

## National Load Despatch Centre पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

- Consider the second s

Ref: POSOCO/NLDC/SO/Daily PSP Report

Date: 19<sup>th</sup> Nov, 2015

To,

- 1. महाप्रबंधक, प्. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड , कोलकाता 700033 General Manager, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. Executive Director, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 कार्यपालक निदेशक, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi 110016
- 3. महाप्रबंधक, प. क्षे. भा. प्रे. के., एफ-3, एम आई डी सी क्षेत्र , अंधेरी, मुंबई 400093 General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यपालक निदेशक, द. क्षे. भा. प्रे. के., 29, रेस कोर्स क्रॉस रोड, बंगलुरु 560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 18.11.2015.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स. - 5.5.1 के प्रावधान के अनुसार, दिनांक 18<sup>th</sup> Nov 2015 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर निम्न लिंक पर उप्लब्ध है:-

As per article 5.5.1 of the Indian Electricity Grid Code, the daily report pertaining power supply position of All India Power System for the date 18<sup>th</sup> Nov 2015, is available at the NLDC website.

http://posoco.in/attachments/article/94/19.11.15\_NLDC\_PSP.pdf

Thanking You.

## पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Report for previous day Date of Reporting 19-Nov-15

## A. Maximum Demand

|  | NR    | WR    | SR    | ER    | NER  | Total  |
|--|-------|-------|-------|-------|------|--------|
| Demand Met during Evening Peak hrs(MW) | 37838 | 42236 | 31491 | 16478 | 2261 | 130304 |
| Peak Shortage (MW)                     | 364   | 159   | 1024  | 200   | 65   | 1812   |
| Energy Met (MU)                        | 785   | 975   | 674   | 332   | 39   | 2804   |
| Hydro Gen(MU)                          | 135   | 29    | 40    | 25    | 9    | 237    |
| Wind Gen(MU)                           | 3     | 48    | 15    |       |      | 66     |

B. Frequency Profile (%)

| Region   | <49.2 | <49.7 | 49.7-49.8 | 49.8-49.9 | <49.9 | 49.9-50.05 | > 50.05 |
|----------|-------|-------|-----------|-----------|-------|------------|---------|
| NEW GRID | 0.00  | 0.00  | 1.15      | 9.28      | 10.43 | 62.70      | 26.88   |
| SR GRID  | 0.00  | 0.00  | 1.15      | 9.28      | 10.43 | 62.70      | 26.88   |

