

## 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: 15<sup>th</sup> Feb 2020

To,

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ 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. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. 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 14.02.2020.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 14-फरवरी-2020 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा०भा०प्रे०के० 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 14<sup>th</sup> Feb 2020, 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 15-Feb-20

A. Power Supply Position at All India and Regional level

|   | NR    | WR    | SR     | ER    | NER   | Total  |
|---|-------|-------|--------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW) (at 1900<br>hrs; from RLDCs) | 48381 | 50139 | 47376  | 17836 | 2428  | 166160 |
| Peak Shortage (MW)  | 1044  | 0     | 0      | 0     | 42    | 1086   |
| Energy Met (MU)   | 973   | 1225  | 1069   | 359   | 43    | 3669   |
| Hydro Gen (MU)  | 127   | 49    | 91     | 31    | 3     | 300    |
| Wind Gen (MU)   | 8     | 32    | 19     |       |       | 59     |
| Solar Gen (MU)*   | 40.85 | 27.40 | 101.94 | 1.53  | 0.03  | 172    |
| Energy Shortage (MU)  | 12.1  | 0.0   | 0.0    | 0.0   | 0.7   | 12.7   |
| Maximum Demand Met during the day (MW) & time                       | 49453 | 56978 | 49260  | 18538 | 2523  | 172970 |
| (from NLDC SCADA)   | 08:35 | 09:25 | 08:07  | 18:54 | 18:09 | 07:45  |

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 | 0.040 | 0.00  | 0.61      | 6.55      | 7.16  | 75.87      | 16.97   |

