

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 19<sup>th</sup> Apr 2019

To,

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता 700033 Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
- 2. 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
- 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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग ७९३००६ Chief General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

## Sub: Daily PSP Report for the date 18.04.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 18-अप्रैल-2019 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 18<sup>th</sup> April 2019, 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 19-Apr-19

#### A. Maximum Demand

|   | NR    | WR    | SR    | ER    | NER   | Total  |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW)<br>(at 1900 hrs; from RLDCs) | 43081 | 47990 | 39753 | 21125 | 2389  | 154338 |
| Peak Shortage (MW)  | 529   | 0     | 0     | 0     | 141   | 670    |
| Energy Met (MU)   | 827   | 1164  | 989   | 433   | 41    | 3455   |
| Hydro Gen (MU)  | 197   | 44    | 47    | 63    | 4     | 356    |
| Wind Gen (MU)   | 12    | 39    | 37    |       |       | 88     |
| Solar Gen (MU)*   | 28.62 | 26.76 | 84.79 | 2.14  | 0.05  | 142    |
| Energy Shortage (MU)  | 11.1  | 0.0   | 0.0   | 0.0   | 1.4   | 12.5   |
| Maximum Demand Met during the day                                   | 43651 | 51360 | 43535 | 21443 | 2399  | 157400 |
| (MW) & time (from NLDC SCADA)                                       | 19:43 | 15:32 | 00:14 | 19:08 | 18:53 | 19:40  |

