 |                                  | 0.03 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Srebrenica Kamen        | 0.15 | 0.15 | 3 |                                  |      |      | 0.15 |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Baratova                | 0.03 | 0.03 | 3 |                                  |      | 0.03 |      |           |           |           | ERS       | Bijeljina |
| TS 35/10 kV Srebrenica   | da   | 0.88 |   | KO 10 kV Bolnica                 | 0.52 | 0.52 | 1 | Bolnica                          |      |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Srebrenica grad         | 0.20 | 0.20 | 2 | MUP                              |      |      |      | 0.20      |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Sućeska                 | 0.10 | 0.10 | 3 |                                  | 0.10 |      |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Vidikovac               | 0.04 | 0.04 | 3 |                                  |      |      |      | 0.04      |           |           | ERS       | Bijeljina |
|                          |      |      |   | KO 10 kV Potočari                | 0.00 | 0.00 | 3 |                                  |      | 0.00 |      |           |           |           | ERS       | Bijeljina |
|                          |      |      |   |                                  |      |      |   |                                  |      |      |      |           |           |           |           |           |

Pregled podfrekventnih zaštita u MH ERS - Pregled stanja 2013. godina

| Naziv TS             | Ima li relej pfr | Pmax (MW) | Pmax (MW)<br>31.12.2012. u<br>18:00h | Izlaz na koji deluje zaštita | Snaga izlaza Piz (MW)<br>izmjerena 20.02.2013. u 13,00h | Snaga izlaza Piz (MW)<br>izmjerena 31.12.2012. u 18,00h | Prioriteti | Vrsta kupca               | stepen delovanja |          |           |          | elektroprivreda | distribucija |
|----------------------|------------------|-----------|--------------------------------------|------------------------------|---------------------------------------------------------|---------------------------------------------------------|------------|---------------------------|------------------|----------|-----------|----------|-----------------|--------------|
|                      |                  |           |                                      |                              |                                                         |                                                         |            |                           | PI (MW)          | PII (MW) | PIII (MW) | PIV (MW) |                 |              |
| TS 35/10 kV Usora    | Da               | 9.07      |                                      | TS 110/35/10 kV Doboj 1      |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Hemoprodukt            | 0.50                                                    | 0.50                                                    | 1          | Centar za dijalizu        |                  |          |           | 0.50     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Ševarlije              | 0.08                                                    | 0.08                                                    | 3          | Objekti krajnjih kupaca   | 0.08             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Energoinvest           | 0.13                                                    | 0.13                                                    | 2          | Objekti krajnjih kupaca   | 0.13             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Trudbenik              | 0.29                                                    | 0.29                                                    | 2          | Objekti krajnjih kupaca   | 0.29             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Bosanka                | 0.00                                                    | 0.00                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.00      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Bejići                 | 1.00                                                    | 1.00                                                    | 2          | Određeni vojni objekti    |                  |          |           | 0.08     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Doboj Grad             | 0.90                                                    | 0.90                                                    | 1          | Bolnica                   |                  |          |           | 0.13     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Benzinska              | 0.58                                                    | 0.58                                                    | 1          | Vodovod                   |                  |          |           | 0.29     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Doboj 2                | 0.00                                                    | 0.00                                                    | 2          | Veliki toplotni izvori    |                  |          |           | 0.00     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Srednjoškolski Centar  | 0.68                                                    | 0.68                                                    | 2          | Objekti krajnjih kupaca   |                  |          | 0.68      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Toplana                | 0.83                                                    | 0.83                                                    | 2          | Veliki toplotni izvori    |                  |          | 0.83      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 35 kV Matuzici               | 3.20                                                    | 3.20                                                    | 2          | Objekti krajnjih kupaca   |                  | 3.20     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 35 kV Krečnjak               | 0.85                                                    | 0.85                                                    | 2          | Rudnici                   | 0.85             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Pridjel Stadion        | 0.05                                                    | 0.05                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.05      |          | ERS             | Elektrodoboj |
| TS 35/10 kV Rudanka  | Da               | 2.71      |                                      | TS 110/35/10 kV Doboj 2      |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | TS 35/10 kV Usora            |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Zarječa                | 0.35                                                    | 0.35                                                    | 3          | Objekti krajnjih kupaca   | 0.35             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Plinara                | 0.35                                                    | 0.35                                                    | 1          | Vodovod                   |                  |          |           | 0.35     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Stanovi                | 0.42                                                    | 0.42                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.42      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Grapska                | 0.17                                                    | 0.17                                                    | 3          | Objekti krajnjih kupaca   |                  |          |           | 0.17     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Kostajnica             | 0.32                                                    | 0.32                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.32      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Hemoprodukt            | 1.10                                                    | 1.10                                                    | 2          | Objekti krajnjih kupaca   |                  | 1.10     |           |          | ERS             | Elektrodoboj |
| TS 35/10 kV Kotorско | Da               | 1.29      |                                      | TS 110/35/10 kV Doboj 2      |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | TS 35/10 kV Rudanka          |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Bušletić               | 0.00                                                    | 0.00                                                    | 3          | Objekti krajnjih kupaca   |                  | 0.00     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Podnovlje              | 0.26                                                    | 0.26                                                    | 3          | Objekti krajnjih kupaca   | 0.26             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Kotorско               | 0.23                                                    | 0.23                                                    | 3          | Objekti krajnjih kupaca   |                  | 0.23     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Mali Prnjavor          | 0.12                                                    | 0.12                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.12      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Kladari                | 0.56                                                    | 0.56                                                    | 3          | Objekti krajnjih kupaca   |                  |          |           | 0.56     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Enterijer              | 0.12                                                    | 0.12                                                    | 2          | Objekti krajnjih kupaca   |                  |          | 0.12      |          | ERS             | Elektrodoboj |
| TS 35/10 kV Stanari  | Da               | 2.74      | 2.818                                | TS 110/10 kV Stanari         |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Stanari                | 0.44                                                    | 0.45                                                    | 3          | Objekti krajnjih kupaca   |                  | 0.45     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Cvrtkovci              | 0.26                                                    | 0.27                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.27      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Dragalovci             | 0.24                                                    | 0.25                                                    | 3          | Objekti krajnjih kupaca   | 0.25             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Gradilište TE          | 1.00                                                    | 1.03                                                    | 2          | Gradilište e.en. objekata |                  |          |           | 1.03     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 35 kV Raškovac               | 0.45                                                    | 0.46                                                    | 2          | Rudnici                   |                  |          |           | 0.46     | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Cerovica               | 0.35                                                    | 0.36                                                    | 3          | Objekti krajnjih kupaca   | 0.36             |          |           |          | ERS             | Elektrodoboj |
| TS 35/10 kV Sočkovac | Da               | 1.35      |                                      | TS 110/35/10 kV Doboj 1      |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Sočkovac               | 0.12                                                    | 0.12                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.12      |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Karanovac              | 0.43                                                    | 0.43                                                    | 3          | Objekti krajnjih kupaca   | 0.43             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Industrija             | 0.55                                                    | 0.55                                                    | 1          | Objekti krajnjih kupaca   |                  | 0.55     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Petrovo                | 0.25                                                    | 0.25                                                    | 3          | Objekti krajnjih kupaca   |                  | 0.25     |           |          | ERS             | Elektrodoboj |
| TS 35/10 kV Petrovo  | Da               |           |                                      | TS 110/35/10 kV Doboj 1      |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | TS 35/10 kV Sočkovac         |                                                         |                                                         |            |                           |                  |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Industrija             | 0.18                                                    | 0.18                                                    | 1          | Objekti krajnjih kupaca   |                  | 0.18     |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Studenčina             | 0.38                                                    | 0.38                                                    | 3          | Objekti krajnjih kupaca   | 0.38             |          |           |          | ERS             | Elektrodoboj |
|                      | Da               |           |                                      | 10 kV Petrovo                | 0.34                                                    | 0.34                                                    | 3          | Objekti krajnjih kupaca   |                  |          | 0.34      |          | ERS             | Elektrodoboj |



Pregled podfrekventnih zaštita u MH ERS - Pregled stanja 2013. godina

| Naziv TS                         | Ima li relej pfr | Pmax<br>(MW) | Pmax (MW)<br>31.12.2012. u<br>18:00h | Izlaz na koji deluje zaštita     | Snaga izlaza Piz<br>(MW) izmjerena<br>20.02.2013. u<br>13,00h | Snaga izlaza Piz<br>(MW) izmjerena<br>31.12.2012. u<br>18,00h | Prioriteti | Vrsta kupca     | stepen delovanja |             |              |          | elektroprivreda | distribucija       |
|----------------------------------|------------------|--------------|--------------------------------------|----------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|------------|-----------------|------------------|-------------|--------------|----------|-----------------|--------------------|
|                                  |                  |              |                                      |                                  |                                                               |                                                               |            |                 | PI (MW)          | PII<br>(MW) | PIII<br>(MW) | PIV (MW) |                 |                    |
| TS 110/35/10 kV Trebinje 1       | da               | 6.565        | 8.176                                | KO 10 kV Dom penzionera          | 0.173                                                         | 0.215                                                         | 2          | dom penzionera  |                  |             | 0.215        |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Stari grad              | 0.814                                                         | 1.014                                                         | 1          | vodovod         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Hrupjela                | 1.143                                                         | 1.423                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Staro strelishte        | 0.035                                                         | 0.044                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Leotar                  | 0.035                                                         | 0.044                                                         | 2          | hotel           |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Elektroprivreda         | 1.039                                                         | 1.294                                                         | 2          | elektroprivreda |                  |             |              | 1.294    | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Vinogradi               | 1.039                                                         | 1.294                                                         | 3          | krajnji kupci   | 1.294            |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 10 kV Ljubomir-Lastva         | 0.035                                                         | 0.044                                                         | 1          | vodovod         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | KO 10 kV Ind. alata nova         | 2.252                                                         | 2.805                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 35 kV TS Trebinje 2           | 0.000                                                         | 0.000                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 400/220/110/35/10 kV Trebinje | da               | 1.663        | 6.826                                | DV 35 kV Veličani                | 0.485                                                         | 1.991                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 35 kV Industrijska zona       | 0.727                                                         | 2.984                                                         | 3          | krajnji kupci   |                  | 2.984       |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 10 kV Prostor-Dživar          |                                                               |                                                               |            | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 10 kV Zubci                   |                                                               |                                                               |            | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 10 kV Crnač                   |                                                               |                                                               |            | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | DV 10 kV Aleksina Meda           | 0.451                                                         | 1.851                                                         | 3          | krajnji kupci   | 1.851            |             |              |          | ERS             | Elektrohercegovina |
| TS 35/10 kV Trebinje2            | ne               | 6.299        |                                      | TS 400/220/110/35/10 kV Trebinje |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | HE Trebinje II                   |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Hladnjača               | 1.024                                                         | 1.024                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Ložiona 1               | 0.401                                                         | 0.401                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Ložiona 2               | 0.194                                                         | 0.194                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Industrija alata        | 0.761                                                         | 0.761                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Mokri dolovi            | 0.841                                                         | 0.841                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Robna kuća              | 1.201                                                         | 1.201                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Medicinski centar       | 1.371                                                         | 1.371                                                         | 1          | bolnica         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Interex                 | 0.506                                                         | 0.506                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 35/10 kV Grančarevo           | ne               | 0.236        |                                      | TS 400/220/110/35/10 kV Trebinje |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | HE Trebinje II                   |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | svi DV 10 kV                     | 0.236                                                         | 0.236                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 110/35/10 kV Bileća           | ne               | 3.084        | 6.374                                | DV 10 kV Baljci                  | 0.087                                                         | 0.180                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Podtuhor                | 0.277                                                         | 0.573                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Orah                    | 0.052                                                         | 0.107                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Vranjska                | 0.087                                                         | 0.180                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Bilećanka2              | 0.035                                                         | 0.072                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Grad                    | 1.178                                                         | 2.435                                                         | 2          | prehrana        |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Heljdište               | 0.658                                                         | 1.360                                                         | 1          | vodovod         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Donje Grabovice         | 0.381                                                         | 0.787                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Selišta                 | 0.087                                                         | 0.180                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Bilećanka1              | 0.000                                                         | 0.000                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 400/110/35 kV Gacko           | da/nije u f-ji   | 5.456        | 6.630                                | DV 35 kV Rudnik                  | 2.304                                                         | 2.800                                                         | 2          | rudnik          |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | da/nije u f-ji   |              |                                      | DV 35 kV Gacko                   | 3.152                                                         | 3.830                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  |                  |              |                                      | TS 400/110/35 kV Gacko           |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 35/10 kV Gacko                | ne               | 2.113        |                                      | KO 10 kV Grad                    | 0.173                                                         | 0.173                                                         | 2          | prehrana        |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Fojnica                 | 0.173                                                         | 0.173                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Avtovac                 | 0.433                                                         | 0.433                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Kula                    | 0.035                                                         | 0.035                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Samački hotel(42)       | 0.173                                                         | 0.173                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Vrbica                  | 0.433                                                         | 0.433                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Lisičina                | 0.693                                                         | 0.693                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 35/10 kV Ljubinje             | ne               | 0.486        |                                      | DV 35 kV Stolac (EP HZHB)        |                                                               |                                                               |            |                 |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Soko-Ind.zona           | 0.173                                                         | 0.173                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Ljubinje-Grad           | 0.173                                                         | 0.173                                                         | 2          | prehrana        |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Ljubunje 2              | 0.035                                                         | 0.035                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Žegulja                 | 0.035                                                         | 0.035                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Žrvanj                  | 0.035                                                         | 0.035                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
| TS 110/10 kV Nevesinje           | ne               | 2.773        | 4.356                                | DV 10 kV Vlahovići               | 0.035                                                         | 0.035                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Jezero                  | 0.087                                                         | 0.137                                                         | 1          | vodovod         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Sportska dvorana        | 0.346                                                         | 0.544                                                         | 1          | bolnica         |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Luka                    | 0.173                                                         | 0.272                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Alat                    | 0.173                                                         | 0.272                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Kišino selo             | 0.261                                                         | 0.410                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | DV 10 kV Rast                    | 0.606                                                         | 0.952                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |
|                                  | ne               |              |                                      | KO 10 kV Drežanj                 | 0.173                                                         | 0.272                                                         | 3          | krajnji kupci   |                  |             |              |          | ERS             | Elektrohercegovina |

|  |    |        |                    |        |        |   |                     |       |       |       |       |     |                    |
|--|----|--------|--------------------|--------|--------|---|---------------------|-------|-------|-------|-------|-----|--------------------|
|  | ne |        | KO 10 kV Nevesinje | 0.693  | 1.089  | 3 | krajnji kupci       |       |       |       |       | ERS | Elektrohercegovina |
|  | ne |        | DV 10 kV Kilavci   | 0.261  | 0.410  | 3 | krajnji kupci       |       |       |       |       | ERS | Elektrohercegovina |
|  |    | 28.675 | 32.362             | 28.675 | 41.496 |   | Rasterećenje        | 3.145 | 2.984 | 0.215 | 1.294 |     |                    |
|  |    |        |                    |        |        |   | Procenat rasterećen | 9.72% | 9.22% | 0.67% | 4.00% |     |                    |

## **PRILOG 3.2**

Pregled podfrekventnog rasterećenja

Pregled podfrekventnog rasterećenja - Prijedlog 2013

ELEKTROPRENOS BiH / EES BiH

| red. broj | naziv TS                                | snaga TS: | $P_{\max}^{*1)}$ | $P_I$ |       | $P_{II}$ |       | $P_{III}$ |       | $P_{IV}$ |       | $P_{\Sigma}$ |       | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Distribucija |
|-----------|-----------------------------------------|-----------|------------------|-------|-------|----------|-------|-----------|-------|----------|-------|--------------|-------|----------------------------------|--------|-----------------|--------------|
|           |                                         | (MVA)     | (MW)             | (MW)  | (%)   | (MW)     | (%)   | (MW)      | (%)   | (MW)     | (%)   | (MW)         | (%)   | (MW)                             | (%)    |                 |              |
| 1         | TS 110/35/10 kV Sarajevo 1              |           | 19.04            | 9.35  | 49.1% | 5.62     | 29.5% |           | 0.0%  |          | 0.0%  | 14.97        | 78.6% | 0.00                             | 0.0%   | da              | Sarajevo     |
| 2         | TS 110/35/10 kV Sarajevo 2              |           | 8.94             |       | 0.0%  |          | 0.0%  |           | 0.0%  | 5.14     | 57.5% | 5.14         | 57.5% | 3.80                             | 42.5%  | da              | Sarajevo     |
| 3         | TS 110/10 kV Sarajevo 4                 |           | 12.82            |       | 0.0%  | 7.21     | 56.3% |           | 0.0%  |          | 0.0%  | 7.21         | 56.3% | 5.61                             | 43.7%  | da              | Sarajevo     |
| 4         | TS 110/10 kV Sarajevo 5                 |           | 26.53            |       | 0.0%  |          | 0.0%  | 9.92      | 37.4% | 8.15     | 30.7% | 18.07        | 68.1% | 8.46                             | 31.9%  | da              | Sarajevo     |
| 5         | TS 110/10 kV Sarajevo 7                 |           | 29.41            |       | 0.0%  |          | 0.0%  |           | 0.0%  | 14.56    | 49.5% | 14.56        | 49.5% | 14.85                            | 50.5%  | da              | Sarajevo     |
| 6         | TS 110/10 kV Sarajevo 8                 |           | 19.35            |       | 0.0%  | 3.89     | 20.1% |           | 0.0%  | 8.27     | 42.7% | 12.16        | 62.8% | 7.19                             | 37.2%  | da              | Sarajevo     |
| 7         | TS 110/10 kV Sarajevo 11                |           | 22.25            |       |       |          |       |           |       |          |       | 0.00         |       |                                  |        | ne              | Sarajevo     |
| 8         | TS 110/10 kV Sarajevo 13 <sup>*2)</sup> |           | 20.61            |       | 0.0%  |          | 0.0%  |           | 0.0%  | 8.66     | 42.0% | 8.66         | 42.0% | 11.95                            | 58.0%  | da              | Sarajevo     |
| 9         | TS 110/10 kV Sarajevo 14                |           | 26.67            |       | 0.0%  |          | 0.0%  | 16.35     | 61.3% | 2.02     | 7.6%  | 18.37        | 68.9% | 8.29                             | 31.1%  | da              | Sarajevo     |
| 10        | TS 110/10 kV Sarajevo 15                |           | 16.62            |       | 0.0%  | 14.28    | 85.9% |           | 0.0%  |          | 0.0%  | 14.28        | 85.9% | 2.34                             | 14.1%  | da              | Sarajevo     |
| 11        | TS 110/10 kV Sarajevo 18                |           | 10.56            | 6.69  | 63.3% |          | 0.0%  |           | 0.0%  |          | 0.0%  | 6.69         | 63.3% | 3.87                             | 36.7%  | da              | Sarajevo     |
| 12        | TS 110/35/10 kV Pazarić                 |           | 5.06             |       | 0.0%  | 3.70     | 73.1% |           | 0.0%  |          | 0.0%  | 3.70         | 73.1% | 1.36                             | 26.9%  | da              | Sarajevo     |
| 13        | TS 110/20/10 kV Zenica 3                |           | 24.24            | 3.50  | 14.4% | 5.40     | 22.3% | 5.20      | 21.4% | 4.00     | 16.5% | 18.10        | 74.7% | 6.14                             | 25.3%  | da              | Zenica       |
| 14        | TS 110/35/10 kV Travnik 1               |           | 14.84            | 2.00  | 13.5% | 1.04     | 7.0%  | 1.00      | 6.7%  |          | 0.0%  | 4.04         | 27.2% | 0.00                             | 0.0%   | da              | Zenica       |
| 15        | TS 110/35/10 kV Vareš                   |           | 2.80             | 0.10  | 3.6%  | 0.60     | 21.4% | 0.80      | 28.5% |          | 0.0%  | 1.50         | 53.5% | 1.30                             | 46.5%  | da              | Zenica       |
| 16        | TS 110/20/10 kV Bugojno                 |           | 9.89             | 1.30  | 13.1% | 2.30     | 23.3% | 0.00      | 0.0%  |          | 0.0%  | 3.60         | 36.4% | 6.29                             | 63.6%  | da              | Zenica       |
| 17        | TS 110/35/10 kV Gračanica               |           | 15.32            | 11.50 | 75.1% | 1.00     | 6.5%  |           | 0.0%  |          | 0.0%  | 12.50        | 81.6% | 2.82                             | 18.4%  | da              | Tuzla        |
| 18        | TS 110/35/10 kV Srebrenik               |           | 10.59            |       | 0.0%  |          | 0.0%  | 7.50      | 70.8% | 2.80     | 26.4% | 10.30        | 97.3% | 0.29                             | 2.7%   | da              | Tuzla        |
| 19        | TS 110/35/6 kV Đurđevik                 |           | 13.68            |       | 0.0%  |          | 0.0%  |           | 0.0%  | 9.80     | 71.7% | 9.80         | 71.7% | 3.88                             | 28.3%  | da              | Tuzla        |
| 20        | TS 110/35/10 kV Maglaj                  |           | 7.29             | 0.20  | 2.7%  | 1.90     | 26.1% | 1.30      | 17.8% |          | 0.0%  | 3.40         | 46.7% | 3.89                             | 53.3%  | da              | Zenica       |
| 21        | TS 110/35/10 kV Gradačac                |           | 15.07            |       | 0.0%  | 6.00     | 39.8% | 8.00      | 53.1% |          | 0.0%  | 14.00        | 92.9% | 1.07                             | 7.1%   | da              | Tuzla        |
| 22        | TS 110/20/10 kV Hadžići                 |           | 6.57             |       | 0.0%  |          | 0.0%  |           | 0.0%  | 3.94     | 60.0% | 3.94         | 60.0% | 2.63                             | 40.0%  | da              | Sarajevo     |
| 23        | TS 110/35 kV Goražde 1 <sup>*3)</sup>   |           | 6.89             |       | 0.0%  |          | 0.0%  |           | 0.0%  |          | 0.0%  | 0.00         | 0.0%  | 6.89                             | 100.0% | da/nije u funk. | Sarajevo     |
| 24        | TS 110/35/6 kV Tuzla 5 <sup>*3)</sup>   |           | 18.58            |       | 0.0%  | 0.00     | 0.0%  |           | 0.0%  |          | 0.0%  | 0.00         | 0.0%  | 18.58                            | 100.0% | da/nije u funk. | Tuzla        |
| 25        | TS 110/35/6 kV Banovići                 |           | 9.87             |       | 0.0%  |          | 0.0%  |           | 0.0%  |          | 0.0%  | 0.00         | 0.0%  | 9.87                             | 100.0% | ne              | Tuzla        |
| 26        | TS 110/35 kV Lukavac                    |           | 30.92            |       | 0.0%  | 7.50     | 24.3% |           | 0.0%  | 13.00    | 42.1% | 20.50        | 66.3% | 10.42                            | 33.7%  | da              | Tuzla        |
| 27        | TS 110/35/10 kV Tuzla Centar            |           | 42.87            |       | 0.0%  | 6.60     | 15.4% | 11.00     | 25.7% |          | 0.0%  | 17.60        | 41.1% | 25.27                            | 58.9%  | da              | Tuzla        |
| 28        | TS 110/35 kV Kladanj                    |           | 5.93             |       | 0.0%  |          | 0.0%  |           | 0.0%  |          | 0.0%  | 0.00         | 0.0%  | 5.93                             | 100.0% | ne              | Tuzla        |
| 29        | TS 110/35/10 kV Breza                   |           | 13.98            | 0.80  | 5.7%  | 0.90     | 6.4%  | 1.40      | 10.0% |          | 0.0%  | 3.10         | 22.2% | 10.88                            | 77.8%  | da              | Zenica       |
| 30        | TS 110/35/10 kV Tešanj                  |           | 16.17            | 2.80  | 17.3% | 1.60     | 9.9%  | 0.80      | 4.9%  |          | 0.0%  | 5.20         | 32.2% | 10.97                            | 67.8%  | da              | Zenica       |
| 31        | TS 110/35 kV Zenica 1                   |           | 4.22             |       | 0.0%  |          | 0.0%  |           | 0.0%  |          | 0.0%  | 0.00         | 0.0%  | 4.22                             | 100.0% | ne              | Zenica       |

