

### National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

#### POWER SYSTEM OPERATION CORPORATION LIMITED

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 13<sup>th</sup> Apr 2018

To,

- 1. कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033 Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 General Manager, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
- 3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई -400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong 793006, Meghalaya
- 5. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 12.04.2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 12-अप्रैल-2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा०भा०प्रे०के० की वेबसाइट 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 12<sup>th</sup> Apr 2018, is available at the NLDC website.

धन्यवाद,

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

Report for previous day 13-Apr-18

## A. Maximum Demand

|   | NR    | WR    | SR    | ER    | NER  | Total  |
|---|-------|-------|-------|-------|------|--------|
| Demand Met during Evening Peak<br>hrs(MW) (at 1900 hrs; from RLDCs) | 41808 | 46545 | 44288 | 16935 | 2366 | 151943 |
| Peak Shortage (MW)  | 549   | 0     | 0     | 0     | 157  | 706    |
| Energy Met (MU)   | 810   | 1131  | 1021  | 373   | 39   | 3374   |
| Hydro Gen(MU)   | 123   | 23    | 70    | 34    | 7    | 257    |
| Wind Gen(MU)  | 7     | 41    | 20    |       |      | 68     |
| Solar Gen (MU)*   | 18.33 | 19.41 | 57.61 | 0.71  | 0.03 | 96     |
| Energy Shortage (MU)  | 10.1  | 0.0   | 0.0   | 0.0   | 1.7  | 11.8   |
| Maximum Demand Met during the day (MW) (from NLDC SCADA)            | 42155 | 49639 | 45170 | 17870 | 2411 | 153738 |

## B. Frequency Profile (%)

| Region    | FVI   | <49.7 | 49.7-49.8 | 49.8-49.9 | <49.9 | 49.9-50.05 | > 50.05 |
|-----------|-------|-------|-----------|-----------|-------|------------|---------|
| All India | 0.039 | 0.13  | 0.95      | 7.67      | 8.75  | 82.67      | 8.58    |
|           |       |       |           |           |       |            |         |