B. Frequency Profile (%)
Region
All India <49.7 49.7-49.8 49.8-49.9 49.9-50.05 > 50.05 0.029 0.00 0.00 21.02

| Region | 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            | 4973                                      | 0   | 98.6            | 44.7                    | -0.8                | 66             | 0.0                    |
|        | Haryana           | 6343                                      | 0   | 106.5           | 87.8                    | 0.3                 | 280            | 0.0                    |
|        | Rajasthan         | 7699                                      | 0   | 168.3           | 52.2                    | -2.3                | 145            | 0.0                    |
|        | Delhi             | 3671                                      | 0   | 74.4            | 63.8                    | -0.6                | 104            | 0.0                    |
| NR     | UP                | 15465                                     | 0   | 269.9           | 115.0                   | 2.9                 | 576            | 0.0                    |
|        | Uttarakhand       | 1729                                      | 0   | 33.7            | 13.2                    | -0.1                | 77             | 0.0                    |
|        | HP                | 1364                                      | 0   | 25.8            | 8.4                     | 0.9                 | 182            | 0.0                    |
|        | J&K               | 2227                                      | 557                                       | 46.7            | 30.5                    | 0.1                 | 187            | 11.1                   |
|        | Chandigarh        | 164                                       | 0   | 3.2             | 3.9                     | -0.7                | 0              | 0.0                    |
|        | Chhattisgarh      | 4405                                      | 0   | 101.8           | 46.7                    | -4.1                | 260            | 0.0                    |
|        | Gujarat           | 15959                                     | 0   | 355.9           | 137.0                   | 2.8                 | 628            | 0.0                    |
|        | MP                | 8316                                      | 0   | 181.0           | 75.7                    | -0.7                | 430            | 0.0                    |
| WR     | Maharashtra       | 21513                                     | 0   | 482.3           | 152.9                   | 0.7                 | 463            | 0.0                    |
| WK     | Goa               | 548                                       | 0   | 13.8            | 11.5                    | 2.2                 | 85             | 0.0                    |
|        | DD                | 335                                       | 0   | 7.5             | 7.2                     | 0.3                 | 32             | 0.0                    |
|        | DNH               | 800                                       | 0   | 18.7            | 18.7                    | 0.0                 | 54             | 0.0                    |
|        | Essar steel       | 225                                       | 0   | 3.3             | 3.1                     | 0.3                 | 304            | 0.0                    |
|        | Andhra Pradesh    | 9130                                      | 0   | 195.6           | 63.5                    | 0.0                 | 639            | 0.0                    |
|        | Telangana         | 8754                                      | 0   | 186.3           | 78.6                    | -0.3                | 483            | 0.0                    |
| SR     | Karnataka         | 10950                                     | 0   | 217.0           | 65.8                    | -0.3                | 672            | 0.0                    |
| JK.    | Kerala            | 3521                                      | 0   | 76.5            | 58.5                    | 1.2                 | 185            | 0.0                    |
|        | Tamil Nadu        | 14457                                     | 0   | 306.4           | 165.5                   | -2.3                | 604            | 0.0                    |
|        | Pondy             | 480                                       | 0   | 7.2             | 7.4                     | -0.3                | 35             | 0.0                    |
|        | Bihar             | 4626                                      | 0   | 81.1            | 77.8                    | 0.0                 | 50             | 0.0                    |
|        | DVC               | 3237                                      | 0   | 66.0            | -38.1                   | -0.8                | 130            | 0.0                    |
| ER     | Jharkhand         | 1159                                      | 0   | 23.5            | 18.5                    | -1.1                | 160            | 0.0                    |
| LIX    | Odisha            | 4694                                      | 0   | 91.2            | 32.7                    | 1.7                 | 320            | 0.0                    |
|        | West Bengal       | 8818                                      | 0   | 170.5           | 51.3                    | 1.8                 | 340            | 0.0                    |
|        | Sikkim            | 82  | 0   | 1.1             | 1.5                     | -0.4                | 20             | 0.0                    |
|        | Arunachal Pradesh | 115                                       | 3   | 2.1             | 2.4                     | -0.3                | 27             | 0.0                    |
|        | Assam             | 1403                                      | 100                                       | 23.9            | 20.2                    | 0.4                 | 99             | 1.0                    |
|        | Manipur           | 141                                       | 8   | 1.7             | 1.7                     | 0.1                 | 66             | 0.0                    |
| NER    | Meghalaya         | 321                                       | 30  | 5.1             | 4.1                     | 0.0                 | 218            | 0.3                    |
|        | Mizoram           | 89  | 2   | 1.8             | 1.3                     | 0.4                 | 14             | 0.0                    |
|        | Nagaland          | 136                                       | 3   | 2.1             | 1.9                     | 0.2                 | 26             | 0.0                    |
|        | Tripura           | 270                                       | 0   | 4.5             | 4.2                     | -0.1                | 65             | 0.0                    |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 11.1   | -7.2   | -21.5      |
| Day peak (MW) | 678.7  | -422.0 | -1030.0    |

 $\underline{E.\ Import/export\ By\ Regions(in\ MU)\ -\ Import(+ve)/Export(-ve);\ OD(+)/UD(-)}$ 

|              | NR    | WR     | SR    | ER    | NER | TOTAL |
|--------------|-------|--------|-------|-------|-----|-------|
| Schedule(MU) | 136.0 | -213.0 | 134.6 | -59.1 | 0.1 | -1.6  |
| Actual(MU)   | 108.5 | -206.5 | 140.9 | -48.8 | 2.3 | -3.6  |
| O/D/U/D(MU)  | -27.5 | 6.5    | 6.4   | 10.3  | 2.3 | -2.0  |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 5266  | 11637 | 7462  | 600  | 486 | 25451 |
| State Sector   | 13280 | 15038 | 4710  | 2675 | 50  | 35753 |
| Total          | 18546 | 26675 | 12172 | 3275 | 536 | 61203 |