Pregled podfrekventnog rasterećenja - Prijedlog 2013

ELEKTROPRENOS BiH / EES BiH

| red. broj | naziv TS                                    | snaga TS: | $P_{\max}^{*1)}$ | $P_I$ |           | $P_{II}$ |           | $P_{III}$ |           | $P_{IV}$ |           | $P_{\Sigma}$ |           | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Distribucija |
|-----------|---------------------------------------------|-----------|------------------|-------|-----------|----------|-----------|-----------|-----------|----------|-----------|--------------|-----------|----------------------------------|--------|-----------------|--------------|
|           |                                             | (MVA)     | (MW)             | (MW)  | (%)       | (MW)     | (%)       | (MW)      | (%)       | (MW)     | (%)       | (MW)         | (%)       | (MW)                             | (%)    |                 |              |
| 32        | TS 110/35/20 kV Zenica 4                    |           | 14.47            | 1.60  | 11.1%     | 3.10     | 21.4%     | 2.00      | 13.8%     |          | 0.0%      | 6.70         | 46.3%     | 7.77                             | 53.7%  | da              | Zenica       |
| 33        | TS 110/35/10 kV Zavidovići                  |           | 18.72            | 2.70  | 14.4%     | 3.00     | 16.0%     | 2.00      | 10.7%     | 0.30     | 1.6%      | 8.00         | 42.7%     | 10.72                            | 57.3%  | da              | Zenica       |
| 34        | TS 110/35/10 kV Visoko                      |           | 19.10            | 2.10  | 11.0%     | 2.10     | 11.0%     | 2.50      | 13.1%     |          | 0.0%      | 6.70         | 35.1%     | 12.40                            | 64.9%  | da              | Zenica       |
| 35        | TS 110/20 kV Donji Vakuf                    |           | 2.82             | 0.27  | 9.6%      | 0.23     | 8.2%      |           | 0.0%      |          | 0.0%      | 0.50         | 17.7%     | 2.32                             | 82.3%  | da              | Zenica       |
| 36        | TS 110/20/10 kV Travnik 2                   |           | 7.37             | 1.80  | 24.4%     | 0.70     | 9.5%      | 2.00      | 27.1%     |          | 0.0%      | 4.50         | 61.1%     | 2.87                             | 38.9%  | da              | Zenica       |
| 37        | TS 110/35/10 kV Cementara                   |           | 0.88             |       | 0.0%      |          | 0.0%      |           | 0.0%      |          | 0.0%      | 0.00         | 0.0%      | 0.88                             | 100.0% | ne              | Zenica       |
| 38        | TS 110/35/10 kV Konjic                      |           | 7.53             | 1.18  | 15.7%     | 0.86     | 11.4%     |           | 0.0%      | 2.10     | 27.9%     | 4.14         | 55.0%     | 3.39                             | 45.0%  | da              | Mostar       |
| 39        | TS 110/35/10 kV Jablanica <sup>*4)</sup>    |           | 2.20             | 0.00  | 0.0%      | 0.00     | 0.0%      | 0.00      | 0.0%      |          | 0.0%      | 0.00         | 0.0%      | 2.20                             | 100.0% | da/nije u funk. | Mostar       |
| 40        | TS 110/35/10 kV Mostar 2                    |           | 22.97            | 1.90  | 8.3%      | 3.70     | 16.1%     | 2.10      | 9.1%      | 3.10     | 13.5%     | 10.80        | 47.0%     | 12.17                            | 53.0%  | da              | Mostar       |
| 41        | TS 220/110/35/10 kV Bihać 1                 |           | 12.32            | 3.10  | 25.2%     | 0.30     | 2.4%      | 2.70      | 21.9%     | 2.50     | 20.3%     | 8.60         | 69.8%     | 3.72                             | 30.2%  | da              | Bihać        |
| 42        | TS 110/20 kV Bihać 2                        |           | 8.72             | 0.55  | 6.3%      | 1.40     | 16.0%     |           | 0.0%      | 1.48     | 17.0%     | 3.43         | 39.3%     | 5.30                             | 60.7%  | da              | Bihać        |
| 43        | TS 110/35/10 kV Bosanska Krupa              |           | 5.81             | 0.60  | 10.3%     | 1.91     | 32.9%     | 0.73      | 12.6%     | 0.56     | 9.6%      | 3.80         | 65.4%     | 2.01                             | 34.6%  | da              | Bihać        |
| 44        | TS 110/35/10 kV Bosanski Petrovac           |           | 3.99             |       | 0.0%      |          | 0.0%      |           | 0.0%      |          | 0.0%      | 0.00         | 0.0%      | 3.99                             | 100.0% | ne              | Bihać        |
| 45        | TS 110/35/10 kV Cazin 1                     |           | 16.78            | 3.50  | 20.9%     | 2.00     | 11.9%     | 4.70      | 28.0%     |          | 0.0%      | 10.20        | 60.8%     | 6.58                             | 39.2%  | da              | Bihać        |
| 46        | TS 110/20/10 kV Cazin 2                     |           | 4.01             | 1.03  | 25.7%     | 0.63     | 15.7%     | 0.21      | 5.2%      |          | 0.0%      | 1.87         | 46.6%     | 2.14                             | 53.4%  | da              | Bihać        |
| 47        | TS 110/20/10 kV Ključ                       |           | 5.02             | 0.10  | 2.0%      | 0.40     | 8.0%      | 1.40      | 27.9%     | 0.90     | 17.9%     | 2.80         | 55.8%     | 2.22                             | 44.2%  | da              | Bihać        |
| 48        | TS 110/20/10 kV Sanski Most                 |           | 11.14            | 0.70  | 6.3%      | 1.40     | 12.6%     | 2.10      | 18.9%     | 2.80     | 25.1%     | 7.00         | 62.8%     | 4.14                             | 37.2%  | da              | Bihać        |
| 49        | TS 110/35/10 kV Velika Kladuša              |           | 9.86             | 1.26  | 12.8%     | 0.68     | 6.9%      | 2.31      | 23.4%     | 4.20     | 42.6%     | 8.45         | 85.7%     | 1.41                             | 14.3%  | da              | Bihać        |
| 50        | TS 110/35/10 kV Vrnograč                    |           | 7.52             | 0.33  | 4.4%      | 1.18     | 15.7%     |           | 0.0%      | 0.79     | 10.5%     | 2.30         | 30.6%     | 5.22                             | 69.4%  | da              | Bihać        |
| 51        | TS 110/10/20 kV Doboј Istok                 |           | 3.974            |       |           |          |           |           |           |          |           | 0.00         |           |                                  |        | ne              | Tuzla        |
| 52        | TS 110/10 kV Neum                           |           | 2.616            | 0.27  | 10.321101 | 0.34     | 12.996942 | 0.2       | 7.6452599 | 0.12     | 4.587156  | 0.93         | 35.550459 | 1.686                            | 64.4%  | da              | NHŽ          |
| 53        | TS 110/10 kV Čapljina                       |           | 14.256           | 1.81  | 12.696409 | 1.82     | 12.766554 | 1.61      | 11.29349  | 2        | 14.029181 | 7.24         | 50.785634 | 7.016                            | 49.2%  | da              | NHŽ          |
| 54        | TS 110/35/10 kV Stolac                      |           | 6.1              | 0.03  | 0.4918033 | 0.43     | 7.0491803 | 0.53      | 8.6885246 | 0.2      | 3.2786885 | 1.19         | 19.508197 | 4.91                             | 80.5%  | da              | NHŽ          |
| 55        | TS 110/10 kV Čitluk                         |           | 20.448           | 1.39  | 6.7977308 | 1.63     | 7.9714397 | 2.56      | 12.519562 | 2.08     | 10.172144 | 7.66         | 37.460876 | 12.788                           | 62.5%  | da              | NHŽ          |
| 56        | TS 110/35/10 kV Ljubuški                    |           | 20.716           | 1.51  | 7.2890519 | 2.6      | 12.502414 | 2.79      | 13.467851 | 1.89     | 9.1233829 | 8.78         | 42.382699 | 11.936                           | 57.6%  | da              | NHŽ          |
| 57        | TS 400/220/110/10 kV Mostar 4 <sup>*5</sup> |           | 2.592            |       | 0         |          | 0         |           | 0         |          | 0         | 0.00         | 0         | 2.592                            | 100.0% | da/nije u funk. | NHŽ          |
| 58        | TS 110/20/10 kV Mostar 5 <sup>*5</sup>      |           | 8.144            |       | 0         |          | 0         |           | 0         |          | 0         | 0.00         | 0         | 8.144                            | 100.0% | da/nije u funk. | NHŽ          |
| 59        | TS 110/35/10 kV Mostar 6 <sup>*5</sup>      |           | 22.416           |       | 0         |          | 0         |           | 0         |          | 0         | 0.00         | 0         | 22.416                           | 100.0% | da/nije u funk. | NHŽ          |
| 60        | TS 110/10 kV Mostar 7 <sup>*5</sup>         |           | 18.048           |       | 0         |          | 0         |           | 0         |          | 0         | 0.00         | 0         | 18.048                           | 100.0% | da/nije u funk. | NHŽ          |
| 61        | TS 110/10 kV Široki Brijeg                  |           | 17.808           | 1.04  | 5.8400719 | 2.55     | 14.319407 | 2.46      | 13.814016 | 3.8      | 21.338724 | 9.85         | 55.312219 | 7.958                            | 44.7%  | da              | ZHŽ          |
| 62        | TS 110/10 kV Grude                          |           | 10.936           |       |           |          |           |           |           |          |           | 0.00         |           | 10.936                           | 100.0% | ne              | ZHŽ          |
| 63        | TS 110/20/10 kV Vitez                       |           | 12.72            |       |           |          |           |           |           |          |           | 0.00         |           | 12.72                            | 100.0% | ne              | SBŽ          |
| 64        | TS 110/10 kV Posušje                        |           | 10.416           |       |           |          |           |           |           |          |           | 0.00         |           | 10.416                           | 100.0% | ne              | ZHŽ          |
| 65        | TS 110/35/10 kV Tomislav Grad               |           | 11.212           | 1.38  | 12.308241 | 1.79     | 15.965037 | 1.46      | 13.021762 | 1.81     | 16.143418 | 6.44         | 57.438459 | 4.772                            | 42.6%  | da              | HBŽ          |
| 66        | TS 110/35/10 kV Orašje                      |           | 14.608           |       |           |          |           |           |           |          |           | 0.00         |           | 14.608                           | 100.0% | ne              | PŽ           |
| 67        | TS 110/35/10 kV Odžak                       |           | 7.984            |       |           |          |           |           |           |          |           | 0.00         |           | 7.984                            | 100.0% | ne              | PŽ           |
| 68        | TS 110/35/10 kV Livno                       |           | 14.304           | 1.68  | 11.744966 | 2.3      | 16.079418 | 0         | 0         | 1.76     | 12.304251 | 5.74         | 40.128635 | 8.564                            | 59.9%  | da              | HBŽ          |
| 69        | TS 110/35/10 kV Drvar                       |           | 2.324            |       |           |          |           |           |           |          |           | 0.00         |           | 2.324                            | 100.0% | ne              | HBŽ          |
| 70        | TS 110/10 kV Bosansko Grahovo               |           | 0.576            |       |           |          |           |           |           |          |           | 0.00         |           | 0.576                            | 100.0% | ne              | HBŽ          |

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| red. broj | naziv TS                               | snaga TS: | P <sub>max</sub> <sup>*1)</sup> | P <sub>I</sub> |           | P <sub>II</sub> |           | P <sub>III</sub> |           | P <sub>IV</sub> |           | P <sub>Σ</sub> |           | Preostala snaga za rasterećenje: |        | Ugrađen relej? | Distribucija   |
|-----------|----------------------------------------|-----------|---------------------------------|----------------|-----------|-----------------|-----------|------------------|-----------|-----------------|-----------|----------------|-----------|----------------------------------|--------|----------------|----------------|
|           |                                        | (MVA)     | (MW)                            | (MW)           | (%)       | (MW)            | (%)       | (MW)             | (%)       | (MW)            | (%)       | (MW)           | (%)       | (MW)                             | (%)    |                |                |
| 71        | TS 110/35/10 kV Kiseljak               |           | 12.58                           |                |           |                 |           |                  |           |                 |           | 0.00           |           | 12.58                            | 100.0% | ne             | SBŽ            |
| 72        | TS 110/35/10 kV Jajce 1                |           | 22.8                            |                |           |                 |           |                  |           |                 |           | 0.00           |           | 22.8                             | 100.0% | ne             | SBŽ            |
| 73        | TS 110/10 kV Busovača                  |           | 6.192                           |                |           |                 |           |                  |           |                 |           | 0.00           |           | 6.192                            | 100.0% | ne             | SBŽ            |
| 74        | TS 110/35/10 kV Novi Travnik           |           | 7.392                           |                |           |                 |           |                  |           |                 |           | 0.00           |           | 7.392                            | 100.0% | ne             | SBŽ            |
| 75        | TS 110/20/10 kV Uskoplje <sup>*8</sup> |           | 4.176                           | 1.1            | 26.340996 | 1.6             | 38.314176 | 0.5              | 11.97318  | 2.9             | 69.444444 | 6.10           | 146.0728  | -1.924                           | -46.1% | da             | SBŽ            |
| 76        | TS 220/110/35 kV Jajce 2               |           | 0                               |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne             | SBŽ            |
| 77        | TS 110/20/10 kV Kupres                 |           | 3.528                           |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne             | HBŽ            |
| 78        | TS 110/35/10 kV Rama/Prozor            |           | 5.712                           |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne             | NHŽ            |
| 79        | TS 110/35/10 kV Banja Luka 1           |           | 30.187                          | 9.86           | 32.663067 | 2.31            | 7.6523007 | 0                |           | 9.97            | 33.027462 | 22.14          | 73.34283  | 8.05                             | 26.7%  | da             | Elektrokrajina |
| 80        | TS 110/10 kV Banja Luka 2              |           | 42.326                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 42.33                            | 100.0% | ne             | Elektrokrajina |
| 81        | TS 110/20/10 kV Banja Luka 3           |           | 46.371                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 46.37                            | 100.0% | ne             | Elektrokrajina |
| 82        | TS 110/20 kV Banja Luka 4              |           | 9.648                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 9.65                             | 100.0% | ne             | Elektrokrajina |
| 83        | TS 110/20 kV Banja Luka 5              |           | 8.218                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 8.22                             | 100.0% | ne             | Elektrokrajina |
| 84        | TS 400/110/20 kV Banja Luka 6          |           | 4.042                           | 1.74           | 43.047996 | 0.91            | 22.513607 | 0                |           | 0               |           | 2.65           | 65.561603 | 1.39                             | 34.4%  | da             | Elektrokrajina |
| 85        | TS 110/10/6 kV Banja Luka 7            |           | 0.662                           | 0.09           | 13.595166 | 0.09            | 13.595166 | 0.48             | 72.507553 | 0               |           | 0.66           | 99.697885 | 0.00                             | 0.3%   | da             | Elektrokrajina |
| 86        | TS 110/20 kV Banja Luka 8              |           | 8.486                           | 1.7            | 20.032996 | 0               |           | 0                |           | 0               |           | 1.70           | 20.032996 | 6.79                             | 80.0%  | da             | Elektrokrajina |
| 87        | TS 110/20 kV Čelinac                   |           | 6.998                           | 1.49           | 21.291798 | 0               |           | 0                |           | 0.64            | 9.1454701 | 2.13           | 30.437268 | 4.87                             | 69.6%  | da             | Elektrokrajina |
| 88        | TS 110/20 kV Ukrina                    |           | 1.68                            | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 1.68                             | 100.0% | ne             | Elektrokrajina |
| 89        | TS 110/20 kV Kotor Varoš               |           | 8.342                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 8.34                             | 100.0% | ne             | Elektrokrajina |
| 90        | TS 110/20 kV Laktaši                   |           | 15.976                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 15.98                            | 100.0% | ne             | Elektrokrajina |
| 91        | TS 110/20 kV Prijedor 1                |           | 26.317                          | 0              |           | 0               |           | 0                |           | 4.71            | 17.897177 | 4.71           | 17.897177 | 21.61                            | 82.1%  | da             | Elektrokrajina |
| 92        | TS 110/20 kV Prijedor 3                |           | 14.314                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 14.31                            | 100.0% | ne             | Elektrokrajina |
| 93        | TS 110/20/6 kV Prijedor 5              |           | 6.496                           | 0.67           | 10.314039 | 0.31            | 4.7721675 | 2.48             | 38.17734  | 1.65            | 25.400246 | 5.11           | 78.663793 | 1.39                             | 21.3%  | da             | Elektrokrajina |
| 94        | TS 110/20/10 kV Novi Grad              |           | 13.386                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 13.39                            | 100.0% | ne             | Elektrokrajina |
| 95        | TS 110/20/10 kV Koz. Dubica            |           | 13.954                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 13.95                            | 100.0% | ne             | Elektrokrajina |
| 96        | TS 110/20/10 kV Mrkonjić Grad          |           | 15.108                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 15.11                            | 100.0% | ne             | Elektrokrajina |
| 97        | TS 110/20 kV Srbac                     |           | 10.55                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 10.55                            | 100.0% | ne             | Elektrokrajina |
| 98        | TS 110/20/10 kV Gradiška               |           | 17.506                          | 4.36           | 24.905747 | 6.32            | 36.101908 | 2.44             | 13.938078 | 3.34            | 19.079173 | 16.46          | 94.024906 | 1.05                             | 6.0%   | da             | Elektrokrajina |
| 99        | TS 110/20 kV Nova Topola               |           | 12.365                          | 1.57           | 12.697129 | 2.35            | 19.005257 | 8.45             | 68.338051 | 0               |           | 12.37          | 100.04044 | 0.00                             | 0.0%   | da             | Elektrokrajina |
| 100       | TS 110/20/10 kV Prnjavor               |           | 20.102                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 20.10                            | 100.0% | ne             | Elektrokrajina |
| 101       | TS 110/35/10 kV Doboj 1 <sup>*9</sup>  |           | 17.752                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 17.75                            | 100.0% | da/nije u f-ji | Elektrodoboj   |
| 102       | TS 110/35/10 kV Doboj 2                |           | 9.792                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 9.79                             | 100.0% | ne             | Elektrodoboj   |
| 103       | TS 110/35/10 kV Doboj 3 <sup>*9</sup>  |           | 5.426                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 5.43                             | 100.0% | da/nije u f-ji | Elektrodoboj   |
| 104       | TS 110/35/10 kV Modriča <sup>*9</sup>  |           | 14.376                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 14.38                            | 100.0% | da/nije u f-ji | Elektrodoboj   |
| 105       | TS 110/35/10 kV Derвента <sup>*9</sup> |           | 14.1                            | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 14.10                            | 100.0% | da/nije u f-ji | Elektrodoboj   |
| 106       | TS 110/35/10/6 kV Brod                 |           | 13.116                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 13.12                            | 100.0% | ne             | Elektrodoboj   |
| 107       | TS 110/35 kV Teslić                    |           | 17.606                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 17.61                            | 100.0% | ne             | Elektrodoboj   |
| 108       | TS 110/35/10 kV Šamac <sup>*9</sup>    |           | 9.608                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 9.61                             | 100.0% | da/nije u f-ji | Elektrodoboj   |
| 109       | TS 110/35 kV Stanari                   |           | 2.818                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 2.82                             | 100.0% | ne             | Elektrodoboj   |

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| red. broj: | naziv TS                                | snaga TS: | P <sub>max</sub> <sup>*1)</sup> | P <sub>I</sub> |           | P <sub>II</sub> |          | P <sub>III</sub> |           | P <sub>IV</sub> |           | P <sub>Σ</sub> |           | Preostala snaga za rasterećenje: |        | Ugrađen relej? | Distribucija    |
|------------|-----------------------------------------|-----------|---------------------------------|----------------|-----------|-----------------|----------|------------------|-----------|-----------------|-----------|----------------|-----------|----------------------------------|--------|----------------|-----------------|
|            |                                         | (MVA)     | (MW)                            | (MW)           | (%)       | (MW)            | (%)      | (MW)             | (%)       | (MW)            | (%)       | (MW)           | (%)       | (MW)                             | (%)    |                |                 |
|            | TS 35/10 kV Usora                       |           |                                 | 1.34           |           | 3.2             |          | 1.56             |           | 0.99            |           | 7.09           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Rudanka                     |           |                                 | 0.35           |           | 1.1             |          | 0.74             |           | 0.52            |           | 2.71           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Kotorsko                    |           |                                 | 0.26           |           | 0.23            |          | 0.24             |           | 0.56            |           | 1.29           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Stanari                     |           |                                 | 0.61           |           | 0.45            |          | 0.27             |           | 1.49            |           | 2.82           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Sočkovac                    |           |                                 | 0.43           |           | 0.8             |          | 0.12             |           | 0               |           | 1.35           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Petrovo                     |           |                                 | 0.38           |           | 0.18            |          | 0.71             |           | 0               |           | 1.27           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Modriča 2                   |           |                                 | 0.8            |           | 0               |          | 0.62             |           | 0.75            |           | 2.17           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Vranjak                     |           |                                 | 0.26           |           | 0.29            |          | 0.29             |           | 0.6             |           | 1.44           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Šamac 1                     |           |                                 | 0.99           |           | 0.52            |          | 1.05             |           | 1.1             |           | 3.66           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Šamac 2                     |           |                                 | 0.16           |           | 0.3             |          | 0.2              |           | 0.1             |           | 0.76           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Batkuša                     |           |                                 | 0.55           |           | 0               |          | 0.98             |           | 0.51            |           | 2.04           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Žarkovina                   |           |                                 | 0.5            |           | 1.07            |          | 0                |           | 0               |           | 1.57           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Blatnica                    |           |                                 | 0.32           |           | 0.19            |          | 0.36             |           | 0               |           | 0.87           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Klupe                       |           |                                 | 0.1            |           | 0.21            |          | 0.18             |           | 0.14            |           | 0.63           |           |                                  |        | da             | Elektrodoboj    |
|            | TS 35/10 kV Modran                      |           |                                 | 0.81           |           | 0.2             |          | 0.24             |           | 0.4             |           | 1.65           |           |                                  |        | da             | Elektrodoboj    |
| 110        | TS 110/35/10 kV Bijeljina 1             |           | 33.712                          | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           | 0         | 33.71                            | 100.0% | ne             | Elektrobjeljina |
| 111        | TS 110/20 kV Bijeljina 2                |           | 0.048                           | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           | 0         | 0.05                             | 100.0% | ne             | Elektrobjeljina |
| 112        | TS 110/35/10 kV Bijeljina 3             |           | 24.728                          | 6.8            | 27.499191 | 0               |          | 13.85            | 56.009382 | 3.27            | 13.223876 | 23.92          | 96.732449 | 0.81                             | 3.3%   | da             | Elektrobjeljina |
| 113        | TS 110/35/10 kV Janja                   |           | 5.798                           | 1.94           | 33.459814 | 0.98            | 16.90238 | 1.78             | 30.700241 | 0               |           | 4.70           | 81.062435 | 1.10                             | 18.9%  | da             | Elektrobjeljina |
| 114        | TS 400/110/35 kV Ugljevik <sup>*6</sup> |           | 10.024                          | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           |           | 10.02                            | 100.0% | da/nije u f-ji | Elektrobjeljina |
| 115        | TS 110/35/10 kV Lopare <sup>*7</sup>    |           | 2.24                            | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           | 0         | 2.24                             | 100.0% | da/nije u f-ji | Elektrobjeljina |
| 116        | TS 110/35 kV Zvornik <sup>*9</sup>      |           | 14.036                          | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           | 0         | 14.04                            | 100.0% | da/nije u f-ji | Elektrobjeljina |
| 117        | TS 110/35/10 kV Srebrenica              |           | 10.836                          | 0.42           | 3.875969  | 0               |          | 2.13             | 19.6567   | 0               |           | 2.55           | 23.532669 | 8.29                             | 76.5%  | da             | Elektrobjeljina |
| 118        | TS 110/35/10 kV Vlasenica               |           | 9.7                             | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           |           | 9.70                             | 100.0% | ne             | Elektrobjeljina |
|            | TS 35/10 kV Bijeljina II                |           |                                 | 0.69           |           | 1.36            |          | 1.56             |           | 2.22            |           | 5.83           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Bijeljina IV                |           |                                 | 0              |           | 3.87            |          | 0.81             |           | 0               |           | 4.68           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Ostojićevo                  |           |                                 | 1.71           |           | 2.28            |          | 0                |           | 0               |           | 3.99           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Dvorovi                     |           |                                 | 0.87           |           | 0.2             |          | 0.49             |           | 0               |           | 1.56           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Čadavica                    |           |                                 | 0              |           | 1.05            |          | 1.06             |           | 0               |           | 2.11           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Pelagićevo                  |           |                                 | 0.23           |           | 0.06            |          | 0                |           | 0               |           | 0.29           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Branjevo                    |           |                                 | 0.33           |           | 0.24            |          | 0.8              |           | 0               |           | 1.37           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Kozluk                      |           |                                 | 0.62           |           | 0               |          | 0                |           | 0               |           | 0.62           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Karakaj                     |           |                                 | 0              |           | 0.68            |          | 1.49             |           | 0.55            |           | 2.72           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Zvornik                     |           |                                 | 0.54           |           | 0.01            |          | 0.62             |           | 1.1             |           | 2.27           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Kamenica                    |           |                                 | 0.15           |           | 0.15            |          | 0                |           | 0               |           | 0.30           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Caparde                     |           |                                 | 0              |           | 0               |          | 0                |           | 0               |           | 0.00           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Šekovići                    |           |                                 | 0.29           |           | 0.15            |          | 0.35             |           | 0.45            |           | 1.24           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV G.Zalukovik                 |           |                                 | 0.08           |           | 0               |          | 0                |           | 0               |           | 0.08           |           |                                  |        | da             | Elektrobjeljina |
|            | TS 35/10 kV Han Pijesak                 |           |                                 | 0              |           | 0.08            |          | 0.18             |           | 0               |           | 0.26           |           |                                  |        | da             | Elektrobjeljina |

