

### 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> Jan 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 12.01.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 12-जनवरी - 2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ 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> January 2018, is available at the NLDC website.

धन्यवाद,

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

Report for previous day 13-Jan-18

## A. Maximum Demand

|                                                                     | NR    | WR    | SR    | ER    | NER  | Total  |
|---------------------------------------------------------------------|-------|-------|-------|-------|------|--------|
| Demand Met during Evening Peak<br>hrs(MW) (at 1900 hrs; from RLDCs) | 45110 | 46585 | 40476 | 18266 | 2409 | 152846 |
| Peak Shortage (MW)                                                  | 555   | 67    | 0     | 0     | 62   | 684    |
| Energy Met (MU)                                                     | 948   | 1070  | 934   | 360   | 43   | 3356   |
| Hydro Gen(MU)                                                       | 107   | 31    | 69    | 33    | 8    | 249    |
| Wind Gen(MU)                                                        | 2     | 27    | 28    |       |      | 57     |
| Solar Gen (MU)*                                                     | 2.82  | 13.82 | 37.58 | 0.60  | 0.02 | 55     |
| Energy Shortage (MU)                                                | 20.3  | 0.0   | 1.5   | 0.0   | 0.5  | 22.4   |
| Maximum Demand Met during the day (MW) (from NLDC SCADA)            | 47310 | 51720 | 43560 | 18710 | 2480 | 156799 |

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 | 0.050 | 0.00  | 0.65      | 13.25     | 13.90 | 81.44      | 4.66    |
|           |       |       |           |           |       |            |         |

**C. Power Supply Position in States** 

| RegionRegion               | States         | Max. Demand<br>Met during the<br>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         | 5486                                      | 0                                         | 105.9           | 24.5                    | -0.8                | 79             | 0.0                    |
|                            | Haryana        | 6700                                      | 0                                         | 125.3           | 64.2                    | 0.9                 | 199            | 0.2                    |
| Rajasthan                  | Rajasthan      | 11092                                     | 613                                       | 219.7           | 72.7                    | 3.5                 | 406            | 2.8                    |
|                            | Delhi          | 4205                                      | 0                                         | 69.3            | 51.9                    | -0.7                | 273            | 0.0                    |
| NR                         | UP             | 14246                                     | 340                                       | 309.2           | 105.6                   | 1.4                 | 598            | 6.4                    |
|                            | Uttarakhand    | 2087                                      | 0                                         | 39.8            | 29.8                    | -0.1                | 207            | 0.0                    |
|                            | HP             | 1569                                      | 0                                         | 28.3            | 22.6                    | 1.3                 | 163            | 0.0                    |
|                            | J&K            | 2221                                      | 555                                       | 46.4            | 44.2                    | -1.6                | 27             | 10.9                   |
|                            | Chandigarh     | 233                                       | 0                                         | 3.7             | 4.0                     | -0.2                | 10             | 0.0                    |
|                            | Chhattisgarh   | 3406                                      | 0                                         | 74.4            | 6.2                     | -1.5                | 100            | 0.0                    |
| Gujarat                    | 14612          | 0                                         | 307.9                                     | 92.4            | 3.7                     | 653                 | 0.0            |                        |
|                            | MP             | 12167                                     | 0                                         | 227.7           | 134.1                   | 1.0                 | 401            | 0.0                    |
| MD                         | Maharashtra    | 20170                                     | 0                                         | 415.7           | 129.7                   | 2.0                 | 414            | 0.0                    |
| DD                         | Goa            | 411                                       | 0                                         | 8.4             | 8.6                     | -0.8                | 63             | 0.0                    |
|                            | DD             | 335                                       | 0                                         | 7.4             | 6.6                     | 0.8                 | 77             | 0.0                    |
|                            | DNH            | 749                                       | 0                                         | 17.7            | 16.7                    | 1.0                 | 95             | 0.0                    |
|                            | Essar steel    | 497                                       | 0                                         | 10.8            | 10.0                    | 0.8                 | 385            | 0.0                    |
|                            | Andhra Pradesh | 8411                                      | 0                                         | 172.6           | 52.6                    | 0.7                 | 385            | 0.3                    |
|                            | Telangana      | 9333                                      | 0                                         | 180.6           | 77.6                    | -3.2                | 327            | 0.3                    |
| CD                         | Karnataka      | 10347                                     | 0                                         | 213.5           | 87.4                    | 0.8                 | 413            | 0.3                    |
| Kerala                     | Kerala         | 3507                                      | 0                                         | 68.9            | 53.1                    | 0.8                 | 211            | 0.1                    |
|                            | Tamil Nadu     | 13794                                     | 0                                         | 292.4           | 152.1                   | 5.0                 | 603            | 0.5                    |
|                            | Pondy          | 332                                       | 0                                         | 6.5             | 7.9                     | -1.4                | 50             | 0.0                    |
|                            | Bihar          | 3992                                      | 0                                         | 73.4            | 70.1                    | -1.8                | 30             | 0.0                    |
|                            | DVC            | 2957                                      | 0                                         | 70.7            | -33.1                   | -0.5                | 200            | 0.0                    |
| ER                         | Jharkhand      | 995                                       | 0                                         | 22.8            | 14.2                    | 1.3                 | 120            | 0.0                    |
| LN                         | Odisha         | 4358                                      | 0                                         | 77.8            | 31.8                    | 2.7                 | 445            | 0.0                    |
| West Bengal<br>Sikkim      | West Bengal    | 6656                                      | 0                                         | 113.9           | 23.4                    | 0.3                 | 150            | 0.0                    |
|                            | 112            | 0                                         | 1.8                                       | 2.0             | -0.2                    | 7                   | 0.0            |                        |
| Arunachal Pradesh<br>Assam | 119            | 4                                         | 2.3                                       | 1.9             | 0.4                     | 56                  | 0.1            |                        |
|                            | Assam          | 1441                                      | 23                                        | 24.0            | 19.6                    | 1.7                 | 172            | 0.3                    |
|                            | Manipur        | 192                                       | 4                                         | 2.7             | 2.9                     | -0.2                | 23             | 0.0                    |
| NER                        | Meghalaya      | 315                                       | 0                                         | 6.4             | 3.8                     | -0.2                | 45             | 0.0                    |
|                            | Mizoram        | 90                                        | 3                                         | 1.8             | 1.1                     | 0.0                 | 26             | 0.0                    |
|                            | Nagaland       | 127                                       | 6                                         | 2.2             | 1.8                     | 0.2                 | 21             | 0.0                    |
|                            | Tripura        | 224                                       | 3                                         | 3.7             | 1.7                     | 0.1                 | 29             | 0.0                    |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 2.6    | -8.8   | -8.3       |
| Day neak (MW) | 152.2  | -444.3 | -598.3     |

