

## 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: 16<sup>th</sup> Feb 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 – 793006 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 15.02.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 15-फ़रवरी-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 15<sup>th</sup> February 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 16-Feb-19

#### A. Maximum Demand

|   | NR    | WR    | SR    | ER    | NER   | Total  |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW)<br>(at 1900 hrs: from RLDCs) | 42345 | 45221 | 42783 | 17500 | 2457  | 150306 |
| Peak Shortage (MW)  | 587   | 0     | 50    | 0     | 37    | 674    |
| Energy Met (MU)   | 862   | 1075  | 999   | 373   | 43    | 3352   |
| Hydro Gen (MU)  | 133   | 18    | 90    | 28    | 3     | 272    |
| Wind Gen (MU)   | 7     | 40    | 29    |       |       | 76     |
| Solar Gen (MU)*   | 22.10 | 22.05 | 73.15 | 0.84  | 0.05  | 118    |
| Energy Shortage (MU)  | 10.4  | 0.0   | 0.2   | 0.0   | 0.3   | 10.9   |
| Maximum Demand Met during the day                                   | 44141 | 52796 | 45366 | 18659 | 2395  | 156391 |
| (MW) & time (from NLDC SCADA)                                       | 19:00 | 11:01 | 09:28 | 18:58 | 18:14 | 09:55  |

| 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               | 0.053 | 0.02  | 1.12      | 10.95     | 12.09 | 69.76      | 18.15   |

| 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            | 5249                                      | 0   | 105.3           | 36.8                    | -1.1                | 42             | 0.0                    |
|        | Haryana           | 6124                                      | 0   | 116.5           | 79.9                    | 0.3                 | 174            | 0.0                    |
|        | Rajasthan         | 11845                                     | 0   | 230.5           | 61.9                    | -2.2                | 187            | 0.0                    |
|        | Delhi             | 4049                                      | 0   | 68.5            | 55.2                    | -0.4                | 249            | 0.1                    |
| NR     | UP                | 13382                                     | 0   | 236.4           | 93.2                    | -0.1                | 376            | 0.0                    |
|        | Uttarakhand       | 2039                                      | 0   | 35.8            | 22.9                    | -1.3                | 138            | 0.0                    |
|        | HP                | 1498                                      | 0   | 26.9            | 21.7                    | -2.0                | 21             | 1.1                    |
|        | J&K               | 2080                                      | 520                                       | 38.6            | 44.3                    | -15.2               | -310           | 9.2                    |
|        | Chandigarh        | 220                                       | 0   | 3.5             | 4.0                     | -0.4                | 11             | 0.0                    |
|        | Chhattisgarh      | 4023                                      | 0   | 85.9            | 27.5                    | -0.7                | 460            | 0.0                    |
|        | Gujarat           | 14794                                     | 0   | 324.4           | 105.3                   | 2.7                 | 642            | 0.0                    |
|        | MP                | 10297                                     | 0   | 198.8           | 95.5                    | -0.5                | 532            | 0.0                    |
| WR     | Maharashtra       | 20046                                     | 0   | 418.4           | 128.4                   | 0.4                 | 683            | 0.0                    |
| WK     | Goa               | 498                                       | 0   | 11.9            | 11.7                    | -0.4                | 181            | 0.0                    |
|        | DD                | 327                                       | 0   | 7.3             | 7.1                     | 0.2                 | 84             | 0.0                    |
|        | DNH               | 777                                       | 0   | 18.3            | 18.2                    | 0.1                 | 101            | 0.0                    |
|        | Essar steel       | 525                                       | 0   | 10.4            | 10.8                    | -0.4                | 255            | 0.0                    |
|        | Andhra Pradesh    | 8310                                      | 0   | 175.9           | 67.0                    | 1.1                 | 455            | 0.0                    |
|        | Telangana         | 9163                                      | 0   | 192.1           | 65.1                    | -0.3                | 579            | 0.0                    |
| SR     | Karnataka         | 11842                                     | 0   | 226.2           | 77.6                    | 0.7                 | 642            | 0.0                    |
| JN.    | Kerala            | 3738                                      | 0   | 75.9            | 59.0                    | 0.5                 | 219            | 0.2                    |
|        | Tamil Nadu        | 14764                                     | 0   | 321.4           | 172.8                   | 0.2                 | 672            | 0.0                    |
|        | Pondy             | 364                                       | 0   | 7.5             | 7.7                     | -0.2                | 45             | 0.0                    |
|        | Bihar             | 3984                                      | 0   | 70.8            | 64.8                    | 0.9                 | 460            | 0.0                    |
|        | DVC               | 3057                                      | 0   | 64.3            | -41.9                   | 0.3                 | 396            | 0.0                    |
| ER     | Jharkhand         | 999                                       | 0   | 22.2            | 16.8                    | -1.0                | 169            | 0.0                    |
| -11    | Odisha            | 5108                                      | 0   | 83.6            | 32.8                    | 0.4                 | 267            | 0.0                    |
|        | West Bengal       | 6761                                      | 0   | 130.4           | 25.0                    | 0.9                 | 309            | 0.0                    |
|        | Sikkim            | 100                                       | 0   | 1.5             | 1.6                     | -0.1                | 18             | 0.0                    |
|        | Arunachal Pradesh | 112                                       | 2   | 2.2             | 2.5                     | -0.3                | 21             | 0.0                    |
|        | Assam             | 1438                                      | 22  | 24.0            | 19.3                    | 1.1                 | 102            | 0.3                    |
| NER    | Manipur           | 178                                       | 3   | 2.8             | 2.7                     | 0.1                 | 29             | 0.0                    |
|        | Meghalaya         | 368                                       | 0   | 6.1             | 5.0                     | -0.3                | 36             | 0.0                    |
|        | Mizoram           | 96  | 1   | 1.9             | 1.5                     | 0.3                 | 14             | 0.0                    |
|        | Nagaland          | 126                                       | 2   | 2.1             | 2.0                     | 0.0                 | 21             | 0.0                    |
|        | Tripura           | 224                                       | 0   | 3.9             | 1.8                     | 0.1                 | 39             | 0.0                    |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 1.5    | -6.0   | 11.4       |
| Day peak (MW) | 132.7  | -332.0 | -889.0     |

