



National Load Despatch Centre  
राष्ट्रीय भार प्रेषण केंद्र  
POWER SYSTEM OPERATION CORPORATION LIMITED  
पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड  
(Government of India Enterprise/ भारत सरकार का उद्यम)  
B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016  
बी-9, कुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 28<sup>th</sup> July 2019

To,

- कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के., 14, गोल्फ क्लब रोड, कोलकाता - 700033  
Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
- कार्यकारी निदेशक, ऊ.क्षे.भा.प्रे.के., 18/ ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016  
Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi - 110016
- 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
- मुख्य महाप्रबंधक, ऊ. पू.क्षे.भा.प्रे.के., डोंगतेिह, लोअर नोंग्रह, लापलंग, शिलोंग - 793006  
Chief General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- कार्यकारी निदेशक, द.क्षे.भा.प्रे.के., 29, रेस कोर्स क्रॉस रोड, बंगलुरु -560009  
Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

**Sub: Daily PSP Report for the date 27.07.2019.**

महोदय/Dear Sir,

आईंईंजींसीं-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 27-जुलाई-2019 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रांभांप्रेंकें की वेबसाइट पर उपलब्ध 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 27<sup>th</sup> July 2019, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting

28-Jul-19

A. Power Supply Position at All India and Regional level

|   | NR             | WR             | SR             | ER             | NER           | Total           |
|---|----------------|----------------|----------------|----------------|---------------|-----------------|
| Demand Met during Evening Peak hrs(MW)<br>(at 2000 hrs; from RLDCs) | 49630          | 44951          | 38701          | 20093          | 2731          | 156106          |
| Peak Shortage (MW)  | 460            | 0              | 0              | 0              | 183           | 643             |
| Energy Met (MU)   | 1135           | 1027           | 868            | 432            | 49            | 3511            |
| Hydro Gen (MU)  | 312            | 15             | 37             | 122            | 29            | 516             |
| Wind Gen (MU)   | 27             | 199            | 154            | -----          | -----         | 380             |
| Solar Gen (MU)*   | 23.07          | 11.2           | 46.33          | 1.85           | 0.04          | 82              |
| Energy Shortage (MU)  | 9.6            | 0.0            | 0.0            | 0.0            | 2.6           | 12.2            |
| Maximum Demand Met during the day<br>(MW) & time (from NLDC SCADA)  | 51457<br>00:00 | 47382<br>19:43 | 34499<br>19:51 | 21220<br>20:12 | 2720<br>19:08 | 156017<br>19:56 |

B. Frequency Profile (%)

| Region    | FVI   | <49.7 | 49.7-49.8 | 49.8-49.9 | <49.9 | 49.9-50.05 | > 50.05 |
|-----------|-------|-------|-----------|-----------|-------|------------|---------|
| All India | 0.039 | 0.00  | 0.24      | 4.29      | 4.54  | 68.43      | 27.04   |

