

## National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

## POWER SYSTEM OPERATION CORPORATION LIMITED पाँवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 06<sup>th</sup> August 2018

Τо

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Sub: Daily PSP Report for the date 05.08.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 05-अगस्त-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 05<sup>th</sup> August 2018, is available at the NLDC website.

धन्यवाद,

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

Report for previous day **Date of Reporting** 6-Aug-18

#### A. Maximum Demand

|   | NR    | WR    | SR    | ER    | NER   | Total  |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW)<br>(at 2000 hrs; from RLDCs) | 52269 | 45258 | 38685 | 19838 | 2646  | 158696 |
| Peak Shortage (MW)  | 637   | 0     | 0     | 0     | 135   | 772    |
| Energy Met (MU)   | 1232  | 1093  | 922   | 425   | 50    | 3723   |
| Hydro Gen (MU)  | 333   | 13    | 97    | 108   | 28    | 580    |
| Wind Gen (MU)   | 41    | 169   | 211   |       |       | 421    |
| Solar Gen (MU)*   | 14.88 | 13.77 | 46.78 | 0.54  | 0.02  | 76     |
| Energy Shortage (MU)  | 10.1  | 0.0   | 0.0   | 0.0   | 1.2   | 11.4   |
| Maximum Demand Met during the day                                   | 56378 | 48674 | 39621 | 20263 | 2611  | 162558 |
| (MW) & time (from NLDC SCADA)                                       | 00:12 | 11:35 | 22:17 | 20:06 | 18:54 | 20:15  |

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 | 0.034 | 0.00  | 0.02      | 7.85      | 7.87  | 79.75      | 12.38   |