C.Power Supply Position in States

|              |                      | Max. Demand    | Shortage during | Energy   | Drawal        | OD(+)/     | Max     |
|--------------|----------------------|----------------|-----------------|----------|---------------|------------|---------|
| RegionRegion | States               | Met during the | maximum Demand  | Met (MU) | Schedule (MU) | UD(-) (MU) | OD (MW) |
|              |                      | day (MW)       | (MW)            | ` '      | ` ′           | *** ***    |         |
|              | Punjab               | 4544           | 0               | 86.5     | 49.2          | 0.9        | 227     |
|              | Haryana<br>Rajasthan | 6141           | 0               | 105.5    | 66.1          | -1.4       | 184     |
|              |                      | 9608           | 0               | 201.5    | 78.9          | 2.9        | 440     |
| NR           | Delhi                | 3160           | 0               | 56.2     | 44.6          | 0.5        | 271     |
|              | UP                   | 10531          | 605             | 233.5    | 111.4         | 1.8        | 463     |
|              | Uttarakhand          | 1712           | 75              | 33.1     | 24.6          | 1.4        | 162     |
|              | HP                   | 1327           | 0               | 23.9     | 17.3          | 0.8        | 120     |
|              | J&K                  | 1982           | 495             | 41.5     | 31.8          | 0.1        | 128     |
|              | Chandigarh           | 182            | 0               | 3.4      | 3.5           | 0.3        | 20      |
|              | Chhattisgarh         | 3056           | 96              | 64.8     | 16.8          | -0.3       | 253     |
|              | Gujarat              | 11337          | 0               | 254.9    | 48.9          | -2.5       | 352     |
|              | MP                   | 10002          | 0               | 218.7    | 137.4         | -1.5       | 415     |
| WR           | Maharashtra          | 18888          | 122             | 398.7    | 102.0         | -6.3       | 334     |
| WK           | Goa                  | 425            | 0               | 8.6      | 7.8           | 0.4        | 40      |
|              | DD                   | 281            | 0               | 6.2      | 6.3           | -0.1       | 38      |
|              | DNH                  | 685            | 0               | 15.9     | 16.3          | -0.4       | 9       |
|              | Essar steel          | 398            | 0               | 7.1      | 7.2           | -0.1       | 208     |
|              | Andhra Pradesh       | 4960           | 0               | 101.2    | 21.1          | -0.5       | 641     |
|              | Telangana            | 5677           | 0               | 123.5    | 76.0          | -2.2       | 844     |
| SR           | Karnataka            | 7591           | 400             | 162.0    | 28.0          | 3.3        | 333     |
| JN.          | Kerala               | 3371           | 0               | 62.0     | 45.7          | 2.3        | 396     |
|              | Tamil Nadu           | 11139          | 0               | 220.1    | 94.4          | 1.9        | 547     |
|              | Pondy                | 262            | 0               | 4.8      | 5.4           | -0.6       | 45      |
|              | Bihar                | 3252           | 0               | 63.0     | 63.5          | -0.4       | 390     |
|              | DVC                  | 2401           | 0               | 56.5     | -10.3         | -0.6       | 245     |
| ER           | Jharkhand            | 1080           | 0               | 23.5     | 11.8          | -0.9       | 130     |
| LN           | Odisha               | 3684           | 0               | 59.3     | 19.9          | 2.4        | 350     |
|              | West Bengal          | 6259           | 0               | 128.1    | 26.3          | 1.2        | 360     |
|              | Sikkim               | 98             | 0               | 1.4      | 0.9           | 0.5        | 22      |
|              | Arunachal Pradesh    | 105            | 1               | 2.2      | 1.6           | 0.6        | 42      |
|              | Assam                | 1342           | 7               | 21.5     | 16.6          | 1.4        | 204     |
|              | Manipur              | 149            | 1               | 2.5      | 2.5           | 0.0        | 19      |
| NER          | Meghalaya            | 301            | 1               | 5.4      | 4.3           | -0.4       | 63      |
|              | Mizoram              | 88             | 2               | 1.3      | 1.2           | 0.1        | 16      |
|              | Nagaland             | 108            | 2               | 1.8      | 1.5           | 0.2        | 57      |
|              | Tripura              | 214            | 1               | 3.9      | 0.7           | 1.0        | 59      |

 ${\color{red} \textbf{D. Transnational Exchanges} \ (MU) - Import(+ve)/Export(-ve)}$ 

|            | Bhutan | Nepal  | Bangladesh |
|------------|--------|--------|------------|
| Actual(MU) | 7.7    | -3.2   | -9.5       |
| Max MW     |        | -178.0 | -458.0     |

E. Import/export By Regions(in MU) - Import(+ve)/Export(-ve); OD(+)/UD(-)

|              | NR    | WR     | SR   | ER    | NER | TOTAL |
|--------------|-------|--------|------|-------|-----|-------|
| Schedule(MU) | 157.9 | -150.8 | 64.1 | -75.0 | 4.7 | 0.9   |
| Actual(MU)   | 165.8 | -169.1 | 67.9 | -71.1 | 7.2 | 0.7   |
| O/D/U/D(MU)  | 7.9   | -18.3  | 3.8  | 3.9   | 2.5 | -0.2  |

## F. Generation Outage(MW)

|                | NR    | WR    | SR   | ER   | NER | Total |
|----------------|-------|-------|------|------|-----|-------|
| Central Sector | 3529  | 11553 | 3580 | 1470 | 50  | 20182 |
| State Sector   | 11990 | 12661 | 4755 | 5549 | 110 | 35065 |
| Total          | 15519 | 24214 | 8335 | 7019 | 160 | 55247 |