**C. Power Supply Position in States** 

| RegionRegion | States                   | Max. Demand Met during the day (MW) | Shortage during<br>maximum<br>Demand (MW) | Energy Met (MU) | Drawal<br>Schedule (MU) | OD(+)/UD(-)<br>(MU) | Max OD<br>(MW) | Energy<br>Shortage (MU |
|--------------|--------------------------|-------------------------------------|---|-----------------|-------------------------|---------------------|----------------|------------------------|
|              | Punjab                   | 5114                                | 0   | 107.4           | 57.4                    | -0.5                | 142            | 0.0                    |
|              | Haryana                  | 6282                                | 0   | 102.6           | 43.6                    | 2.2                 | 544            | 0.0                    |
|              | Rajasthan                | 7906                                | 0   | 171.1           | 63.5                    | 0.6                 | 369            | 0.0                    |
|              | Delhi                    | 3841                                | 0   | 78.3            | 61.7                    | -3.2                | 18             | 0.0                    |
| NR           | UP                       | 13939                               | 70  | 245.1           | 73.9                    | 2.3                 | 609            | 0.0                    |
|              | Uttarakhand              | 1651                                | 0   | 34.0            | 18.0                    | 0.0                 | 54             | 0.0                    |
|              | HP                       | 1381                                | 0   | 25.2            | 15.9                    | 0.7                 | 171            | 0.0                    |
|              | J&K                      | 2047                                | 512                                       | 42.4            | 32.3                    | -1.6                | 120            | 10.0                   |
|              | Chandigarh               | 179                                 | 0   | 3.6             | 4.0                     | -0.4                | 8              | 0.0                    |
|              | Chhattisgarh             | 3639                                | 0   | 84.2            | 15.0                    | 0.8                 | 146            | 0.0                    |
|              | Gujarat                  | 15504                               | 0   | 351.4           | 178.6                   | 5.0                 | 516            | 0.0                    |
|              | MP                       | 8008                                | 0   | 168.9           | 79.9                    | -2.8                | 250            | 0.0                    |
| WD           | Maharashtra              | 22091                               | 0   | 484.1           | 152.5                   | 5.8                 | 389            | 0.0                    |
| WR           | Goa                      | 531                                 | 0   | 11.7            | 10.6                    | 0.3                 | 40             | 0.0                    |
|              | DD                       | 329                                 | 0   | 7.5             | 6.8                     | 0.7                 | 85             | 0.0                    |
|              | DNH                      | 774                                 | 0   | 18.2            | 17.2                    | 0.9                 | 78             | 0.0                    |
|              | Essar steel              | 290                                 | 0   | 5.3             | 5.4                     | -0.1                | 154            | 0.0                    |
|              | Andhra Pradesh           | 8488                                | 0   | 183.5           | 72.0                    | 1.9                 | 629            | 0.0                    |
|              | Telangana                | 8390                                | 0   | 180.5           | 74.0                    | -0.3                | 471            | 0.0                    |
| SR           | Karnataka                | 10420                               | 0   | 229.6           | 90.5                    | 0.3                 | 543            | 0.0                    |
| 3N           | Kerala                   | 3712                                | 0   | 76.8            | 56.4                    | 0.9                 | 338            | 0.0                    |
|              | Tamil Nadu               | 15235                               | 0   | 342.9           | 188.8                   | 1.4                 | 623            | 0.0                    |
|              | Pondy                    | 370                                 | 0   | 8.0             | 8.2                     | -0.2                | 38             | 0.0                    |
|              | Bihar                    | 4541                                | 0   | 75.3            | 75.9                    | -2.3                | 250            | 0.0                    |
|              | DVC                      | 3165                                | 0   | 69.7            | -55.7                   | 1.7                 | 400            | 0.0                    |
| ER           | Jharkhand                | 1055                                | 0   | 20.1            | 12.9                    | -2.6                | 50             | 0.0                    |
| LIX          | Odisha                   | 3849                                | 0   | 74.0            | 25.7                    | -1.2                | 350            | 0.0                    |
|              | West Bengal              | 6706                                | 0   | 132.9           | 28.4                    | -1.4                | 300            | 0.0                    |
|              | Sikkim                   | 97                                  | 0   | 1.4             | 1.5                     | -0.1                | 20             | 0.0                    |
|              | <b>Arunachal Pradesh</b> | 120                                 | 6   | 2.1             | 1.6                     | 0.5                 | 44             | 0.0                    |
|              | Assam                    | 1415                                | 114                                       | 22.9            | 18.0                    | 1.2                 | 98             | 1.5                    |
|              | Manipur                  | 174                                 | 5   | 2.0             | 2.2                     | -0.2                | 24             | 0.0                    |
| NER          | Meghalaya                | 284                                 | 1   | 4.5             | 2.7                     | -0.2                | 18             | 0.0                    |
|              | Mizoram                  | 85                                  | 3   | 1.6             | 1.2                     | 0.2                 | 20             | 0.0                    |
|              | Nagaland                 | 122                                 | 6   | 2.1             | 1.8                     | 0.2                 | 32             | 0.0                    |
|              | Tripura                  | 256                                 | 1   | 3.8             | 3.5                     | 0.0                 | 45             | 0.1                    |

D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve)

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 3.6    | -8.2   | -3.1       |
| Day peak (MW) | 221.1  | -478.0 | -172.8     |

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

|              | NR    | WR     | SR    | ER    | NER | TOTAL |
|--------------|-------|--------|-------|-------|-----|-------|
| Schedule(MU) | 136.5 | -165.0 | 117.5 | -93.7 | 4.1 | -0.6  |
| Actual(MU)   | 129.9 | -160.4 | 123.9 | -99.6 | 4.8 | -1.4  |
| O/D/U/D(MU)  | -6.6  | 4.5    | 6.4   | -5.9  | 0.7 | -0.8  |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 5693  | 13881 | 6362  | 1430 | 257 | 27623 |
| State Sector   | 11075 | 16281 | 5890  | 4385 | 50  | 37681 |
| Total          | 16768 | 30162 | 12252 | 5815 | 306 | 65303 |