| Region | States            | Max. Demand<br>Met during the<br>day (MW) | Shortage during<br>maximum Demand<br>(MW) | Energy Met (MU) | Drawal<br>Schedule (MU) | OD(+)/UD(-)<br>(MU) | Max OD<br>(MW) | Energy<br>Shortage (MU |
|--------|-------------------|---|---|-----------------|-------------------------|---------------------|----------------|------------------------|
|        | Punjab            | 11438                                     | 0   | 263.2           | 141.8                   | -1.3                | 106            | 0.0                    |
|        | Harvana           | 9272                                      | 0   | 191.9           | 147.0                   | 0.8                 | 219            | 0.0                    |
|        | Rajasthan         | 10944                                     | 0   | 234.4           | 62.3                    | 1.2                 | 354            | 0.1                    |
|        | Delhi             | 5555                                      | 0   | 109.6           | 87.1                    | 0.2                 | 184            | 0.1                    |
| NR     | UP                | 15643                                     | 0   | 328.5           | 185.4                   | -0.6                | 219            | 0.0                    |
|        | Uttarakhand       | 1451                                      | 0   | 32.0            | 15.1                    | -1.0                | 72             | 0.0                    |
|        | HP                | 1258                                      | 0   | 26.0            | -3.1                    | 1.5                 | 186            | 0.0                    |
|        | J&K               | 2067                                      | 517                                       | 41.7            | 19.2                    | -3.1                | 169            | 9.9                    |
|        | Chandigarh        | 237                                       | 0   | 5.1             | 6.0                     | -0.9                | 0              | 0.0                    |
|        | Chhattisgarh      | 4136                                      | 0   | 98.4            | 29.5                    | -2.5                | 267            | 0.0                    |
|        | Gujarat           | 14438                                     | 0   | 332.3           | 45.2                    | 2.4                 | 932            | 0.0                    |
|        | MP                | 8354                                      | 0   | 185.4           | 82.1                    | -0.3                | 347            | 0.0                    |
| WR     | Maharashtra       | 19279                                     | 0   | 430.1           | 108.4                   | 3.4                 | 607            | 0.0                    |
| WK     | Goa               | 444                                       | 0   | 11.6            | 8.5                     | 2.5                 | 50             | 0.0                    |
|        | DD                | 299                                       | 0   | 6.9             | 6.2                     | 0.7                 | 70             | 0.0                    |
|        | DNH               | 744                                       | 0   | 17.5            | 16.3                    | 1.1                 | 94             | 0.0                    |
|        | Essar steel       | 535                                       | 0   | 10.8            | 9.9                     | 0.9                 | 334            | 0.0                    |
|        | Andhra Pradesh    | 8064                                      | 0   | 180.2           | 16.2                    | 1.1                 | 580            | 0.0                    |
|        | Telangana         | 9371                                      | 0   | 203.5           | 96.6                    | 0.9                 | 396            | 0.0                    |
| SR     | Karnataka         | 8207                                      | 0   | 175.6           | 47.2                    | -0.3                | 536            | 0.0                    |
| 3K     | Kerala            | 3126                                      | 0   | 61.2            | 23.1                    | -0.5                | 151            | 0.0                    |
|        | Tamil Nadu        | 12947                                     | 0   | 294.8           | 83.9                    | -1.5                | 339            | 0.0                    |
|        | Pondy             | 340                                       | 0   | 7.1             | 7.3                     | -0.2                | 50             | 0.0                    |
|        | Bihar             | 4592                                      | 0   | 83.5            | 84.0                    | -0.7                | 200            | 0.0                    |
|        | DVC               | 2938                                      | 0   | 66.7            | -32.6                   | 4.4                 | 220            | 0.0                    |
| ER     | Jharkhand         | 1119                                      | 0   | 22.6            | 19.6                    | 0.9                 | 85             | 0.0                    |
| EK     | Odisha            | 4898                                      | 0   | 102.9           | 56.5                    | 1.6                 | 225            | 0.0                    |
|        | West Bengal       | 7421                                      | 0   | 148.1           | 45.4                    | 4.8                 | 250            | 0.0                    |
|        | Sikkim            | 77  | 0   | 1.0             | 1.4                     | -0.4                | 15             | 0.0                    |
|        | Arunachal Pradesh | 115                                       | 3   | 2.2             | 2.9                     | -0.7                | 0              | 0.0                    |
|        | Assam             | 1710                                      | 89  | 32.3            | 25.8                    | 1.8                 | 113            | 1.1                    |
|        | Manipur           | 165                                       | 3   | 2.2             | 2.6                     | -0.4                | 14             | 0.0                    |
| NER    | Meghalaya         | 302                                       | 0   | 5.7             | 0.8                     | -0.3                | 12             | 0.0                    |
|        | Mizoram           | 81  | 2   | 1.5             | 1.0                     | 0.1                 | 12             | 0.0                    |
|        | Nagaland          | 121                                       | 3   | 2.2             | 1.9                     | 0.0                 | 21             | 0.0                    |
|        | Tripura           | 265                                       | 1   | 4.3             | 5.5                     | 0.2                 | 56             | 0.0                    |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 32.4   | -5.3   | -15.3      |
| Day peak (MW) | 1542.5 | -270.6 | -671.6     |

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

|              | NR    | WR     | SR   | ER    | NER  | TOTAL |
|--------------|-------|--------|------|-------|------|-------|
| Schedule(MU) | 262.2 | -231.9 | 40.1 | -65.9 | -5.3 | -0.8  |
| Actual(MU)   | 254.4 | -223.9 | 35.3 | -60.1 | -6.6 | -0.9  |
| O/D/U/D(MU)  | -7.7  | 8.0    | -4.7 | 5.7   | -1.3 | 0.0   |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 4310  | 16840 | 9972  | 1320 | 429 | 32871 |
| State Sector   | 9965  | 13416 | 9770  | 6445 | 50  | 39646 |
| Total          | 14275 | 30256 | 19742 | 7765 | 479 | 72516 |