C. Power Supply Position in States

| 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                 | 6393                                      | 0   | 131.4           | 78.3                    | -1.1                | 114            | 0.0                     |
|        | Haryana                | 6690                                      | 0   | 136.8           | 87.4                    | -0.3                | 223            | 0.0                     |
|        | Rajasthan              | 14144                                     | 0   | 248.1           | 84.4                    | 3.0                 | 370            | 0.0                     |
|        | Delhi                  | 4016                                      | 0   | 66.8            | 51.3                    | -0.8                | 212            | 0.0                     |
| NR     | UP                     | 15442                                     | 0   | 273.9           | 110.8                   | 0.9                 | 1198           | 0.5                     |
|        | Uttarakhand            | 2082                                      | 0   | 37.2            | 18.1                    | -0.1                | 114            | 0.0                     |
|        | HP                     | 1635                                      | 0   | 27.2            | 20.9                    | -0.8                | 265            | 0.0                     |
|        | J&K(UT) and Ladakh(UT) | 2438                                      | 1219                                      | 48.3            | 45.0                    | -0.4                | 229            | 11.5                    |
|        | Chandigarh             | 247                                       | 0   | 3.7             | 3.6                     | 0.1                 | 26             | 0.0                     |
|        | Chhattisgarh           | 3825                                      | 0   | 82.6            | 34.3                    | -1.2                | 160            | 0.0                     |
|        | Gujarat                | 15893                                     | 0   | 348.7           | 102.0                   | 4.0                 | 529            | 0.0                     |
|        | MP                     | 14674                                     | 0   | 271.4           | 141.6                   | -2.3                | 802            | 0.0                     |
| WR     | Maharashtra            | 22934                                     | 0   | 474.7           | 153.3                   | 1.1                 | 980            | 0.0                     |
| WK     | Goa                    | 508                                       | 0   | 11.3            | 10.7                    | 0.0                 | 49             | 0.0                     |
|        | DD                     | 331                                       | 0   | 7.4             | 7.0                     | 0.4                 | 37             | 0.0                     |
|        | DNH                    | 785                                       | 0   | 18.5            | 18.5                    | 0.0                 | 44             | 0.0                     |
|        | Essar steel            | 773                                       | 0   | 10.8            | 11.2                    | -0.4                | 227            | 0.0                     |
|        | Andhra Pradesh         | 9298                                      | 0   | 189.0           | 69.0                    | -0.5                | 362            | 0.0                     |
|        | Telangana              | 11164                                     | 0   | 225.7           | 114.3                   | 0.2                 | 495            | 0.0                     |
| SR     | Karnataka              | 12747                                     | 0   | 244.6           | 92.0                    | -0.5                | 557            | 0.0                     |
| 311    | Kerala                 | 3795                                      | 0   | 77.6            | 59.5                    | 0.7                 | 260            | 0.0                     |
|        | Tamil Nadu             | 14726                                     | 0   | 324.0           | 165.0                   | 3.2                 | 430            | 0.0                     |
|        | Pondy                  | 370                                       | 0   | 7.8             | 7.9                     | -0.1                | 42             | 0.0                     |
|        | Bihar                  | 4162                                      | 0   | 75.6            | 72.0                    | 1.7                 | 400            | 0.0                     |
|        | DVC                    | 3144                                      | 0   | 63.4            | -38.0                   | 0.1                 | 300            | 0.0                     |
| ER     | Jharkhand              | 1275                                      | 0   | 23.0            | 18.9                    | 0.1                 | 100            | 0.0                     |
| LIN    | Odisha                 | 4024                                      | 0   | 73.6            | 0.4                     | 2.2                 | 350            | 0.0                     |
|        | West Bengal            | 6576                                      | 0   | 121.7           | 32.7                    | -0.7                | 100            | 0.0                     |
|        | Sikkim                 | 131                                       | 0   | 2.0             | 1.9                     | 0.1                 | 40             | 0.0                     |
|        | Arunachal Pradesh      | 120                                       | 2   | 2.2             | 2.4                     | -0.3                | 13             | 0.0                     |
|        | Assam                  | 1402                                      | 34  | 23.6            | 20.9                    | 1.2                 | 140            | 0.4                     |
|        | Manipur                | 194                                       | 1   | 2.7             | 3.0                     | -0.3                | 35             | 0.0                     |
| NER    | Meghalaya              | 380                                       | 3   | 6.7             | 5.7                     | -0.1                | 35             | 0.2                     |
|        | Mizoram                | 106                                       | 1   | 1.6             | 1.7                     | -0.4                | 20             | 0.0                     |
|        | Nagaland               | 129                                       | 2   | 2,2             | 2.0                     | 0.1                 | 36             | 0.0                     |
|        | Tripura                | 223                                       | 9   | 3.8             | 1.6                     | -0.3                | 28             | 0.0                     |

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

|               | Bhutan | Nepal  | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU)    | 2.6    | -10.9  | -6.9       |
| Day peak (MW) | 328.3  | -569.8 | -627.0     |

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

|              | NR    | WR     | SR    | ER     | NER  | TOTAL |
|--------------|-------|--------|-------|--------|------|-------|
| Schedule(MU) | 239.8 | -262.6 | 123.6 | -113.0 | 7.5  | -4.7  |
| Actual(MU)   | 231.1 | -270.1 | 148.9 | -122,1 | 7.4  | -4.9  |
| O/D/U/D(MU)  | -8.8  | -7.5   | 25.3  | -9.0   | -0.1 | -0.1  |

F. Generation Outage(MW)

|                | NR    | WR    | SR    | ER   | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 5301  | 12988 | 5372  | 1540 | 668 | 25869 |
| State Sector   | 12325 | 14964 | 7175  | 5050 | 11  | 39525 |
| Total          | 17626 | 27952 | 12547 | 6590 | 680 | 65395 |