सचिव(ऊर्जा)/ विशेष सचिव(ऊर्जा)/अतिरिक्त सचिव(ऊर्जा)/संयुक्त सचिव(पारेषण)/(ओ एम)/निदेशक(ओ एम)/मुख्य अभियंता-के०वि॰प्रा॰(ग्रि॰प्र॰)/ अध्यक्ष एवं प्रबंध निदेशक (पावरग्रिङ)/मुख्य कार्यपालक अधिकारी(पोसोको)/सभी राज्यो के मुख्य सचिव/ऊर्जा सचिव

|  |   |  |  |  | _   | Date of F   | Reporting :   |  |
|--|---|--|--|--|---|---|---|--|
|  | 1   |  | 1                                      | I  |   | I   |   | Import=(+ve)<br>/Export =(-ve)<br>for NET (MU)   |
| Sl No  | Voltage<br>Level  | Line Details   | Circuit                                | Max<br>Import<br>(MW)  | Max<br>Export<br>(MW)   | Import (MU)   | Export<br>(MU)  | NET<br>(MU)  |
| _  | Export of   | ER (With NR)   | 0.0                                    |  | 101   | 0.0   | 4.0   | 1.0  |
| 1  |   | GAYA-FATEHPUR<br>GAYA-BALIA  | S/C                                    | 111  | 401   | 0.0   | 4.0<br>0.4  | -4.0<br>-0.4   |
| 2  | 765KV   |  | S/C                                    |  |   |   |   |  |
| 2  | HVDC  | SASARAM-FATEHPUR   | S/C                                    | 0  | 0   | 0.0   | 4.2   | -4.2   |
| 3  | LINK  | PUSAULI B/B  | S/C                                    | 0  | 0   | 0.0   | 8.4   | -8.4   |
| 4  |   | PUSAULI-SARNATH  | S/C                                    | 0  | 298   | 0.0   | 0.0   | 0.0  |
| 5  |   | PUSAULI -ALLAHABAD   | D/C                                    | 0  | 133   | 0.0   | 0.0   | 0.0  |
| 6  | 400 KV  | MUZAFFARPUR-GORAKHPUR  | D/C                                    | 179  | 406   | 0.0   | 4.6   | -4.6   |
| 7  |   | PATNA-BALIA  | Q/C                                    | 0  | 245   | 0.0   | 8.7   | -8.7   |
| 8  | _   | BIHARSHARIFF-BALIA   | D/C<br>D/C                             | 140  | 177<br>0  | 0.0   | 1.8<br>7.9  | -1.8<br>-7.9   |
| 10   | 220 KV  | BARH-GORAKHPUR<br>PUSAULI-SAHUPURI   | S/C                                    | 0  | 163   | 0.0   | 3.2   | -7.9   |
| 11   | 220 K V   | SONE NAGAR-RIHAND  | S/C                                    | 0  | 1   | 0.0   | 0.0   | 0.0  |
| 12   | 1   | GARWAH-RIHAND  | S/C                                    | 27   | 0   | 0.6   | 0.0   | 0.6  |
| 13   | 132 KV  | KARMANASA-SAHUPURI   | S/C                                    | 0  | 0   | 0.0   | 0.0   | 0.0  |
| 14   | 1   | KARMANASA-CHANDAULI  | S/C                                    | 0  | 0   | 0.0   | 0.0   | 0.0  |
|  |   |  |  |  | ER-NR   | 0.6   | 43.2  | -42.6  |
| nport/l  | Export of   | ER (With WR)   |  |  |   |   |   |  |
| 15   | 765 KV  | JHARSUGUDA-DHARAMJAIGARH S/C   | D/C                                    | 0  | 0   | 0.0   | 10.9  | -10.9  |
| 16   |   | NEW RANCHI-DHARAMJAIGARH   | S/C                                    | 0  | 0   | 0.0   | 0.2   | -0.2   |
| 17   |   | ROURKELA - RAIGARH ( SEL LILO<br>BYPASS)   | S/C                                    | 0  | 0   | 1.5   | 0.0   | 1.5  |
| 18   | 1   | JHARSUGUDA-RAIGARH   | S/C                                    | 0  | 0   | 2.9   | 0.0   | 2.9  |
| 19   | 400 KV  | IBEUL-RAIGARH  | S/C                                    | 0  | 0   | 2.0   | 0.0   | 2.0  |
| 20   |   | STERLITE-RAIGARH   | D/C                                    | 0  | 0   | 0.0   | 4.0   | -4.0   |
| 21   |   | RANCHI-SIPAT   | D/C                                    | 236  | 0   | 5.0   | 0.0   | 5.0  |
| 22   | 220 KV  | BUDHIPADAR-RAIGARH   | S/C                                    | 0  | 152   | 0.0   | 2.1   | -2.1   |
| 23   | 220 K V   | BUDHIPADAR-KORBA   | D/C                                    | 38   | 76  | 0.0   | 0.4   | -0.4   |
| anout/I  | Exmant of   | ER (With SR)   |  |  | ER-WR   | 11.4  | 17.5  | -6.1   |
| 24   | HVDC  | JEYPORE-GAZUWAKA B/B   | D/C                                    | 0  | 635   | 0   | 14.9  | -14.9  |
| 25   | LINK  | TALCHER-KOLAR BIPOLE   | D/C                                    | 0  | 2157  | 0   | 41.5  | -14.5  |
| 26   | 400 KV  | TALCHER-I/C  | 2,0                                    | 323.693  | 491   | 2.399229  | 0.412416  |  |
| 27   | 220 KV  | BALIMELA-UPPER-SILERRU   | S/C                                    | 0  | 0   | 0   | 0   | 0.0  |