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

|              | NR    | WR     | SR    | ER    | NER | TOTAL |
|--------------|-------|--------|-------|-------|-----|-------|
| Schedule(MU) | 183.4 | -232.2 | 106.8 | -59.4 | 3.5 | 2.2   |
| Actual(MU)   | 174.9 | -232.5 | 100.1 | -51.0 | 4.3 | -4.2  |
| O/D/U/D(MU)  | -8.5  | -0.4   | -6.7  | 8.4   | 0.8 | -6.4  |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 3884  | 13898 | 6442  | 2220 | 205 | 26649 |
| State Sector   | 8855  | 16285 | 5690  | 5775 | 50  | 36655 |
| Total          | 12739 | 30183 | 12132 | 7995 | 254 | 63304 |

G. Sourcewise generation (MU)

|                                     | NR  | WR   | SR  | ER  | NER | Total |
|-------------------------------------|-----|------|-----|-----|-----|-------|
| Thermal (Coal & Lignite)            | 602 | 1200 | 579 | 400 | 9   | 2789  |
| Hydro                               | 107 | 30   | 69  | 33  | 8   | 247   |
| Nuclear                             | 29  | 24   | 64  | 0   | 0   | 117   |
| Gas, Naptha & Diesel                | 33  | 41   | 18  | 0   | 24  | 116   |
| RES (Wind, Solar, Biomass & Others) | 30  | 41   | 111 | 2   | 0   | 184   |
| Total                               | 800 | 1335 | 840 | 435 | 42  | 3453  |