C. Power Supply Position in States

| Region | States            | Max. Demand Met during the day (MW) | Shortage during maximum Demand (MW) | Energy Met (MU) | Drawal Schedule (MU) | OD(+)/UD(-) (MU) | Max OD (MW) | Energy Shortage (MU) |
|--------|-------------------|-------------------------------------|-------------------------------------|-----------------|----------------------|------------------|-------------|----------------------|
| NR     | Punjab            | 10165                               | 0                                   | 206.3           | 129.1                | -1.9             | 48          | 0.0                  |
|        | Haryana           | 7148                                | 0                                   | 157.8           | 124.4                | 0.1              | 339         | 0.0                  |
|        | Rajasthan         | 9024                                | 0                                   | 198.7           | 45.5                 | -4.0             | 263         | 0.0                  |
|        | Delhi             | 4666                                | 0                                   | 100.7           | 84.6                 | -0.1             | 132         | 0.0                  |
|        | UP                | 18181                               | 0                                   | 359.1           | 158.6                | 0.7              | 655         | 0.0                  |
|        | Uttarakhand       | 1762                                | 0                                   | 38.3            | 12.4                 | 0.8              | 97          | 0.0                  |
|        | HP                | 1425                                | 0                                   | 28.9            | -1.5                 | -0.7             | 61          | 0.0                  |
|        | J&K               | 2018                                | 505                                 | 40.5            | 17.1                 | 3.0              | 838         | 9.6                  |
| WR     | Chandigarh        | 233                                 | 0                                   | 4.9             | 5.9                  | -0.9             | -14         | 0.0                  |
|        | Chhattisgarh      | 3913                                | 0                                   | 91.7            | 33.6                 | -1.4             | 246         | 0.0                  |
|        | Gujarat           | 15098                               | 0                                   | 334.6           | 79.4                 | 0.4              | 566         | 0.0                  |
|        | MP                | 8185                                | 0                                   | 183.2           | 80.7                 | -3.5             | 448         | 0.0                  |
|        | Maharashtra       | 16716                               | 0                                   | 374.0           | 65.6                 | -0.4             | 527         | 0.0                  |
|        | Goa               | 541                                 | 0                                   | 11.3            | 11.1                 | -0.4             | 49          | 0.0                  |
|        | DD                | 315                                 | 0                                   | 7.2             | 6.8                  | 0.4              | 58          | 0.0                  |
|        | DNH               | 800                                 | 0                                   | 18.7            | 18.7                 | 0.0              | 133         | 0.0                  |
| SR     | Essar steel       | 288                                 | 0                                   | 5.9             | 5.7                  | 0.2              | 266         | 0.0                  |
|        | Andhra Pradesh    | 6823                                | 0                                   | 154.9           | 22.1                 | 0.7              | 678         | 0.0                  |
|        | Telangana         | 7788                                | 0                                   | 167.8           | 88.4                 | 1.4              | 442         | 0.0                  |
|        | Karnataka         | 8944                                | 0                                   | 165.4           | 31.2                 | -2.0             | 660         | 0.0                  |
|        | Kerala            | 3351                                | 0                                   | 66.3            | 52.4                 | 2.7              | 273         | 0.0                  |
|        | Tamil Nadu        | 13588                               | 0                                   | 305.3           | 132.7                | 1.1              | 703         | 0.0                  |
|        | Pondy             | 373                                 | 0                                   | 8.0             | 8.3                  | -0.3             | 34          | 0.0                  |
|        | Bihar             | 5109                                | 0                                   | 91.9            | 87.5                 | 0.5              | 50          | 0.0                  |
| ER     | DVC               | 3038                                | 0                                   | 63.5            | -36.0                | -1.3             | 150         | 0.0                  |
|        | Jharkhand         | 998                                 | 0                                   | 22.2            | 14.5                 | 0.1              | 80          | 0.0                  |
|        | Odisha            | 4438                                | 0                                   | 87.9            | 33.0                 | 4.5              | 500         | 0.0                  |
|        | West Bengal       | 8080                                | 0                                   | 166.0           | 71.2                 | 1.4              | 200         | 0.0                  |
|        | Sikkim            | 76                                  | 0                                   | 0.8             | 1.2                  | -0.4             | 15          | 0.0                  |
| NER    | Arunachal Pradesh | 122                                 | 0                                   | 2.3             | 2.5                  | -0.2             | 23          | 0.0                  |
|        | Assam             | 1720                                | 143                                 | 30.5            | 24.4                 | 0.5              | 112         | 2.5                  |
|        | Manipur           | 174                                 | 2                                   | 2.4             | 2.3                  | 0.1              | 19          | 0.0                  |
|        | Meghalaya         | 310                                 | 0                                   | 5.7             | 0.5                  | -0.2             | 43          | 0.0                  |
|        | Mizoram           | 92                                  | 1                                   | 1.6             | 1.0                  | 0.3              | 25          | 0.0                  |
|        | Nagaland          | 129                                 | 2                                   | 2.3             | 2.2                  | -0.3             | 8           | 0.0                  |
|        | Tripura           | 283                                 | 3                                   | 4.6             | 4.6                  | -0.6             | 55          | 0.0                  |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 42.9   | -2.8   | -23.1      |
| Day peak (MW) | 1964.3 | -130.0 | -1106.0    |

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

|              | NR    | WR     | SR   | ER    | NER   | TOTAL |
|--------------|-------|--------|------|-------|-------|-------|
| Schedule(MU) | 249.0 | -235.1 | 46.3 | -47.2 | -13.0 | 0.0   |
| Actual(MU)   | 236.1 | -262.1 | 67.9 | -26.2 | -13.5 | 2.1   |
| O/D/U/D(MU)  | -12.9 | -27.1  | 21.6 | 20.9  | -0.5  | 2.1   |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 6118  | 18405 | 8212  | 3010 | 82  | 35826 |
| State Sector   | 10140 | 18877 | 9060  | 4230 | 50  | 42357 |
| Total          | 16258 | 37282 | 17272 | 7240 | 131 | 78182 |