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

|              | NR    | WR     | SR    | ER    | NER | TOTAL |
|--------------|-------|--------|-------|-------|-----|-------|
| Schedule(MU) | 154.9 | -189.4 | 116.7 | -87.5 | 5.3 | 0.0   |
| Actual(MU)   | 138.5 | -187.9 | 131.0 | -83.2 | 6.1 | 4.5   |
| O/D/U/D(MU)  | -16.3 | 1.5    | 14.3  | 4.3   | 0.8 | 4.6   |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 4505  | 16650 | 6482  | 1370 | 628 | 29635 |
| State Sector   | 10980 | 14564 | 7840  | 4375 | 50  | 37809 |
| Total          | 15485 | 31214 | 14322 | 5745 | 678 | 67444 |

|                                      | NR   | WR   | SR    | ER   | NER  | All India |
|--------------------------------------|------|------|-------|------|------|-----------|
| Coal                                 | 492  | 1102 | 533   | 464  | 9    | 2599      |
| Lignite                              | 19   | 17   | 62    | 0    | 0    | 97        |
| Hydro                                | 133  | 18   | 90    | 28   | 3    | 272       |
| Nuclear                              | 9    | 31   | 36    | 0    | 0    | 76        |
| Gas, Naptha & Diesel                 | 29   | 33   | 18    | 0    | 29   | 109       |
| RES (Wind, Solar, Biomass & Others)  | 60   | 64   | 144   | 1    | 0    | 269       |
| Total                                | 742  | 1265 | 883   | 493  | 41   | 3424      |
|                                      | •    | •    | •     |      |      | •         |
| Share of RES in total generation (%) | 8.04 | 5.06 | 16.36 | 0.18 | 0.12 | 7.86      |
|                                      |      |      |       |      |      |           |

| Share of RES in total generation (%)         | 8.04  | 5.06 | 16.36 | 0.18 | 0.12 | 7.86  |
|--|-------|------|-------|------|------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and | 27.24 | 8.94 | 30.59 | 5 03 | 7 22 | 18.03 |
| RES) in total generation (%)                 | 27.24 | 0.94 | 30.59 | 5.95 | 1.22 | 16.03 |