Pregled podfrekventnog rasterećenja - Prijedlog 2013

ELEKTROPRENOS BiH / EES BiH

| red. broj | naziv TS                                      | snaga TS: | P <sub>max</sub> <sup>*1)</sup> | P <sub>I</sub> |           | P <sub>II</sub> |           | P <sub>III</sub> |           | P <sub>IV</sub> |           | P <sub>Σ</sub> |           | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Distribucija    |
|-----------|-----------------------------------------------|-----------|---------------------------------|----------------|-----------|-----------------|-----------|------------------|-----------|-----------------|-----------|----------------|-----------|----------------------------------|--------|-----------------|-----------------|
|           |                                               | (MVA)     | (MW)                            | (MW)           | (%)       | (MW)            | (%)       | (MW)             | (%)       | (MW)            | (%)       | (MW)           | (%)       | (MW)                             | (%)    |                 |                 |
|           | TS 35/10 kV Zeleni Jadar                      |           |                                 | 0.2            |           | 0               |           | 0.15             |           | 0               |           | 0.35           |           |                                  |        | da              | Elektrobjeljina |
|           | TS 35/10 kV Srebrenica                        |           |                                 | 0.1            |           | 0.03            |           | 0.04             |           | 0.2             |           | 0.37           |           |                                  |        | da              | Elektrobjeljina |
|           | TS 35/10 kV Bratunac I                        |           |                                 | 0.33           |           | 0.71            |           | 0.13             |           | 0.04            |           | 1.21           |           |                                  |        | da              | Elektrobjeljina |
|           | TS 35/10 kV Kravica                           |           |                                 | 0.21           |           | 0               |           | 0.13             |           | 0               |           | 0.34           |           |                                  |        | da              | Elektrobjeljina |
|           | TS 35/10 kV Modran                            |           |                                 | 1.04           |           | 0               |           | 1.19             |           | 0               |           | 2.23           |           |                                  |        | da              | Elektrobjeljina |
|           | TS 35/10 kV Priboj                            |           |                                 | 0.01           |           | 0.2             |           | 0.15             |           | 0               |           | 0.36           |           |                                  |        | da              | Elektrobjeljina |
| 119       | TS Glinica - 110 kV                           |           | 5.368                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           |                                  |        | ne              |                 |
| 120       | TS 110/35/10 kV Pale                          |           | 16.992                          | 2.615          | 15.389595 | 5.426           | 31.932674 | 1.883            | 11.081685 | 3.279           | 19.297316 | 13.20          | 77.701271 | 3.79                             | 22.3%  | da              | Pale            |
| 121       | TS 110/35/10 kV Sokolac                       |           | 5.396                           | 0.566          | 10.489251 | 0.943           | 17.475908 | 1.24             | 22.979985 | 0               |           | 2.75           | 50.945145 | 2.65                             | 49.1%  | da              | Pale            |
| 122       | TS 110/35/10 kV Foča                          |           | 8.424                           | 1.061          | 12.594967 | 0.39            | 4.6296296 | 0.864            | 10.25641  | 0               |           | 2.32           | 27.481007 | 6.11                             | 72.5%  | da              | Pale            |
| 123       | TS 400/110/35/10 kV Sarajevo 20 <sup>*7</sup> |           | 22.253                          | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           | 0         | 22.25                            | 100.0% | da/nije u funk. | Pale            |
| 124       | TS 110/35/10 kV Rogatica                      |           | 3.796                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 3.80                             | 100.0% | ne              | Pale            |
| 125       | TS 400/220/110/35/10 kV Višegrad              |           | 7.216                           | 0.533          | 7.3863636 | 1.866           | 25.859202 | 0.811            | 11.238914 | 0.37            | 5.12749   | 3.58           | 49.611973 | 3.64                             | 50.4%  | da              | Pale            |
| 126       | TS 110/20/10 kV Goražde 2                     |           | 0.784                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 0.78                             | 100.0% | ne              | Pale            |
| 127       | TS 110/35/10 kV Trebinje 1                    |           | 8.176                           | 1.294          | 15.82681  | 0               |           | 0.215            | 2.6296477 | 1.294           | 15.82681  | 2.80           | 34.283268 | 5.37                             | 65.7%  | da              | Elhercegovina   |
| 128       | TS 400/220/110/35 kV Trebinje                 |           | 6.826                           | 1.851          | 27.116906 | 2.984           | 43.715207 | 0                |           | 0               |           | 4.84           | 70.832113 | 1.99                             | 29.2%  | da              | Elhercegovina   |
| 129       | TS 110/35/10 kV Bileća                        |           | 6.374                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 6.37                             | 100.0% | ne              | Elhercegovina   |
| 130       | TS 400/110/35 kV Gacko <sup>*6</sup>          |           | 6.6                             | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 6.63                             | 100.0% | da/nije u funk. | Elhercegovina   |
| 131       | TS 110/10 kV Nevesinje                        |           | 4.356                           | 0              |           | 0               |           | 0                |           | 0               |           | 0.00           |           | 4.36                             | 100.0% | ne              | Elhercegovina   |
| 132       | TS 110/10/35 kV Brčko 1                       |           | 32.364                          |                |           | 9.3818113       | 28.988417 | 10.955027        | 33.849421 | 10.70886        | 33.088803 | 31.05          | 95.926641 | 1.32                             | 4.1%   | da              | JP Kom. Brčko   |
| 133       | TS 110/35/10 kV Brčko 2                       |           | 28.668                          | 6.0828083      | 21.218112 |                 | 0         |                  |           |                 | 0         | 6.08           | 21.218112 | 22.59                            | 78.8%  | da              | JP Kom. Brčko   |
| 134       | EVP 110/25 kV Blažuj                          |           | 0.26                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.26                             | 100.0% | ne              |                 |
| 135       | EVP 110/25 kV Dobrinje                        |           | 0.97                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.97                             | 100.0% | ne              |                 |
| 136       | EVP 110/25 kV Konjic                          |           | 0.09                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.09                             | 100.0% | ne              |                 |
| 137       | EVP 110/25 kV Kulen Vakuf                     |           | 0.00                            |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne              |                 |
| 138       | EVP 110/25 kV Banja Luka                      |           | 1.142                           |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne              |                 |
| 139       | EVP 110/25 kV Doboј                           |           | 0.70                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.70                             | 100.0% | ne              |                 |
| 140       | Polihem Tuzla (HAK) - 110 kV                  |           | 0.05                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.05                             | 100.0% | ne              |                 |
| 141       | Željezara Ilijaš - 110 kV                     |           | 0.26                            |                | 0.0%      |                 | 0.0%      |                  | 0.0%      |                 | 0.0%      | 0.00           | 0.0%      | 0.26                             | 100.0% | ne              |                 |
| 142       | Željezara Jug - 110 kV                        |           | 18.22                           |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne              |                 |
| 143       | Željezara Sjever - 110 kV                     |           | 17.34                           |                |           |                 |           |                  |           |                 |           | 0.00           |           |                                  |        | ne              |                 |
| 144       | EAL 220 kV                                    |           | 216.48                          |                |           |                 |           |                  |           |                 |           | 0.00           |           | 216.48                           | 100.0% | ne              |                 |
| UKUPNO    |                                               |           | 1,921.26                        | 131.07         | 6.822     | 162.24          | 8.445     | 164.42           | 8.558     | 166.58          | 8.670     | 624.31         | 32.495    | 1,297.0                          | 67.505 |                 |                 |

\*1): Ostvareno istovremeno vršno opterećenje EES-a BiH na dan 31.12.2012. u 18:00 sati.

\*2): U naznačeni iznos od 8,66MW nije uključena snaga odvoda "A35 (B35) - Marijin dvor 3", obzirom da je na ovom odvodu konstatovano neispravno mjerenje

\*3): Zbog specifičnosti svog položaja, TS neće biti u sistemu podfrekventne zaštite

\*4): Trenutna konfiguracija zaštitno upravljačkog terminala u TS ne podržava funkciju podfrekventne zaštite

\*5): Zbog tehničkih ograničenja u TS 400/220/110/10 kV Mostar 4, TS 110/20/10 kV Mostar 5, TS 110/35/10 kV Mostar 6 i TS 110/10 kV Mostar 7 nije moguće. aktiviranje podfrekventne zaštite.



# Pregled podfrekventnog rasterećenja - Prijedlog 2013

ELEKTROPRENOS BiH / EES BiH

| red. broj | naziv TS | snaga TS: | $P_{\max}^{*1)}$ | $P_I$ |     | $P_{II}$ |     | $P_{III}$ |     | $P_{IV}$ |     | $P_{\Sigma}$ |     | Preostala snaga za rasterećenje: |     | Ugrađen relej? | Distribucija |
|-----------|----------|-----------|------------------|-------|-----|----------|-----|-----------|-----|----------|-----|--------------|-----|----------------------------------|-----|----------------|--------------|
|           |          | (MVA)     | (MW)             | (MW)  | (%) | (MW)     | (%) | (MW)      | (%) | (MW)     | (%) | (MW)         | (%) | (MW)                             | (%) |                |              |

**\*6):** Zbog specifičnosti položaja TS 400/110/35 kV Gacko i TS 400/110/35 kV Ugljevik ne predlaže se njihovo uključanje u sistem podfrekventne zaštite.

**\*7):** Zbog tehničkih ograničenja u TS 400/220/110/35 kV Sarajevo 20 i TS 110/35/10 kV Lopare nije moguće aktiviranje podfrekventne zaštite

**\*8 :** Na 20 kV strani u TS 110/20/10 kV Uskoplje priključene su mini HE preko izvoda KO 20 kV Voljevac, koje su na dan 31.12.2012. god. u 18:00 sati proizvodile  $P_{mHE} = 1.896$  MW. Suma opterećenja u u TS 110/20/10 kV Uskoplju je:  $P_{\Sigma} = 4.176 + 1.896 = 6.076$  MW  $\approx 6.1$  MW

**\*9:** U TS 110/35/10 kV: Doboj1, Doboj 3, Modriča, Derventa, Šamac, i Zvornik postoje releji podfrekventne zaštite ali nisu u funkciji da ne bi dolazilo do preklapanja sa podfrekventnim zaštitama u TS 35/10 kV, koje se napajaju iz navedenih TS 110/35/10 kV.

Pregled podfrekventnog rasterećenja - Prijedlog 2013

JP Elektroprivreda BiH

| red. broj: | naziv TS                     | snaga TS: | P <sub>max</sub> *1) | P <sub>I</sub> |       | P <sub>II</sub> |       | P <sub>III</sub> |       | P <sub>IV</sub> |       | P <sub>Σ</sub> |       | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Distribucija |
|------------|------------------------------|-----------|----------------------|----------------|-------|-----------------|-------|------------------|-------|-----------------|-------|----------------|-------|----------------------------------|--------|-----------------|--------------|
|            |                              | (MVA)     | (MW)                 | (MW)           | (%)   | (MW)            | (%)   | (MW)             | (%)   | (MW)            | (%)   | (MW)           | (%)   | (MW)                             | (%)    |                 |              |
| 1          | TS 110/35/10 kV Sarajevo 1   |           | 19.04                | 9.35           | 49.1% | 5.62            | 29.5% |                  | 0.0%  |                 | 0.0%  | 14.97          | 78.6% | 4.07                             | 21.4%  | da              | Sarajevo     |
| 2          | TS 110/35/10 kV Sarajevo 2   |           | 8.94                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  | 5.14            | 57.5% | 5.14           | 57.5% | 3.80                             | 42.5%  | da              | Sarajevo     |
| 3          | TS 110/10 kV Sarajevo 4      |           | 12.82                |                | 0.0%  | 7.21            | 56.3% |                  | 0.0%  |                 | 0.0%  | 7.21           | 56.3% | 5.61                             | 43.7%  | da              | Sarajevo     |
| 4          | TS 110/10 kV Sarajevo 5      |           | 26.53                |                | 0.0%  |                 | 0.0%  | 9.92             | 37.4% | 8.15            | 30.7% | 18.07          | 68.1% | 8.46                             | 31.9%  | da              | Sarajevo     |
| 5          | TS 110/10 kV Sarajevo 7      |           | 29.41                |                | 0.0%  |                 | 0.0%  |                  | 0.0%  | 14.56           | 49.5% | 14.56          | 49.5% | 14.85                            | 50.5%  | da              | Sarajevo     |
| 6          | TS 110/10 kV Sarajevo 8      |           | 19.35                |                | 0.0%  | 3.89            | 20.1% |                  | 0.0%  | 8.27            | 42.7% | 12.16          | 62.8% | 7.19                             | 37.2%  | da              | Sarajevo     |
| 7          | TS 110/10 kV Sarajevo 11     |           | 22.25                |                |       |                 |       |                  |       |                 |       |                |       | 22.25                            | 100.0% | ne              | Sarajevo     |
| 8          | TS 110/10 kV Sarajevo 13 *2) |           | 20.61                |                | 0.0%  |                 | 0.0%  |                  | 0.0%  | 8.66            | 42.0% | 8.66           | 42.0% | 11.95                            | 58.0%  | da              | Sarajevo     |
| 9          | TS 110/10 kV Sarajevo 14     |           | 26.67                |                | 0.0%  |                 | 0.0%  | 16.35            | 61.3% | 2.02            | 7.6%  | 18.37          | 68.9% | 8.29                             | 31.1%  | da              | Sarajevo     |
| 10         | TS 110/10 kV Sarajevo 15     |           | 16.62                |                | 0.0%  | 14.28           | 85.9% |                  | 0.0%  |                 | 0.0%  | 14.28          | 85.9% | 2.34                             | 14.1%  | da              | Sarajevo     |
| 11         | TS 110/10 kV Sarajevo 18     |           | 10.56                | 6.69           | 63.3% |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 6.69           | 63.3% | 3.87                             | 36.7%  | da              | Sarajevo     |
| 12         | TS 110/35/10 kV Pazarić      |           | 5.06                 |                | 0.0%  | 3.70            | 73.1% |                  | 0.0%  |                 | 0.0%  | 3.70           | 73.1% | 1.36                             | 26.9%  | da              | Sarajevo     |
| 13         | TS 110/20/10 kV Zenica 3     |           | 24.24                | 3.50           | 14.4% | 5.40            | 22.3% | 5.20             | 21.4% | 4.00            | 16.5% | 18.10          | 74.7% | 6.14                             | 25.3%  | da              | Zenica       |
| 14         | TS 110/35/10 kV Travnik 1    |           | 14.84                | 2.00           | 13.5% | 1.04            | 7.0%  | 1.00             | 6.7%  |                 | 0.0%  | 4.04           | 27.2% | 10.80                            | 72.8%  | da              | Zenica       |
| 15         | TS 110/35/10 kV Vareš        |           | 2.80                 | 0.10           | 3.6%  | 0.60            | 21.4% | 0.80             | 28.5% |                 | 0.0%  | 1.50           | 53.5% | 1.30                             | 46.5%  | da              | Zenica       |
| 16         | TS 110/20/10 kV Bugojno      |           | 9.89                 | 1.30           | 13.1% | 2.30            | 23.3% | 0.00             | 0.0%  |                 | 0.0%  | 3.60           | 36.4% | 6.29                             | 63.6%  | da              | Zenica       |
| 17         | TS 110/35/10 kV Gračanica    |           | 15.32                | 11.50          | 75.1% | 1.00            | 6.5%  |                  | 0.0%  |                 | 0.0%  | 12.50          | 81.6% | 2.82                             | 18.4%  | da              | Tuzla        |
| 18         | TS 110/35/10 kV Srebrenik    |           | 10.59                |                | 0.0%  |                 | 0.0%  | 7.50             | 70.8% | 2.80            | 26.4% | 10.30          | 97.3% | 0.29                             | 2.7%   | da              | Tuzla        |
| 19         | TS 110/35/6 kV Đurdevik      |           | 13.68                |                | 0.0%  |                 | 0.0%  |                  | 0.0%  | 9.80            | 71.7% | 9.80           | 71.7% | 3.88                             | 28.3%  | da              | Tuzla        |
| 20         | TS 110/35/10 kV Maglaj       |           | 7.29                 | 0.20           | 2.7%  | 1.90            | 26.1% | 1.30             | 17.8% |                 | 0.0%  | 3.40           | 46.7% | 3.89                             | 53.3%  | da              | Zenica       |
| 21         | TS 110/35/10 kV Gradačac     |           | 15.07                |                | 0.0%  | 6.00            | 39.8% | 8.00             | 53.1% |                 | 0.0%  | 14.00          | 92.9% | 1.07                             | 7.1%   | da              | Tuzla        |
| 22         | TS 110/20/10 kV Hadžići      |           | 6.57                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  | 3.94            | 60.0% | 3.94           | 60.0% | 2.63                             | 40.0%  | da              | Sarajevo     |
| 23         | TS 110/35 kV Goražde 1 *3)   |           | 6.89                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 6.89                             | 100.0% | da/nije u funk. | Sarajevo     |
| 24         | TS 110/35/6 kV Tuzla 5 *3)   |           | 18.58                |                | 0.0%  | 0.00            | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 18.58                            | 100.0% | da/nije u funk. | Tuzla        |
| 25         | TS 110/35/6 kV Banovići      |           | 9.87                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 9.87                             | 100.0% | ne              | Tuzla        |
| 26         | TS 110/35 kV Lukavac         |           | 30.92                |                | 0.0%  | 7.50            | 24.3% |                  | 0.0%  | 13.00           | 42.1% | 20.50          | 66.3% | 10.42                            | 33.7%  | da              | Tuzla        |
| 27         | TS 110/35/10 kV Tuzla Centar |           | 42.87                |                | 0.0%  | 6.60            | 15.4% | 11.00            | 25.7% |                 | 0.0%  | 17.60          | 41.1% | 25.27                            | 58.9%  | da              | Tuzla        |
| 28         | TS 110/35 kV Kladanj         |           | 5.93                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 5.93                             | 100.0% | ne              | Tuzla        |
| 29         | TS 110/35/10 kV Breza        |           | 13.98                | 0.80           | 5.7%  | 0.90            | 6.4%  | 1.40             | 10.0% |                 | 0.0%  | 3.10           | 22.2% | 10.88                            | 77.8%  | da              | Zenica       |
| 30         | TS 110/35/10 kV Tešanj       |           | 16.17                | 2.80           | 17.3% | 1.60            | 9.9%  | 0.80             | 4.9%  |                 | 0.0%  | 5.20           | 32.2% | 10.97                            | 67.8%  | da              | Zenica       |
| 31         | TS 110/35 kV Zenica 1        |           | 4.22                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 4.22                             | 100.0% | ne              | Zenica       |
| 32         | TS 110/35/20 kV Zenica 4     |           | 14.47                | 1.60           | 11.1% | 3.10            | 21.4% | 2.00             | 13.8% |                 | 0.0%  | 6.70           | 46.3% | 7.77                             | 53.7%  | da              | Zenica       |
| 33         | TS 110/35/10 kV Zavidovići   |           | 18.72                | 2.70           | 14.4% | 3.00            | 16.0% | 2.00             | 10.7% | 0.30            | 1.6%  | 8.00           | 42.7% | 10.72                            | 57.3%  | da              | Zenica       |
| 34         | TS 110/35/10 kV Visoko       |           | 19.10                | 2.10           | 11.0% | 2.10            | 11.0% | 2.50             | 13.1% |                 | 0.0%  | 6.70           | 35.1% | 12.40                            | 64.9%  | da              | Zenica       |
| 35         | TS 110/20 kV Donji Vakuf     |           | 2.82                 | 0.27           | 9.6%  | 0.23            | 8.2%  |                  | 0.0%  |                 | 0.0%  | 0.50           | 17.7% | 2.32                             | 82.3%  | da              | Zenica       |
| 36         | TS 110/20/10 kV Travnik 2    |           | 7.37                 | 1.80           | 24.4% | 0.70            | 9.5%  | 2.00             | 27.1% |                 | 0.0%  | 4.50           | 61.1% | 2.87                             | 38.9%  | da              | Zenica       |
| 37         | TS 110/35/10 kV Cementara    |           | 0.88                 |                | 0.0%  |                 | 0.0%  |                  | 0.0%  |                 | 0.0%  | 0.00           | 0.0%  | 0.88                             | 100.0% | ne              | Zenica       |
| 38         | TS 110/35/10 kV Konjic       |           | 7.53                 | 1.18           | 15.7% | 0.86            | 11.4% |                  | 0.0%  | 2.10            | 27.9% | 4.14           | 55.0% | 3.39                             | 45.0%  | da              | Mostar       |

# Pregled podfrekventnog rasterećenja - Prijedlog 2013

JP Elektroprivreda BiH

| red. broj: | naziv TS                          | snaga TS: | P <sub>max</sub> *1) | P <sub>I</sub> |       | P <sub>II</sub> |        | P <sub>III</sub> |        | P <sub>IV</sub> |        | P <sub>Σ</sub> |        | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Distribucija |
|------------|-----------------------------------|-----------|----------------------|----------------|-------|-----------------|--------|------------------|--------|-----------------|--------|----------------|--------|----------------------------------|--------|-----------------|--------------|
|            |                                   | (MVA)     | (MW)                 | (MW)           | (%)   | (MW)            | (%)    | (MW)             | (%)    | (MW)            | (%)    | (MW)           | (%)    | (MW)                             | (%)    |                 |              |
| 39         | TS 110/35/10 kV Jablanica *4)     |           | 2.20                 | 0.00           | 0.0%  | 0.00            | 0.0%   | 0.00             | 0.0%   |                 | 0.0%   | 0.00           | 0.0%   | 2.20                             | 100.0% | da/nije u funk. | Mostar       |
| 40         | TS 110/35/10 kV Mostar 2          |           | 22.97                | 1.90           | 8.3%  | 3.70            | 16.1%  | 2.10             | 9.1%   | 3.10            | 13.5%  | 10.80          | 47.0%  | 12.17                            | 53.0%  | da              | Mostar       |
| 41         | TS 220/110/35/10 kV Bihać 1       |           | 12.32                | 3.10           | 25.2% | 0.30            | 2.4%   | 2.70             | 21.9%  | 2.50            | 20.3%  | 8.60           | 69.8%  | 3.72                             | 30.2%  | da              | Bihać        |
| 42         | TS 110/20 kV Bihać 2              |           | 8.72                 | 0.55           | 6.3%  | 1.40            | 16.0%  |                  | 0.0%   | 1.48            | 17.0%  | 3.43           | 39.3%  | 5.30                             | 60.7%  | da              | Bihać        |
| 43         | TS 110/35/10 kV Bosanska Krupa    |           | 5.81                 | 0.60           | 10.3% | 1.91            | 32.9%  | 0.73             | 12.6%  | 0.56            | 9.6%   | 3.80           | 65.4%  | 2.01                             | 34.6%  | da              | Bihać        |
| 44         | TS 110/35/10 kV Bosanski Petrovac |           | 3.99                 |                | 0.0%  |                 | 0.0%   |                  | 0.0%   |                 | 0.0%   | 0.00           | 0.0%   | 3.99                             | 100.0% | ne              | Bihać        |
| 45         | TS 110/35/10 kV Cazin 1           |           | 16.78                | 3.50           | 20.9% | 2.00            | 11.9%  | 4.70             | 28.0%  |                 | 0.0%   | 10.20          | 60.8%  | 6.58                             | 39.2%  | da              | Bihać        |
| 46         | TS 110/20/10 kV Cazin 2           |           | 4.01                 | 1.03           | 25.7% | 0.63            | 15.7%  | 0.21             | 5.2%   |                 | 0.0%   | 1.87           | 46.6%  | 2.14                             | 53.4%  | da              | Bihać        |
| 47         | TS 110/20/10 kV Ključ             |           | 5.02                 | 0.10           | 2.0%  | 0.40            | 8.0%   | 1.40             | 27.9%  | 0.90            | 17.9%  | 2.80           | 55.8%  | 2.22                             | 44.2%  | da              | Bihać        |
| 48         | TS 110/20/10 kV Sanski Most       |           | 11.14                | 0.70           | 6.3%  | 1.40            | 12.6%  | 2.10             | 18.9%  | 2.80            | 25.1%  | 7.00           | 62.8%  | 4.14                             | 37.2%  | da              | Bihać        |
| 49         | TS 110/35/10 kV Velika Kladuša    |           | 9.86                 | 1.26           | 12.8% | 0.68            | 6.9%   | 2.31             | 23.4%  | 4.20            | 42.6%  | 8.45           | 85.7%  | 1.41                             | 14.3%  | da              | Bihać        |
| 50         | TS 110/35/10 kV Vrnograč          |           | 7.52                 | 0.33           | 4.4%  | 1.18            | 15.7%  |                  | 0.0%   | 0.79            | 10.5%  | 2.30           | 30.6%  | 5.22                             | 69.4%  | da              | Bihać        |
| 51         | TS 110/10/20 kV Doboj Istok       |           | 3.974                |                |       |                 |        |                  |        |                 |        | 0.00           |        | 3.97                             |        | ne              | Tuzla        |
| UKUPNO     |                                   |           | 672.77               | 60.95          | 9.060 | 93.12           | 13.842 | 88.02            | 13.083 | 99.065          | 14.725 | 341.16         | 50.710 | 331.6                            | 49.290 |                 |              |

\*1): Ostvareno istovremeno vršno opterećenje EES-a BiH na dan 31.12.2012. u 18:00 sati

\*2): U naznačeni iznos od 8,66MW nije uključena snaga odvoda "A35 (B35) - Marijin dvor 3", obzirom da je na ovom odvodu konstatovano neispravno mjerenje

\*3): Zbog specifičnosti svog položaja, TS neće biti u sistemu podfrekventne zaštite

\*4): Trenutna konfiguracija zaštitno upravljačkog terminala u TS ne podržava funkciju podfrekventne zaštite