| 2         765kV         SA           3         HVDC         AL           4         HVDC         PU           6         PU         PU           7         BU         MU           8         PU         MU           9         400 kV         PU           10         BU         MU           11         MO         MU           12         BU         MU           13         220 kV         PU           14         BU         MU           15         132 kV         ME           16         TA         KA           17         NE         MU           18         765 kV         MU           19         20         400 kV         MU           21         220 kV         BU           22         HVDC         JE           24         765 kV         MU           25         HVDC         BU           30         1         220 kV         MU           31         220 kV         MU           32         HVDC         MU           34         MU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Date of Reporting:                         |            |                                       |                 |             |             | 13-Jan-                                  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------|---------------------------------------|-----------------|-------------|-------------|------------------------------------------|--|
| No   Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                            |            |                                       |                 |             |             | Import=(+ve) /Export =(-ve) for NET (MU) |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Line Details                               | Circuit    | Max<br>Import<br>(MW)                 | Max Export (MW) | Import (MU) | Export (MU) | NET<br>(MU)                              |  |
| 2         765kV         SA           3         HVDC         AL           4         HVDC         PU           6         PU         PU           7         BU         MU           8         PU         MU           9         400 kV         PU           10         BU         MU           11         MO         MU           12         BU         MU           13         220 kV         PU           14         BU         MU           15         132 kV         ME           16         TA         KA           17         NE         MU           18         765 kV         MU           19         20         400 kV         MU           21         220 kV         BU           22         HVDC         JE           24         765 kV         MU           25         HVDC         BU           30         1         220 kV         MU           31         220 kV         MU           32         HVDC         MU           34         MU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            | D/C        | 0                                     | 206             | 0.0         | 2.7         | 2.7                                      |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | GAYA-VARANASI<br>SASARAM-FATEHPUR          | D/C<br>S/C | 0                                     | 206             | 3.5         | 0.0         | -3.7<br>3.5                              |  |
| 5         HVDC         PU           6         PU           7         PU           8         PU           9         400 kV         PU           10         BII           11         MC           12         BII           13         220 kV         PU           14         SO           15         GA           16         TA         KA           17         KA           18         765 kV         JH           19         20         AU         W           21         220 kV         BU           22         220 kV         BU           24         765 kV         AU           25         HVDC         JE           26         LINK         TA           27         400 kV         AU           31         220 kV         BU           34         HVDC         BU           34         HVDC         BU           34         HVDC         W           36         765 kV         W           37         AU         W           40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | GAYA-BALIA                                 | S/C        | 0                                     | 317             | 0.0         | 5.3         | -5.3                                     |  |
| 5   PU 6   PU 7   PU 8   MI 9   400 kV   PA 10   BI 11   MC 12   BI 13   220 kV   PU 14   SO 16   I32 kV   RA 17   KA  PORT/Export of ER 24   765 kV   BU 21   220 kV   BU 22   220 kV   BU 23   BU 24   765 kV   AN 25   HVDC   JE 26   LINK   TA 27   400 kV   TA 28   220 kV   BA 27   400 kV   TA 28   220 kV   BA 29   400 kV   TA 21   AU 22   AU 23   BI 30   AU 31   AU 24   AU 25   BI 30   AU 31   AU 25   BI 30   AU 31   AU 31   AU 40 kV   TA 41   AU 42   AU 43   AU 44   AU 45   AU 46   AU 47   HVDC   BI 48   AU 48   AU 49   765 kV   GV 50   TA 50  | ALIPURDUAR-AGRA                            | -          | 0                                     | 0               | 0.0         | 3.2         | -3.2                                     |  |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PUSAULI B/B                                | S/C        | 0                                     | 247             | 0.0         | 6.1         | -6.1                                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PUSAULI-VARANASI                           | S/C        | 0                                     | 226             | 0.0         | 0.0         | 0.0                                      |  |
| 9 400 kV PA 10 10 8 11 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PUSAULI -ALLAHABAD                         | S/C        | 0                                     | 82              | 0.0         | 0.0         | 0.0                                      |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MUZAFFARPUR-GORAKHPUR                      | D/C        | 0                                     | 390             | 0.0         | 1.2         | -1.2                                     |  |
| 11   BIO 12   BIO 13   220 kV   PU 14   A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PATNA-BALIA                                | Q/C        | 0                                     | 554             | 0.0         | 10.0        | -10.0                                    |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BIHARSHARIFF-BALIA                         | D/C        | 0                                     | 135             | 0.0         | 1.3         | -1.3                                     |  |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MOTIHARI-GORAKHPUR                         | D/C<br>D/C | 0                                     | 0               | 0.0         | 5.2         | -5.2                                     |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BIHARSHARIFF-VARANASI<br>PUSAULI-SAHUPURI  | S/C        | 0                                     | 439             | 0.0         | 0.0         | 2.6                                      |  |