G. Sourcewise generation (MU)

|                                     | NR  | WR   | SR  | ER  | NER | Total |
|-------------------------------------|-----|------|-----|-----|-----|-------|
| Thermal (Coal & Lignite)            | 451 | 1138 | 661 | 456 | 10  | 2717  |
| Hydro                               | 123 | 23   | 71  | 34  | 7   | 258   |
| Nuclear                             | 28  | 27   | 46  | 0   | 0   | 101   |
| Gas, Naptha & Diesel                | 35  | 60   | 22  | 0   | 22  | 139   |
| RES (Wind, Solar, Biomass & Others) | 55  | 60   | 114 | 2   | 0   | 231   |
| Total                               | 691 | 1309 | 915 | 492 | 38  | 3445  |

|  |  | INTE   | TER-REGIONAL EXCHANGES  |   |  | Date of I   | _  |   |
|--|--|--|---|---|--|---|--|---|
|  | Voltage  |  |   | Max   |  |   | Evnovt   | Import=(+ve) /Export =(-ve) for NET (MU)  NET   |
| Sl No  | Level  | Line Details   | Circuit   | Import<br>(MW)  | Max Export (MW)  | Import (MU)   | Export<br>(MU)   | (MU)  |
| mport/E  |  | ER (With NR)   |   | (1 <b>V1 VV</b> )   |  |   | (MC)   | (WIC)   |
| 1  |  | GAYA-VARANASI  | D/C   | 0   | 348  | 0.0   | 5.3  | -5.3  |
| 3  | 765kV  | SASARAM-FATEHPUR<br>GAYA-BALIA   | S/C<br>S/C  | 109   | 181<br>357   | 0.0   | 1.0<br>6.4   | -1.0<br>-6.4  |
| 4  | III/DC   | ALIPURDUAR-AGRA  | -   | 0   | 0  | 0.0   | 0.0  | 0.0   |
| 5  | HVDC   | PUSAULI B/B  | S/C   | 4   | 0  | 0.0   | 0.0  | 0.0   |
| 6  | _  | PUSAULI-VARANASI   | S/C   | 34  | 34   | 0.0   | 0.0  | 0.0   |
| 7 8  | -  | PUSAULI -ALLAHABAD<br>MUZAFFARPUR-GORAKHPUR  | S/C<br>D/C  | 77<br>6   | 19<br>559  | 0.6   | 5.8  | -5.8  |
| 9  | 1<br>400 kV  | PATNA-BALIA  | Q/C   | 0   | 813  | 0.0   | 13.5   | -3.8  |
| 10   | - 400 K V  | BIHARSHARIFF-BALIA   | D/C   | 0   | 208  | 0.0   | 4.6  | -4.6  |
| 11   | 1  | MOTIHARI-GORAKHPUR   | D/C   | 0   | 231  | 0.0   | 3.5  | -3.5  |
| 12   |  | BIHARSHARIFF-VARANASI  | D/C   | 115   | 284  | 0.0   | 2.3  | -2.3  |
| 13   | 220 kV   | PUSAULI-SAHUPURI   | S/C   | 0   | 218  | 0.0   | 3.3  | -3.3  |
| 14   | -  | SONE NAGAR-RIHAND  | S/C   | 0   | 0  | 0.0   | 0.0  | 0.0   |
| 15<br>16   | 132 kV   | GARWAH-RIHAND<br>KARMANASA-SAHUPURI  | S/C<br>S/C  | 36  | 0  | 0.5   | 0.0  | 0.5   |
| 17   | 1  | KARMANASA-CHANDAULI  | S/C   | 0   | 0  | 0.0   | 0.0  | 0.0   |
|  | Ī  |  | <i>2, C</i>   | <u> </u>  | ER-NR  | 1.1   | 45.8   | -44.7   |
| nport/E  | Export of  | ER (With WR)   |   |   |  |   |  |   |
| 18   | MCF1**   | JHARSUGUDA-DHARAMJAIGARH S/C   | D/C   | 651   | 94   | 8.6   | 0.0  | 8.6   |
| 19   | 765 kV   | NEW RANCHI-DHARAMJAIGARH   | D/C   | 35  | 534  | 0.0   | 4.8  | -4.8  |
| 20   | 400 kV   | JHARSUGUDA-RAIGARH   | Q/C   | 137   | 244  | 0.0   | 0.9  | -0.9  |
| 21   | 400 KV   | RANCHI-SIPAT   | D/C   | 118   | 105  | 1.1   | 0.0  | 1.1   |
| 22   | 220 kV   | BUDHIPADAR-RAIGARH   | S/C   | 0   | 176  | 0.0   | 2.2  | -2.2  |
| 23   |  | BUDHIPADAR-KORBA   | D/C   | 270   | 0<br>ED WD   | 5.0   | 0.0  | 5.0   |
| nnort/F  | Export of  | ER (With SR)   |   |   | ER-WR  | 14.7  | 8.0  | 6.7   |
| 24   | 765 kV   | ANGUL-SRIKAKULAM   | D/C   | 0.0   | 1739.7   | 0.0   | 32.4   | -32.4   |
| 25   | HVDC   | JEYPORE-GAZUWAKA B/B   | D/C   | 0.0   | 338.9  | 0.0   | 15.9   | -15.9   |
| 26   | LINK   | TALCHER-KOLAR BIPOLE   | D/C   | 0.0   | 2274.0   | 0.0   | 52.4   | -52.4   |
| 27   | 400 kV   | TALCHER-I/C  | D/C   | 96.5  | 682.4  | 0.0   | 4.9  | -4.9  |
| 28   | 220 kV   | BALIMELA-UPPER-SILERRU   | S/C   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   |
| 4/Ti   |  | ED (WALNED)  |   |   | ER-SR  | 0.0   | 100.7  | -100.7  |
| <b>проги Е</b><br>29   | export of  | ER (With NER) BINAGURI-BONGAIGAON  | D/C   | 41  | 717  | 0.0   | 1.8  | -2  |
| 30   | 400 kV   | ALIPURDUAR-BONGAIGAON  | D/C<br>D/C  | 18  | 594  | 0.0   | 1.1  | -1  |
| 31   | 220 kV   | ALIPURDUAR-SALAKATI  | D/C   | 0   | 128  | 0.0   | 1.4  | -1  |