Pregled podfrekventnog rasterećenja - Prijedlog 2013

EP HZ HB

| red. broj: | naziv TS                                    | snaga TS: | P <sub>max</sub> <sup>*1)</sup> | P <sub>I</sub> |           | P <sub>II</sub> |           | P <sub>III</sub> |           | P <sub>IV</sub> |           | P <sub>Σ</sub> |           | Preostala snaga za rasterećenje: |        | Ugrađen relej?  | Napomena |
|------------|---------------------------------------------|-----------|---------------------------------|----------------|-----------|-----------------|-----------|------------------|-----------|-----------------|-----------|----------------|-----------|----------------------------------|--------|-----------------|----------|
|            |                                             | (MVA)     | (MW)                            | (MW)           | (%)       | (MW)            | (%)       | (MW)             | (%)       | (MW)            | (%)       | (MW)           | (%)       | (MW)                             | (%)    |                 |          |
| 1          | TS 110/10 kV Neum                           |           | 2.616                           | 0.27           | 10.321101 | 0.34            | 12.996942 | 0.2              | 7.6452599 | 0.12            | 4.587156  | 0.93           | 35.550459 | 1.686                            | 64.4%  | da              | NHŽ      |
| 2          | TS 110/10 kV Čapljina                       |           | 14.256                          | 1.81           | 12.696409 | 1.82            | 12.766554 | 1.61             | 11.29349  | 2               | 14.029181 | 7.24           | 50.785634 | 7.016                            | 49.2%  | da              | NHŽ      |
| 3          | TS 110/35/10 kV Stolac                      |           | 6.1                             | 0.03           | 0.4918033 | 0.43            | 7.0491803 | 0.53             | 8.6885246 | 0.2             | 3.2786885 | 1.19           | 19.508197 | 4.91                             | 80.5%  | da              | NHŽ      |
| 4          | TS 110/10 kV Čitluk                         |           | 20.448                          | 1.39           | 6.7977308 | 1.63            | 7.9714397 | 2.56             | 12.519562 | 2.08            | 10.172144 | 7.66           | 37.460876 | 12.788                           | 62.5%  | da              | NHŽ      |
| 5          | TS 110/35/10 kV Ljubuški                    |           | 20.716                          | 1.51           | 7.2890519 | 2.6             | 12.502414 | 2.79             | 13.467851 | 1.89            | 9.1233829 | 8.78           | 42.382699 | 11.936                           | 57.6%  | da              | NHŽ      |
| 6          | TS 400/220/110/10 kV Mostar 4 <sup>*2</sup> |           | 2.592                           |                | 0         |                 |           |                  | 0         |                 | 0         | 0              | 0         | 2.592                            | 100.0% | da/nije u funk. | NHŽ      |
| 7          | TS 110/20/10 kV Mostar 5 <sup>*2</sup>      |           | 8.144                           |                | 0         |                 | 0         |                  | 0         |                 | 0         | 0              | 0         | 8.144                            | 100.0% | da/nije u funk. | NHŽ      |
| 8          | TS 110/35/10 kV Mostar 6 <sup>*2</sup>      |           | 22.416                          |                | 0         |                 | 0         |                  | 0         |                 | 0         | 0              | 0         | 22.416                           | 100.0% | da/nije u funk. | NHŽ      |
| 9          | TS 110/10 kV Mostar 7 <sup>*2</sup>         |           | 18.048                          |                | 0         |                 | 0         |                  | 0         |                 | 0         | 0              | 0         | 18.048                           | 100.0% | da/nije u funk. | NHŽ      |
| 10         | TS 110/10 kV Široki Brijeg                  |           | 17.808                          | 1.04           | 5.8400719 | 2.55            | 14.319407 | 2.46             | 13.814016 | 3.8             | 21.338724 | 9.85           | 55.312219 | 7.958                            | 44.7%  | da              | ZHŽ      |
| 11         | TS 110/10 kV Grude                          |           | 10.936                          |                |           |                 |           |                  |           |                 |           |                |           | 10.936                           | 100.0% | ne              | ZHŽ      |
| 12         | TS 110/20/10 kV Vitez                       |           | 12.72                           |                |           |                 |           |                  |           |                 |           |                |           | 12.72                            | 100.0% | ne              | SBŽ      |
| 13         | TS 110/10 kV Posušje                        |           | 10.416                          |                |           |                 |           |                  |           |                 |           |                |           | 10.416                           | 100.0% | ne              | ZHŽ      |
| 14         | TS 110/35/10 kV Tomislav Grad               |           | 11.212                          | 1.38           | 12.308241 | 1.79            | 15.965037 | 1.46             | 13.021762 | 1.81            | 16.143418 | 6.44           | 57.438459 | 4.772                            | 42.6%  | da              | HBŽ      |
| 15         | TS 110/35/10 kV Orašje                      |           | 14.608                          |                |           |                 |           |                  |           |                 |           |                |           | 14.608                           | 100.0% | ne              | PŽ       |
| 16         | TS 110/35/10 kV Odžak                       |           | 7.984                           |                |           |                 |           |                  |           |                 |           |                |           | 7.984                            | 100.0% | ne              | PŽ       |
| 17         | TS 110/35/10 kV Livno                       |           | 14.304                          | 1.68           | 11.744966 | 2.3             | 16.079418 | 0                | 0         | 1.76            | 12.304251 | 5.74           | 40.128635 | 8.564                            | 59.9%  | da              | HBŽ      |
| 18         | TS 110/35/10 kV Drvar                       |           | 2.324                           |                |           |                 |           |                  |           |                 |           |                |           | 2.324                            | 100.0% | ne              | HBŽ      |
| 19         | TS 110/10 kV Bosansko Grahovo               |           | 0.576                           |                |           |                 |           |                  |           |                 |           |                |           | 0.576                            | 100.0% | ne              | HBŽ      |
| 20         | TS 110/35/10 kV Kiseljak                    |           | 12.58                           |                |           |                 |           |                  |           |                 |           |                |           | 12.58                            | 100.0% | ne              | SBŽ      |
| 21         | TS 110/35/10 kV Jajce 1                     |           | 22.8                            |                |           |                 |           |                  |           |                 |           |                |           | 22.8                             | 100.0% | ne              | SBŽ      |
| 22         | TS 110/10 kV Busovača                       |           | 6.192                           |                |           |                 |           |                  |           |                 |           |                |           | 6.192                            | 100.0% | ne              | SBŽ      |
| 23         | TS 110/35/10 kV Novi Travnik                |           | 7.392                           |                |           |                 |           |                  |           |                 |           |                |           | 7.392                            | 100.0% | ne              | SBŽ      |
| 24         | TS 110/20/10 kV Uskoplje                    |           | 4.176                           | 1.1            | 26.340996 | 1.6             | 38.314176 | 0.5              | 11.97318  | 2.9             | 69.444444 | 6.1            | 146.0728  | -1.924                           | -46.1% | da              | SBŽ      |
| 25         | TS 220/110/35 kV Jajce 2                    |           | 0                               |                |           |                 |           |                  |           |                 |           |                |           |                                  |        | ne              | SBŽ      |
| 26         | TS 110/20/10 kV Kupres                      |           | 3.528                           |                |           |                 |           |                  |           |                 |           |                |           |                                  |        | ne              | HBŽ      |
| 27         | TS 110/35/10 kV Rama/Prozor                 |           | 5.712                           |                |           |                 |           |                  |           |                 |           |                |           |                                  |        | ne              | NHŽ      |
| UKUPNO     |                                             |           | 280.60                          | 10.21          | 3.639     | 15.05           | 5.363     | 12.11            | 4.316     | 16.56           | 5.902     | 53.93          | 19.219    | 226.7                            | 80.781 |                 |          |

\*1): Ostvareno istovremeno vršno opterećenje EES-a BiH na dan 31.12.2012. u 18:00 sati

\*2): Zbog tehničkih ograničenja u TS 400/220/110/10 kV Mostar 4, TS 110/20/10 kV Mostar 5, TS 110/35/10 kV Mostar 6 i TS 110/10 kV Mostar 7 nije moguće aktiviranje podfrekventne zaštite.

\*3 : Na 20 kV strani u TS 110/20/10 kV Uskoplje priključene su mini HE preko izvoda KO 20 kV Voljevac, koje su na dan 31.12.2012. god. u 18:00 sati proizvodile  $P_{mHE} = 1.896$  MW. Suma opterećenja u u TS 110/20/10 kV Uskoplju je:  $P_{\Sigma} = 4.176 + 1.896 = 6.076$  MW  $\approx 6.1$  MW

Pregled podfrekventnog rasterećenja - Prijedlog 2013

MH ERS

| red. broj | Naziv TS                        | P <sub>iz</sub> | P <sub>I</sub> |         | P <sub>II</sub> |         | P <sub>III</sub> |         | P <sub>IV</sub> |         | P <sub>Σ</sub> |         | preostala snaga za rasterećenje: |         | ugrađen relej? |
|-----------|---------------------------------|-----------------|----------------|---------|-----------------|---------|------------------|---------|-----------------|---------|----------------|---------|----------------------------------|---------|----------------|
|           |                                 | (MW)            | (MW)           | (%)     | (MW)            | (%)     | (MW)             | (%)     | (MW)            | (%)     | (MW)           | (%)     | (MW)                             | (%)     |                |
| 1         | TS 110/35/10 kV Banja Luka 1    | 30.19           | 9.86           | 32.66   | 2.31            | 7.65    | 0.00             | 0.00    | 9.97            | 33.03   | 22.14          | 73.34   | 8.05                             | 26.66   | da             |
| 2         | TS 110/10 kV Banja Luka 2       | 42.33           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 42.33                            | 100.00  | ne             |
| 3         | TS 110/20/10 kV Banja Luka 3    | 46.37           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 46.37                            | 100.00  | ne             |
| 4         | TS 110/20 kV Banja Luka 4       | 9.65            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 9.65                             | 100.00  | ne             |
| 5         | TS 110/20 kV Banja Luka 5       | 8.22            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 8.22                             | 100.00  | ne             |
| 6         | TS 400/110/20 kV Banja Luka 6   | 4.04            | 1.74           | 43.05   | 0.91            | 22.51   | 0.00             | 0.00    | 0.00            | 0.00    | 2.65           | 65.56   | 1.39                             | 34.44   | da             |
| 7         | TS 110/20/6 kV Banja Luka 7     | 0.66            | 0.09           | 13.60   | 0.09            | 13.60   | 0.48             | 72.51   | 0.00            | 0.00    | 0.66           | 99.70   | 0.00                             | 0.30    | da             |
| 8         | TS 110/20 kV Čelinac            | 7.00            | 1.49           | 21.29   | 0.00            | 0.00    | 0.00             | 0.00    | 0.64            | 9.15    | 2.13           | 30.44   | 4.87                             | 69.56   | da             |
| 9         | TS 110/20 kV Ukrina             | 1.68            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 1.68                             | 100.00  | ne             |
| 10        | TS 110/20 kV Kotor Varoš        | 8.34            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 8.34                             | 100.00  | ne             |
| 11        | TS 110/20 kV Laktaši            | 15.98           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 15.98                            | 100.00  | ne             |
| 12        | TS 110/20 kV Banja Luka 8       | 8.49            | 1.70           | 20.03   | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 1.70           | 20.03   | 6.79                             | 79.97   | da             |
| 13        | TS 110/20 kV Prijedor 1         | 26.32           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 4.71            | 17.90   | 4.71           | 17.90   | 21.61                            | 82.10   | da             |
| 14        | TS 110/20 kV Prijedor 3         | 14.31           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 14.31                            | 100.00  | ne             |
| 15        | TS 110/20/6 kV Prijedor 5       | 6.50            | 0.67           | 10.31   | 0.31            | 4.77    | 2.48             | 38.18   | 1.65            | 25.40   | 5.11           | 78.66   | 1.39                             | 21.34   | da             |
| 16        | TS 110/20/10 kV Novi Grad       | 13.39           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 13.39                            | 100.00  | ne             |
| 17        | TS 110/20/10 kV Kozarska Dubica | 13.95           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 13.95                            | 100.00  | ne             |
| 18        | TS 110/20/10 kV Mrkonjić Grad   | 15.11           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 15.11                            | 100.00  | ne             |
| 19        | TS 110/20 kV Srbac              | 10.55           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 10.55                            | 100.00  | ne             |
| 20        | TS 110/20/10 kV Gradiška        | 17.51           | 4.36           | 24.91   | 6.32            | 36.10   | 2.44             | 13.94   | 3.34            | 19.08   | 16.46          | 94.02   | 1.05                             | 5.98    | da             |
| 21        | TS 110/20 kV Nova Topola        | 12.37           | 1.57           | 12.70   | 2.35            | 19.01   | 8.45             | 68.34   | 0.00            | 0.00    | 12.37          | 100.04  | 0.00                             | -0.04   | da             |
| 22        | TS 110/20/10 kV Prnjavor        | 20.10           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 20.10                            | 100.00  | ne             |
| 23        | TS 35/10 kV Usora               | 0.00            | 1.34           | #DIV/0! | 3.20            | #DIV/0! | 1.56             | #DIV/0! | 0.99            | #DIV/0! | 7.09           | #DIV/0! | -7.09                            | #DIV/0! | da             |
| 24        | TS 35/10 kV Rudanka             | 0.00            | 0.35           | #DIV/0! | 1.10            | #DIV/0! | 0.74             | #DIV/0! | 0.52            | #DIV/0! | 2.71           | #DIV/0! | -2.71                            | #DIV/0! | da             |
| 25        | TS 35/10 kV Kotorsko            | 0.00            | 0.26           | #DIV/0! | 0.23            | #DIV/0! | 0.24             | #DIV/0! | 0.56            | #DIV/0! | 1.29           | #DIV/0! | -1.29                            | #DIV/0! | da             |
| 26        | TS 35/10 kV Stanari             | 0.00            | 0.61           | #DIV/0! | 0.45            | #DIV/0! | 0.27             | #DIV/0! | 1.49            | #DIV/0! | 2.82           | #DIV/0! | -2.82                            | #DIV/0! | da             |
| 27        | TS 35/10 kV Sočkovac            | 0.00            | 0.43           | #DIV/0! | 0.80            | #DIV/0! | 0.12             | #DIV/0! | 0.00            | #DIV/0! | 1.35           | #DIV/0! | -1.35                            | #DIV/0! | da             |
| 28        | TS 35/10 kV Petrovo             | 0.00            | 0.38           | #DIV/0! | 0.18            | #DIV/0! | 0.71             | #DIV/0! | 0.00            | #DIV/0! | 1.27           | #DIV/0! | -1.27                            | #DIV/0! | da             |
| 29        | TS 35/10 kV Modriča 2           | 0.00            | 0.80           | #DIV/0! | 0.00            | #DIV/0! | 0.62             | #DIV/0! | 0.75            | #DIV/0! | 2.17           | #DIV/0! | -2.17                            | #DIV/0! | da             |
| 30        | TS 35/10 kV Vranjak             | 0.00            | 0.26           | #DIV/0! | 0.29            | #DIV/0! | 0.29             | #DIV/0! | 0.60            | #DIV/0! | 1.44           | #DIV/0! | -1.44                            | #DIV/0! | da             |
| 31        | TS 35/10 kV Šamac 1             | 0.00            | 0.99           | #DIV/0! | 0.52            | #DIV/0! | 1.05             | #DIV/0! | 1.10            | #DIV/0! | 3.66           | #DIV/0! | -3.66                            | #DIV/0! | da             |
| 32        | TS 35/10 kV Šamac 2             | 0.00            | 0.16           | #DIV/0! | 0.30            | #DIV/0! | 0.20             | #DIV/0! | 0.10            | #DIV/0! | 0.76           | #DIV/0! | -0.76                            | #DIV/0! | da             |
| 33        | TS 35/10 kV Batkuša             | 0.00            | 0.55           | #DIV/0! | 0.00            | #DIV/0! | 0.98             | #DIV/0! | 0.51            | #DIV/0! | 2.04           | #DIV/0! | -2.04                            | #DIV/0! | da             |
| 34        | TS 35/10 kV Žarkovina           | 0.00            | 0.50           | #DIV/0! | 1.07            | #DIV/0! | 0.00             | #DIV/0! | 0.00            | #DIV/0! | 1.57           | #DIV/0! | -1.57                            | #DIV/0! | da             |
| 35        | TS 35/10 kV Blatnica            | 0.00            | 0.32           | #DIV/0! | 0.19            | #DIV/0! | 0.36             | #DIV/0! | 0.00            | #DIV/0! | 0.87           | #DIV/0! | -0.87                            | #DIV/0! | da             |
| 36        | TS 35/10 kV Klupe               | 0.00            | 0.10           | #DIV/0! | 0.21            | #DIV/0! | 0.18             | #DIV/0! | 0.14            | #DIV/0! | 0.63           | #DIV/0! | 0.00                             | #DIV/0! | da             |
| 37        | TS 35/10 kV Modran              | 0.00            | 0.81           | #DIV/0! | 0.20            | #DIV/0! | 0.24             | #DIV/0! | 0.40            | #DIV/0! | 1.65           | #DIV/0! | -1.65                            | #DIV/0! | da             |
| 38        | TS 35/10 kV Brod 2              | 0.00            | 0.00           | #DIV/0! | 0.00            | #DIV/0! | 0.00             | #DIV/0! | 0.00            | #DIV/0! | 0.00           | #DIV/0! | 0.00                             | #DIV/0! | ne             |
| 39        | TS 110/35/10 kV Doboj 1         | 17.75           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 17.75                            | 100.00  | da/nije u f-ji |
| 40        | TS 110/35/10 kV Doboj 2         | 9.79            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 9.79                             | 100.00  | ne             |
| 41        | TS 110/35/10 kV Doboj 3         | 5.43            | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 5.43                             | 100.00  | da/nije u f-ji |
| 42        | TS 110/35/10 kV Modriča 1       | 14.38           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 14.38                            | 100.00  | da/nije u f-ji |
| 43        | TS 110/35/10 kV Derventa        | 14.10           | 0.00           | 0.00    | 0.00            | 0.00    | 0.00             | 0.00    | 0.00            | 0.00    | 0.00           | 0.00    | 14.10                            | 100.00  | da/nije u f-ji |

|    |                                    |       |      |         |      |         |       |         |      |         |       |         |       |         |                                    |
|----|------------------------------------|-------|------|---------|------|---------|-------|---------|------|---------|-------|---------|-------|---------|------------------------------------|
| 44 | TS 110/35/10/6 kV Brod 1           | 13.12 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 13.12 | 100.00  | ne                                 |
| 45 | TS 110/35/10 kV Teslić             | 17.61 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 17.61 | 100.00  | ne                                 |
| 46 | TS 110/35/10 kV Šamac              | 9.61  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 9.61  | 100.00  | da/nije u f-ji                     |
| 47 | TS 110/35 kV Stanari               | 2.82  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 2.82  | 100.00  | ne                                 |
| 48 | TS 110/35/10 kV Bijeljina 1        | 33.71 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 33.71 | 100.00  | ne                                 |
| 49 | TS 110/35/10 kV Bijeljina 2        | 0.05  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.05  | 100.00  | ne                                 |
| 50 | TS 110/35/10 kV Bijeljina 3        | 24.73 | 6.80 | 27.50   | 0.00 | 0.00    | 13.85 | 56.01   | 3.27 | 13.22   | 23.92 | 96.73   | 0.81  | 3.27    | da                                 |
| 51 | TS 110/35/10 kV Janja              | 5.80  | 1.94 | 33.46   | 0.98 | 16.90   | 1.78  | 30.70   | 0.00 | 0.00    | 4.70  | 81.06   | 1.10  | 18.94   | da                                 |
| 52 | TS 110/35 kV RP Ugljevik           | 10.02 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 10.02 | 100.00  | da/nije u f-ji                     |
| 53 | TS 110/35/10 kV Lopare             | 2.24  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 2.24  | 100.00  | da/nije u f-ji                     |
| 54 | TS 110/35 kV Zvornik               | 14.04 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 14.04 | 100.00  | da/nije u f-ji                     |
| 55 | TS 110/35/10 kV Srebrenica         | 10.84 | 0.42 | 3.88    | 0.00 | 0.00    | 2.13  | 19.66   | 0.00 | 0.00    | 2.55  | 23.53   | 8.29  | 76.47   | da                                 |
| 56 | TS 110/35/10 kV Vlasenica          | 9.70  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 9.70  | 100.00  | ne                                 |
| 57 | TS 35/10 kV Bijeljina II           | 0.00  | 0.69 | #DIV/0! | 1.36 | #DIV/0! | 1.56  | #DIV/0! | 2.22 | #DIV/0! | 5.83  | #DIV/0! | -5.83 | #DIV/0! | da                                 |
| 58 | TS 35/10 kV Bijeljina III          | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | ne                                 |
| 59 | TS 35/10 kV Bijeljina IV           | 0.00  | 0.00 | #DIV/0! | 3.87 | #DIV/0! | 0.81  | #DIV/0! | 0.00 | #DIV/0! | 4.68  | #DIV/0! | -4.68 | #DIV/0! | da                                 |
| 60 | TS 35/10 kV Ostojićevo             | 0.00  | 1.71 | #DIV/0! | 2.28 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 3.99  | #DIV/0! | -3.99 | #DIV/0! | da                                 |
| 61 | TS 35/10 kV Dvorovi                | 0.00  | 0.87 | #DIV/0! | 0.20 | #DIV/0! | 0.49  | #DIV/0! | 0.00 | #DIV/0! | 1.56  | #DIV/0! | -1.56 | #DIV/0! | da                                 |
| 62 | TS 35/10 kV Čadavica               | 0.00  | 0.00 | #DIV/0! | 1.05 | #DIV/0! | 1.06  | #DIV/0! | 0.00 | #DIV/0! | 2.11  | #DIV/0! | -2.11 | #DIV/0! | da                                 |
| 63 | TS 35/10 kV Pelagićevo             | 0.00  | 0.23 | #DIV/0! | 0.06 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.29  | #DIV/0! | -0.29 | #DIV/0! | da                                 |
| 64 | TS 35/10 kV Branjevo               | 0.00  | 0.33 | #DIV/0! | 0.24 | #DIV/0! | 0.80  | #DIV/0! | 0.00 | #DIV/0! | 1.37  | #DIV/0! | -1.37 | #DIV/0! | da                                 |
| 65 | TS 35/10 kV Kozluk                 | 0.00  | 0.62 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.62  | #DIV/0! | -0.62 | #DIV/0! | da                                 |
| 66 | TS 35/10 kV Karakaj                | 0.00  | 0.00 | #DIV/0! | 0.68 | #DIV/0! | 1.49  | #DIV/0! | 0.55 | #DIV/0! | 2.72  | #DIV/0! | -2.72 | #DIV/0! | da                                 |
| 67 | TS 35/10 kV Zvornik                | 0.00  | 0.54 | #DIV/0! | 0.01 | #DIV/0! | 0.62  | #DIV/0! | 1.10 | #DIV/0! | 2.27  | #DIV/0! | -2.27 | #DIV/0! | da                                 |
| 68 | TS 35/10 kV Kamenica               | 0.00  | 0.15 | #DIV/0! | 0.15 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.30  | #DIV/0! | -0.30 | #DIV/0! | da                                 |
| 69 | TS 35/10 kV Caparde                | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | da                                 |
| 70 | TS 35/10 kV Dušanovo               | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | ne                                 |
| 71 | TS 35/10 kV Milići                 | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | ne                                 |
| 72 | TS 35/10 kV Šekovići               | 0.00  | 0.29 | #DIV/0! | 0.15 | #DIV/0! | 0.35  | #DIV/0! | 0.45 | #DIV/0! | 1.24  | #DIV/0! | -1.24 | #DIV/0! | da                                 |
| 73 | TS 35/10 kV G.Zalukovik            | 0.00  | 0.08 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.08  | #DIV/0! | -0.08 | #DIV/0! | da                                 |
| 74 | TS 35/10 kV Han Pijesak            | 0.00  | 0.00 | #DIV/0! | 0.08 | #DIV/0! | 0.18  | #DIV/0! | 0.00 | #DIV/0! | 0.26  | #DIV/0! | -0.26 | #DIV/0! | da                                 |
| 75 | TS 35/10 kV Zeleni Jadar           | 0.00  | 0.20 | #DIV/0! | 0.00 | #DIV/0! | 0.15  | #DIV/0! | 0.00 | #DIV/0! | 0.35  | #DIV/0! | -0.35 | #DIV/0! | da                                 |
| 76 | TS 35/10 kV Srebrenica             | 0.00  | 0.10 | #DIV/0! | 0.03 | #DIV/0! | 0.04  | #DIV/0! | 0.20 | #DIV/0! | 0.37  | #DIV/0! | -0.37 | #DIV/0! | da                                 |
| 77 | TS 35/10 kV Bratunac I             | 0.00  | 0.33 | #DIV/0! | 0.71 | #DIV/0! | 0.13  | #DIV/0! | 0.04 | #DIV/0! | 1.21  | #DIV/0! | -1.21 | #DIV/0! | da                                 |
| 78 | TS 35/10 kV Bratunac II            | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | ne                                 |
| 79 | TS 35/10 kV Kravica                | 0.00  | 0.21 | #DIV/0! | 0.00 | #DIV/0! | 0.13  | #DIV/0! | 0.00 | #DIV/0! | 0.34  | #DIV/0! | -0.34 | #DIV/0! | da                                 |
| 80 | TS 35/10 kV Modran                 | 0.00  | 1.04 | #DIV/0! | 0.00 | #DIV/0! | 1.19  | #DIV/0! | 0.00 | #DIV/0! | 2.23  | #DIV/0! | -2.23 | #DIV/0! | da                                 |
| 81 | TS 35/10 kV Priboj                 | 0.00  | 0.01 | #DIV/0! | 0.20 | #DIV/0! | 0.15  | #DIV/0! | 0.00 | #DIV/0! | 0.36  | #DIV/0! | -0.36 | #DIV/0! | da                                 |
| 82 | TS Glinica - 110 kV                | 5.37  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 5.37  | 100.00  | ne                                 |
| 83 | TS 110/35/10kV Pale                | 16.99 | 2.62 | 15.39   | 5.43 | 31.93   | 1.88  | 11.08   | 3.28 | 19.30   | 13.20 | 77.70   | 3.79  | 22.30   | da                                 |
| 84 | TS 110/35/10kV Sokolac             | 5.40  | 0.57 | 10.49   | 0.94 | 17.48   | 1.24  | 22.98   | 0.00 | 0.00    | 2.75  | 50.95   | 2.65  | 49.05   | da                                 |
| 85 | TS 110/35/10kV Foča                | 8.42  | 1.06 | 12.59   | 0.39 | 4.63    | 0.86  | 10.26   | 0.00 | 0.00    | 2.32  | 27.48   | 6.11  | 72.52   | da                                 |
| 86 | TS 400/220/110/35/10kV Sarajevo 20 | 22.25 | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 22.25 | 100.00  | da/nije u f-iji                    |
| 87 | TS 110/35/10kV Rogatica            | 3.80  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 3.80  | 100.00  | ne                                 |
| 88 | TS 400/220/110/35/10kV Višegrad    | 7.22  | 0.53 | 7.39    | 1.87 | 25.86   | 0.81  | 11.24   | 0.37 | 5.13    | 3.58  | 49.61   | 3.64  | 50.39   | da                                 |
| 89 | TS 110/20/10kV Goražde 2           | 0.78  | 0.00 | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.00 | 0.00    | 0.00  | 0.00    | 0.78  | 100.00  | ne                                 |
| 90 | TS 35/10kV Buk Bijela              | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | isklj. u TS 110/<br>/35/10 kV Foča |
| 91 | TS 35/10kV Foča                    | 0.00  | 0.00 | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00 | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | ne                                 |

|     |                                  |        |       |         |       |         |       |         |       |         |        |         |        |         |                                    |
|-----|----------------------------------|--------|-------|---------|-------|---------|-------|---------|-------|---------|--------|---------|--------|---------|------------------------------------|
| 92  | TS 35/10kV Miljevina             | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 93  | TS 35/10kV Jažići                | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 94  | TS 35/10kV Dobro polje           | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 95  | TS 35/10kV Trnovo                | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 96  | TS 35/10kV Bogatići              | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 97  | TS 35/10kV Vojkovići             | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | isklj. u TS Sarajevo 20            |
| 98  | TS 35/10kV Jahorina              | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 99  | TS 35/10kV Podgrab               | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 100 | TS 35/10kV Koran                 | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 101 | TS 35/10kV Hreša                 | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 102 | TS 35/10kV Mokro                 | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 103 | TS 35/10kV Sokolac               | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | isklj. u TS 110/<br>/35/10 kV Soko |
| 104 | TS 35/10kV Borike                | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 105 | TS 35/10kV Rudo-Gojava           | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 106 | TS 35/10 kV Energoinvest         | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | isklj. u TS Sarajevo 20            |
| 107 | TS 110/35/10 kV Trebinje 1       | 8.18   | 1.29  | 15.83   | 0.00  | 0.00    | 0.22  | 2.63    | 1.29  | 15.83   | 2.80   | 34.28   | 5.37   | 65.72   | da                                 |
| 108 | TS 400/220/110/35/10 kV Trebinje | 6.83   | 1.85  | 27.12   | 2.98  | 43.72   | 0.00  | 0.00    | 0.00  | 0.00    | 4.84   | 70.83   | 1.99   | 29.17   | da                                 |
| 109 | TS 35/10 kV Trebinje2            | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 110 | TS 35/10 kV Grančarevo           | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 111 | TS 110/35/10 kV Bileća           | 6.37   | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00   | 0.00    | 6.37   | 100.00  | ne                                 |
| 112 | TS 400/110/35 kV Gacko           | 6.63   | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00   | 0.00    | 6.63   | 100.00  | da/nije u f-ji                     |
| 113 | TS 35/10 kV Gacko                | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 114 | TS 35/10 kV Ljubinje             | 0.00   | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00  | #DIV/0! | 0.00   | #DIV/0! | 0.00   | #DIV/0! | ne                                 |
| 115 | TS 110/10 kV Nevesinje           | 4.36   | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00  | 0.00    | 0.00   | 0.00    | 4.36   | 100.00  | ne                                 |
|     | UKUPNO                           | 651.34 | 53.82 | 8.26    | 44.69 | 6.86    | 53.33 | 8.19    | 40.24 | 6.18    | 192.09 | 29.49   | 459.89 | 70.61   |                                    |

\*1): Zbog specifičnosti položaja TS 400/110/35 kV Gacko i TS 400/110/35 kV Ugljevik ne predlaže se njihovo uključenje u sistem podfrekventne zaštite.