|  |   |  |  | •  | ER-SR   | 2.4   | 56.4  | -56.4  |
| nport/l  | Export of   | ER (With NER)  |  |  |   |   |   |  |
| 27   | 400 KV  |  |  |  | 204   | 2   | 0   | 2  |
|  |   | BINAGURI-BONGAIGAON  | Q/C                                    | 199  |   |   |   | 0  |
| 28   | 220 KV  | BIRPARA-SALAKATI   | Q/C<br>D/C                             | 0  | 5   | 0   | 0   |  |
|  |   | BIRPARA-SALAKATI   | 1                                      |  |   | 0<br>2.4  | 0.0   | 2.4  |
| 1port/l  | Export of   | BIRPARA-SALAKATI NR (With NER)   | D/C                                    | 0  | 5<br>ER-NER   | 2.4   | 0.0   | 2.4  |
|  | Export of   | BIRPARA-SALAKATI   | 1                                      |  | 5<br><b>ER-NER</b><br>500   | 2.4   | 0.0   | <b>2.4</b> -11.3   |
| port/l   | Export of<br>HVDC   | BIRPARA-SALAKATI  NR (With NER)  BISWANATH CHARIALI-AGRA   | D/C                                    | 0  | 5<br>ER-NER   | 2.4   | 0.0   | 2.4  |
| 1port/l<br>29<br>1port/l   | Export of HVDC Export of  | BIRPARA-SALAKATI  NR (With NER)  BISWANATH CHARIALI-AGRA  WR (With NR)   | D/C -                                  | 0  | 5<br>ER-NER<br>500<br>NR-NER  | 0 0.0   | 0.0<br>11<br>11.3   | -11.3<br>-11.3   |
| port/l   | Export of HVDC Export of HVDC   | BIRPARA-SALAKATI  NR (With NER)  BISWANATH CHARIALI-AGRA   | D/C - D/C                              | 0  | 5<br><b>ER-NER</b><br>500   | 2.4   | 11<br>11.3  | -11.3<br>-11.3<br>-0.0   |
| 29<br>1port/l<br>30  | Export of HVDC Export of  | BIRPARA-SALAKATI  NR (With NER)  BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B   | D/C -                                  | 0 0 200  | 5<br>ER-NER<br>500<br>NR-NER  | 0<br>0.0  | 0.0<br>11<br>11.3   | -11.3<br>-11.3   |
| 29<br>1port/I<br>30<br>31  | Export of HVDC  Export of HVDC 765 KV   | BIRPARA-SALAKATI  NR (With NER)  BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA  | D/C - D/C D/C                          | 0 0 200 0  | 5 ER-NER 500 NR-NER 100 3140  | 2.4<br>0<br>0.0<br>1.0<br>0.0   | 11<br>11.3<br>1.0<br>63.0   | 2.4<br>-11.3<br>-11.3<br>0.0<br>-63.0  |
| 29<br>29<br>30<br>31<br>32   | Export of HVDC Export of HVDC 765 KV 765 KV   | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR  | D/C - D/C D/C D/C                      | 0<br>0<br>200<br>0<br>0  | 5 ER-NER 500 NR-NER 100 3140 649  | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>0  | 11<br>11.3<br>1.0<br>63.0<br>25.0   | 2.4<br>-11.3<br>-11.3<br>0.0<br>-63.0<br>-25.0   |
| 29<br>nport/l<br>30<br>31<br>32<br>33  | Export of HVDC  Export of HVDC  765 KV  400 KV  | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI  | D/C                                    | 0<br>0<br>200<br>0<br>0<br>0<br>145                                  | 5 ER-NER 500 NR-NER 100 3140 649 21   | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>0<br>1.0   | 11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0  | 2.4<br>-11.3<br>-11.3<br>0.0<br>-63.0<br>-25.0<br>1.0  |
| 30<br>31<br>32<br>33<br>34   | Export of HVDC  Export of HVDC 765 KV 765 KV 400 KV   | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA - BHINMAL   | D/C  D/C  D/C  D/C  S/C  S/C           | 0<br>200<br>0<br>0<br>145<br>85                                      | 5<br>ER-NER<br>500<br>NR-NER<br>100<br>3140<br>649<br>21<br>168   | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>0<br>1.0<br>1.0  | 11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0  | 2.4<br>-11.3<br>-11.3<br>0.0<br>-63.0<br>-25.0<br>1.0  |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37   | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39                     | 5 ER-NER 500 NR-NER 100 3140 649 21 168 0 0 24  | 2.4<br>0<br>0.0<br>0.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0   | 1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0  | 2.4<br>-11.3<br>-11.3<br>0.0<br>-63.0<br>-25.0<br>1.0<br>0.0<br>1.0<br>0.0                               |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38   | Export of HVDC  Export of HVDC 765 KV 765 KV 400 KV   | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85               | 5<br>ER-NER<br>500<br>NR-NER<br>100<br>3140<br>649<br>21<br>168<br>0<br>0   | 2.4<br>0<br>0.