G. Sourcewise generation (MU)

|                                     | NR  | WR   | SR  | ER  | NER | All India |
|-------------------------------------|-----|------|-----|-----|-----|-----------|
| Coal                                | 482 | 1286 | 586 | 475 | 14  | 2843      |
| Lignite                             | 21  | 14   | 58  | 0   | 0   | 93        |
| Hydro                               | 127 | 49   | 91  | 31  | 3   | 300       |
| Nuclear                             | 24  | 36   | 19  | 0   | 0   | 79        |
| Gas, Naptha & Diesel                | 37  | 44   | 16  | 0   | 23  | 120       |
| RES (Wind, Solar, Biomass & Others) | 75  | 69   | 158 | 2   | 0   | 304       |
| Total                               | 765 | 1498 | 928 | 507 | 40  | 3738      |

| Share of RES in total generation (%)   | 9.85  | 4.60  | 17.01 | 0.31 | 0.07 | 8.12  |
|--|-------|-------|-------|------|------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and RES) in<br>total generation (%) | 29.52 | 10.26 | 28.85 | 6.37 | 8.22 | 18.27 |

H. All India Demand Diversity Factor

| 11 111 India Demand Diversity Luctor |       |  |
|--------------------------------------|-------|--|
| Based on Regional Max Demands        | 1.022 |  |
| Based on State Max Demands           | 1.080 |  |

Diversity factor = Sum of regional or state-wise maximum demands / All India maximum demand