G. Sourcewise generation (MU)

|                                     | NR  | WR   | SR  | ER  | NER | All India |
|-------------------------------------|-----|------|-----|-----|-----|-----------|
| Coal                                | 448 | 977  | 417 | 356 | 11  | 2208      |
| Lignite                             | 16  | 15   | 41  | 0   | 0   | 72        |
| Hydro                               | 312 | 15   | 37  | 122 | 29  | 516       |
| Nuclear                             | 27  | 31   | 60  | 0   | 0   | 118       |
| Gas, Naptha & Diesel                | 25  | 43   | 16  | 0   | 29  | 113       |
| RES (Wind, Solar, Biomass & Others) | 82  | 219  | 238 | 2   | 0   | 541       |
| Total                               | 910 | 1300 | 808 | 480 | 69  | 3567      |

|   |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|
| Share of RES in total generation (%)                                      | 9.01  | 16.84 | 29.47 | 0.39  | 0.06  | 15.17 |
| Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%) | 46.34 | 20.39 | 41.43 | 25.84 | 42.78 | 32.94 |

H. Diversity Factor

|                                   |       |
|-----------------------------------|-------|
| All India Demand Diversity Factor | 1.008 |
|-----------------------------------|-------|

Diversity factor = Sum of regional maximum demands / All India maximum demand

\*Source: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.

**INTER-REGIONAL EXCHANGES**

Date of Reporting : 28-Jul-19

Import=(+ve)  
/Export =(-ve) for  
NET (MU)