G. Sourcewise generation (MU)

|                                      | NR   | WR   | SR    | ER   | NER  | All India |
|--------------------------------------|------|------|-------|------|------|-----------|
| Coal                                 | 403  | 1177 | 550   | 448  | 10   | 2588      |
| Lignite                              | 14   | 14   | 53    | 0    | 0    | 81        |
| Hydro                                | 197  | 44   | 47    | 63   | 4    | 356       |
| Nuclear                              | 28   | 31   | 37    | 0    | 0    | 96        |
| Gas, Naptha & Diesel                 | 23   | 45   | 16    | 0    | 30   | 113       |
| RES (Wind, Solar, Biomass & Others)  | 69   | 69   | 156   | 2    | 0    | 297       |
| Total                                | 735  | 1380 | 860   | 513  | 44   | 3531      |
|                                      |      |      |       |      |      |           |
| Share of RFS in total generation (%) | 0.45 | 5.02 | 19 10 | 0.42 | 0.11 | 8.40      |

| Share of RES in total generation (%)                                      | 9.45  | 5.03  | 18.10 | 0.42  | 0.11  | 8.40  |
|---|-------|-------|-------|-------|-------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%) | 40.13 | 10.44 | 27.92 | 12.73 | 10.13 | 21.20 |

H. Diversity Factor
All India Demand Diversity Factor
1.032
Diversity factor = Sum of regional maximum demands / All India maximum demand