|  | l  | ,  |   |   | ER-NER   | 0.0   | 4.4  | -4.4  |
| nport/E  | , <del>*</del>   | NER (With NR)  |   |   |  |   |  | _   |
| 32   |  |  | _   | 0   | 0  | 0.0   | 0.0  | 0.0   |
|  | HVDC   | BISWANATH CHARIALI-AGRA  | _   |   | 1  |   |  |   |
|  | 1  |  |   |   | NER-NR   | 0.0   | 0.0  | 0.0   |
| nport/E  | 1  | WR (With NR)   |   | 0   | NER-NR   | 0.0   | 0.0  |   |
|  | 1  |  | D/C<br>D/C  | 0 250   | 1  |   |  | -28.5<br>1.0  |
| <b>nport/E</b><br>33   | Export of  | WR (With NR) CHAMPA-KURUKSHETRA  | D/C   |   | NER-NR<br>2079   | 0.0   | 28.5   | -28.5   |
| <b>nport/E</b> 33 34   | Export of  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B   | D/C<br>D/C  | 250   | 2079<br>250  | 0.0<br>0.0<br>2.1   | 28.5<br>1.0  | -28.5<br>1.0  |
| 33<br>34<br>35   | Export of  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG   | D/C<br>D/C<br>D/C   | 250<br>0<br>0<br>0  | 2079<br>250<br>508   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0   | 28.5<br>1.0<br>13.5  | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7   |
| 33<br>34<br>35<br>36<br>37<br>38   | Export of  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI   | D/C D/C D/C D/C D/C D/C D/C   | 250<br>0<br>0<br>0<br>0   | 2079 250 508 1132 1560 627   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0   | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5   | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5   |
| 33<br>34<br>35<br>36<br>37<br>38<br>39   | Export of HVDC   | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI   | D/C D/C D/C D/C D/C D/C S/C   | 250<br>0<br>0<br>0<br>0<br>0<br>506   | 2079 250 508 1132 1560 627 0   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8   | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0  | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40   | Export of HVDC   | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI   | D/C D/C D/C D/C D/C S/C S/C   | 250<br>0<br>0<br>0<br>0<br>0<br>506<br>0  | 2079 250 508 1132 1560 627 0 1511  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0   | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2  | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2   |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41   | Export of HVDC   | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI   | D/C D/C D/C D/C D/C S/C S/C S/C   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523  | 2079 250 508 1132 1560 627 0 1511  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7  | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2<br>0.0   | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2<br>9.7  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42   | Export of HVDC   | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL   | D/C D/C D/C D/C D/C S/C S/C S/C S/C   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430   | 2079 250 508 1132 1560 627 0 1511 0 0  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7  | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2<br>0.0<br>0.0  | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2<br>9.7<br>7.7   |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41   | HVDC 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI   | D/C D/C D/C D/C D/C S/C S/C S/C   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523  | 2079 250 508 1132 1560 627 0 1511  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7  | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2<br>0.0   | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2<br>9.7  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43   | HVDC 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND   | D/C D/C D/C D/C D/C C D/C S/C S/C S/C S/C S/C   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857  | 2079 250 508 1132 1560 627 0 1511 0 0  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5  | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2<br>0.0<br>0.0  | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2<br>9.7<br>7.7<br>18.5   |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44   | Export of HVDC 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C D/C   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0   | 2079 250 508 1132 1560 627 0 1511 0 0 212  | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0  | 28.5<br>1.0<br>13.5<br>18.8<br>32.7<br>5.5<br>0.0<br>34.2<br>0.0<br>0.0<br>0.0   | -28.5<br>1.0<br>-13.5<br>-18.8<br>-32.7<br>-5.5<br>9.8<br>-34.2<br>9.7<br>7.7<br>18.5<br>-1                                     |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47                           | HVDC 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55  | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8                       | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  1  0.0  0.0  0.0  0.0  | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48                     | 765 kV - 400 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43  | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4                | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47                           | Export of HVDC 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55  | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0 0 0   | 0.0<br>0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4<br>0.0         | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48                     | 765 kV - 400 kV - 132kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  GWALIOR-SAWAI MADHOPUR   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43  | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0   | 0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4                | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49               | Export of HVDC  765 kV  400 kV  220 kV  Export of  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43  | NER-NR  2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 0 WR-NR   | 0.0<br>0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4<br>0.0<br>51.0 | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8                                       | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48                     | Export of HVDC  765 kV  400 kV  220 kV  Export of  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  GWALIOR-SAWAI MADHOPUR   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0   | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0 0 0   | 0.0<br>0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4<br>0.0         | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0  |
| 33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49               | Toport of  HVDC  765 kV  400 kV  220 kV  132kV  Export of  HVDC  LINK  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0   | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0 WR-NR   | 0.0<br>0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4<br>0.0<br>51.0 | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0   | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49   | Temporal of HVDC  To kV  To kV | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0   | 2079 250 508 1132 1560 627 0 1511 0 0 212 0 19 0 WR-NR   | 0.0<br>0.0<br>2.1<br>0.0<br>0.0<br>0.0<br>0.0<br>9.8<br>0.0<br>9.7<br>7.7<br>18.5<br>0<br>1.5<br>0.5<br>0.8<br>0.4<br>0.0<br>51.0 | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8                                       | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  mport/F 50 51 52 53 54                                       | Toport of  HVDC  765 kV  400 kV  220 kV  132kV  Export of  HVDC  LINK  765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI                   | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C D/C D/C D/C D/C D/C D/C D/C | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0   | NER-NR  2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 WR-NR  1000 0 1456 2067 0   | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8                                       | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7                 |