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>1                                      | 1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0   | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  1.0  1.0   |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39   | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA  | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42         | 500 NR-NER  100 3140 649 21 168 0 0 24 0  | 2.4<br>0<br>0.0<br>0.0<br>1.0<br>0.0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0                                  | 1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0                                    | 2.4  -11.3  -11.3  -11.3  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  1.0  0.0  0.0                           |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38   | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85               | 5 ER-NER  500 NR-NER  100 3140 649 21 168 0 0 0 0 0   | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0                             | 1.0<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0               | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  0.0  0.0                                 |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40                                     | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  220 KV                                    | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42           | 500 NR-NER  100 3140 649 21 168 0 0 24 0 0 0 WR-NR  | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0                        | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  -84.0                                     |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40                                     | Export of HVDC  Export of HVDC  765 KV 765 KV 400 KV 400 KV 400 KV  132KV                                 | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42         | 5 ER-NER  500 NR-NER  100 3140 649 21 168 0 0 0 0 0   | 2.4<br>0<br>0.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0                             | 1.0<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0               | 2.4  -11.3  -11.3  -11.3  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  1.0  0.0  0.0                           |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40                                     | Export of HVDC  Export of HVDC  765 KV 765 KV 400 KV 400 KV 400 KV 132KV  HVDC  HVDC  HVDC  HVDC  HVDC    | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR)   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0    | 5 ER-NER 500 NR-NER 100 3140 649 21 168 0 0 24 0 0 WR-NR  | 2.4<br>0<br>0.0<br>0.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0                        | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  1.0  0.0  -84.0  0.0                          |
| 30 31 32 33 34 35 36 37 38 39 40 41 41 apport/I  | Export of HVDC  Export of HVDC  765 KV 765 KV 400 KV 400 KV 400 KV  132KV                                 | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA  PHAGI-GWALIOR  ZERDA-KANKROLI ZERDA-BHINMAL  V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG  WR (With SR) BHADRAWATI B/B   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42           | 500 NR-NER  100 3140 649 21 168 0 0 24 0 0 0 WR-NR  | 2.4<br>0<br>0.0<br>1.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0                        | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -11.3  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  84.0  0.0  2.0                     |
| 30 31 32 33 34 35 36 37 38 39 40 41 41 42  | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0    | 500<br>NR-NER 100 3140 649 21 168 0 0 24 0 0 WR-NR  | 2.4<br>0<br>0.0<br>0.0<br>0.0<br>0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0          | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -13.9  -0.0  -63.0  -25.0  1.0  0.0  0.0  0.0  0.0  -84.0  0.0  -19.0                 |