G. Sourcewise generation (MU)

|                                     | NR   | WR   | SR  | ER  | NER | All India |
|-------------------------------------|------|------|-----|-----|-----|-----------|
| Thermal (Coal & Lignite)            | 553  | 1070 | 452 | 390 | 7   | 2473      |
| Hydro                               | 333  | 14   | 97  | 108 | 28  | 580       |
| Nuclear                             | 28   | 27   | 24  | 0   | 0   | 79        |
| Gas, Naptha & Diesel                | 20   | 41   | 24  | 0   | 25  | 110       |
| RES (Wind, Solar, Biomass & Others) | 70   | 183  | 299 | 1   | 0   | 552       |
| Total                               | 1003 | 1335 | 896 | 499 | 61  | 3794      |
| •                                   |      |      |     |     |     |           |

| Share of RES in total generation (%)         | 6.96  | 13.69 | 33.31 | 0.14  | 0.06  | 14.54 |
|--|-------|-------|-------|-------|-------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and | 42.97 | 16.76 | 46.88 | 21.79 | 46.42 | 31.91 |
| RES) in total generation (%)                 | 42.87 |       |       |       |       | 31.91 |

H. Diversity Factor
All India Demand Diversity Factor
1.031
Diversity factor = Sum of regional maximum demands / All India maximum demand

 $<sup>\</sup>textbf{*Source:} \ RLDCs \ for \ solar \ connected \ to \ ISTS; \ SLDCs \ for \ embedded \ solar. \ Limited \ visibility \ of \ embedded \ solar \ data.$ 