| mport/E  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  mport/E  50  51  52  53  54  55     | 220 kV 220 kV 220 kV 132kV Export of HVDC LINK 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI                 | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C D       | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | NER-NR  2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 0 WR-NR  1000 0 1456 2067 0 0   | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8  23.9  0.0  20.3  32.5  0.0  0.0      | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7 0.0             |
| mport/E  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  mport/E  50  51  52  53  54  55  56 | Toport of  HVDC  765 kV  400 kV  220 kV  132kV  Export of  HVDC  LINK  765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI  PONDA-AMBEWADI | D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S           | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 WR-NR  1000 0 1456 2067 0 0 0   | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8  23.9  0.0  20.3  32.5  0.0  0.0  0.0 | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7 0.0 0.0         |
| mport/E  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  mport/E  50  51  52  53  54  55     | 220 kV 220 kV 220 kV 132kV Export of HVDC LINK 765 kV  | WR (With NR)  CHAMPA-KURUKSHETRA  V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI                 | D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C D       | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0<br>0<br>0<br>0<br>0<br>0<br>0             | 2079   250   508   1132   1560   627   0   1511   0   0   0   0   212   0   0   0   0   0   WR-NR   1000   0   1456   2067   0   0   0   0   0   0   0   0   0 | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 28.5 1.0 13.5 18.8 32.7 5.5 0.0 34.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 135.8  23.9 0.0 20.3 32.5 0.0 0.0 0.0 0.0                               | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7 0.0 0.0 2.2     |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  1port/F 50 51 52 53 54 55 56                                 | 220 kV 220 kV 220 kV 132kV Export of HVDC LINK 765 kV  | WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI                         | D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>100 | NER-NR  2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 0 WR-NR  1000 0 1456 2067 0 0 0 WR-SR   | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 0.0  28.5  1.0  13.5  18.8  32.7  5.5  0.0  34.2  0.0  0.0  0.0  0.0  0.0  0.0  1  0.0  0.0  135.8  23.9  0.0  20.3  32.5  0.0  0.0  0.0 | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7 0.0 0.0         |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  10 50 51 52 53 54 55 56                                      | 220 kV 220 kV 220 kV 132kV Export of HVDC LINK 765 kV  | WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI                         | D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S   | 250<br>0<br>0<br>0<br>0<br>506<br>0<br>523<br>430<br>857<br>0<br>108<br>68<br>55<br>43<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | NER-NR  2079 250 508 1132 1560 627 0 1511 0 0 0 212 0 19 0 0 WR-NR  1000 0 1456 2067 0 0 0 WR-SR   | 0.0  0.0  2.1  0.0  0.0  0.0  0.0  9.8  0.0  9.7  7.7  18.5  0  1.5  0.5  0.8  0.4  0.0  51.0  0.0  0.0  0.0  0.0  0.0  0.        | 28.5 1.0 13.5 18.8 32.7 5.5 0.0 34.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 135.8  23.9 0.0 20.3 32.5 0.0 0.0 0.0 0.0                               | -28.5 1.0 -13.5 -18.8 -32.7 -5.5 9.8 -34.2 9.7 7.7 18.5 -1 1.5 0.5 0.8 0.4 0.0 -84.7  -23.9 0.0 -20.3 -32.5 6.7 0.0 0.0 0.0 2.2 |