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

|                |                  | INT   | ER-REGI  | ONAL EXCH          | ANGES              | Date of 1   | Reporting :    | 19-Apr-19                                      |
|----------------|------------------|---|--|--------------------|--------------------|-------------|----------------|--|
|                |                  |   |  |                    |                    |             |                | Import=(+ve)<br>/Export =(-ve)<br>for NET (MU) |
| Sl No          | Voltage<br>Level | Line Details                                | Circuit  | Max Import<br>(MW) | Max Export<br>(MW) | Import (MU) | Export<br>(MU) | NET<br>(MU)                                    |
| Import/E       |                  | ER (With NR)                                |  |                    |                    |             |                |  |
| 2              | 765kV            | GAYA-VARANASI<br>SASARAM-FATEHPUR           | D/C<br>S/C                                       | 0                  | 391<br>330         | 0.0         | 2.8            | -2.8<br>-3.7                                   |
| 3              | 70387            | GAYA-BALIA                                  | S/C  | 0                  | 271                | 0.0         | 2.6            | -2.6   |
| 4              | HVDC             | ALIPURDUAR-AGRA                             | -  | 0                  | 0                  | 0.0         | 0.0            | 0.0  |
| 5              | HVDC             | PUSAULI B/B                                 | S/C  | 0                  | 50                 | 0.0         | 1.3            | -1.3   |
| 6              | 4                | PUSAULI-VARANASI                            | S/C  | 0                  | 62                 | 0.0         | 1.1            | -1.1   |
| 7 8            | -                | PUSAULI -ALLAHABAD<br>MUZAFFARPUR-GORAKHPUR | S/C<br>D/C                                       | 0                  | 730                | 0.0         | 0.3<br>10.7    | -0.3<br>-10.7                                  |
| 9              | 400 kV           | PATNA-BALIA                                 | Q/C  | 0                  | 747                | 0.0         | 11.7           | -10.7  |
| 10             | 100 111          | BIHARSHARIFF-BALIA                          | D/C  | 0                  | 315                | 0.0         | 4.2            | -4.2   |
| 11             |                  | MOTIHARI-GORAKHPUR                          | D/C  | 0                  | 290                | 0.0         | 4.5            | -4.5   |
| 12             |                  | BIHARSHARIFF-VARANASI                       | D/C  | 3                  | 0                  | 0.0         | 0.0            | 0.0  |
| 13             | 220 kV           | PUSAULI-SAHUPURI                            | S/C  | 0                  | 158                | 0.0         | 2.9            | -2.9   |
| 14             |                  | SONE NAGAR-RIHAND                           | S/C  | 0                  | 0                  | 0.0         | 0.0            | 0.0  |
| 15             | 132 kV           | 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<br>ED ND         | 0.0         | 0.0            | 0.0  |
| Import/F       | vnort of         | ER (With WR)                                |  |                    | ER-NR              | 0.4         | 45.8           | -45.4  |
| _              | APOL t OL        | 1   | 5/6  | 20.45              | 0                  | 20.0        | 0.0            | 20.6   |
| 18             | 765 kV           | JHARSUGUDA-DHARAMJAIGARH S/C                | D/C  | 2047               | 0                  | 39.0        | 0.0            | 39.0   |
| 19             | , 05 KV          | NEW RANCHI-DHARAMJAIGARH                    | D/C  | 375                | 250                | 2.1         | 0.0            | 2.1  |
| 20             |                  | JHARSUGUDA-DURG<br>JHARSUGUDA-RAIGARH       | D/C<br>Q/C                                       | 116<br>182         | 129<br>152         | 0.2         | 0.0            | 0.2  |
| 22             | 400 kV           | RANCHI-SIPAT                                | D/C  | 153                | 70                 | 1.5         | 0.0            | 1.5  |
| 23             | 220 1 17         | BUDHIPADAR-RAIGARH                          | S/C  | 0                  | 120                | 0.0         | 2.1            | -2.1   |
| 24             | 220 kV           | BUDHIPADAR-KORBA                            | D/C  | 182                | 0                  | 3.2         | 0.0            | 3.2  |
|                |                  |   |  |                    | ER-WR              | 46.1        | 2.1            | 44.1   |
| •              | · -              | ER (With SR)                                | 1 1  |                    |                    |             |                | 1  |
| 25             |                  | ANGUL-SRIKAKULAM                            | D/C  | 0.0                | 2144.0             | 0.0         | 41.2           | -41.2  |
| 26             | HVDC<br>LINK     | JEYPORE-GAZUWAKA B/B                        | D/C  | 0.0                | 694.0              | 0.0         | 16.4           | -16.4  |
| 27<br>28       | 400 kV           | TALCHER-KOLAR BIPOLE<br>TALCHER-I/C         | D/C<br>D/C                                       | 0.0                | 1979.0<br>668.0    | 0.0         | 47.8<br>5.4    | -47.8<br>-5.4                                  |
| 29             | 220 kV           | BALIMELA-UPPER-SILERRU                      | S/C  | 1.0                | 0.0                | 0.0         | 0.0            | 0.0  |
| - 27           | 220 111          | D. I.D. WILLEY CT I EX GILLIAGO             | 5,0  | 1.0                | ER-SR              | 0.0         | 105.4          | -105.4   |
| Import/E       | Export of        | ER (With NER)                               |  |                    |                    |             |                |  |
| 30             | 400 kV           | BINAGURI-BONGAIGAON                         | D/C  | 364                | 0                  | 5.5         | 0.0            | 5  |