| 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SONE NAGAR-RIHAND                          | S/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| 132 kV   KA   KA   KA   KA   KA   KA   KA   K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GARWAH-RIHAND                              | S/C        | 0                                     | 0               | 0.6         | 0.0         | 0.0                                      |  |
| 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | KARMANASA-SAHUPURI                         | S/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| POPT   FET   POPT   P   | KARMANASA-SAHUPUKI<br>KARMANASA-CHANDAULI  | S/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                            | S/C        | · · · · · · · · · · · · · · · · · · · | ER-NR           |             | 36.0        | -29.3                                    |  |
| 765 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                            |            |                                       |                 |             |             |                                          |  |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | JHARSUGUDA-DHARAMJAIGARH S/C               | D/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NEW RANCHI-DHARAMJAIGARH                   | D/C        | 0                                     | 115             | 7.1         | 0.0         | 7.1                                      |  |
| 220 kV   BU   BU   BU   BU   BU   BU   BU   B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | JHARSUGUDA-RAIGARH<br>RANCHI-SIPAT         | Q/C        | 0                                     | 0               | 16.1        | 0.0         | 16.1                                     |  |
| 220 kV   BU   BU   BU   BU   BU   BU   BU   B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RANCHI-SIPAT<br>BUDHIPADAR-RAIGARH         | D/C<br>S/C | 0                                     | 218             | 5.8<br>0.0  | 2.0         | 5.8                                      |  |
| POPT   EXPORT OF ER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | BUDHIPADAR-KAIGARH BUDHIPADAR-KORBA        | D/C        | 0                                     | 13              | 1.7         | 0.0         | 1.7                                      |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUDHIFADAK-KUKBA                           | D/C        | U                                     | ER-WR           |             | 2.0         | 28.7                                     |  |
| 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ER (With SR) ANGUL-SRIKAKULAM              | D/C        | 0.0                                   | 0.0             | 0.0         | 17.9        | -17.9                                    |  |
| LINK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | JEYPORE-GAZUWAKA B/B                       | D/C        | 0.0                                   | 383.9           | 0.0         | 13.2        | -13.2                                    |  |
| 220 kV   BA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TALCHER-KOLAR BIPOLE                       | D/C        | 0.0                                   | 2251.8          | 0.0         | 44.9        | -44.9                                    |  |
| POPT   Export of ER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TALCHER-I/C                                | D/C        | 0.0                                   | 1238.7          | 0.0         | 19.0        | -19.0                                    |  |
| 29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BALIMELA-UPPER-SILERRU                     | S/C        | 0.0                                   | 0.0             | 0.0         | 0.0         | 0.0                                      |  |
| 29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ED (With NED)                              |            |                                       | ER-SR           | 0.0         | 75.9        | -75.9                                    |  |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BINAGURI-BONGAIGAON                        | D/C        | 0                                     | 1252            | 0.0         | 8.4         | -8                                       |  |
| 220 kV   AL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ALIPURDUAR-BONGAIGAON                      | D/C        | 0                                     | 1004            | 0.0         | 6.5         | -7                                       |  |
| POPT   Export of NE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ALIPURDUAR-SALAKATI                        | D/C        | 0                                     | 0               | 0.0         | 3.6         | -4                                       |  |
| Note                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |            |                                       | ER-NER          | 0.0         | 18.5        | -18.5                                    |  |
| POPT   Export of WE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ER (With NR)                               |            |                                       |                 | _           |             | •                                        |  |
| 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BISWANATH CHARIALI-AGRA                    | -          | 0                                     | 600             | 0.0         | 12.5        | -12.5                                    |  |
| 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                            |            |                                       | NER-NR          | 0.0         | 12.5        | -12.5                                    |  |
| 34 HVDC V'C 35 AP 36 GV 37 FF F F F F F F F F F F F F F F F F F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VR (With NR)                               |            |                                       |                 |             |             |                                          |  |
| 35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CHAMPA-KURUKSHETRA                         | D/C        | 0                                     | 1394            | 0.0         | 55.6        | -55.6                                    |  |