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

|                |                    | IN   | TER-REGI   | ONAL EXCH          | ANGES              | Date of     | Reporting :  | : 15-Feb-20                                    |
|----------------|--------------------|--|------------|--------------------|--------------------|-------------|--------------|--|
|                |                    |  |            |                    |                    | Dute of     | teporting .  |  |
|                |                    |  |            |                    |                    |             |              | Import=(+ve)<br>/Export =(-ve)<br>for NET (MU) |
| Sl No          | Voltage            | Line Details                                 | Circuit    | Max Import<br>(MW) | Max Export<br>(MW) | Import (MU) | Export       | NET  |
| Import/E       | Level<br>Export of | ER (With NR)                                 |            |                    |                    |             | (MU)         | (MU)   |
| 4              | HVDC               | ALIPURDUAR-AGRA                              | -          | 0                  | 500                | 0.0         | 5.7          | -5.7   |
| 5              |                    | PUSAULI B/B                                  | S/C        | 0                  | 378                | 0.0         | 9.5          | -9.5   |
| 2              | 765kV              | GAYA-VARANASI<br>SASARAM-FATEHPUR            | D/C<br>S/C | 0<br>119           | 786<br>208         | 0.0         | 9.8          | -9.8<br>-1.1                                   |
| 3              |                    | GAYA-BALIA                                   | S/C        | 0                  | 487                | 0.0         | 8.4          | -8.4   |
| 6              |                    | PUSAULI-VARANASI                             | S/C        | 0                  | 285                | 0.0         | 6.0          | -6.0   |
| 7              | _                  | PUSAULI -ALLAHABAD                           | S/C        | 0                  | 182                | 0.0         | 3.2          | -3.2   |
| 9              | 400 kV             | MUZAFFARPUR-GORAKHPUR<br>PATNA-BALIA         | D/C<br>O/C | 263<br>0           | 276<br>846         | 0.0         | 1.1          | -1.1<br>-14.3                                  |
| 10             | 1                  | BIHARSHARIFF-BALIA                           | D/C        | 6                  | 340                | 0.0         | 5.2          | -5.2   |
| 11             |                    | MOTIHARI-GORAKHPUR                           | D/C        | 0                  | 492                | 0.0         | 9.0          | -9.0   |
| 12             |                    | BIHARSHARIFF-VARANASI                        | D/C        | 230                | 204                | 0.0         | 0.0          | 0.0  |
| 13             | 220 kV             | PUSAULI-SAHUPURI                             | S/C        | 0                  | 172                | 0.0         | 3.1          | -3.1   |
| 14             |                    | SONE NAGAR-RIHAND                            | S/C        | 30                 | 0                  | 0.0         | 0.0          | 0.0  |
| 16             | 132 kV             | GARWAH-RIHAND<br>KARMANASA-SAHUPURI          | S/C<br>S/C | 0                  | 0                  | 0.5         | 0.0          | 0.5  |
| 17             |                    | KARMANASA-CHANDAULI                          | S/C        | 0                  | 0                  | 0.0         | 0.0          | 0.0  |
|                |                    | ·  |            |                    | ER-NR              | 0.5         | 76.3         | -75.8  |
| Import/E       | Export of          | ER (With WR)                                 |            |                    |                    |             |              |  |
| 18             |                    | JHARSUGUDA-DHARAMJAIGARH                     | Q/C        | 1454               | 0                  | 24.6        | 0.0          | 24.6   |
| 19             | 765 kV             | NEW RANCHI-DHARAMJAIGARH                     | D/C        | 974                | 0                  | 9.6         | 0.0          | 9.6  |
| 20             |                    | JHARSUGUDA-DURG                              | D/C        | 44                 | 138                | 0.0         | 1.3          | -1.3   |
| 21             | 400 kV             | JHARSUGUDA-RAIGARH<br>RANCHI-SIPAT           | Q/C<br>D/C | 54<br>301          | 406<br>0           | 0.0<br>3.1  | 2.6<br>0.0   | -2.6<br>3.1                                    |
| 23             |                    | BUDHIPADAR-RAIGARH                           | S/C        | 0                  | 0                  | 0.0         | 0.0          | 0.0  |
| 24             | 220 kV             | BUDHIPADAR-KORBA                             | D/C        | 87                 | 0                  | 1.1         | 0.0          | 1.1  |
|                |                    |  |            |                    | ER-WR              | 38.4        | 3.9          | 34.4   |
| _              | Export of          | ER (With SR)                                 |            |                    |                    |             |              | T  |
| 26<br>27       | HVDC               | JEYPORE-GAZUWAKA B/B<br>TALCHER-KOLAR BIPOLE | D/C<br>D/C | 0.0                | 703.0<br>2463.0    | 0.0         | 15.4<br>49.7 | -15.4<br>-49.7                                 |
| 25             | 765 kV             | ANGUL-SRIKAKULAM                             | D/C        | 0.0                | 2627.0             | 0.0         | 51.0         | -49.7  |
| 28             | 400 kV             | TALCHER-I/C                                  | D/C        | 0.0                | 633.0              | 0.0         | 4.6          | -4.6   |
| 29             | 220 kV             | BALIMELA-UPPER-SILERRU                       | S/C        | 2.0                | 0.0                | 0.0         | 0.0          | 0.0  |
|                |                    |  |            |                    | ER-SR              | 0.0         | 116.1        | -116.1   |
| _              | Export of          | ER (With NER)                                |            |                    | 505                | 0.0         | 0.0          | Т о  |