| 31             | 400 KV           | ALIPURDUAR-BONGAIGAON                       | D/C  | 458                | 0                  | 7.3         | 0.0            | 7  |
| 32             | 220 kV           | ALIPURDUAR-SALAKATI                         | D/C  | 75                 | 1                  | 1.1         | 0.0            | 1  |
| T 4/70         |                  | NED AVAL ND                                 |  |                    | ER-NER             | 13.9        | 0.0            | 13.9   |
| 33             | HVDC             | NER (With NR) BISWANATH CHARIALI-AGRA       | 1 1  | 654                | 0                  | 16.0        | 0.0            | 16.0   |
| 33             | HVDC             | DISWANATH CHARIALI-AGRA                     |  | 034                | NER-NR             |             | 0.0            | 16.0   |
| Import/E       | Export of        | WR (With NR)                                |  |                    | 1124114            | 10.0        | 0.0            | 10.0   |
| 34             | Ĺ                | CHAMPA-KURUKSHETRA                          | D/C  | 0                  | 849                | 0.0         | 11.9           | -11.9  |
| 35             | HVDC             | V'CHAL B/B                                  | D/C  | 244                | 2                  | 6.1         | 0.0            | 6.1  |
| 36             | <u></u>          | APL -MHG                                    | D/C  | 0                  | 1265               | 0.0         | 27.1           | -27.1  |
| 37             |                  | GWALIOR-AGRA                                | D/C  | 0                  | 2085               | 0.0         | 32.5           | -32.5  |
| 38             | 1                | PHAGI-GWALIOR                               | D/C  | 0                  | 1051               | 0.0         | 17.2           | -17.2  |
| 39             | 765 kV           | JABALPUR-ORAI                               | D/C  | 0                  | 657                | 0.0         | 15.8           | -15.8  |
| 40             | -                | GWALIOR-ORAI                                | S/C  | 484                | 0                  | 9.8         | 0.0            | 9.8  |
| 41<br>42       | ł                | SATNA-ORAI CHITODGADH BANASKANTHA           | S/C<br>D/C                                       | 644                | 1286<br>343        | 0.0<br>4.9  | 25.1<br>0.0    | -25.1<br>4.9                                   |
| 42             |                  | CHITORGARH-BANASKANTHA<br>ZERDA-KANKROLI    | D/C<br>S/C                                       | 262                | 8                  | 4.9         | 0.0            | 4.9  |
| 43             | 1                | ZERDA-BHINMAL                               | S/C  | 194                | 84                 | 2.0         | 0.0            | 2.0  |
| 45             | 400 kV           | V'CHAL -RIHAND                              | S/C  | 968                | 0                  | 22.2        | 0.0            | 22.2   |
| 46             | 1                | RAPP-SHUJALPUR                              | D/C  | 176                | 245                | 0           | 0              | 0  |
| 47             |                  | BADOD-KOTA                                  | S/C  | 44                 | 50                 | 0.2         | 0.5            | -0.3   |
| 48             | 220 kV           | BADOD-MORAK                                 | S/C  | 10                 | 75                 | 0.0         | 0.9            | -0.9   |
| 49             | 220 KV           | MEHGAON-AURAIYA                             | S/C  | 58                 | 0                  | 0.7         | 0.0            | 0.7  |
| 50             |                  | MALANPUR-AURAIYA                            | S/C  | 33                 | 29                 | 0.2         | 0.1            | 0.1  |
| 51             | 132kV            | GWALIOR-SAWAI MADHOPUR                      | S/C  | 0                  | 0                  | 0.0         | 0.0            | 0.0  |
| Import/F       | vnest -P         | WD (With CD)                                |  |                    | WR-NR              | 50.1        | 131.2          | -81.0  |
| Import/E<br>52 | _                | WR (With SR) BHADRAWATI B/B                 | <del>                                     </del> | 0                  | 485                | 0.0         | 11.4           | -11.4  |
| 53             | HVDC<br>LINK     | BARSUR-L.SILERU                             | -  | 0                  | 0                  | 0.0         | 0.0            | 0.0  |
| 54             |                  | SOLAPUR-RAICHUR                             | D/C  | 0                  | 2097               | 0.0         | 32.6           | -32.6  |
| 55             | 765 kV           | WARDHA-NIZAMABAD                            | D/C  | 0                  | 2414               | 0.0         | 42.3           | -42.3  |
| 56             | 400 kV           | KOLHAPUR-KUDGI                              | D/C  | 687                | 63                 | 5.6         | 0.0            | 5.6  |
| 57             |                  | KOLHAPUR-CHIKODI                            | D/C  | 0                  | 0                  | 0.0         | 0.0            | 0.0  |
| 58             | 220 kV           | PONDA-AMBEWADI                              | S/C  | 1                  | 0                  | 0.0         | 0.0            | 0.0  |
| 59             |                  | XELDEM-AMBEWADI                             | S/C  | 0                  | 64                 | 1.3         | 0.0            | 1.3  |
|                | -                |   |  |                    | WR-SR              | 6.9         | 86.2           | -79.3  |
|                |                  |   |  |                    |                    |             |                |  |
|                |                  | TR  | RANSNATI   | ONAL EXCHA         | NGE                |             |                |  |
| 60             |                  | BHUTAN                                      | RANSNATI   | ONAL EXCHA         | ANGE               |             |                | 11.1   |
| 60<br>61<br>62 |                  |   | RANSNATI   | ONAL EXCHA         | ANGE               |             |                | 11.1<br>-7.2<br>-21.5                          |