| 36 37 37 38 38 39 400 kV 41 41 42 43 44 45 46 132kV  PH 47 HVDC HVDC HVDC HVDC HVDC HVDC HVDC HVDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | V'CHAL B/B                                 | D/C        | 50                                    | 250             | 0.2         | 3.8         | -3.5                                     |  |
| 765 kV PH 38 39 400 kV 40 41 42 43 44 45 46 132kV  PH 47 HVDC HVDC 48 LINK BA 49 50 50 51 400 kV PH 2E | APL -MHG                                   | D/C        | 0                                     | 1412            | 0.0         | 30.9        | -30.9                                    |  |
| 37 PH 38 ZE 39 400 kV 40 41 RA 42 BA 43 BA 44 BA 45 BA 46 132kV GV  PORT/Export of WI 47 HVDC BH 48 LINK BA 49 765 kV 50 WA 51 400 kV KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | GWALIOR-AGRA                               | D/C        | 0                                     | 2530            | 0.0         | 51.6        | -51.6                                    |  |
| 39 400 kV 41 41 42 43 44 45 46 132kV  PORT/Export of WE 47 HVDC 48 LINK BA 49 50 50 51 400 kV  ZE V'C RA BA ME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PHAGI-GWALIOR                              | D/C        | 480                                   | 0               | 0.0         | 21.5        | -21.5                                    |  |
| 40 40 kV V'C RA 41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ZERDA-KANKROLI                             | S/C        | 168                                   | 33              | 2.2         | 0.0         | 2.2                                      |  |
| 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ZERDA -BHINMAL                             | S/C        | 71                                    | 203             | 0.0         | 0.9         | -0.9                                     |  |
| A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | V'CHAL -RIHAND                             | S/C        | 484                                   | 0               | 22.3        | 0.0         | 22.3                                     |  |
| 220 kV   BA   ME   ME   ME   ME   ME   ME   ME   M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RAPP-SHUJALPUR                             | D/C        | 0                                     | 1400            | 1.5         | 2           | -2                                       |  |
| 220 kV   ME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BADOD-KOTA                                 | S/C        | 100                                   | 0               | 1.5         | 0.0         | 1.5                                      |  |
| 45 MA 46 132kV GV  port/Export of WE 47 HVDC BH 48 LINK BA 49 765 kV SO 50 400 kV KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | BADOD-MORAK                                | S/C        | 35                                    | 37              | 0.4         | 0.1         | 0.3                                      |  |
| 132kV   GV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MEHGAON-AURAIYA                            | S/C        | 104<br>52                             | 0               | 0.8         | 0.0         | 0.8                                      |  |
| port/Export of WI           47         HVDC         BH           48         LINK         BA           49         765 kV         SO           50         WA           51         400 kV         KC           52         KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MALANPUR-AURAIYA<br>GWALIOR-SAWAI MADHOPUR | S/C<br>S/C | 0                                     | 0               | 0.8         | 0.0         | 0.8                                      |  |
| 47 HVDC BH 48 LINK BA 49 765 kV 50 400 kV KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                            | J 5/C      |                                       | WR-NR           | 29.2        | 166.4       | -137.2                                   |  |
| 48 LINK BA 49 765 kV SO 50 400 kV KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            | 1 ,        |                                       |                 |             |             |                                          |  |
| 49 765 kV SO WA 51 400 kV KC 52 KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BHADRAWATI B/B                             | -          | 0                                     | 1000            | 0.0         | 21.2        | -21.2                                    |  |
| 765 kV WA 50 KC 52 KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BARSUR-L.SILERU                            | -          | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| 50 WA<br>51 <b>400 kV</b> KC<br>52 KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SOLAPUR-RAICHUR                            | D/C        | 200                                   | 1222            | 0.0         | 16.8        | -16.8                                    |  |
| 52 KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WARDHA-NIZAMABAD                           | D/C        | 0                                     | 2389            | 0.0         | 39.1        | -39.1                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KOLHAPUR-KUDGI                             | D/C        | 576                                   | 0               | 5.6         | 0.0         | 5.6                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KOLHAPUR-CHIKODI                           | D/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PONDA-AMBEWADI                             | S/C        | 0                                     | 0               | 0.0         | 0.0         | 0.0                                      |  |
| 54 XE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | XELDEM-AMBEWADI                            | S/C        | 73                                    | 0               | 1.5         | 0.0         | 1.5                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                            | A \$10\$1  | ONTAR ==                              | WR-SR           | 7.2         | 77.1        | -69.9                                    |  |
| EE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                            | ANSNATI(   | UNAL EX                               | CHANGE          |             |             |                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | BHUTAN<br>NEPAL                            |            |                                       |                 |             |             |                                          |  |