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

|          |                    | INTE   | R-REGIO    | ONAL EX       | CHANGES         | Date of I   | Reporting : | 16-Feb-19                                |
|----------|--------------------|--|------------|---------------|-----------------|-------------|-------------|--|
|          |                    |  |            |               |                 | Date of I   | porting .   |  |
|          |                    |  |            |               |                 |             |             | Import=(+ve) /Export =(-ve) for NET (MU) |
| Sl No    | Voltage            | Line Details                                 | Circuit    | Max<br>Import | Max Export (MW) | Import (MU) | Export      | NET                                      |
| Import/E | Level<br>Export of | ER (With NR)                                 |            | (MW)          |                 |             | (MU)        | (MU)                                     |
| 1        | 7651-37            | GAYA-VARANASI                                | D/C        | 0             | 395             | 0.0         | 4.5         | -4.5                                     |
| 3        | 765kV              | SASARAM-FATEHPUR<br>GAYA-BALIA               | S/C<br>S/C | 0             | 271<br>367      | 0.0         | 3.0<br>5.7  | -3.0<br>-5.7                             |
| 4        | HVDC               | ALIPURDUAR-AGRA                              | -          | 0             | 0               | 0.0         | 0.0         | 0.0                                      |
| 5        |                    | PUSAULI B/B                                  | S/C<br>S/C | 0             | 147<br>111      | 0.0         | 3.6<br>2.3  | -3.6<br>-2.3                             |
| 7        |                    | PUSAULI-VARANASI<br>PUSAULI -ALLAHABAD       | S/C        | 0             | 84              | 0.0         | 1.1         | -2.3                                     |
| 8        |                    | MUZAFFARPUR-GORAKHPUR                        | D/C        | 0             | 510             | 0.0         | 6.6         | -6.6                                     |
| 9        | 400 kV             | PATNA-BALIA                                  | Q/C        | 0             | 1020            | 0.0         | 18.6        | -18.6                                    |
| 10       |                    | BIHARSHARIFF-BALIA                           | D/C        | 0             | 378             | 0.0         | 3.3         | -3.3                                     |
| 11       |                    | MOTIHARI-GORAKHPUR                           | D/C<br>D/C | 63            | 333<br>219      | 0.0         | 6.5<br>1.9  | -6.5<br>-1.9                             |
| 13       | 220 kV             | BIHARSHARIFF-VARANASI<br>PUSAULI-SAHUPURI    | S/C        | 0             | 148             | 0.0         | 2.7         | -2.7                                     |
| 14       | 220 111            | SONE NAGAR-RIHAND                            | S/C        | 0             | 0               | 0.0         | 0.0         | 0.0                                      |
| 15       | 132 kV             | GARWAH-RIHAND                                | S/C        | 30            | 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        | 1             | 0<br>ED ND      | 0.0         | 0.0         | 0.0                                      |
| Import/F | Export of          | ER (With WR)                                 |            |               | ER-NR           | 0.6         | 59.7        | -59.2                                    |
| 18       |                    | JHARSUGUDA-DHARAMJAIGARH S/C                 | D/C        | 1191          | 0               | 20.1        | 0.0         | 20.1                                     |
| 19       | 765 kV             | NEW RANCHI-DHARAMJAIGARH                     | D/C<br>D/C | 120           | 571             | 0.0         | 5.1         | -5.1                                     |
| 20       | 400 1.77           | JHARSUGUDA-RAIGARH                           | Q/C        | 350           | 223             | 0.0         | 0.0         | 0.4                                      |
| 21       | 400 kV             | RANCHI-SIPAT                                 | D/C        | 155           | 97              | 1.0         | 0.0         | 1.0                                      |
| 22       | 220 kV             | BUDHIPADAR-RAIGARH                           | S/C        | 47            | 123             | 0.0         | 1.1         | -1.1                                     |
| 23       |                    | BUDHIPADAR-KORBA                             | D/C        | 126           | 0<br>ER-WR      | 1.6         | 0.0         | 1.6                                      |
| Import/E | Export of          | ER (With SR)                                 |            |               | EK-WK           | 23.1        | 6.1         | 16.9                                     |
| 24       |                    | ANGUL-SRIKAKULAM                             | D/C        | 0.0           | 1744.0          | 0.0         | 32.5        | -32.5                                    |
| 25       |                    | JEYPORE-GAZUWAKA B/B                         | D/C        | 0.0           | 685.0           | 0.0         | 16.0        | -16.0                                    |
| 26       | LINK               | TALCHER-KOLAR BIPOLE                         | D/C        | 0.0           | 2258.0          | 0.0         | 46.4        | -46.4                                    |
| 27       | 400 kV<br>220 kV   | TALCHER-I/C<br>BALIMELA-UPPER-SILERRU        | D/C<br>S/C | 59.0<br>1.0   | 491.0<br>0.0    | 0.0         | 4.6<br>0.0  | -4.6<br>0.0                              |
| 20       | 220 K              | BALINILLA-UITEK-SILLKKU                      | 3/C        | 1.0           | ER-SR           | 0.0         | 94.9        | -94.9                                    |
| Import/E | Export of          | ER (With NER)                                |            |               |                 |             |             |  |
| 29       | 400 kV             | BINAGURI-BONGAIGAON                          | D/C        | 231           | 60              | 3.4         | 0.0         | 3  |