|                |                  | INTER-REGIONAL EXCHANGES          |            |                       |                 |                   | Date of Reporting : |  |  |
|----------------|------------------|-----------------------------------|------------|-----------------------|-----------------|-------------------|---------------------|--|--|
|                |                  |                                   |            |                       |                 |                   |                     | Import=(+ve)<br>/Export =(-ve)<br>for NET (MU) |  |
| Sl No          | Voltage<br>Level | Line Details                      | Circuit    | Max<br>Import<br>(MW) | Max Export (MW) | Import (MU)       | Export<br>(MU)      | NET<br>(MU)                                    |  |
| Import/E       | Export of        | ER (With NR)                      |            |                       |                 |                   |                     |  |  |
| 1              | 7651-37          | GAYA-VARANASI                     | D/C        | 0                     | 484             | 0.0               | 7.9                 | -7.9   |  |
| 3              | 765kV            | SASARAM-FATEHPUR<br>GAYA-BALIA    | S/C<br>S/C | 152<br>0              | 137<br>355      | 0.3               | 0.0<br>5.7          | 0.3<br>-5.7                                    |  |
| 4              |                  | ALIPURDUAR-AGRA                   | -          | 0                     | 692             | 0.0               | 17.6                | -17.6  |  |
| 5              | HVDC             | PUSAULI B/B                       | S/C        | 0                     | 144             | 0.0               | 3.6                 | -3.6   |  |
| 6              |                  | PUSAULI-VARANASI                  | S/C        | 0                     | 68              | 0.0               | 0.0                 | 0.0  |  |
| 7              |                  | PUSAULI -ALLAHABAD                | S/C        | 0                     | 87              | 0.0               | 0.0                 | 0.0  |  |
| 9              | 400 1-37         | MUZAFFARPUR-GORAKHPUR             | D/C        | 0                     | 849             | 0.0               | 15.4                | -15.4  |  |
| 10             | 400 kV           | PATNA-BALIA<br>BIHARSHARIFF-BALIA | Q/C<br>D/C | 0                     | 1051<br>298     | 0.0               | 19.5<br>6.5         | -19.5<br>-6.5                                  |  |
| 11             |                  | MOTIHARI-GORAKHPUR                | D/C        | 119                   | 0               | 3.9               | 0.0                 | 3.9  |  |
| 12             |                  | BIHARSHARIFF-VARANASI             | D/C        | 843                   | 0               | 0.0               | 3.4                 | -3.4   |  |
| 13             | 220 kV           | PUSAULI-SAHUPURI                  | S/C        | 0                     | 95              | 0.0               | 2.8                 | -2.8   |  |
| 14             |                  | SONE NAGAR-RIHAND                 | S/C        | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
| 15             | 132 kV           | GARWAH-RIHAND                     | S/C        | 35                    | 0               | 0.6               | 0.0                 | 0.6  |  |
| 16             | 132 KV           | 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  |  |
| Import/E       | Export of        | ER (With WR)                      |            |                       | ER-NR           | 4.8               | 82.4                | -77.6  |  |
| 18             | 765 kV           | JHARSUGUDA-DHARAMJAIGARH S/C      | D/C        | 1206                  | 2               | 15.7              | 0.0                 | 15.7   |  |
| 19             |                  | NEW RANCHI-DHARAMJAIGARH          | D/C        | 813                   | 0               | 12.5              | 0.0                 | 12.5   |  |
| 20             | 400 kV           | JHARSUGUDA-RAIGARH                | Q/C        | 1397                  | 0               | 19.5              | 0.0                 | 19.5   |  |
| 21             |                  | RANCHI-SIPAT                      | D/C        | 381                   | 0               | 7.7               | 0.0                 | 7.7  |  |
| 22             | 220 kV           | BUDHIPADAR-RAIGARH                | S/C        | 138                   | 0               | 2.2               | 0.0                 | 2.2  |  |
| 23             |                  | BUDHIPADAR-KORBA                  | D/C        | 187                   | 0<br>ER-WR      | 3.7               | 0.0                 | 3.7  |  |
| Import/E       | vport of         | ER (With SR)                      |            |                       | ER-WK           | 61.3              | 0.0                 | 61.3   |  |
| 24             | · •              | ANGUL-SRIKAKULAM                  | D/C        | 0.0                   | 1160.8          | 0.0               | 17.6                | -17.6  |  |
| 25             | HVDC             | JEYPORE-GAZUWAKA B/B              | D/C        | 0.0                   | 465.9           | 0.0               | 11.1                | -11.1  |  |
| 26             | LINK             | TALCHER-KOLAR BIPOLE              | D/C        | 0.0                   | 1582.0          | 0.0               | 30.5                | -30.5  |  |
| 27             | 400 kV           | TALCHER-I/C                       | D/C        | 915.6                 | 0.8             | 0.5               | 10.2                | -9.6   |  |
| 28             | 220 kV           | BALIMELA-UPPER-SILERRU            | S/C        | 0.0                   | 0.0             | 0.0               | 0.0                 | 0.0  |  |
|                |                  |                                   |            |                       | ER-SR           | 0.0               | 59.3                | -59.3  |  |
| _              | Export of        | ER (With NER)                     |            |                       | T               |                   |                     |  |  |
| 29             | 400 kV           | BINAGURI-BONGAIGAON               | D/C        | 0                     | 518             | 0.0               | 6.9                 | -7   |  |