\*2): Zbog tehničkih ograničenja u TS 400/220/110/35 kV Sarajevo 20 i TS 110/35/10 kV Lopare nije moguće aktiviranje podfrekventne zaštite.

\*3): U TS 110/35/10 kV: Doboj1, Doboj 3, Modriča, Derventa, Šamac, i Zvornik postoje releji podfrekventne zaštite ali nisu u funkciji da ne bi dolazilo do preklapanja sa podfrekventnim zaštitama u TS 35/10 kV, koje se napajaju iz navedenih TS 110/35/10 kV.

## Pregled podfrekventnog rasterećenja - Prijedlog 2013

JP Komunalno Brčko

| R.b.   | Naziv TS                | Snaga TS | $P_{\max}$ | $P_I$     | $P_I$     | $P_{II}$  | $P_{II}$  | $P_{III}$ | $P_{III}$ | $P_{IV}$ | $P_{IV}$ | $P_{\Sigma}$ | $P_{\Sigma}$ | Preostala snaga |         | Ugrađen | Napomena      |
|--------|-------------------------|----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|--------------|--------------|-----------------|---------|---------|---------------|
|        |                         | (MVA)    | (MW)       | (MW)      | (%)       | (MW)      | (%)       | (MW)      | (%)       | (MW)     | (%)      | (MW)         | (%)          | (MW)            | (%)     | relej   |               |
| 1      | TS 110/10/35 kV Brčko 1 |          | 32.364     |           |           | 9.3818113 | 28.988417 | 10.955027 | 33.849421 | 10.70886 | 33.0888  | 31.0457      | 95.926641    | 1.3183          | 4.07336 | da      | JP Kom. Brčko |
| 2      | TS 110/35/10 kV Brčko 2 |          | 28.688     | 6.0828083 | 21.20332  |           |           |           |           |          |          | 6.0828083    | 21.20332     | 22.6052         | 78.7967 | da      | JP Kom. Brčko |
| UKUPNO |                         |          | 61.052     | 6.0828083 | 9.9633236 | 9.3818113 | 15.37     | 10.955027 | 17.943764 | 10.70886 | 17.54    | 37.128506    | 60.81        | 23.923494       | 39.19   |         |               |



## **PRILOG 4**

Odstupanje napona u cvoristima EES BiH

## Odstupanje napona u čvorištima EES-a BiH

ACCC OVERLOAD REPORT: MONITORED BRANCHES AND INTERFACES LOADED ABOVE 80.0 % OF RATING SET A (BASE CASE) OR B (CONTINGENCY CASES)  
 % LOADING VALUES ARE % CURRENT FOR TRANSFORMERS AND % CURRENT FOR NON-TRANSFORMER BRANCHES  
 INCLUDES VOLTAGE REPORT. VOLTAGE LIMITS USE NORMAL

AC CONTINGENCY RESULTS FILE: D:\RADNI DIREKTORIJ\PLAN ODBRANE EES BiH\PV\_QV ANALIZE\ACCC\_V7.acc  
 DISTRIBUTION FACTOR FILE: D:\RADNI DIREKTORIJ\PLAN ODBRANE EES BiH\PV\_QV ANALIZE\DFAX\_V7.dfx  
 SUBSYSTEM DESCRIPTION FILE: D:\RADNI DIREKTORIJ\PLAN ODBRANE EES BiH\PV\_QV ANALIZE\CAP\_Compl\_YU.sub  
 MONITORED ELEMENT FILE: D:\RADNI DIREKTORIJ\PLAN ODBRANE EES BiH\PV\_QV ANALIZE\CAP\_R BiH\_7.mon  
 CONTINGENCY DESCRIPTION FILE: D:\RADNI DIREKTORIJ\PLAN ODBRANE EES BiH\PV\_QV ANALIZE\CON\_BiH.con

\*\*PERCENT LOADING UNITS\*\*

% I FOR TRANSFORMERS

% I FOR NON-TRANSFORMER BRANCHES

\*\*OPTIONS USED IN CONTINGENCY ANALYSIS\*\*

Solution engine: Fixed slope decoupled Newton-Raphson (FDNS)

Solution options

Tap adjustment: Lock taps  
 Area interchange control: Disable  
 Phase shift adjustment: Disable  
 Dc tap adjustment: Enable  
 Switch shunt adjustment: Enable all  
 Induction motor treatment: Stall  
 Induction machine failure: Treat contingency as non-converged

Non diverge: Disable

Mismatch tolerance (MW ): 0.5

Dispatch mode: Disable

| <----- MONITORED BRANCH -----> |        |                |        |   | <----- CONTINGENCY LABEL -----> |      |      |      | RATING | FLOW | % |
|--------------------------------|--------|----------------|--------|---|---------------------------------|------|------|------|--------|------|---|
| 10137*WTREBI5                  | 110.00 | 10994 XTR_KO51 | 110.00 | 1 | CASE 41                         | 89.5 | 81.1 | 87.4 |        |      |   |
| 14106*WBLUK15                  | 110.00 | 14110 WBLUK65  | 110.00 | 1 | CASE 82                         | 89.0 | 86.9 | 93.3 |        |      |   |
| 10137 WTREBI5                  | 110.00 | 10983*XTR_HN51 | 110.00 | 1 | CASE 292                        | 89.0 | 81.1 | 88.5 |        |      |   |

MONITORED VOLTAGE REPORT:

| SYSTEM | <----- CONTINGENCY LABEL -----> |      |   |  |  | <----- B U S -----> |         |        |         |         | V-CONT  | V-INIT  | V-MAX | V-MIN |
|--------|---------------------------------|------|---|--|--|---------------------|---------|--------|---------|---------|---------|---------|-------|-------|
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14116               | WDOB015 | 110.00 | 1.00325 | 1.00868 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14117               | WDOB025 | 110.00 | 1.00454 | 1.01032 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14120               | WGLINI5 | 110.00 | 0.98781 | 1.01971 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14126               | WLOPAR5 | 110.00 | 0.98038 | 1.05630 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14141               | WSR-CA5 | 110.00 | 0.99065 | 1.01575 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14142               | WSTANA5 | 110.00 | 1.00283 | 1.00830 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14144               | WPLJTT5 | 110.00 | 0.99255 | 1.01760 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14146               | WTESLI5 | 110.00 | 1.00094 | 1.00640 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14149               | WTUGLJ5 | 110.00 | 0.98078 | 1.05665 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14152               | WVLASE5 | 110.00 | 0.99662 | 1.01709 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14177               | WBJEL15 | 110.00 | 0.98137 | 1.02658 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14178               | WBJEL25 | 110.00 | 0.98128 | 1.03401 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14179               | WZVORN5 | 110.00 | 0.98875 | 1.02062 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14195               | WBJEL35 | 110.00 | 0.98282 | 1.02517 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 14196               | WJANJA5 | 110.00 | 0.98283 | 1.02194 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 16115               | WGRACA5 | 110.00 | 1.00420 | 1.00948 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 16150               | WTESAN5 | 110.00 | 1.00168 | 1.00613 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | RANGE                           | CASE | 3 |  |  | 16169               | WDOBIS5 | 110.00 | 1.00334 | 1.00868 | 1.10000 | 1.00500 |       |       |
| 'BIH'  | DEVIATION                       | CASE | 3 |  |  | 14120               | WGLINI5 | 110.00 | 0.98781 | 1.01971 | 0.06000 | 0.03000 |       |       |

|       |                   |       |         |        |         |         |         |         |
|-------|-------------------|-------|---------|--------|---------|---------|---------|---------|
| 'BIH' | DEVIATION CASE 3  | 14126 | WLOPAR5 | 110.00 | 0.98038 | 1.05630 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14149 | WTUGLJ5 | 110.00 | 0.98078 | 1.05665 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14177 | WBJEL15 | 110.00 | 0.98137 | 1.02658 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14178 | WBJEL25 | 110.00 | 0.98128 | 1.03401 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14179 | WZVORN5 | 110.00 | 0.98875 | 1.02062 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14195 | WBJEL35 | 110.00 | 0.98282 | 1.02517 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 3  | 14196 | WJANJA5 | 110.00 | 0.98283 | 1.02194 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 9      | 10128 | WGRADC2 | 220.00 | 0.99968 | 1.03908 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14116 | WDOB015 | 110.00 | 1.00203 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14117 | WDOB025 | 110.00 | 1.00283 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14135 | WPRNJ15 | 110.00 | 1.00227 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14142 | WSTANA5 | 110.00 | 0.99931 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14146 | WTESLI5 | 110.00 | 0.99829 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 14150 | WUKRIN5 | 110.00 | 1.00090 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 16115 | WGRACA5 | 110.00 | 1.00395 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 16128 | WMAGLA5 | 110.00 | 1.00499 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 16150 | WTESAN5 | 110.00 | 1.00111 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 9      | 16169 | WDOBIS5 | 110.00 | 1.00267 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 9  | 10128 | WGRADC2 | 220.00 | 0.99968 | 1.03908 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 10     | 14146 | WTESLI5 | 110.00 | 1.00496 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 10     | 16150 | WTESAN5 | 110.00 | 1.00484 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 14116 | WDOB015 | 110.00 | 1.00219 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 14117 | WDOB025 | 110.00 | 1.00383 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 14142 | WSTANA5 | 110.00 | 1.00181 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 14146 | WTESLI5 | 110.00 | 0.99990 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 14150 | WUKRIN5 | 110.00 | 1.00449 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 16115 | WGRACA5 | 110.00 | 1.00276 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 16128 | WMAGLA5 | 110.00 | 1.00407 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 16150 | WTESAN5 | 110.00 | 1.00019 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 11     | 16169 | WDOBIS5 | 110.00 | 1.00206 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 12     | 14146 | WTESLI5 | 110.00 | 1.00474 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 12     | 16150 | WTESAN5 | 110.00 | 1.00451 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 15     | 14146 | WTESLI5 | 110.00 | 1.00322 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 15     | 16150 | WTESAN5 | 110.00 | 1.00125 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 16     | 14146 | WTESLI5 | 110.00 | 1.00312 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 16     | 16150 | WTESAN5 | 110.00 | 1.00231 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 10113 | WBLUKA1 | 400.00 | 0.98324 | 1.02836 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14116 | WDOB015 | 110.00 | 1.00030 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14117 | WDOB025 | 110.00 | 1.00158 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14135 | WPRNJ15 | 110.00 | 1.00155 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14142 | WSTANA5 | 110.00 | 0.99809 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14146 | WTESLI5 | 110.00 | 0.99686 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 14150 | WUKRIN5 | 110.00 | 0.99996 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 16115 | WGRACA5 | 110.00 | 1.00183 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 16128 | WMAGLA5 | 110.00 | 1.00222 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 16150 | WTESAN5 | 110.00 | 0.99833 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 33     | 16169 | WDOBIS5 | 110.00 | 1.00071 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 33 | 10113 | WBLUKA1 | 400.00 | 0.98324 | 1.02836 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14106 | WBLUK15 | 110.00 | 1.01915 | 1.05808 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14107 | WBLUK25 | 110.00 | 1.01820 | 1.05619 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14108 | WBLUK35 | 110.00 | 1.02725 | 1.06432 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14109 | WBLUK45 | 110.00 | 1.02732 | 1.06758 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14110 | WBLUK65 | 110.00 | 1.02811 | 1.07089 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14122 | WGRDS15 | 110.00 | 1.01377 | 1.04764 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14124 | WKVARO5 | 110.00 | 1.01270 | 1.05190 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14125 | WLAKTA5 | 110.00 | 1.01232 | 1.05017 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14134 | WPRIJ55 | 110.00 | 1.04163 | 1.07316 | 0.06000 | 0.03000 |

|       |                   |       |         |        |         |         |         |         |
|-------|-------------------|-------|---------|--------|---------|---------|---------|---------|
| 'BIH' | DEVIATION CASE 33 | 14143 | WTDUTT5 | 110.00 | 1.03546 | 1.06894 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14147 | WTOPL5  | 110.00 | 1.01219 | 1.04380 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14156 | WBLUK55 | 110.00 | 1.02282 | 1.05896 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14190 | WBLUK85 | 110.00 | 1.01525 | 1.05364 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14191 | WBLUK95 | 110.00 | 1.02052 | 1.05759 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14192 | WCELIN5 | 110.00 | 1.01500 | 1.05411 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14193 | WBLUK75 | 110.00 | 1.01677 | 1.05580 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 33 | 14194 | WBL5TT5 | 110.00 | 1.02385 | 1.05965 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 45     | 14146 | WTESLI5 | 110.00 | 1.00492 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 46     | 14146 | WTESLI5 | 110.00 | 1.00489 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 46     | 16150 | WTESAN5 | 110.00 | 1.00446 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 48     | 14146 | WTESLI5 | 110.00 | 1.00319 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 48     | 16150 | WTESAN5 | 110.00 | 1.00308 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 56     | 14146 | WTESLI5 | 110.00 | 1.00483 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 56     | 16150 | WTESAN5 | 110.00 | 1.00455 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14112 | WBRCK15 | 110.00 | 0.99554 | 1.02309 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14113 | WBRCK25 | 110.00 | 0.99461 | 1.02394 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14115 | WDERVE5 | 110.00 | 1.00085 | 1.02572 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14116 | WDOB015 | 110.00 | 0.99342 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14117 | WDOB025 | 110.00 | 0.99355 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14127 | WMODRI5 | 110.00 | 0.98200 | 1.04403 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14135 | WPRNJ15 | 110.00 | 0.99065 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14139 | WSAMAC5 | 110.00 | 0.98399 | 1.03352 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14142 | WSTANA5 | 110.00 | 0.98902 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14146 | WTESLI5 | 110.00 | 0.98862 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14150 | WUKRIN5 | 110.00 | 0.98988 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14157 | WDOB035 | 110.00 | 0.99571 | 1.01600 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 14158 | WGRDRT5 | 110.00 | 0.98708 | 1.04785 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16115 | WGRACA5 | 110.00 | 0.99608 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16116 | WGRADA5 | 110.00 | 0.98471 | 1.05241 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16128 | WMAGLA5 | 110.00 | 0.99805 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16147 | WSR-IK5 | 110.00 | 1.00371 | 1.01932 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16150 | WTESAN5 | 110.00 | 0.99414 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 16169 | WDOBIS5 | 110.00 | 0.99448 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 62     | 18110 | WODZAK5 | 110.00 | 0.98181 | 1.03930 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 62 | 14127 | WMODRI5 | 110.00 | 0.98200 | 1.04403 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 62 | 14139 | WSAMAC5 | 110.00 | 0.98399 | 1.03352 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 62 | 14158 | WGRDRT5 | 110.00 | 0.98708 | 1.04785 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 62 | 16116 | WGRADA5 | 110.00 | 0.98471 | 1.05241 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 62 | 18110 | WODZAK5 | 110.00 | 0.98181 | 1.03930 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 64     | 16150 | WTESAN5 | 110.00 | 1.00472 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 68     | 16150 | WTESAN5 | 110.00 | 1.00447 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 69     | 16150 | WTESAN5 | 110.00 | 1.00434 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 70     | 16150 | WTESAN5 | 110.00 | 1.00419 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 76     | 14159 | WGACKO5 | 110.00 | 1.00180 | 1.03383 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 76     | 14175 | WTREB15 | 110.00 | 1.00449 | 1.04892 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 76 | 14159 | WGACKO5 | 110.00 | 1.00180 | 1.03383 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 76 | 14175 | WTREB15 | 110.00 | 1.00449 | 1.04892 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 76 | 14176 | WBILEC5 | 110.00 | 1.00898 | 1.04072 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 83     | 14142 | WSTANA5 | 110.00 | 1.00433 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 83     | 14146 | WTESLI5 | 110.00 | 1.00285 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 83     | 16150 | WTESAN5 | 110.00 | 1.00387 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 83 | 14125 | WLAKTA5 | 110.00 | 1.01114 | 1.05017 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 83 | 14190 | WBLUK85 | 110.00 | 1.01015 | 1.05364 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 90     | 14142 | WSTANA5 | 110.00 | 1.00404 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 90     | 14146 | WTESLI5 | 110.00 | 1.00260 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 90     | 16150 | WTESAN5 | 110.00 | 1.00370 | 1.00613 | 1.10000 | 1.00500 |

|       |                    |               |        |         |         |         |         |
|-------|--------------------|---------------|--------|---------|---------|---------|---------|
| 'BIH' | RANGE CASE 101     | 14146 WTESLI5 | 110.00 | 1.00407 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 101     | 16150 WTESAN5 | 110.00 | 1.00414 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 103     | 14146 WTESLI5 | 110.00 | 1.00491 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 103     | 16150 WTESAN5 | 110.00 | 1.00488 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14116 WDOBO15 | 110.00 | 1.00021 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14117 WDOBO25 | 110.00 | 1.00338 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14135 WPRNJ15 | 110.00 | 0.96623 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14142 WSTANA5 | 110.00 | 0.97851 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14146 WTESLI5 | 110.00 | 0.98466 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 14150 WUKRIN5 | 110.00 | 0.97163 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 16115 WGRACA5 | 110.00 | 1.00236 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 16128 WMAGLA5 | 110.00 | 1.00331 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 16150 WTESAN5 | 110.00 | 0.99942 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 107     | 16169 WDOBIS5 | 110.00 | 1.00098 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 107 | 14135 WPRNJ15 | 110.00 | 0.96623 | 1.01316 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 107 | 14150 WUKRIN5 | 110.00 | 0.97163 | 1.01095 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 108     | 14142 WSTANA5 | 110.00 | 1.00362 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 108     | 14146 WTESLI5 | 110.00 | 1.00226 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 108     | 16150 WTESAN5 | 110.00 | 1.00361 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 109     | 14116 WDOBO15 | 110.00 | 1.00375 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 109     | 14117 WDOBO25 | 110.00 | 1.00408 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 109     | 14146 WTESLI5 | 110.00 | 1.00385 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 109     | 16150 WTESAN5 | 110.00 | 1.00231 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 109     | 16169 WDOBIS5 | 110.00 | 1.00422 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14116 WDOBO15 | 110.00 | 1.00377 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14117 WDOBO25 | 110.00 | 1.00495 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14135 WPRNJ15 | 110.00 | 1.00296 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14142 WSTANA5 | 110.00 | 1.00048 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14146 WTESLI5 | 110.00 | 0.99967 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 14150 WUKRIN5 | 110.00 | 1.00181 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 16150 WTESAN5 | 110.00 | 1.00223 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 110     | 16169 WDOBIS5 | 110.00 | 1.00428 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 14116 WDOBO15 | 110.00 | 1.00209 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 14146 WTESLI5 | 110.00 | 1.00206 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 16115 WGRACA5 | 110.00 | 1.00411 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 16128 WMAGLA5 | 110.00 | 1.00490 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 16150 WTESAN5 | 110.00 | 1.00102 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 111     | 16169 WDOBIS5 | 110.00 | 1.00279 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 112     | 14142 WSTANA5 | 110.00 | 0.99770 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 112     | 14146 WTESLI5 | 110.00 | 0.99409 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 112     | 14150 WUKRIN5 | 110.00 | 1.00256 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 114     | 14146 WTESLI5 | 110.00 | 1.00484 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 14116 WDOBO15 | 110.00 | 0.99854 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 14117 WDOBO25 | 110.00 | 0.99771 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 14142 WSTANA5 | 110.00 | 1.00373 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 14146 WTESLI5 | 110.00 | 0.99965 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 16115 WGRACA5 | 110.00 | 1.00115 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 16128 WMAGLA5 | 110.00 | 1.00207 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 16150 WTESAN5 | 110.00 | 0.99818 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 116     | 16169 WDOBIS5 | 110.00 | 0.99958 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 122 | 14119 WFOCA 5 | 110.00 | 1.02705 | 1.05841 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 122 | 14121 WGORA25 | 110.00 | 1.03184 | 1.06434 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 122 | 16114 WGRZD15 | 110.00 | 1.03189 | 1.06307 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 123 | 14119 WFOCA 5 | 110.00 | 1.02788 | 1.05841 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 123 | 16114 WGRZD15 | 110.00 | 1.03272 | 1.06307 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 124     | 14146 WTESLI5 | 110.00 | 1.00424 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 124     | 16150 WTESAN5 | 110.00 | 1.00478 | 1.00613 | 1.10000 | 1.00500 |

|       |                    |               |        |         |         |         |         |
|-------|--------------------|---------------|--------|---------|---------|---------|---------|
| 'BIH' | RANGE CASE 127     | 14146 WTESLI5 | 110.00 | 1.00371 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 127     | 16150 WTESAN5 | 110.00 | 1.00443 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 129     | 14127 WMODRI5 | 110.00 | 0.98426 | 1.04403 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 129     | 14139 WSAMAC5 | 110.00 | 0.99197 | 1.03352 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 129     | 16150 WTESAN5 | 110.00 | 1.00496 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 129     | 18110 WODZAK5 | 110.00 | 0.98617 | 1.03930 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 129 | 14127 WMODRI5 | 110.00 | 0.98426 | 1.04403 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 129 | 14139 WSAMAC5 | 110.00 | 0.99197 | 1.03352 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 129 | 18110 WODZAK5 | 110.00 | 0.98617 | 1.03930 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 130     | 14139 WSAMAC5 | 110.00 | 1.00468 | 1.03352 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 130     | 18110 WODZAK5 | 110.00 | 1.00220 | 1.03930 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 130 | 18110 WODZAK5 | 110.00 | 1.00220 | 1.03930 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 134 | 14130 WPALE 5 | 110.00 | 1.03084 | 1.06240 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 137 | 14118 WDUBIC5 | 110.00 | 1.03517 | 1.06716 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 137 | 14133 WPRIJ35 | 110.00 | 1.03049 | 1.07281 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 139     | 16160 WVRNOG5 | 110.00 | 1.00499 | 1.03036 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 139 | 16100 WBKRUP5 | 110.00 | 1.00847 | 1.03995 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 140 | 16125 WKJJUC5 | 110.00 | 1.02541 | 1.05813 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 140 | 16133 WSMOST5 | 110.00 | 1.02054 | 1.06525 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 141     | 14142 WSTANA5 | 110.00 | 0.99979 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 141     | 14146 WTESLI5 | 110.00 | 1.00031 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 141     | 14150 WUKRIN5 | 110.00 | 0.99952 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 141     | 16150 WTESAN5 | 110.00 | 1.00438 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 14116 WDOB015 | 110.00 | 1.00381 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 14135 WPRNJ15 | 110.00 | 1.00457 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 14142 WSTANA5 | 110.00 | 1.00138 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 14146 WTESLI5 | 110.00 | 1.00026 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 14150 WUKRIN5 | 110.00 | 1.00310 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 16150 WTESAN5 | 110.00 | 1.00234 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 148     | 16169 WDOBIS5 | 110.00 | 1.00418 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 150     | 14146 WTESLI5 | 110.00 | 1.00139 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 150     | 16150 WTESAN5 | 110.00 | 1.00475 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 151     | 14142 WSTANA5 | 110.00 | 0.99995 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 151     | 14146 WTESLI5 | 110.00 | 1.00044 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 151     | 16150 WTESAN5 | 110.00 | 1.00443 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 153     | 14141 WSR-CA5 | 110.00 | 1.00460 | 1.01575 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14116 WDOB015 | 110.00 | 1.00433 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14142 WSTANA5 | 110.00 | 1.00384 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14146 WTESLI5 | 110.00 | 1.00197 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14177 WBJEL15 | 110.00 | 0.98762 | 1.02658 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14178 WBJEL25 | 110.00 | 0.98763 | 1.03401 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14195 WBJEL35 | 110.00 | 0.98871 | 1.02517 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 14196 WJANJA5 | 110.00 | 0.99016 | 1.02194 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 16150 WTESAN5 | 110.00 | 1.00256 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 154     | 16169 WDOBIS5 | 110.00 | 1.00444 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 154 | 14177 WBJEL15 | 110.00 | 0.98762 | 1.02658 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 154 | 14178 WBJEL25 | 110.00 | 0.98763 | 1.03401 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 154 | 14195 WBJEL35 | 110.00 | 0.98871 | 1.02517 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 154 | 14196 WJANJA5 | 110.00 | 0.99016 | 1.02194 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 155     | 14120 WGLINI5 | 110.00 | 0.99612 | 1.01971 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 155     | 14141 WSR-CA5 | 110.00 | 0.99741 | 1.01575 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 155     | 14144 WPLJTT5 | 110.00 | 0.99930 | 1.01760 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 155     | 14152 WVLASE5 | 110.00 | 1.00237 | 1.01709 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 155     | 14179 WZVORN5 | 110.00 | 0.99705 | 1.02062 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 14116 WDOB015 | 110.00 | 1.00298 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 14117 WDOB025 | 110.00 | 1.00403 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 14135 WPRNJ15 | 110.00 | 1.00307 | 1.01316 | 1.10000 | 1.00500 |