| 30       | 220 kV             | ALIPURDUAR-BONGAIGAON<br>ALIPURDUAR-SALAKATI | D/C<br>D/C | 366<br>84     | 0<br>37         | 5.2<br>0.5  | 0.0         | 5  |
| 31       | 220 KV             | ALIFUNDUAR-SALAKATI                          | D/C        | 04            | ER-NER          | 9.1         | 0.0         | 9.1                                      |
|          |                    | NER (With NR)                                |            |               |                 |             |             |  |
| 32       | HVDC               | BISWANATH CHARIALI-AGRA                      | =          | 665           | 0               | 16.3        | 0.0         | 16.3                                     |
| Import/E | export of          | WR (With NR)                                 |            |               | NER-NR          | 16.3        | 0.0         | 16.3                                     |
| 33       | Aport or           | CHAMPA-KURUKSHETRA                           | D/C        | 0             | 1004            | 0.0         | 23.8        | -23.8                                    |
| 34       | HVDC               | V'CHAL B/B                                   | D/C        | 241           | 0               | 6.1         | 0.0         | 6.1                                      |
| 35       |                    | APL -MHG                                     | D/C        | 0             | 1644            | 0.0         | 37.8        | -37.8                                    |
| 36       |                    | GWALIOR-AGRA                                 | D/C        | 0             | 1920            | 0.0         | 32.3        | -32.3                                    |
| 37<br>38 | 765 kV             | PHAGI-GWALIOR<br>JABALPUR-ORAI               | D/C<br>D/C | 73            | 880<br>561      | 0.0         | 9.7<br>15.4 | -9.7<br>-15.4                            |
| 39       | 705 K              | GWALIOR-ORAI                                 | S/C        | 610           | 0               | 11.5        | 0.0         | 11.5                                     |
| 40       |                    | SATNA-ORAI                                   | S/C        | 0             | 1123            | 0.0         | 21.3        | -21.3                                    |
| 41       |                    | ZERDA-KANKROLI                               | S/C        | 200           | 16              | 3.4         | 0.0         | 3.4                                      |
| 42       | 400 kV             | ZERDA -BHINMAL                               | S/C        | 191           | 175             | 0.0         | 0.4         | -0.4                                     |
| 43       |                    | V'CHAL -RIHAND                               | S/C        | 955           | 0               | 18.8        | 0.0         | 18.8                                     |
| 44       |                    | RAPP-SHUJALPUR<br>BADOD-KOTA                 | D/C<br>S/C | 176<br>38     | 184<br>27       | 0.3         | 0.0         | 0.3                                      |
| 46       | 220                | BADOD-MORAK                                  | S/C        | 12            | 90              | 0.0         | 0.9         | -0.9                                     |
| 47       | 220 kV             | MEHGAON-AURAIYA                              | S/C        | 92            | 0               | 1.1         | 0.0         | 1.1                                      |
| 48       |                    | MALANPUR-AURAIYA                             | S/C        | 52            | 15              | 0.4         | 0.0         | 0.3                                      |
| 49       | 132kV              | GWALIOR-SAWAI MADHOPUR                       | S/C        | 0             | 0<br>WR-NR      | 0.0         | 0.0         | 0.0                                      |
| Import/F | export of          | WR (With SR)                                 |            |               | WK-NR           | 41.5        | 141.6       | -100.2                                   |
| 50       |                    | BHADRAWATI B/B                               | -          | 0             | 999             | 0.0         | 23.2        | -23.2                                    |
| 51       |                    | BARSUR-L.SILERU                              | -          | 0             | 0               | 0.0         | 0.0         | 0.0                                      |
| 52       | 765 kV             | SOLAPUR-RAICHUR                              | D/C        | 46            | 1841            | 0.0         | 25.0        | -25.0                                    |
| 53       |                    | WARDHA-NIZAMABAD                             | D/C        | 702           | 1939            | 0.0         | 29.7        | -29.7                                    |
| 54<br>55 | 400 kV             | KOLHAPUR-KUDGI<br>KOLHAPUR-CHIKODI           | D/C<br>D/C | 793           | 0               | 8.5<br>0.0  | 0.0         | 8.5<br>0.0                               |
| 56       | 220 kV             | PONDA-AMBEWADI                               | S/C        | 0             | 73              | 0.0         | 1.2         | -1.2                                     |
| 57       |                    | XELDEM-AMBEWADI                              | S/C        | 0             | 53              | 0.9         | 0.0         | 0.9                                      |
|          |                    |  |            |               | WR-SR           | 9.4         | 79.1        | -69.7                                    |
|          |                    | TRA  | NSNATIO    | ONAL EX       | CHANGE          |             |             |  |
| 58       |                    | BHUTAN                                       |            |               |                 | -           |             | 1.5                                      |
| 59<br>60 |                    | NEPAL<br>BANGLADESH                          | 1          |               |                 |             |             | -6.0<br>11.4                             |
|          |                    |  |            |               |                 |             |             | 11.4                                     |