| 30             | 400 kV             | BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON    | D/C<br>D/C | 0                  | 595<br>637         | 0.0         | 9.0          | -9<br>-9                                       |
| 32             | 220 kV             | ALIPURDUAR-SALAKATI                          | D/C        | 0                  | 134                | 0.0         | 1.9          | -2   |
|                |                    |  |            | -                  | ER-NER             | 0.0         | 19.6         | -19.6  |
| Import/E       | Export of          | NER (With NR)                                |            |                    |                    |             |              |  |
| 33             | HVDC               | BISWANATH CHARIALI-AGRA                      | -          | 0                  | 504                | 0.0         | 12.1         | -12.1  |
| Import/E       | Evnort of          | WR (With NR)                                 |            |                    | NER-NR             | 0.0         | 12.1         | -12.1  |
| 34             | Aport or           | CHAMPA-KURUKSHETRA                           | D/C        | 0                  | 0                  | 0.0         | 7.4          | -7.4   |
| 35             | HVDC               | V'CHAL B/B                                   | D/C        | 449                | 105                | 4.3         | 1.6          | 2.7  |
| 36             |                    | APL -MHG                                     | D/C        | 0                  | 1919               | 0.0         | 44.2         | -44.2  |
| 37             |                    | GWALIOR-AGRA                                 | D/C        | 0                  | 2449               | 0.0         | 41.0         | -41.0  |
| 38             | -                  | PHAGI-GWALIOR                                | D/C        | 0                  | 1854               | 0.0         | 28.8         | -28.8  |
| 39<br>40       | 765 kV             | JABALPUR-ORAI<br>GWALIOR-ORAI                | D/C<br>S/C | 735                | 989                | 0.0<br>12.3 | 31.3<br>0.0  | -31.3<br>12.3                                  |
| 40             | -                  | SATNA-ORAI                                   | S/C<br>S/C | 0                  | 1415               | 0.0         | 28.2         | -28.2  |
| 42             |                    | CHITTORGARH-BANASKANTHA                      | D/C        | 334                | 846                | 0.0         | 4.2          | -4.2   |
| 43             |                    | ZERDA-KANKROLI                               | S/C        | 197                | 175                | 0.2         | 0.0          | 0.2  |
| 44             | 400 kV             | ZERDA -BHINMAL                               | S/C        | 259                | 412                | 0.0         | 2.2          | -2.2   |
| 45             | 1                  | V'CHAL -RIHAND                               | S/C        | 980                | 0                  | 23.1        | 0.0          | 23.1   |
| 46<br>47       |                    | RAPP-SHUJALPUR<br>BHANPURA-RANPUR            | D/C<br>S/C | 0                  | 448<br>32          | 1.0         | 0.1          | -2<br>0.9                                      |
| 48             | 1                  | BHANPURA-MORAK                               | S/C<br>S/C | 0                  | 35                 | 0.3         | 0.1          | -0.4   |
| 49             | 220 kV             | MEHGAON-AURAIYA                              | S/C        | 115                | 0                  | 1.7         | 0.0          | 1.7  |
| 50             |                    | MALANPUR-AURAIYA                             | S/C        | 68                 | 4                  | 0.9         | 0.0          | 0.9  |
| 51             | 132kV              | GWALIOR-SAWAI MADHOPUR                       | S/C        | 0                  | 0                  | 0.0         | 0.0          | 0.0  |
| · ·            |                    | AND ANAL OD                                  |            |                    | WR-NR              | 43.8        | 191.5        | -147.7   |
| Import/E<br>52 | T                  | WR (With SR) BHADRAWATI B/B                  |            | 0                  | 992                | 0.0         | 23.9         | -23.9  |
| 53             | HVDC               | BARSUR-L.SILERU                              | -          | 0                  | 0                  | 0.0         | 0.0          | 0.0  |
| 54             | <b></b>            | SOLAPUR-RAICHUR                              | D/C        | 68                 | 2043               | 0.0         | 26.4         | -26.4  |
| 55             | 765 kV             | WARDHA-NIZAMABAD                             | D/C        | 0                  | 2651               | 0.0         | 40.5         | -40.5  |
|                | 400 kV             | KOLHAPUR-KUDGI                               | D/C        | 897                | 0                  | 11.1        | 0.0          | 11.1   |
| 56             | 400 K 1            | WOLLS BUILD GENERALIS                        | D/C        | 0                  | 0                  | 0.0         | 0.0          | 0.0  |
| 57             |                    | KOLHAPUR-CHIKODI                             |            |                    | 100                | 0.0         | 1.6          | -1.6   |
| 57<br>58       |                    | PONDA-AMBEWADI                               | S/C        | 2                  | 109                | 0.0         |              |  |
| 57             |                    |  | S/C<br>S/C | 1                  | 94                 | 1.1         | 0.0          | 1.0  |
| 57<br>58       |                    | PONDA-AMBEWADI<br>XELDEM-AMBEWADI            | S/C        | 1                  | 94<br>WR-SR        |             |              |  |
| 57<br>58<br>59 |                    | PONDA-AMBEWADI<br>XELDEM-AMBEWADI            | S/C        |                    | 94<br>WR-SR        | 1.1         | 0.0          | 1.0<br>-80.2                                   |
| 57<br>58       |                    | PONDA-AMBEWADI<br>XELDEM-AMBEWADI            | S/C        | 1                  | 94<br>WR-SR        | 1.1         | 0.0          | 1.0  |