|       |                    |               |        |         |         |         |         |
|-------|--------------------|---------------|--------|---------|---------|---------|---------|
| 'BIH' | RANGE CASE 160     | 14142 WSTANA5 | 110.00 | 1.00018 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 14146 WTESLI5 | 110.00 | 0.99920 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 14150 WUKRIN5 | 110.00 | 1.00174 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 16115 WGRACA5 | 110.00 | 1.00467 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 16150 WTESAN5 | 110.00 | 1.00169 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 160     | 16169 WDOBSI5 | 110.00 | 1.00349 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 160 | 14158 WGRDRT5 | 110.00 | 1.01600 | 1.04785 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 163     | 14116 WDOBO15 | 110.00 | 1.00431 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 14142 WSTANA5 | 110.00 | 1.00382 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 14146 WTESLI5 | 110.00 | 1.00195 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 14177 WBJEL15 | 110.00 | 0.98749 | 1.02658 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 14195 WBJEL35 | 110.00 | 0.98858 | 1.02517 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 14196 WJANJA5 | 110.00 | 0.99010 | 1.02194 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 16150 WTESAN5 | 110.00 | 1.00255 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 163     | 16169 WDOBSI5 | 110.00 | 1.00442 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 163 | 14177 WBJEL15 | 110.00 | 0.98749 | 1.02658 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 163 | 14195 WBJEL35 | 110.00 | 0.98858 | 1.02517 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 163 | 14196 WJANJA5 | 110.00 | 0.99010 | 1.02194 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 164     | 14146 WTESLI5 | 110.00 | 1.00331 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 164     | 14195 WBJEL35 | 110.00 | 1.00349 | 1.02517 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 164     | 16150 WTESAN5 | 110.00 | 1.00349 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 14116 WDOBO15 | 110.00 | 0.99817 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 14117 WDOBO25 | 110.00 | 1.00024 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 14142 WSTANA5 | 110.00 | 0.99903 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 14146 WTESLI5 | 110.00 | 0.99663 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 14150 WUKRIN5 | 110.00 | 1.00231 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 16115 WGRACA5 | 110.00 | 0.99743 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 16127 WLUKA15 | 110.00 | 1.00490 | 1.02180 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 16128 WMAGLA5 | 110.00 | 1.00123 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 16150 WTESAN5 | 110.00 | 0.99733 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 168     | 16169 WDOBSI5 | 110.00 | 0.99728 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 174     | 16106 WCAZI15 | 110.00 | 0.98624 | 1.02742 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 174     | 16107 WCAZI25 | 110.00 | 0.98513 | 1.02635 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 174     | 16124 WKLADU5 | 110.00 | 0.99659 | 1.02820 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 174     | 16160 WVRNOG5 | 110.00 | 1.00364 | 1.03036 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 174 | 16106 WCAZI15 | 110.00 | 0.98624 | 1.02742 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 174 | 16107 WCAZI25 | 110.00 | 0.98513 | 1.02635 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 174 | 16124 WKLADU5 | 110.00 | 0.99659 | 1.02820 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 184     | 14146 WTESLI5 | 110.00 | 1.00472 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 184     | 16150 WTESAN5 | 110.00 | 1.00331 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 185     | 16150 WTESAN5 | 110.00 | 1.00387 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 186 | 16109 WDVAKU5 | 110.00 | 1.03375 | 1.06622 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 187     | 16123 WKLADA5 | 110.00 | 1.00396 | 1.01938 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 188     | 14141 WSR-CA5 | 110.00 | 0.99189 | 1.01575 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 188     | 14144 WPLJTT5 | 110.00 | 0.99378 | 1.01760 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 188     | 14152 WVLASE5 | 110.00 | 0.98620 | 1.01709 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 188     | 16110 WDJURD5 | 110.00 | 0.97249 | 1.02297 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 188     | 16123 WKLADA5 | 110.00 | 0.97843 | 1.01938 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 188 | 14152 WVLASE5 | 110.00 | 0.98620 | 1.01709 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 188 | 16110 WDJURD5 | 110.00 | 0.97249 | 1.02297 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 188 | 16123 WKLADA5 | 110.00 | 0.97843 | 1.01938 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 195     | 14116 WDOBO15 | 110.00 | 0.99140 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 195     | 14117 WDOBO25 | 110.00 | 0.99439 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 195     | 14135 WPRNJ15 | 110.00 | 1.00233 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 195     | 14142 WSTANA5 | 110.00 | 0.99441 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 195     | 14146 WTESLI5 | 110.00 | 0.99118 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 195     | 14150 WUKRIN5 | 110.00 | 0.99871 | 1.01095 | 1.10000 | 1.00500 |

|       |           |      |     |       |         |        |         |         |         |         |
|-------|-----------|------|-----|-------|---------|--------|---------|---------|---------|---------|
| 'BIH' | RANGE     | CASE | 195 | 14157 | WDOBO35 | 110.00 | 1.00345 | 1.01600 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 195 | 16115 | WGRACA5 | 110.00 | 0.98841 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 195 | 16128 | WMAGLA5 | 110.00 | 0.99567 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 195 | 16150 | WTESAN5 | 110.00 | 0.99175 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 195 | 16169 | WDOBIS5 | 110.00 | 0.98921 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION | CASE | 205 | 16154 | WJABLA5 | 110.00 | 1.01944 | 1.07979 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 205 | 18114 | WRAMA 5 | 110.00 | 1.02007 | 1.06559 | 0.06000 | 0.03000 |
| 'BIH' | RANGE     | CASE | 215 | 14146 | WTESLI5 | 110.00 | 1.00402 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 215 | 16150 | WTESAN5 | 110.00 | 1.00396 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 216 | 14116 | WDOBO15 | 110.00 | 1.00477 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 216 | 14146 | WTESLI5 | 110.00 | 1.00292 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 216 | 16115 | WGRACA5 | 110.00 | 1.00476 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 216 | 16150 | WTESAN5 | 110.00 | 1.00295 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 216 | 16169 | WDOBIS5 | 110.00 | 1.00431 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14116 | WDOBO15 | 110.00 | 0.99246 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14117 | WDOBO25 | 110.00 | 0.99542 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14135 | WPRNJ15 | 110.00 | 1.00324 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14142 | WSTANA5 | 110.00 | 0.99542 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14146 | WTESLI5 | 110.00 | 0.99220 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14150 | WUKRIN5 | 110.00 | 0.99969 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 14157 | WDOBO35 | 110.00 | 1.00430 | 1.01600 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 16115 | WGRACA5 | 110.00 | 0.99565 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 16128 | WMAGLA5 | 110.00 | 0.98138 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 16150 | WTESAN5 | 110.00 | 0.97740 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 218 | 16169 | WDOBIS5 | 110.00 | 0.99382 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION | CASE | 233 | 16153 | WSA5TT5 | 110.00 | 1.03292 | 1.06798 | 0.06000 | 0.03000 |
| 'BIH' | RANGE     | CASE | 246 | 14146 | WTESLI5 | 110.00 | 1.00458 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 246 | 16150 | WTESAN5 | 110.00 | 1.00284 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 248 | 16150 | WTESAN5 | 110.00 | 1.00422 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 250 | 16150 | WTESAN5 | 110.00 | 1.00373 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION | CASE | 251 | 18114 | WRAMA 5 | 110.00 | 1.02136 | 1.06559 | 0.06000 | 0.03000 |
| 'BIH' | RANGE     | CASE | 257 | 14116 | WDOBO15 | 110.00 | 0.98090 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14117 | WDOBO25 | 110.00 | 0.98477 | 1.01032 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14135 | WPRNJ15 | 110.00 | 0.99600 | 1.01316 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14142 | WSTANA5 | 110.00 | 0.98613 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14146 | WTESLI5 | 110.00 | 0.98200 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14150 | WUKRIN5 | 110.00 | 0.99152 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 14157 | WDOBO35 | 110.00 | 0.99585 | 1.01600 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 16115 | WGRACA5 | 110.00 | 0.98573 | 1.00948 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 16128 | WMAGLA5 | 110.00 | 0.96170 | 1.00999 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 16150 | WTESAN5 | 110.00 | 0.95764 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 16161 | WZAVID5 | 110.00 | 0.95606 | 1.01876 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 257 | 16169 | WDOBIS5 | 110.00 | 0.98320 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION | CASE | 257 | 16128 | WMAGLA5 | 110.00 | 0.96170 | 1.00999 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 257 | 16150 | WTESAN5 | 110.00 | 0.95764 | 1.00613 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 257 | 16161 | WZAVID5 | 110.00 | 0.95606 | 1.01876 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 261 | 18115 | WBUSOV5 | 110.00 | 1.02280 | 1.05848 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 261 | 18116 | WVITEZ5 | 110.00 | 1.02390 | 1.05703 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 261 | 18119 | WNTRAV5 | 110.00 | 1.02559 | 1.05740 | 0.06000 | 0.03000 |
| 'BIH' | RANGE     | CASE | 266 | 18111 | WCITLU5 | 110.00 | 0.95712 | 1.03740 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 266 | 18112 | WCAPLJ5 | 110.00 | 0.97019 | 1.03015 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 266 | 18113 | WSTOLA5 | 110.00 | 0.96596 | 1.02627 | 1.10000 | 1.00500 |
| 'BIH' | RANGE     | CASE | 266 | 18155 | WLJUBU5 | 110.00 | 0.95999 | 1.03210 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION | CASE | 266 | 18111 | WCITLU5 | 110.00 | 0.95712 | 1.03740 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 266 | 18112 | WCAPLJ5 | 110.00 | 0.97019 | 1.03015 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 266 | 18113 | WSTOLA5 | 110.00 | 0.96596 | 1.02627 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION | CASE | 266 | 18155 | WLJUBU5 | 110.00 | 0.95999 | 1.03210 | 0.06000 | 0.03000 |



|       |                    |       |         |        |         |         |         |         |
|-------|--------------------|-------|---------|--------|---------|---------|---------|---------|
| 'BIH' | RANGE CASE 272     | 18112 | WCAPLJ5 | 110.00 | 0.99201 | 1.03015 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 272     | 18113 | WSTOLA5 | 110.00 | 0.98793 | 1.02627 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 272     | 18155 | WLJUBU5 | 110.00 | 0.98626 | 1.03210 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 272 | 18112 | WCAPLJ5 | 110.00 | 0.99201 | 1.03015 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 272 | 18113 | WSTOLA5 | 110.00 | 0.98793 | 1.02627 | 0.06000 | 0.03000 |
| 'BIH' | DEVIATION CASE 272 | 18155 | WLJUBU5 | 110.00 | 0.98626 | 1.03210 | 0.06000 | 0.03000 |
| 'BIH' | RANGE CASE 291     | 14146 | WTESLI5 | 110.00 | 1.00419 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 291     | 16150 | WTESAN5 | 110.00 | 1.00495 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 296     | 14146 | WTESLI5 | 110.00 | 1.00471 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 296     | 16150 | WTESAN5 | 110.00 | 1.00423 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 304     | 14116 | WDOB015 | 110.00 | 1.00474 | 1.00868 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 304     | 14142 | WSTANA5 | 110.00 | 1.00267 | 1.00830 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 304     | 14146 | WTESLI5 | 110.00 | 1.00141 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 304     | 14150 | WUKRIN5 | 110.00 | 1.00457 | 1.01095 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 304     | 16150 | WTESAN5 | 110.00 | 1.00296 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 310     | 14146 | WTESLI5 | 110.00 | 1.00367 | 1.00640 | 1.10000 | 1.00500 |
| 'BIH' | RANGE CASE 310     | 16150 | WTESAN5 | 110.00 | 1.00382 | 1.00613 | 1.10000 | 1.00500 |
| 'BIH' | DEVIATION CASE 315 | 18146 | WNEUM 5 | 110.00 | 1.01387 | 1.04655 | 0.06000 | 0.03000 |

MONITORED VOLTAGE LIMIT REPORT:

<----- B U S -----> <----- CONTINGENCY LABEL -----> V-CONT V-INIT V-MAX V-MIN

CONTINGENCY LEGEND:

<----- CONTINGENCY LABEL -----> EVENTS

|         |                            |          |         |              |           |         |               |                         |
|---------|----------------------------|----------|---------|--------------|-----------|---------|---------------|-------------------------|
| CASE 2  | : OPEN LINE FROM BUS 10101 | [WUGLJE1 | 400.00] | TO BUS 10217 | [WTUGLJG1 | 20.000] | CKT 1         |                         |
| CASE 3  | : OPEN LINE FROM BUS 10101 | [WUGLJE1 | 400.00] | TO BUS 14149 | [WTUGLJ5  | 110.00] | TO BUS 141490 | [WTUGLJ_1 31.500] CKT 1 |
| CASE 4  | : OPEN LINE FROM BUS 10102 | [WGACKO1 | 400.00] | TO BUS 10115 | [WTREBI1  | 400.00] | CKT 1         |                         |
| CASE 5  | : OPEN LINE FROM BUS 10102 | [WGACKO1 | 400.00] | TO BUS 10124 | [WMOST41  | 400.00] | CKT 1         |                         |
| CASE 6  | : OPEN LINE FROM BUS 10102 | [WGACKO1 | 400.00] | TO BUS 10216 | [WTGACKG1 | 20.000] | CKT 1         |                         |
| CASE 7  | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10123 | [WTSTUZ2  | 220.00] | CKT 1         |                         |
| CASE 8  | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10123 | [WTSTUZ2  | 220.00] | CKT 2         |                         |
| CASE 9  | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10128 | [WGRADC2  | 220.00] | CKT 1         |                         |
| CASE 10 | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10214 | [WTTUZLG4 | 15.750] | CKT 1         |                         |
| CASE 11 | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10215 | [WTTUZLG5 | 15.750] | CKT 1         |                         |
| CASE 12 | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 16149 | [WTTUZL5  | 110.00] | TO BUS 161490 | [WTETUZ_1 10.500] CKT 1 |
| CASE 13 | : OPEN LINE FROM BUS 10104 | [WTUZL62 | 220.00] | TO BUS 10123 | [WTSTUZ2  | 220.00] | CKT 1         |                         |
| CASE 14 | : OPEN LINE FROM BUS 10105 | [WKAKA52 | 220.00] | TO BUS 10130 | [WRPKAK2  | 220.00] | CKT 1         |                         |
| CASE 15 | : OPEN LINE FROM BUS 10105 | [WKAKA52 | 220.00] | TO BUS 10132 | [WZENIC2  | 220.00] | CKT 1         |                         |
| CASE 16 | : OPEN LINE FROM BUS 10105 | [WKAKA52 | 220.00] | TO BUS 10212 | [WTKAKAG7 | 15.750] | CKT 1         |                         |
| CASE 17 | : OPEN LINE FROM BUS 10106 | [WHECAP2 | 220.00] | TO BUS 10135 | [WMOST42  | 220.00] | CKT 1         |                         |
| CASE 18 | : OPEN LINE FROM BUS 10106 | [WHECAP2 | 220.00] | TO BUS 10135 | [WMOST42  | 220.00] | CKT 2         |                         |
| CASE 19 | : OPEN LINE FROM BUS 10107 | [WHEVIS1 | 400.00] | TO BUS 10114 | [WTSVSG1  | 400.00] | CKT 1         |                         |
| CASE 20 | : OPEN LINE FROM BUS 10107 | [WHEVIS1 | 400.00] | TO BUS 10209 | [WHVSGRG  | 15.750] | CKT 1         |                         |
| CASE 21 | : OPEN LINE FROM BUS 10108 | [WHETRE2 | 220.00] | TO BUS 10116 | [WTREBI2  | 220.00] | CKT 1         |                         |
| CASE 22 | : OPEN LINE FROM BUS 10108 | [WHETRE2 | 220.00] | TO BUS 10218 | [WHTREBG  | 14.400] | CKT 1         |                         |
| CASE 23 | : OPEN LINE FROM BUS 10109 | [WHRAMA2 | 220.00] | TO BUS 10129 | [WRPJAB2  | 220.00] | CKT 1         |                         |
| CASE 24 | : OPEN LINE FROM BUS 10109 | [WHRAMA2 | 220.00] | TO BUS 10129 | [WRPJAB2  | 220.00] | CKT 2         |                         |
| CASE 25 | : OPEN LINE FROM BUS 10109 | [WHRAMA2 | 220.00] | TO BUS 10207 | [WHRAMAG1 | 15.650] | CKT 1         |                         |
| CASE 26 | : OPEN LINE FROM BUS 10109 | [WHRAMA2 | 220.00] | TO BUS 10208 | [WHRAMAG2 | 15.650] | CKT 1         |                         |
| CASE 27 | : OPEN LINE FROM BUS 10110 | [WGRABO2 | 220.00] | TO BUS 10129 | [WRPJAB2  | 220.00] | CKT 1         |                         |
| CASE 28 | : OPEN LINE FROM BUS 10110 | [WGRABO2 | 220.00] | TO BUS 10205 | [WHGRABG1 | 10.500] | CKT 1         |                         |
| CASE 29 | : OPEN LINE FROM BUS 10111 | [WSALAK2 | 220.00] | TO BUS 10130 | [WRPKAK2  | 220.00] | CKT 1         |                         |
| CASE 30 | : OPEN LINE FROM BUS 10111 | [WSALAK2 | 220.00] | TO BUS 10134 | [WMOST32  | 220.00] | CKT 1         |                         |
| CASE 31 | : OPEN LINE FROM BUS 10111 | [WSALAK2 | 220.00] | TO BUS 10202 | [WHSALAG1 | 13.800] | CKT 1         |                         |
| CASE 32 | : OPEN LINE FROM BUS 10112 | [WHEDUB2 | 220.00] | TO BUS 10116 | [WTREBI2  | 220.00] | CKT 1         |                         |
| CASE 33 | : OPEN LINE FROM BUS 10113 | [WBLUKA1 | 400.00] | TO BUS 10121 | [WTUZLA1  | 400.00] | CKT 1         |                         |

|         |                                      |         |                       |         |                          |         |       |
|---------|--------------------------------------|---------|-----------------------|---------|--------------------------|---------|-------|
| CASE 34 | : OPEN LINE FROM BUS 10113 [WBLUKA1  | 400.00] | TO BUS 14110 [WBLUK65 | 110.00] | TO BUS 141100 [WBLUK6_1  | 31.500] | CKT 1 |
| CASE 35 | : OPEN LINE FROM BUS 10113 [WBLUKA1  | 400.00] | TO BUS 14110 [WBLUK65 | 110.00] | TO BUS 141101 [WBLUK6_2  | 31.500] | CKT 2 |
| CASE 36 | : OPEN LINE FROM BUS 10114 [WTSVSG1  | 400.00] | TO BUS 14151 [WVISEG5 | 110.00] | TO BUS 141510 [WTSVIS_1  | 10.500] | CKT 1 |
| CASE 37 | : OPEN LINE FROM BUS 10114 [WTSVSG1  | 400.00] | TO BUS 10126 [WTSVSG2 | 220.00] | TO BUS 101260 [WTSVIS_2  | 31.500] | CKT 1 |
| CASE 38 | : OPEN LINE FROM BUS 10115 [WTREBI1  | 400.00] | TO BUS 10116 [WTREBI2 | 220.00] | TO BUS 101160 [WTREBI_1  | 31.500] | CKT 1 |
| CASE 39 | : OPEN LINE FROM BUS 10116 [WTREBI2  | 220.00] | TO BUS 10134 [WMOST32 | 220.00] | CKT 1                    |         |       |
| CASE 40 | : OPEN LINE FROM BUS 10116 [WTREBI2  | 220.00] | TO BUS 10134 [WMOST32 | 220.00] | CKT 2                    |         |       |
| CASE 41 | : OPEN LINE FROM BUS 10116 [WTREBI2  | 220.00] | TO BUS 10137 [WTREBI5 | 110.00] | TO BUS 101370 [WTREBI_2  | 10.500] | CKT 1 |
| CASE 42 | : OPEN LINE FROM BUS 10118 [WSAR202  | 220.00] | TO BUS 10119 [WSAR201 | 400.00] | TO BUS 101180 [WSAR20_1  | 31.500] | CKT 1 |
| CASE 43 | : OPEN LINE FROM BUS 10119 [WSAR201  | 400.00] | TO BUS 10120 [WSAR101 | 400.00] | CKT 1                    |         |       |
| CASE 44 | : OPEN LINE FROM BUS 10119 [WSAR201  | 400.00] | TO BUS 14138 [WSAR205 | 110.00] | TO BUS 141380 [WSAR20_2  | 31.500] | CKT 1 |
| CASE 45 | : OPEN LINE FROM BUS 10120 [WSAR101  | 400.00] | TO BUS 10121 [WTUZLA1 | 400.00] | CKT 1                    |         |       |
| CASE 46 | : OPEN LINE FROM BUS 10120 [WSAR101  | 400.00] | TO BUS 10124 [WMOST41 | 400.00] | CKT 1                    |         |       |
| CASE 47 | : OPEN LINE FROM BUS 10120 [WSAR101  | 400.00] | TO BUS 16140 [WSAR105 | 110.00] | TO BUS 161400 [WSAR10_1  | 31.500] | CKT 1 |
| CASE 48 | : OPEN LINE FROM BUS 10121 [WTUZLA1  | 400.00] | TO BUS 10123 [WTSTUZ2 | 220.00] | TO BUS 101230 [WTSTUZ_1  | 31.500] | CKT 1 |
| CASE 49 | : OPEN LINE FROM BUS 10123 [WTSTUZ2  | 220.00] | TO BUS 10130 [WRPKAK2 | 220.00] | CKT 1                    |         |       |
| CASE 50 | : OPEN LINE FROM BUS 10123 [WTSTUZ2  | 220.00] | TO BUS 10132 [WZENIC2 | 220.00] | CKT 1                    |         |       |
| CASE 51 | : OPEN LINE FROM BUS 10123 [WTSTUZ2  | 220.00] | TO BUS 16155 [WTUZL45 | 110.00] | TO BUS 161551 [WTSTUZ_4  | 10.500] | CKT 4 |
| CASE 52 | : OPEN LINE FROM BUS 10123 [WTSTUZ2  | 220.00] | TO BUS 16155 [WTUZL45 | 110.00] | TO BUS 161550 [WTSTUZ_3  | 10.500] | CKT 3 |
| CASE 53 | : OPEN LINE FROM BUS 10124 [WMOST41  | 400.00] | TO BUS 10135 [WMOST42 | 220.00] | TO BUS 101350 [WMOST4_1  | 10.500] | CKT 1 |
| CASE 54 | : OPEN LINE FROM BUS 10124 [WMOST41  | 400.00] | TO BUS 10135 [WMOST42 | 220.00] | TO BUS 101351 [WMOST4_2  | 10.500] | CKT 2 |
| CASE 55 | : OPEN LINE FROM BUS 10125 [WPRIJE2  | 220.00] | TO BUS 10127 [WBIHAC2 | 220.00] | CKT 1                    |         |       |
| CASE 56 | : OPEN LINE FROM BUS 10125 [WPRIJE2  | 220.00] | TO BUS 10130 [WRPKAK2 | 220.00] | CKT 1                    |         |       |
| CASE 58 | : OPEN LINE FROM BUS 10125 [WPRIJE2  | 220.00] | TO BUS 10133 [WJAJCE2 | 220.00] | CKT 1                    |         |       |
| CASE 59 | : OPEN LINE FROM BUS 10125 [WPRIJE2  | 220.00] | TO BUS 14132 [WPRIJ25 | 110.00] | TO BUS 141320 [WPRIJ2_1  | 10.500] | CKT 1 |
| CASE 60 | : OPEN LINE FROM BUS 10125 [WPRIJE2  | 220.00] | TO BUS 14132 [WPRIJ25 | 110.00] | TO BUS 141321 [WPRIJ2_2  | 10.500] | CKT 2 |
| CASE 61 | : OPEN LINE FROM BUS 10127 [WBIHAC2  | 220.00] | TO BUS 16102 [WBIHA15 | 110.00] | TO BUS 161020 [WBIHC2_1  | 10.500] | CKT 1 |
| CASE 62 | : OPEN LINE FROM BUS 10128 [WGRADC2  | 220.00] | TO BUS 16116 [WGRADA5 | 110.00] | TO BUS 161160 [WGRDAC_1  | 10.500] | CKT 1 |
| CASE 63 | : OPEN LINE FROM BUS 10129 [WRPJAB2  | 220.00] | TO BUS 10130 [WRPKAK2 | 220.00] | CKT 1                    |         |       |
| CASE 64 | : OPEN LINE FROM BUS 10129 [WRPJAB2  | 220.00] | TO BUS 10133 [WJAJCE2 | 220.00] | CKT 1                    |         |       |
| CASE 65 | : OPEN LINE FROM BUS 10129 [WRPJAB2  | 220.00] | TO BUS 10134 [WMOST32 | 220.00] | CKT 1                    |         |       |
| CASE 66 | : OPEN LINE FROM BUS 10130 [WRPKAK2  | 220.00] | TO BUS 10131 [WTEKAK2 | 220.00] | CKT 1                    |         |       |
| CASE 67 | : OPEN LINE FROM BUS 10131 [WTEKAK2  | 220.00] | TO BUS 16148 [WTKAKA5 | 110.00] | TO BUS 161480 [WTKAT110  | 10.500] | CKT 1 |
| CASE 68 | : OPEN LINE FROM BUS 10132 [WZENIC2  | 220.00] | TO BUS 16163 [WZENI25 | 110.00] | TO BUS 161630 [WZENI2_1  | 10.500] | CKT 1 |
| CASE 69 | : OPEN LINE FROM BUS 10132 [WZENIC2  | 220.00] | TO BUS 16163 [WZENI25 | 110.00] | TO BUS 161631 [WZENI2_2  | 10.500] | CKT 2 |
| CASE 70 | : OPEN LINE FROM BUS 10133 [WJAJCE2  | 220.00] | TO BUS 18122 [WJAJC25 | 110.00] | TO BUS 181220 [WTSJJC2_1 | 10.500] | CKT 1 |
| CASE 71 | : OPEN LINE FROM BUS 10134 [WMOST32  | 220.00] | TO BUS 10135 [WMOST42 | 220.00] | CKT 1                    |         |       |
| CASE 72 | : OPEN LINE FROM BUS 10134 [WMOST32  | 220.00] | TO BUS 10135 [WMOST42 | 220.00] | CKT 2                    |         |       |
| CASE 73 | : OPEN LINE FROM BUS 10134 [WMOST32  | 220.00] | TO BUS 10136 [WEALMO2 | 220.00] | CKT 1                    |         |       |
| CASE 74 | : OPEN LINE FROM BUS 10135 [WMOST42  | 220.00] | TO BUS 18104 [WMOST45 | 110.00] | TO BUS 181040 [WMOST4_3  | 10.500] | CKT 3 |
| CASE 75 | : OPEN LINE FROM BUS 10135 [WMOST42  | 220.00] | TO BUS 18104 [WMOST45 | 110.00] | TO BUS 181041 [WMOST4_4  | 10.500] | CKT 4 |
| CASE 76 | : OPEN LINE FROM BUS 10137 [WTREBI5  | 110.00] | TO BUS 14175 [WTREBI5 | 110.00] | CKT 1                    |         |       |
| CASE 77 | : OPEN LINE FROM BUS 14006 [WHBOCAG1 | 10.500] | TO BUS 14111 [WHBOCA5 | 110.00] | CKT 1                    |         |       |
| CASE 78 | : OPEN LINE FROM BUS 14101 [WNGRAD5  | 110.00] | TO BUS 14132 [WPRIJ25 | 110.00] | CKT 1                    |         |       |
| CASE 79 | : OPEN LINE FROM BUS 14102 [WBBROD5  | 110.00] | TO BUS 14115 [WDERVE5 | 110.00] | CKT 1                    |         |       |
| CASE 80 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14107 [WBLUK25 | 110.00] | CKT 1                    |         |       |
| CASE 81 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14110 [WBLUK65 | 110.00] | CKT 1                    |         |       |
| CASE 82 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14110 [WBLUK65 | 110.00] | CKT 2                    |         |       |
| CASE 83 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14190 [WBLUK85 | 110.00] | CKT 1                    |         |       |
| CASE 84 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14193 [WBLUK75 | 110.00] | CKT 1                    |         |       |
| CASE 85 | : OPEN LINE FROM BUS 14106 [WBLUK15  | 110.00] | TO BUS 14194 [WBL5TT5 | 110.00] | CKT 1                    |         |       |
| CASE 86 | : OPEN LINE FROM BUS 14107 [WBLUK25  | 110.00] | TO BUS 14191 [WBLUK95 | 110.00] | CKT 1                    |         |       |
| CASE 87 | : OPEN LINE FROM BUS 14108 [WBLUK35  | 110.00] | TO BUS 14109 [WBLUK45 | 110.00] | CKT 1                    |         |       |
| CASE 88 | : OPEN LINE FROM BUS 14108 [WBLUK35  | 110.00] | TO BUS 14111 [WHBOCA5 | 110.00] | CKT 1                    |         |       |
| CASE 89 | : OPEN LINE FROM BUS 14109 [WBLUK45  | 110.00] | TO BUS 14110 [WBLUK65 | 110.00] | CKT 1                    |         |       |
| CASE 90 | : OPEN LINE FROM BUS 14110 [WBLUK65  | 110.00] | TO BUS 14122 [WGRDS15 | 110.00] | CKT 1                    |         |       |
| CASE 91 | : OPEN LINE FROM BUS 14110 [WBLUK65  | 110.00] | TO BUS 14132 [WPRIJ25 | 110.00] | CKT 1                    |         |       |