| Sl No                                 | Voltage Level       | Line Details             | Circuit            | Max Import (MW) | Max Export (MW) | Import (MU) | Export (MU)  | NET (MU)      |     |
|---------------------------------------|---------------------|--------------------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|-----|
| <b>Import/Export of ER (With NR)</b>  |                     |                          |                    |                 |                 |             |              |               |     |
| 1                                     | 765kV               | GAYA-VARANASI            | D/C                | 67              | 294             | 0.0         | 1.4          | -1.4          |     |
| 2                                     |                     | SASARAM-FATEHPUR         | S/C                | 202             | 27              | 2.0         | 0.0          | 2.0           |     |
| 3                                     |                     | GAYA-BALIA               | S/C                | 0               | 336             | 0.0         | 5.0          | -5.0          |     |
| 4                                     | HVDC                | ALIPURDUAR-AGRA          | -                  | 0               | 1602            | 0.0         | 38.4         | -38.4         |     |
| 5                                     |                     | PUSAULI B/B              | S/C                | 2               | 123             | 0.0         | 3.0          | -3.0          |     |
| 6                                     | 400 kV              | PUSAULI-VARANASI         | S/C                | 0               | 143             | 0.0         | 2.6          | -2.6          |     |
| 7                                     |                     | PUSAULI -ALLAHABAD       | S/C                | 45              | 50              | 0.0         | 0.2          | -0.2          |     |
| 8                                     |                     | MUZAFFARPUR-GORAKHPUR    | D/C                | 0               | 655             | 0.0         | 9.8          | -9.8          |     |
| 9                                     |                     | PATNA-BALIA              | Q/C                | 0               | 557             | 0.0         | 7.3          | -7.3          |     |
| 10                                    |                     | BIHARSHARIFF-BALIA       | D/C                | 0               | 260             | 0.0         | 4.8          | -4.8          |     |
| 11                                    |                     | MOTIHARI-GORAKHPUR       | D/C                | 0               | 230             | 0.0         | 3.3          | -3.3          |     |
| 12                                    | 220 kV              | BIHARSHARIFF-VARANASI    | D/C                | 141             | 106             | 0.7         | 0.0          | 0.7           |     |
| 13                                    |                     | PUSAULI-SAHUPURI         | S/C                | 0               | 148             | 0.0         | 2.8          | -2.8          |     |
| 14                                    |                     | 132 kV                   | SONE NAGAR-RIHAND  | S/C             | 0               | 0           | 0.0          | 0.0           | 0.0 |
| 15                                    |                     |                          | GARWAH-RIHAND      | S/C             | 30              | 0           | 0.4          | 0.0           | 0.4 |
| 16                                    |                     |                          | KARMANASA-SAHUPURI | S/C             | 0               | 0           | 0.0          | 0.0           | 0.0 |
| 17                                    | KARMANASA-CHANDAULI |                          | S/C                | 0               | 0               | 0.0         | 0.0          | 0.0           |     |
| <b>ER-NR</b>                          |                     |                          |                    |                 |                 | <b>3.1</b>  | <b>78.6</b>  | <b>-75.5</b>  |     |
| <b>Import/Export of ER (With WR)</b>  |                     |                          |                    |                 |                 |             |              |               |     |
| 18                                    | 765 kV              | JHARSUGUDA-DHARAMJAIGARH | Q/C                | 2046            | 0               | 40.9        | 0.0          | 40.9          |     |
| 19                                    |                     | NEW RANCHI-DHARAMJAIGARH | D/C                | 1392            | 0               | 24.9        | 0.0          | 24.9          |     |
| 20                                    |                     | JHARSUGUDA-DURG          | D/C                | 422             | 0               | 7.8         | 0.0          | 7.8           |     |
| 21                                    | 400 kV              | JHARSUGUDA-RAIGARH       | Q/C                | 378             | 0               | 5.4         | 0.0          | 5.4           |     |
| 22                                    |                     | RANCHI-SIPAT             | D/C                | 492             | 0               | 9.7         | 0.0          | 9.7           |     |
| 23                                    | 220 kV              | BUDHIPADAR-RAIGARH       | S/C                | 51              | 45              | 0.0         | 0.1          | -0.1          |     |
| 24                                    |                     | BUDHIPADAR-KORBA         | D/C                | 240             | 0               | 4.8         | 0.0          | 4.8           |     |
| <b>ER-WR</b>                          |                     |                          |                    |                 |                 | <b>93.4</b> | <b>0.1</b>   | <b>93.4</b>   |     |
| <b>Import/Export of ER (With SR)</b>  |                     |                          |                    |                 |                 |             |              |               |     |
| 25                                    | 765 kV              | ANGUL-SRIKAKULAM         | D/C                | 0.0             | 1580.0          | 0.0         | 20.2         | -20.2         |     |
| 26                                    | HVDC                | JEYPORE-GAZUWAKA B/B     | D/C                | 0.0             | 430.0           | 0.0         | 9.9          | -9.9          |     |
| 27                                    | LINK                | TALCHER-KOLAR BIPOLE     | D/C                | 0.0             | 1988.0          | 0.0         | 32.6         | -32.6         |     |
| 28                                    | 400 kV              | TALCHER-I/C              | D/C                | 266.0           | 982.0           | 0.0         | 5.5          | -5.5          |     |
| 29                                    | 220 kV              | BALIMELA-UPPER-SILERRU   | S/C                | 1.0             | 0.0             | 0.0         | 0.0          | 0.0           |     |
| <b>ER-SR</b>                          |                     |                          |                    |                 |                 | <b>0.0</b>  | <b>62.7</b>  | <b>-62.7</b>  |     |
| <b>Import/Export of ER (With NER)</b> |                     |                          |                    |                 |                 |             |              |               |     |
| 30                                    | 400 kV              | BINAGURI-BONGAIGAON      | D/C                | 0               | 626             | 0.0         | 9.2          | -9            |     |
| 31                                    |                     | ALIPURDUAR-BONGAIGAON    | D/C                | 345             | 76              | 4.0         | 0.0          | 4             |     |