| 29  nport/1 30 31 32 33 34 35 36 37 38 39 40 41 nport/1 42 43                                      | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  400 KV  132KV  HVDC  HVDC  HVDC           | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA  PHAGI-GWALIOR  ZERDA-KANKROLI ZERDA-BHINMAL  V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG  WR (With SR) BHADRAWATI B/B   | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0    | 5 ER-NER 500 NR-NER 100 3140 649 21 168 0 0 24 0 0 WR-NR 57   | 2.4<br>0<br>0.0<br>0.0<br>0.0<br>1.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>1.0<br>0.0<br>0 | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -11.3  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  84.0  0.0  2.0                     |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>41<br>42<br>43<br>44       | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR  | D/C                                    | 0<br>200<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0    | 500 NR-NER  100 3140 649 21 168 0 0 24 0 0 WR-NR 0 100 1770   | 2.4  0 0.0  1.0 0.0  1.0 0.0  1.0 0.0  1.0 0.0  1.0 0.0  2.0 0.0 0.0  | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -13.0  0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  -84.0  0.0  -19.0  -26.0           |
| 30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>41<br>42<br>43<br>44<br>45 | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK  765 KV | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR KOLHAPUR-CHIKODI                             | D/C                                    | 0<br>0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0 | 500 NR-NER  100 3140 649 21 168 0 0 0 WR-NR 0 57 1000 1770 0  | 2.4  0 0.0  1.0 0.0  1.0 1.0 0.0 1.0 0.0 1.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -13.0  0.0  -63.0  -25.0  1.0  1.0  0.0  0.0  -0.0  0.0  -84.0  0.0  -19.0  -26.0  0.0  0.0  |
| 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20  | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK  765 KV | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-CHIKODI PONDA-AMBEWADI                 | D/C                                    | 0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0      | 5 ER-NER  500 NR-NER  100 3140 649 21 168 0 0 0 WR-NR 0 0 1770 0 223  | 2.4  0 0.0  1.0 0.0  0 1.0 1.0 0.0 1.0 0.0 1.0 0.0 0  | 0.0<br>11<br>11.3<br>1.0<br>63.0<br>25.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  -84.0  0.0  -19.0  -26.0  0.0  -4.0      |
| 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20  | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK  765 KV | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-CHIKODI PONDA-AMBEWADI                 | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0      | 5 ER-NER  500 NR-NER  100 3140 649 21 168 0 0 0 WR-NR 0 0 0 WR-NR 0 0 4 0 WR-NR 0 0 WR-NR 0 0 WR-NR 0 WR-NR 0 0 WR-NR | 2.4  0 0.0  1.0 0.0  0 1.0 1.0 0.0 1.0 0.0 1.0 0.0 0  | 0.0  11  11.3  1.0  63.0  25.0  0.0  0.0  0.0  0.0  0.0  0.0                              | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  -84.0  0.0  -19.0  -26.0  0.0  -4.0  0.0 |
| 29  port/1 30 31 32 33 34 35 36 37 38 39 40  41 41 42 43 44 45                                     | Export of HVDC  Export of HVDC  765 KV  765 KV  400 KV  400 KV  132KV  HVDC  Export of HVDC  LINK  765 KV | BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI | D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C | 0<br>0<br>0<br>0<br>145<br>85<br>0<br>70<br>39<br>85<br>42<br>0      | 5 ER-NER  500 NR-NER  100 3140 649 21 168 0 0 0 WR-NR 0 0 0 WR-NR 0 0 4 0 WR-NR 0 0 WR-NR 0 0 WR-NR 0 WR-NR 0 0 WR-NR | 2.4  0 0.0  1.0 0.0  0 1.0 1.0 0.0 1.0 0.0 1.0 0.0 0  | 0.0  11  11.3  1.0  63.0  25.0  0.0  0.0  0.0  0.0  0.0  0.0                              | 2.4  -11.3  -11.3  -0.0  -63.0  -25.0  1.0  0.0  1.0  0.0  0.0  -84.0  0.0  -19.0  -26.0  0.0  -4.0  0.0 |