|          |                                     |         |                       |         |       |
|----------|-------------------------------------|---------|-----------------------|---------|-------|
| CASE 92  | : OPEN LINE FROM BUS 14110 [WBLUK65 | 110.00] | TO BUS 14134 [WPRIJ55 | 110.00] | CKT 1 |
| CASE 93  | : OPEN LINE FROM BUS 14110 [WBLUK65 | 110.00] | TO BUS 14143 [WTDUTT5 | 110.00] | CKT 1 |
| CASE 94  | : OPEN LINE FROM BUS 14110 [WBLUK65 | 110.00] | TO BUS 14154 [WPRIJT5 | 110.00] | CKT 1 |
| CASE 95  | : OPEN LINE FROM BUS 14111 [WHBOCA5 | 110.00] | TO BUS 14128 [WMGRAD5 | 110.00] | CKT 1 |
| CASE 96  | : OPEN LINE FROM BUS 14111 [WHBOCA5 | 110.00] | TO BUS 14194 [WBL5TT5 | 110.00] | CKT 1 |
| CASE 97  | : OPEN LINE FROM BUS 14111 [WHBOCA5 | 110.00] | TO BUS 18120 [WHJAJ15 | 110.00] | CKT 1 |
| CASE 98  | : OPEN LINE FROM BUS 14112 [WBRCK15 | 110.00] | TO BUS 14113 [WBRCK25 | 110.00] | CKT 1 |
| CASE 99  | : OPEN LINE FROM BUS 14112 [WBRCK15 | 110.00] | TO BUS 14139 [WSAMAC5 | 110.00] | CKT 1 |
| CASE 101 | : OPEN LINE FROM BUS 14112 [WBRCK15 | 110.00] | TO BUS 14157 [WDOB035 | 110.00] | CKT 1 |
| CASE 102 | : OPEN LINE FROM BUS 14112 [WBRCK15 | 110.00] | TO BUS 16147 [WSR-IK5 | 110.00] | CKT 1 |
| CASE 103 | : OPEN LINE FROM BUS 14112 [WBRCK15 | 110.00] | TO BUS 18125 [WORASJ5 | 110.00] | CKT 1 |
| CASE 104 | : OPEN LINE FROM BUS 14113 [WBRCK25 | 110.00] | TO BUS 14158 [WGRDTT5 | 110.00] | CKT 1 |
| CASE 105 | : OPEN LINE FROM BUS 14113 [WBRCK25 | 110.00] | TO BUS 14195 [WBJEL35 | 110.00] | CKT 1 |
| CASE 106 | : OPEN LINE FROM BUS 14114 [WCELUL5 | 110.00] | TO BUS 14131 [WPRIJ15 | 110.00] | CKT 1 |
| CASE 107 | : OPEN LINE FROM BUS 14115 [WDERVE5 | 110.00] | TO BUS 14135 [WPRNJ15 | 110.00] | CKT 1 |
| CASE 108 | : OPEN LINE FROM BUS 14115 [WDERVE5 | 110.00] | TO BUS 14140 [WSRBAC5 | 110.00] | CKT 1 |
| CASE 109 | : OPEN LINE FROM BUS 14115 [WDERVE5 | 110.00] | TO BUS 14157 [WDOB035 | 110.00] | CKT 1 |
| CASE 110 | : OPEN LINE FROM BUS 14115 [WDERVE5 | 110.00] | TO BUS 14158 [WGRDTT5 | 110.00] | CKT 1 |
| CASE 111 | : OPEN LINE FROM BUS 14116 [WDOB015 | 110.00] | TO BUS 14117 [WDOB025 | 110.00] | CKT 1 |
| CASE 112 | : OPEN LINE FROM BUS 14116 [WDOB015 | 110.00] | TO BUS 14146 [WTESLI5 | 110.00] | CKT 1 |
| CASE 113 | : OPEN LINE FROM BUS 14116 [WDOB015 | 110.00] | TO BUS 16115 [WGRACA5 | 110.00] | CKT 1 |
| CASE 114 | : OPEN LINE FROM BUS 14116 [WDOB015 | 110.00] | TO BUS 16128 [WMAGLA5 | 110.00] | CKT 1 |
| CASE 115 | : OPEN LINE FROM BUS 14116 [WDOB015 | 110.00] | TO BUS 16169 [WDOBIS5 | 110.00] | CKT 1 |
| CASE 116 | : OPEN LINE FROM BUS 14117 [WDOB025 | 110.00] | TO BUS 14157 [WDOB035 | 110.00] | CKT 1 |
| CASE 117 | : OPEN LINE FROM BUS 14118 [WDUBIC5 | 110.00] | TO BUS 14133 [WPRIJ35 | 110.00] | CKT 1 |
| CASE 118 | : OPEN LINE FROM BUS 14118 [WDUBIC5 | 110.00] | TO BUS 14143 [WTDUTT5 | 110.00] | CKT 1 |
| CASE 119 | : OPEN LINE FROM BUS 14119 [WFOCA 5 | 110.00] | TO BUS 16114 [WGRZD15 | 110.00] | CKT 1 |
| CASE 120 | : OPEN LINE FROM BUS 14120 [WGLINI5 | 110.00] | TO BUS 14179 [WZVORN5 | 110.00] | CKT 1 |
| CASE 121 | : OPEN LINE FROM BUS 14120 [WGLINI5 | 110.00] | TO BUS 14179 [WZVORN5 | 110.00] | CKT 2 |
| CASE 122 | : OPEN LINE FROM BUS 14121 [WGORA25 | 110.00] | TO BUS 14151 [WVISEG5 | 110.00] | CKT 1 |
| CASE 123 | : OPEN LINE FROM BUS 14121 [WGORA25 | 110.00] | TO BUS 16114 [WGRZD15 | 110.00] | CKT 1 |
| CASE 124 | : OPEN LINE FROM BUS 14122 [WGRDS15 | 110.00] | TO BUS 14147 [WTOPOL5 | 110.00] | CKT 1 |
| CASE 125 | : OPEN LINE FROM BUS 14124 [WKVAR05 | 110.00] | TO BUS 14192 [WCELIN5 | 110.00] | CKT 1 |
| CASE 126 | : OPEN LINE FROM BUS 14125 [WLAKTA5 | 110.00] | TO BUS 14147 [WTOPOL5 | 110.00] | CKT 1 |
| CASE 127 | : OPEN LINE FROM BUS 14125 [WLAKTA5 | 110.00] | TO BUS 14190 [WBLUK85 | 110.00] | CKT 1 |
| CASE 128 | : OPEN LINE FROM BUS 14126 [WLOPAR5 | 110.00] | TO BUS 14149 [WTUGLJ5 | 110.00] | CKT 1 |
| CASE 129 | : OPEN LINE FROM BUS 14127 [WMODRI5 | 110.00] | TO BUS 16116 [WGRADA5 | 110.00] | CKT 1 |
| CASE 130 | : OPEN LINE FROM BUS 14127 [WMODRI5 | 110.00] | TO BUS 18110 [WODZAK5 | 110.00] | CKT 1 |
| CASE 131 | : OPEN LINE FROM BUS 14128 [WMGRAD5 | 110.00] | TO BUS 18120 [WHJAJ15 | 110.00] | CKT 1 |
| CASE 132 | : OPEN LINE FROM BUS 14129 [WNEVES5 | 110.00] | TO BUS 16129 [WMOST25 | 110.00] | CKT 1 |
| CASE 133 | : OPEN LINE FROM BUS 14130 [WPALE 5 | 110.00] | TO BUS 16114 [WGRZD15 | 110.00] | CKT 1 |
| CASE 134 | : OPEN LINE FROM BUS 14130 [WPALE 5 | 110.00] | TO BUS 16153 [WSA5TT5 | 110.00] | CKT 1 |
| CASE 135 | : OPEN LINE FROM BUS 14131 [WPRIJ15 | 110.00] | TO BUS 14132 [WPRIJ25 | 110.00] | CKT 1 |
| CASE 136 | : OPEN LINE FROM BUS 14131 [WPRIJ15 | 110.00] | TO BUS 14154 [WPRIJT5 | 110.00] | CKT 1 |
| CASE 137 | : OPEN LINE FROM BUS 14132 [WPRIJ25 | 110.00] | TO BUS 14133 [WPRIJ35 | 110.00] | CKT 1 |
| CASE 138 | : OPEN LINE FROM BUS 14132 [WPRIJ25 | 110.00] | TO BUS 14134 [WPRIJ55 | 110.00] | CKT 1 |
| CASE 139 | : OPEN LINE FROM BUS 14132 [WPRIJ25 | 110.00] | TO BUS 16100 [WBKRP5  | 110.00] | CKT 1 |
| CASE 140 | : OPEN LINE FROM BUS 14132 [WPRIJ25 | 110.00] | TO BUS 16133 [WSMOST5 | 110.00] | CKT 1 |
| CASE 141 | : OPEN LINE FROM BUS 14135 [WPRNJ15 | 110.00] | TO BUS 14150 [WUKRIN5 | 110.00] | CKT 1 |
| CASE 142 | : OPEN LINE FROM BUS 14136 [WROGAT5 | 110.00] | TO BUS 14151 [WVISEG5 | 110.00] | CKT 1 |
| CASE 143 | : OPEN LINE FROM BUS 14136 [WROGAT5 | 110.00] | TO BUS 14155 [WSOKOL5 | 110.00] | CKT 1 |
| CASE 144 | : OPEN LINE FROM BUS 14138 [WSAR205 | 110.00] | TO BUS 16134 [WSARA15 | 110.00] | CKT 1 |
| CASE 145 | : OPEN LINE FROM BUS 14138 [WSAR205 | 110.00] | TO BUS 16143 [WSAR145 | 110.00] | CKT 1 |
| CASE 146 | : OPEN LINE FROM BUS 14138 [WSAR205 | 110.00] | TO BUS 16144 [WSAR155 | 110.00] | CKT 1 |
| CASE 147 | : OPEN LINE FROM BUS 14139 [WSAMAC5 | 110.00] | TO BUS 18110 [WODZAK5 | 110.00] | CKT 1 |
| CASE 148 | : OPEN LINE FROM BUS 14140 [WSRBAC5 | 110.00] | TO BUS 14147 [WTOPOL5 | 110.00] | CKT 1 |
| CASE 149 | : OPEN LINE FROM BUS 14141 [WSR-CA5 | 110.00] | TO BUS 14144 [WPLJTT5 | 110.00] | CKT 1 |

|          |                                      |         |                        |         |       |
|----------|--------------------------------------|---------|------------------------|---------|-------|
| CASE 150 | : OPEN LINE FROM BUS 14142 [WSTANA5  | 110.00] | TO BUS 14146 [WTESLI5  | 110.00] | CKT 1 |
| CASE 151 | : OPEN LINE FROM BUS 14142 [WSTANA5  | 110.00] | TO BUS 14150 [WUKRIN5  | 110.00] | CKT 1 |
| CASE 152 | : OPEN LINE FROM BUS 14144 [WPLJTT5  | 110.00] | TO BUS 14152 [WVLASE5  | 110.00] | CKT 1 |
| CASE 153 | : OPEN LINE FROM BUS 14144 [WPLJTT5  | 110.00] | TO BUS 14179 [WZVORN5  | 110.00] | CKT 1 |
| CASE 154 | : OPEN LINE FROM BUS 14149 [WTUGLJ5  | 110.00] | TO BUS 14178 [WBJEL25  | 110.00] | CKT 1 |
| CASE 155 | : OPEN LINE FROM BUS 14149 [WTUGLJ5  | 110.00] | TO BUS 14179 [WZVORN5  | 110.00] | CKT 1 |
| CASE 156 | : OPEN LINE FROM BUS 14152 [WVLASE5  | 110.00] | TO BUS 16123 [WKLADA5  | 110.00] | CKT 1 |
| CASE 157 | : OPEN LINE FROM BUS 14155 [WSOKOL5  | 110.00] | TO BUS 16136 [WSARA45  | 110.00] | CKT 1 |
| CASE 158 | : OPEN LINE FROM BUS 14156 [WBLUK55  | 110.00] | TO BUS 14191 [WBLUK95  | 110.00] | CKT 1 |
| CASE 159 | : OPEN LINE FROM BUS 14156 [WBLUK55  | 110.00] | TO BUS 14194 [WBL5TT5  | 110.00] | CKT 1 |
| CASE 160 | : OPEN LINE FROM BUS 14158 [WGRD TT5 | 110.00] | TO BUS 16116 [WGRADA5  | 110.00] | CKT 1 |
| CASE 161 | : OPEN LINE FROM BUS 14159 [WGACKO5  | 110.00] | TO BUS 14176 [WBILEC5  | 110.00] | CKT 1 |
| CASE 162 | : OPEN LINE FROM BUS 14175 [WTREB15  | 110.00] | TO BUS 14176 [WBILEC5  | 110.00] | CKT 1 |
| CASE 163 | : OPEN LINE FROM BUS 14177 [WBJEL15  | 110.00] | TO BUS 14178 [WBJEL25  | 110.00] | CKT 1 |
| CASE 164 | : OPEN LINE FROM BUS 14177 [WBJEL15  | 110.00] | TO BUS 14195 [WBJEL35  | 110.00] | CKT 1 |
| CASE 165 | : OPEN LINE FROM BUS 14177 [WBJEL15  | 110.00] | TO BUS 14196 [WJANJA5  | 110.00] | CKT 1 |
| CASE 166 | : OPEN LINE FROM BUS 14192 [WCELIN5  | 110.00] | TO BUS 14193 [WBLUK75  | 110.00] | CKT 1 |
| CASE 167 | : OPEN LINE FROM BUS 16032 [WTTUZLG2 | 6.3000] | TO BUS 16149 [WTTUZL5  | 110.00] | CKT 1 |
| CASE 168 | : OPEN LINE FROM BUS 16033 [WTTUZLG3 | 10.500] | TO BUS 16149 [WTTUZL5  | 110.00] | CKT 1 |
| CASE 169 | : OPEN LINE FROM BUS 16100 [WBKRUP5  | 110.00] | TO BUS 16102 [WBIHA15  | 110.00] | CKT 1 |
| CASE 170 | : OPEN LINE FROM BUS 16100 [WBKRUP5  | 110.00] | TO BUS 16167 [WBUZIM5  | 110.00] | CKT 1 |
| CASE 171 | : OPEN LINE FROM BUS 16101 [WBANOV5  | 110.00] | TO BUS 16155 [WTUZL45  | 110.00] | CKT 1 |
| CASE 172 | : OPEN LINE FROM BUS 16102 [WBIHA15  | 110.00] | TO BUS 16103 [WBIHA25  | 110.00] | CKT 1 |
| CASE 173 | : OPEN LINE FROM BUS 16102 [WBIHA15  | 110.00] | TO BUS 16103 [WBIHA25  | 110.00] | CKT 2 |
| CASE 174 | : OPEN LINE FROM BUS 16102 [WBIHA15  | 110.00] | TO BUS 16106 [WCAZI15  | 110.00] | CKT 1 |
| CASE 175 | : OPEN LINE FROM BUS 16102 [WBIHA15  | 110.00] | TO BUS 16122 [WKVAKU5  | 110.00] | CKT 1 |
| CASE 176 | : OPEN LINE FROM BUS 16104 [WBREZA5  | 110.00] | TO BUS 16136 [WSARA45  | 110.00] | CKT 1 |
| CASE 177 | : OPEN LINE FROM BUS 16104 [WBREZA5  | 110.00] | TO BUS 16148 [WTKAKA5  | 110.00] | CKT 1 |
| CASE 178 | : OPEN LINE FROM BUS 16105 [WBUGOJ5  | 110.00] | TO BUS 16109 [WDVAKU5  | 110.00] | CKT 1 |
| CASE 179 | : OPEN LINE FROM BUS 16105 [WBUGOJ5  | 110.00] | TO BUS 18117 [WGVAKU5  | 110.00] | CKT 1 |
| CASE 180 | : OPEN LINE FROM BUS 16105 [WBUGOJ5  | 110.00] | TO BUS 18119 [WNTTRAV5 | 110.00] | CKT 1 |
| CASE 181 | : OPEN LINE FROM BUS 16105 [WBUGOJ5  | 110.00] | TO BUS 18143 [WKUPRE5  | 110.00] | CKT 1 |
| CASE 182 | : OPEN LINE FROM BUS 16106 [WCAZI15  | 110.00] | TO BUS 16107 [WCAZI25  | 110.00] | CKT 1 |
| CASE 183 | : OPEN LINE FROM BUS 16106 [WCAZI15  | 110.00] | TO BUS 16124 [WKLADU5  | 110.00] | CKT 1 |
| CASE 184 | : OPEN LINE FROM BUS 16108 [WCEMEN5  | 110.00] | TO BUS 16148 [WTKAKA5  | 110.00] | CKT 1 |
| CASE 185 | : OPEN LINE FROM BUS 16108 [WCEMEN5  | 110.00] | TO BUS 16163 [WZENI25  | 110.00] | CKT 1 |
| CASE 186 | : OPEN LINE FROM BUS 16109 [WDVAKU5  | 110.00] | TO BUS 18122 [WJAJC25  | 110.00] | CKT 1 |
| CASE 187 | : OPEN LINE FROM BUS 16110 [WDJURD5  | 110.00] | TO BUS 16123 [WKLADA5  | 110.00] | CKT 1 |
| CASE 188 | : OPEN LINE FROM BUS 16110 [WDJURD5  | 110.00] | TO BUS 16155 [WTUZL45  | 110.00] | CKT 1 |
| CASE 189 | : OPEN LINE FROM BUS 16111 [WDOBRI5  | 110.00] | TO BUS 16148 [WTKAKA5  | 110.00] | CKT 1 |
| CASE 190 | : OPEN LINE FROM BUS 16111 [WDOBRI5  | 110.00] | TO BUS 16159 [WVISOK5  | 110.00] | CKT 1 |
| CASE 191 | : OPEN LINE FROM BUS 16112 [WEVPBL5  | 110.00] | TO BUS 16117 [WHADZ15  | 110.00] | CKT 1 |
| CASE 192 | : OPEN LINE FROM BUS 16112 [WEVPBL5  | 110.00] | TO BUS 16134 [WSARA15  | 110.00] | CKT 1 |
| CASE 193 | : OPEN LINE FROM BUS 16113 [WEVPKO5  | 110.00] | TO BUS 16126 [WKONJ15  | 110.00] | CKT 1 |
| CASE 194 | : OPEN LINE FROM BUS 16113 [WEVPKO5  | 110.00] | TO BUS 16168 [WTRTPA5  | 110.00] | CKT 1 |
| CASE 195 | : OPEN LINE FROM BUS 16115 [WGRACA5  | 110.00] | TO BUS 16127 [WLUKA15  | 110.00] | CKT 1 |
| CASE 196 | : OPEN LINE FROM BUS 16115 [WGRACA5  | 110.00] | TO BUS 16169 [WDOBIS5  | 110.00] | CKT 1 |
| CASE 198 | : OPEN LINE FROM BUS 16117 [WHADZ15  | 110.00] | TO BUS 16168 [WTRTPA5  | 110.00] | CKT 1 |
| CASE 199 | : OPEN LINE FROM BUS 16118 [WHAK 5   | 110.00] | TO BUS 16149 [WTTUZL5  | 110.00] | CKT 1 |
| CASE 200 | : OPEN LINE FROM BUS 16118 [WHAK 5   | 110.00] | TO BUS 16155 [WTUZL45  | 110.00] | CKT 1 |
| CASE 201 | : OPEN LINE FROM BUS 16119 [WHJABL5  | 110.00] | TO BUS 16126 [WKONJ15  | 110.00] | CKT 1 |
| CASE 202 | : OPEN LINE FROM BUS 16119 [WHJABL5  | 110.00] | TO BUS 16129 [WMOST25  | 110.00] | CKT 1 |
| CASE 203 | : OPEN LINE FROM BUS 16119 [WHJABL5  | 110.00] | TO BUS 16132 [WPRATA5  | 110.00] | CKT 1 |
| CASE 204 | : OPEN LINE FROM BUS 16119 [WHJABL5  | 110.00] | TO BUS 16134 [WSARA15  | 110.00] | CKT 1 |
| CASE 205 | : OPEN LINE FROM BUS 16119 [WHJABL5  | 110.00] | TO BUS 16154 [WJABLA5  | 110.00] | CKT 1 |
| CASE 206 | : OPEN LINE FROM BUS 16120 [WILIJA5  | 110.00] | TO BUS 16134 [WSARA15  | 110.00] | CKT 1 |
| CASE 207 | : OPEN LINE FROM BUS 16120 [WILIJA5  | 110.00] | TO BUS 16148 [WTKAKA5  | 110.00] | CKT 1 |