| 30             | 220 1 17         | ALIPURDUAR-BONGAIGAON             | D/C        | 211                   | 214             | 0.5               | 0.0                 | 1  |  |
| 31             | 220 kV           | ALIPURDUAR-SALAKATI               | D/C        | 0                     | 125<br>ER-NER   | 0.0<br><b>0.5</b> | 1.6<br><b>8.6</b>   | -2<br>-8.1                                     |  |
|                | _                | NER (With NR)                     |            |                       |                 |                   |                     |  |  |
| 32             | HVDC             | BISWANATH CHARIALI-AGRA           | -          | 0                     | 701             | 0.0               | 16.0                | -16.0  |  |
| Import/E       | Export of        | WR (With NR)                      |            |                       | NER-NR          | 0.0               | 16.0                | -16.0  |  |
| 33             | Export of        | CHAMPA-KURUKSHETRA                | D/C        | 0                     | 0               | 0.0               | 23.7                | -23.7  |  |
| 34             | HVDC             | V'CHAL B/B                        | D/C        | 0                     | 0               | 2.7               | 0.3                 | 2.4  |  |
| 35             |                  | APL -MHG                          | D/C        | 0                     | 0               | 0.0               | 29.1                | -29.1  |  |
| 36             |                  | GWALIOR-AGRA                      | D/C        | 0                     | 0               | 0.0               | 48.7                | -48.7  |  |
| 37             | 1                | PHAGI-GWALIOR                     | D/C        | 0                     | 0               | 0.0               | 24.5                | -24.5  |  |
| 38             | 765 kV           | JABALPUR-ORAI                     | D/C        | 0                     | 0               | 0.0               | 23.3                | -23.3  |  |
| 39             |                  | GWALIOR-ORAI                      | S/C        | 0                     | 0               | 7.6               | 0.0                 | 7.6  |  |
| 40             |                  | SATNA-ORAI                        | S/C        | 0                     | 0               | 0.0               | 36.9                | -36.9  |  |
| 41             |                  | ZERDA-KANKROLI                    | S/C        | 0                     | 0               | 0.0               | 0.5                 | -0.5   |  |
| 42             | 400 kV           | ZERDA -BHINMAL                    | S/C        | 0                     | 0               | 0.0               | 1.5                 | -1.5   |  |
| 43             | 1                | V'CHAL -RIHAND                    | S/C        | 0                     | 0               | 21.3              | 0.0                 | 21.3   |  |
| 44             |                  | RAPP-SHUJALPUR                    | D/C        | 0                     | 0               | 0                 | 1                   | -1   |  |
| 45<br>46       | 1                | BADOD-KOTA<br>BADOD-MORAK         | S/C<br>S/C | 0                     | 0               | 0.0               | 1.0                 | -1.0<br>-1.4                                   |  |
| 46             | 220 kV           | MEHGAON-AURAIYA                   | S/C<br>S/C | 0                     | 0               | 0.0               | 0.0                 | 0.3  |  |
| 48             | 1                | MALANPUR-AURAIYA                  | S/C        | 0                     | 0               | 0.4               | 0.0                 | -0.3   |  |
| 49             | 132kV            | GWALIOR-SAWAI MADHOPUR            | S/C        | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
|                |                  |                                   |            |                       | WR-NR           | 32.0              | 192.2               | -160.2   |  |
| Import/E       | _                | WR (With SR) BHADRAWATI B/B       |            | 0                     | 0               | 0.0               | 12.3                | -12.3  |  |
| 50             | HVDC<br>LINK     | BARSUR-L.SILERU                   | -          | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
| 52             |                  | SOLAPUR-RAICHUR                   | D/C        | 0                     | 0               | 7.8               | 0.0                 | 7.8  |  |
| 53             | 765 kV           | WARDHA-NIZAMABAD                  | D/C        | 0                     | 0               | 0.0               | 20.4                | -20.4  |  |
| 54             | 400 kV           | KOLHAPUR-KUDGI                    | D/C        | 0                     | 0               | 8.9               | 0.0                 | 8.9  |  |
| 55             |                  | KOLHAPUR-CHIKODI                  | D/C        | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
| 56             | 220 kV           | PONDA-AMBEWADI                    | S/C        | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
| 57             |                  | XELDEM-AMBEWADI                   | S/C        | 0                     | 0               | 0.0               | 0.0                 | 0.0  |  |
|                |                  |                                   |            |                       | WR-SR           | 16.7              | 32.7                | -16.0  |  |
|                |                  | TRA                               | ANSNATI    | ONAL EX               | CHANGE          |                   |                     |  |  |
|                |                  | BHUTAN                            |            |                       |                 |                   |                     | 32.4   |  |
| 58             |                  |                                   |            |                       |                 |                   |                     | 32.4   |  |
| 58<br>59<br>60 |                  | NEPAL<br>BANGLADESH               |            |                       |                 |                   |                     | -5.3<br>-15.3                                  |  |