| 32                                    | 220 kV              | ALIPURDUAR-SALAKATI      | D/C                | 2               | 103             | 0.0         | 1.0          | -1            |     |
| <b>ER-NER</b>                         |                     |                          |                    |                 |                 | <b>4.0</b>  | <b>10.2</b>  | <b>-6.2</b>   |     |
| <b>Import/Export of NER (With NR)</b> |                     |                          |                    |                 |                 |             |              |               |     |
| 33                                    | HVDC                | BISWANATH CHARIALI-AGRA  | -                  | 903             | 0               | 0.0         | 22.0         | -22.0         |     |
| <b>NER-NR</b>                         |                     |                          |                    |                 |                 | <b>0.0</b>  | <b>22.0</b>  | <b>-22.0</b>  |     |
| <b>Import/Export of WR (With NR)</b>  |                     |                          |                    |                 |                 |             |              |               |     |
| 34                                    | HVDC                | CHAMPA-KURUKSHETRA       | D/C                | 0               | 1001            | 0.0         | 13.7         | -13.7         |     |
| 35                                    |                     | V'CHAL B/B               | D/C                | 453             | 52              | 0.0         | 0.0          | 0.0           |     |
| 36                                    |                     | APL -MHG                 | D/C                | 0               | 1450            | 0.0         | 30.7         | -30.7         |     |
| 37                                    | 765 kV              | GWALIOR-AGRA             | D/C                | 0               | 2080            | 0.0         | 38.0         | -38.0         |     |
| 38                                    |                     | PHAGI-GWALIOR            | D/C                | 0               | 1046            | 0.0         | 19.5         | -19.5         |     |
| 39                                    |                     | JABALPUR-ORAI            | D/C                | 0               | 890             | 0.0         | 34.6         | -34.6         |     |
| 40                                    |                     | GWALIOR-ORAI             | S/C                | 513             | 0               | 7.4         | 0.0          | 7.4           |     |
| 41                                    |                     | SATNA-ORAI               | S/C                | 0               | 1294            | 0.0         | 26.6         | -26.6         |     |
| 42                                    |                     | CHITTORGARH-BANASKANTHA  | D/C                | 20              | 682             | 0.0         | 5.8          | 5.8           |     |
| 43                                    | 400 kV              | ZERDA-KANKROLI           | S/C                | 82              | 69              | 0.7         | 0.1          | 0.6           |     |
| 44                                    |                     | ZERDA -BHINMAL           | S/C                | 136             | 123             | 0.5         | 0.7          | -0.2          |     |
| 45                                    |                     | V'CHAL -RIHAND           | S/C                | 963             | 0               | 21.4        | 0.0          | 21.4          |     |
| 46                                    |                     | RAPP-SHUJALPUR           | D/C                | 0               | 289             | 0           | 2            | -2            |     |
| 47                                    | 220 kV              | BHANPURA-RANPUR          | S/C                | 29              | 54              | 0.1         | 0.3          | -0.2          |     |
| 48                                    |                     | BHANPURA-MORAK           | S/C                | 0               | 106             | 0.0         | 1.6          | -1.6          |     |
| 49                                    |                     | MEHGAON-AURAIYA          | S/C                | 49              | 9               | 0.4         | 0.0          | 0.4           |     |
| 50                                    |                     | MALANPUR-AURAIYA         | S/C                | 17              | 46              | 0.0         | 0.4          | -0.3          |     |
| 51                                    | 132kV               | GWALIOR-SAWAI MADHOPUR   | S/C                | 0               | 0               | 0.0         | 0.0          | 0.0           |     |
| <b>WR-NR</b>                          |                     |                          |                    |                 |                 | <b>30.6</b> | <b>174.0</b> | <b>-131.8</b> |     |
| <b>Import/Export of WR (With SR)</b>  |                     |                          |                    |                 |                 |             |              |               |     |
| 52                                    | HVDC                | BHADRAWATI B/B           | -                  | 0               | 1006            | 0.0         | 11.8         | -11.8         |     |
| 53                                    | LINK                | BARSUR-L.SILERU          | -                  | 0               | 0               | 0.0         | 0.0          | 0.0           |     |
| 54                                    | 765 kV              | SOLAPUR-RAICHUR          | D/C                | 785             | 1711            | 1.9         | 8.6          | -6.7          |     |
| 55                                    |                     | WARDHA-NIZAMABAD         | D/C                | 0               | 2098            | 0.0         | 26.9         | -26.9         |     |
| 56                                    | 400 kV              | KOLHAPUR-KUDGI           | D/C                | 1028            | 0               | 13.6        | 0.0          | 13.6          |     |
| 57                                    | 220 kV              | KOLHAPUR-CHIKODI         | D/C                | 0               | 0               | 0.0         | 0.0          | 0.0           |     |
| 58                                    |                     | PONDA-AMBEWADI           | S/C                | 0               | 60              | 0.0         | 1.2          | -1.2          |     |
| 59                                    |                     | XELDEM-AMBEWADI          | S/C                | 0               | 34              | 0.7         | 0.0          | 0.7           |     |
| <b>WR-SR</b>                          |                     |                          |                    |                 |                 | <b>16.2</b> | <b>48.4</b>  | <b>-32.3</b>  |     |
| <b>TRANSNATIONAL EXCHANGE</b>         |                     |                          |                    |                 |                 |             |              |               |     |
| 60                                    |                     | BHUTAN                   |                    |                 |                 |             |              | <b>42.9</b>   |     |
| 61                                    |                     | NEPAL                    |                    |                 |                 |             |              | <b>-2.8</b>   |     |
| 62                                    |                     | BANGLADESH               |                    |                 |                 |             |              | <b>-23.1</b>  |     |