|          |                                     |         |                       |         |       |
|----------|-------------------------------------|---------|-----------------------|---------|-------|
| CASE 208 | : OPEN LINE FROM BUS 16121 [WJUG 5  | 110.00] | TO BUS 16163 [WZENI25 | 110.00] | CKT 1 |
| CASE 209 | : OPEN LINE FROM BUS 16121 [WJUG 5  | 110.00] | TO BUS 16165 [WZENI45 | 110.00] | CKT 1 |
| CASE 210 | : OPEN LINE FROM BUS 16122 [WKVAKU5 | 110.00] | TO BUS 16131 [WPETRO5 | 110.00] | CKT 1 |
| CASE 211 | : OPEN LINE FROM BUS 16124 [WKLADU5 | 110.00] | TO BUS 16160 [WVRNOG5 | 110.00] | CKT 1 |
| CASE 212 | : OPEN LINE FROM BUS 16125 [WKLJUC5 | 110.00] | TO BUS 16131 [WPETRO5 | 110.00] | CKT 1 |
| CASE 213 | : OPEN LINE FROM BUS 16125 [WKLJUC5 | 110.00] | TO BUS 16133 [WSMOST5 | 110.00] | CKT 1 |
| CASE 214 | : OPEN LINE FROM BUS 16127 [WLUKA15 | 110.00] | TO BUS 16147 [WSR-IK5 | 110.00] | CKT 1 |
| CASE 215 | : OPEN LINE FROM BUS 16127 [WLUKA15 | 110.00] | TO BUS 16149 [WTTUZL5 | 110.00] | CKT 1 |
| CASE 216 | : OPEN LINE FROM BUS 16127 [WLUKA15 | 110.00] | TO BUS 16149 [WTTUZL5 | 110.00] | CKT 2 |
| CASE 217 | : OPEN LINE FROM BUS 16128 [WMAGLA5 | 110.00] | TO BUS 16150 [WTESAN5 | 110.00] | CKT 1 |
| CASE 218 | : OPEN LINE FROM BUS 16128 [WMAGLA5 | 110.00] | TO BUS 16161 [WZAVID5 | 110.00] | CKT 1 |
| CASE 219 | : OPEN LINE FROM BUS 16129 [WMOST25 | 110.00] | TO BUS 18101 [WMOST15 | 110.00] | CKT 1 |
| CASE 220 | : OPEN LINE FROM BUS 16130 [WPAZAR5 | 110.00] | TO BUS 16168 [WTRTPA5 | 110.00] | CKT 1 |
| CASE 221 | : OPEN LINE FROM BUS 16131 [WPETRO5 | 110.00] | TO BUS 18144 [WDRVAR5 | 110.00] | CKT 1 |
| CASE 222 | : OPEN LINE FROM BUS 16132 [WPRATA5 | 110.00] | TO BUS 16143 [WSAR145 | 110.00] | CKT 1 |
| CASE 223 | : OPEN LINE FROM BUS 16134 [WSARA15 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 1 |
| CASE 224 | : OPEN LINE FROM BUS 16134 [WSARA15 | 110.00] | TO BUS 16145 [WSAR185 | 110.00] | CKT 1 |
| CASE 225 | : OPEN LINE FROM BUS 16134 [WSARA15 | 110.00] | TO BUS 16159 [WVISOK5 | 110.00] | CKT 1 |
| CASE 226 | : OPEN LINE FROM BUS 16135 [WSARA25 | 110.00] | TO BUS 16136 [WSARA45 | 110.00] | CKT 1 |
| CASE 227 | : OPEN LINE FROM BUS 16135 [WSARA25 | 110.00] | TO BUS 16137 [WSARA55 | 110.00] | CKT 1 |
| CASE 228 | : OPEN LINE FROM BUS 16135 [WSARA25 | 110.00] | TO BUS 16138 [WSARA75 | 110.00] | CKT 1 |
| CASE 229 | : OPEN LINE FROM BUS 16135 [WSARA25 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 2 |
| CASE 230 | : OPEN LINE FROM BUS 16136 [WSARA45 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 1 |
| CASE 231 | : OPEN LINE FROM BUS 16137 [WSARA55 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 1 |
| CASE 232 | : OPEN LINE FROM BUS 16137 [WSARA55 | 110.00] | TO BUS 16141 [WSAR115 | 110.00] | CKT 1 |
| CASE 233 | : OPEN LINE FROM BUS 16137 [WSARA55 | 110.00] | TO BUS 16153 [WSA5TT5 | 110.00] | CKT 1 |
| CASE 234 | : OPEN LINE FROM BUS 16138 [WSARA75 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 1 |
| CASE 235 | : OPEN LINE FROM BUS 16138 [WSARA75 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 2 |
| CASE 236 | : OPEN LINE FROM BUS 16138 [WSARA75 | 110.00] | TO BUS 16142 [WSAR135 | 110.00] | CKT 1 |
| CASE 237 | : OPEN LINE FROM BUS 16138 [WSARA75 | 110.00] | TO BUS 16143 [WSAR145 | 110.00] | CKT 1 |
| CASE 238 | : OPEN LINE FROM BUS 16139 [WSARA85 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 1 |
| CASE 239 | : OPEN LINE FROM BUS 16139 [WSARA85 | 110.00] | TO BUS 16140 [WSAR105 | 110.00] | CKT 2 |
| CASE 240 | : OPEN LINE FROM BUS 16140 [WSAR105 | 110.00] | TO BUS 18118 [WKISEL5 | 110.00] | CKT 1 |
| CASE 241 | : OPEN LINE FROM BUS 16141 [WSAR115 | 110.00] | TO BUS 16142 [WSAR135 | 110.00] | CKT 1 |
| CASE 242 | : OPEN LINE FROM BUS 16143 [WSAR145 | 110.00] | TO BUS 16144 [WSAR155 | 110.00] | CKT 1 |
| CASE 243 | : OPEN LINE FROM BUS 16146 [WSJEVE5 | 110.00] | TO BUS 16162 [WZENI15 | 110.00] | CKT 1 |
| CASE 244 | : OPEN LINE FROM BUS 16146 [WSJEVE5 | 110.00] | TO BUS 16163 [WZENI25 | 110.00] | CKT 1 |
| CASE 245 | : OPEN LINE FROM BUS 16146 [WSJEVE5 | 110.00] | TO BUS 16165 [WZENI45 | 110.00] | CKT 1 |
| CASE 246 | : OPEN LINE FROM BUS 16148 [WTKAKA5 | 110.00] | TO BUS 16162 [WZENI15 | 110.00] | CKT 1 |
| CASE 247 | : OPEN LINE FROM BUS 16149 [WTTUZL5 | 110.00] | TO BUS 16157 [WTUZLC5 | 110.00] | CKT 1 |
| CASE 248 | : OPEN LINE FROM BUS 16151 [WTRAV15 | 110.00] | TO BUS 16152 [WTRAV25 | 110.00] | CKT 1 |
| CASE 249 | : OPEN LINE FROM BUS 16151 [WTRAV15 | 110.00] | TO BUS 16162 [WZENI15 | 110.00] | CKT 1 |
| CASE 250 | : OPEN LINE FROM BUS 16152 [WTRAV25 | 110.00] | TO BUS 18122 [WJAJC25 | 110.00] | CKT 1 |
| CASE 251 | : OPEN LINE FROM BUS 16154 [WJABLA5 | 110.00] | TO BUS 18114 [WRAMA 5 | 110.00] | CKT 1 |
| CASE 252 | : OPEN LINE FROM BUS 16155 [WTUZL45 | 110.00] | TO BUS 16156 [WTUZL55 | 110.00] | CKT 1 |
| CASE 253 | : OPEN LINE FROM BUS 16155 [WTUZL45 | 110.00] | TO BUS 16157 [WTUZLC5 | 110.00] | CKT 1 |
| CASE 254 | : OPEN LINE FROM BUS 16156 [WTUZL55 | 110.00] | TO BUS 16157 [WTUZLC5 | 110.00] | CKT 1 |
| CASE 255 | : OPEN LINE FROM BUS 16158 [WVARES5 | 110.00] | TO BUS 16159 [WVISOK5 | 110.00] | CKT 1 |
| CASE 256 | : OPEN LINE FROM BUS 16160 [WVRNOG5 | 110.00] | TO BUS 16167 [WBUZIM5 | 110.00] | CKT 1 |
| CASE 257 | : OPEN LINE FROM BUS 16161 [WZAVID5 | 110.00] | TO BUS 16162 [WZENI15 | 110.00] | CKT 1 |
| CASE 258 | : OPEN LINE FROM BUS 16162 [WZENI15 | 110.00] | TO BUS 16163 [WZENI25 | 110.00] | CKT 1 |
| CASE 259 | : OPEN LINE FROM BUS 16163 [WZENI25 | 110.00] | TO BUS 16164 [WZENI35 | 110.00] | CKT 1 |
| CASE 260 | : OPEN LINE FROM BUS 16163 [WZENI25 | 110.00] | TO BUS 16164 [WZENI35 | 110.00] | CKT 2 |
| CASE 261 | : OPEN LINE FROM BUS 16163 [WZENI25 | 110.00] | TO BUS 18115 [WBUSOV5 | 110.00] | CKT 1 |
| CASE 262 | : OPEN LINE FROM BUS 18100 [WHMOST5 | 110.00] | TO BUS 18101 [WMOST15 | 110.00] | CKT 1 |
| CASE 263 | : OPEN LINE FROM BUS 18100 [WHMOST5 | 110.00] | TO BUS 18101 [WMOST15 | 110.00] | CKT 2 |
| CASE 264 | : OPEN LINE FROM BUS 18101 [WMOST15 | 110.00] | TO BUS 18104 [WMOST45 | 110.00] | CKT 1 |

|          |                            |          |         |              |           |         |       |
|----------|----------------------------|----------|---------|--------------|-----------|---------|-------|
| CASE 265 | : OPEN LINE FROM BUS 18101 | [WMOST15 | 110.00] | TO BUS 18106 | [WMOST65  | 110.00] | CKT 1 |
| CASE 266 | : OPEN LINE FROM BUS 18104 | [WMOST45 | 110.00] | TO BUS 18111 | [WCITLU5  | 110.00] | CKT 1 |
| CASE 267 | : OPEN LINE FROM BUS 18104 | [WMOST45 | 110.00] | TO BUS 18130 | [WSBRIJ5  | 110.00] | CKT 1 |
| CASE 268 | : OPEN LINE FROM BUS 18104 | [WMOST45 | 110.00] | TO BUS 18158 | [WHMBLA5  | 110.00] | CKT 1 |
| CASE 269 | : OPEN LINE FROM BUS 18105 | [WMOST55 | 110.00] | TO BUS 18107 | [WMOST75  | 110.00] | CKT 1 |
| CASE 270 | : OPEN LINE FROM BUS 18105 | [WMOST55 | 110.00] | TO BUS 18158 | [WHMBLA5  | 110.00] | CKT 1 |
| CASE 271 | : OPEN LINE FROM BUS 18106 | [WMOST65 | 110.00] | TO BUS 18107 | [WMOST75  | 110.00] | CKT 1 |
| CASE 272 | : OPEN LINE FROM BUS 18111 | [WCITLU5 | 110.00] | TO BUS 18155 | [WLJUBU5  | 110.00] | CKT 1 |
| CASE 273 | : OPEN LINE FROM BUS 18112 | [WCAPLJ5 | 110.00] | TO BUS 18113 | [WSTOLA5  | 110.00] | CKT 1 |
| CASE 274 | : OPEN LINE FROM BUS 18112 | [WCAPLJ5 | 110.00] | TO BUS 18155 | [WLJUBU5  | 110.00] | CKT 1 |
| CASE 275 | : OPEN LINE FROM BUS 18114 | [WRAMA 5 | 110.00] | TO BUS 18142 | [WTGRAD5  | 110.00] | CKT 1 |
| CASE 276 | : OPEN LINE FROM BUS 18115 | [WBUSOV5 | 110.00] | TO BUS 18116 | [WVITEZ5  | 110.00] | CKT 1 |
| CASE 277 | : OPEN LINE FROM BUS 18116 | [WVITEZ5 | 110.00] | TO BUS 18119 | [WNTRAV5  | 110.00] | CKT 1 |
| CASE 278 | : OPEN LINE FROM BUS 18120 | [WHJAJ15 | 110.00] | TO BUS 18121 | [WJAJC15  | 110.00] | CKT 1 |
| CASE 280 | : OPEN LINE FROM BUS 18120 | [WHJAJ15 | 110.00] | TO BUS 18122 | [WJAJC25  | 110.00] | CKT 1 |
| CASE 281 | : OPEN LINE FROM BUS 18121 | [WJAJC15 | 110.00] | TO BUS 18122 | [WJAJC25  | 110.00] | CKT 1 |
| CASE 282 | : OPEN LINE FROM BUS 18130 | [WSBRIJ5 | 110.00] | TO BUS 18131 | [WGRUDE5  | 110.00] | CKT 1 |
| CASE 283 | : OPEN LINE FROM BUS 18131 | [WGRUDE5 | 110.00] | TO BUS 18135 | [WHMLIN5  | 110.00] | CKT 1 |
| CASE 284 | : OPEN LINE FROM BUS 18132 | [WPOSUS5 | 110.00] | TO BUS 18135 | [WHMLIN5  | 110.00] | CKT 1 |
| CASE 285 | : OPEN LINE FROM BUS 18132 | [WPOSUS5 | 110.00] | TO BUS 18142 | [WTGRAD5  | 110.00] | CKT 1 |
| CASE 286 | : OPEN LINE FROM BUS 18141 | [WLIVNO5 | 110.00] | TO BUS 18142 | [WTGRAD5  | 110.00] | CKT 1 |
| CASE 287 | : OPEN LINE FROM BUS 18144 | [WDRVAR5 | 110.00] | TO BUS 18159 | [WEVLDP5  | 110.00] | CKT 1 |
| CASE 288 | : OPEN LINE FROM BUS 18145 | [WGRAHO5 | 110.00] | TO BUS 18159 | [WEVLDP5  | 110.00] | CKT 1 |
| CASE 289 | : OPEN LINE FROM BUS 10101 | [WUGLJE1 | 400.00] | TO BUS 10976 | [XUG_ER11 | 400.00] | CKT 1 |
| CASE 290 | : OPEN LINE FROM BUS 10101 | [WUGLJE1 | 400.00] | TO BUS 10986 | [XUG_SM11 | 400.00] | CKT 1 |
| CASE 291 | : OPEN LINE FROM BUS 10103 | [WTETUZ2 | 220.00] | TO BUS 10980 | [XTU_DA21 | 220.00] | CKT 1 |
| CASE 292 | : OPEN LINE FROM BUS 10115 | [WTREBI1 | 400.00] | TO BUS 10977 | [XTR_PG11 | 400.00] | CKT 1 |
| CASE 293 | : OPEN LINE FROM BUS 10116 | [WTREBI2 | 220.00] | TO BUS 10982 | [XTR_PE21 | 220.00] | CKT 1 |
| CASE 294 | : OPEN LINE FROM BUS 10116 | [WTREBI2 | 220.00] | TO BUS 10988 | [XTR_PL21 | 220.00] | CKT 1 |
| CASE 295 | : OPEN LINE FROM BUS 10118 | [WSAR202 | 220.00] | TO BUS 10985 | [XSA_PI21 | 220.00] | CKT 1 |
| CASE 296 | : OPEN LINE FROM BUS 10124 | [WMOST41 | 400.00] | TO BUS 10975 | [XMO_KO11 | 400.00] | CKT 1 |
| CASE 297 | : OPEN LINE FROM BUS 10125 | [WPRIJE2 | 220.00] | TO BUS 10979 | [XPR_ME21 | 220.00] | CKT 1 |
| CASE 298 | : OPEN LINE FROM BUS 10125 | [WPRIJE2 | 220.00] | TO BUS 10987 | [XPR_MR21 | 220.00] | CKT 1 |
| CASE 299 | : OPEN LINE FROM BUS 10126 | [WTSVSG2 | 220.00] | TO BUS 10984 | [XVI_VA21 | 220.00] | CKT 1 |
| CASE 300 | : OPEN LINE FROM BUS 10128 | [WGRADC2 | 220.00] | TO BUS 10981 | [XGR_DA21 | 220.00] | CKT 1 |
| CASE 301 | : OPEN LINE FROM BUS 10135 | [WMOST42 | 220.00] | TO BUS 10978 | [XMO_ZA21 | 220.00] | CKT 1 |
| CASE 302 | : OPEN LINE FROM BUS 10137 | [WTREBI5 | 110.00] | TO BUS 10983 | [XTR_HN51 | 110.00] | CKT 1 |
| CASE 303 | : OPEN LINE FROM BUS 10137 | [WTREBI5 | 110.00] | TO BUS 10994 | [XTR_KO51 | 110.00] | CKT 1 |
| CASE 304 | : OPEN LINE FROM BUS 14102 | [WBBROD5 | 110.00] | TO BUS 11000 | [XBB_SB51 | 110.00] | CKT 1 |
| CASE 305 | : OPEN LINE FROM BUS 14176 | [WBILEC5 | 110.00] | TO BUS 10990 | [XBI_NI51 | 110.00] | CKT 1 |
| CASE 306 | : OPEN LINE FROM BUS 14179 | [WZVORN5 | 110.00] | TO BUS 10991 | [XZV_BI51 | 110.00] | CKT 1 |
| CASE 307 | : OPEN LINE FROM BUS 14196 | [WJANJA5 | 110.00] | TO BUS 10992 | [XBI_LE51 | 110.00] | CKT 1 |
| CASE 308 | : OPEN LINE FROM BUS 16122 | [WKVAKU5 | 110.00] | TO BUS 11001 | [XKU_GR51 | 110.00] | CKT 1 |
| CASE 309 | : OPEN LINE FROM BUS 18112 | [WCAPLJ5 | 110.00] | TO BUS 11003 | [XCA_OP51 | 110.00] | CKT 1 |
| CASE 310 | : OPEN LINE FROM BUS 18125 | [WORASJ5 | 110.00] | TO BUS 10999 | [XOR_ZU51 | 110.00] | CKT 1 |
| CASE 311 | : OPEN LINE FROM BUS 18131 | [WGRUDE5 | 110.00] | TO BUS 10997 | [XGR_IM51 | 110.00] | CKT 1 |
| CASE 312 | : OPEN LINE FROM BUS 18141 | [WLIVNO5 | 110.00] | TO BUS 10998 | [XBB_LI51 | 110.00] | CKT 1 |
| CASE 313 | : OPEN LINE FROM BUS 18145 | [WGRAHO5 | 110.00] | TO BUS 11002 | [XGR_KN51 | 110.00] | CKT 1 |
| CASE 314 | : OPEN LINE FROM BUS 18146 | [WNEUM 5 | 110.00] | TO BUS 10995 | [XNE_OP51 | 110.00] | CKT 1 |
| CASE 315 | : OPEN LINE FROM BUS 18146 | [WNEUM 5 | 110.00] | TO BUS 10996 | [XNE_ST51 | 110.00] | CKT 1 |
| CASE 316 | : OPEN LINE FROM BUS 18155 | [WLJUBU5 | 110.00] | TO BUS 10989 | [XVR_LJ51 | 110.00] | CKT 1 |

## **PRILOG 5**

Pregled varijabli stanja

**Pregled varijabli stanja**  
*svojstvene vrijednosti*

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E    TUE, SEP 30 2014 14:33  
DINAMICKI FAJL ZA EES BIH I SEE

**EIGENVALUES:**

| NO. | REAL    | IMAG    | DAMP        | FREQ   |
|-----|---------|---------|-------------|--------|
| 1   | -2.3665 | 12.884  | 0.18066     | 2.0506 |
| 2   | -2.3665 | -12.884 | 0.18066     | 2.0506 |
| 3   | -2.3436 | 12.289  | 0.18733     | 1.9559 |
| 4   | -2.3436 | -12.289 | 0.18733     | 1.9559 |
| 5   | -1.2987 | 12.146  | 0.10631     | 1.9331 |
| 6   | -1.2987 | -12.146 | 0.10631     | 1.9331 |
| 7   | -1.4518 | 11.998  | 0.12013     | 1.9095 |
| 8   | -1.4518 | -11.998 | 0.12013     | 1.9095 |
| 9   | -1.2329 | 11.552  | 0.10613     | 1.8385 |
| 10  | -1.2329 | -11.552 | 0.10613     | 1.8385 |
| 11  | -1.0825 | 11.457  | 0.94069E-01 | 1.8234 |
| 12  | -1.0825 | -11.457 | 0.94069E-01 | 1.8234 |
| 13  | -1.4650 | 10.902  | 0.13318     | 1.7352 |
| 14  | -1.4650 | -10.902 | 0.13318     | 1.7352 |
| 15  | -1.1266 | 10.444  | 0.10725     | 1.6622 |
| 16  | -1.1266 | -10.444 | 0.10725     | 1.6622 |
| 17  | -1.4402 | 10.411  | 0.13703     | 1.6570 |
| 18  | -1.4402 | -10.411 | 0.13703     | 1.6570 |
| 19  | -1.4402 | 10.411  | 0.13703     | 1.6570 |
| 20  | -1.4402 | -10.411 | 0.13703     | 1.6570 |
| 21  | -1.3415 | 10.183  | 0.13061     | 1.6207 |
| 22  | -1.3415 | -10.183 | 0.13061     | 1.6207 |
| 23  | -1.3909 | 9.9178  | 0.13889     | 1.5785 |
| 24  | -1.3909 | -9.9178 | 0.13889     | 1.5785 |
| 25  | -2.0755 | 9.6607  | 0.21005     | 1.5375 |
| 26  | -2.0755 | -9.6607 | 0.21005     | 1.5375 |
| 27  | -1.2551 | 9.6458  | 0.12903     | 1.5352 |
| 28  | -1.2551 | -9.6458 | 0.12903     | 1.5352 |



|    |          |         |             |        |
|----|----------|---------|-------------|--------|
| 29 | -1.0878  | 8.8831  | 0.12155     | 1.4138 |
| 30 | -1.0878  | -8.8831 | 0.12155     | 1.4138 |
| 31 | -1.1250  | 8.8753  | 0.12575     | 1.4125 |
| 32 | -1.1250  | -8.8753 | 0.12575     | 1.4125 |
| 33 | -1.4767  | 8.8413  | 0.16474     | 1.4071 |
| 34 | -1.4767  | -8.8413 | 0.16474     | 1.4071 |
| 35 | -0.87043 | 8.6810  | 0.99768E-01 | 1.3816 |

# **EIGENVALUES:**

| NO. | REAL     | IMAG         | DAMP        | FREQ        |
|-----|----------|--------------|-------------|-------------|
| 36  | -0.87043 | -8.6810      | 0.99768E-01 | 1.3816      |
| 37  | -1.0939  | 8.5520       | 0.12688     | 1.3611      |
| 38  | -1.0939  | -8.5520      | 0.12688     | 1.3611      |
| 39  | -0.98615 | 8.4716       | 0.11563     | 1.3483      |
| 40  | -0.98615 | -8.4716      | 0.11563     | 1.3483      |
| 41  | -1.1110  | 8.3650       | 0.13166     | 1.3313      |
| 42  | -1.1110  | -8.3650      | 0.13166     | 1.3313      |
| 43  | -0.98612 | 7.9606       | 0.12294     | 1.2670      |
| 44  | -0.98612 | -7.9606      | 0.12294     | 1.2670      |
| 45  | -0.81834 | 7.6461       | 0.10642     | 1.2169      |
| 46  | -0.81834 | -7.6461      | 0.10642     | 1.2169      |
| 47  | -0.75502 | 6.5178       | 0.11507     | 1.0373      |
| 48  | -0.75502 | -6.5178      | 0.11507     | 1.0373      |
| 49  | -0.75502 | 6.5178       | 0.11507     | 1.0373      |
| 50  | -0.75502 | -6.5178      | 0.11507     | 1.0373      |
| 51  | -0.66412 | 6.4140       | 0.10299     | 1.0208      |
| 52  | -0.66412 | -6.4140      | 0.10299     | 1.0208      |
| 53  | -0.52444 | 6.3509       | 0.82297E-01 | 1.0108      |
| 54  | -0.52444 | -6.3509      | 0.82297E-01 | 1.0108      |
| 55  | -0.51763 | 6.0259       | 0.85586E-01 | 0.95906     |
| 56  | -0.51763 | -6.0259      | 0.85586E-01 | 0.95906     |
| 57  | -0.74967 | 0.29202E-06  | 1.0000      | 0.46476E-07 |
| 58  | -0.74967 | -0.29202E-06 | 1.0000      | 0.46476E-07 |

**EIGENVALUES:**

| NO. | REAL    | TIME CONSTANT |     |                     |
|-----|---------|---------------|-----|---------------------|
| 59  | -51.790 | 0.19309E-01   | 102 | -16.570 0.60351E-01 |
| 60  | -51.201 | 0.19531E-01   | 103 | -16.570 0.60351E-01 |
| 61  | -48.217 | 0.20740E-01   | 104 | -15.912 0.62847E-01 |
| 62  | -45.504 | 0.21976E-01   | 105 | -15.132 0.66084E-01 |
| 63  | -44.950 | 0.22247E-01   | 106 | -15.076 0.66332E-01 |
| 64  | -42.805 | 0.23361E-01   | 107 | -14.849 0.67346E-01 |
| 65  | -42.481 | 0.23540E-01   | 108 | -11.904 0.84007E-01 |
| 66  | -42.261 | 0.23663E-01   | 109 | -11.353 0.88083E-01 |
| 67  | -42.181 | 0.23708E-01   | 110 | -11.134 0.89816E-01 |
| 68  | -41.732 | 0.23962E-01   | 111 | -10.988 0.91009E-01 |
| 69  | -41.732 | 0.23962E-01   | 112 | -10.348 0.96640E-01 |
| 70  | -41.590 | 0.24044E-01   | 113 | -10.037 0.99635E-01 |
| 71  | -41.482 | 0.24107E-01   | 114 | -9.6470 0.10366     |
| 72  | -40.874 | 0.24466E-01   | 115 | -5.7166 0.17493     |
| 73  | -40.850 | 0.24480E-01   | 116 | -5.1702 0.19341     |
| 74  | -40.151 | 0.24906E-01   | 117 | -3.3290 0.30039     |
| 75  | -39.726 | 0.25173E-01   | 118 | -3.1221 0.32029     |
| 76  | -39.726 | 0.25173E-01   | 119 | -2.1766 0.45943     |
| 77  | -39.327 | 0.25428E-01   | 120 | -2.0324 0.49203     |
| 78  | -37.852 | 0.26419E-01   | 121 | -1.8167 0.55045     |
| 79  | -36.618 | 0.27309E-01   | 122 | -1.7430 0.57373     |
| 80  | -32.036 | 0.31215E-01   | 123 | -1.6354 0.61146     |
| 81  | -30.462 | 0.32828E-01   | 124 | -1.1951 0.83676     |
| 82  | -27.639 | 0.36181E-01   | 125 | -1.1951 0.83676     |
| 83  | -27.476 | 0.36395E-01   | 126 | -1.1882 0.84161     |
| 84  | -27.476 | 0.36395E-01   | 127 | -1.1505 0.86917     |
| 85  | -27.451 | 0.36428E-01   | 128 | -1.1334 0.88231     |
| 86  | -27.234 | 0.36719E-01   | 129 | -0.91374 1.0944     |
| 87  | -26.874 | 0.37211E-01   | 130 | -0.80940 1.2355     |
| 88  | -26.770 | 0.37355E-01   | 131 | -0.76546 1.3064     |
| 89  | -26.593 | 0.37604E-01   | 132 | -0.75535 1.3239     |
| 90  | -26.505 | 0.37728E-01   | 133 | -0.74060 1.3502     |
| 91  | -26.154 | 0.38235E-01   | 134 | -0.71703 1.3947     |
| 92  | -24.566 | 0.40707E-01   | 135 | -0.61708 1.6205     |
| 93  | -23.986 | 0.41690E-01   | 136 | -0.60949 1.6407     |
| 94  | -23.846 | 0.41936E-01   | 137 | -0.52236 1.9144     |
| 95  | -22.191 | 0.45064E-01   | 138 | -0.46558 2.1479     |
| 96  | -21.963 | 0.45531E-01   | 139 | -0.42133 2.3734     |
| 97  | -21.907 | 0.45648E-01   | 140 | -0.40716 2.4561     |
| 98  | -18.537 | 0.53947E-01   | 141 | -0.40051 2.4968     |
| 99  | -18.414 | 0.54308E-01   | 142 | -0.38441 2.6014     |
| 100 | -17.662 | 0.56620E-01   | 143 | -0.29776 3.3585     |
| 101 | -17.311 | 0.57767E-01   | 144 | -0.29329 3.4096     |
|     |         |               | 145 | -0.28376 3.5241     |
|     |         |               | 146 | -0.26024 3.8426     |
|     |         |               | 147 | -0.24662 4.0549     |