

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: 16th Nov 2018

Τо

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, 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 15.11.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 15-नवंबर-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 15th November 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** 16-Nov-18

A. Maximum Demand

| | NR | WR | SR | ER | NER | Total |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs) | 42885 | 49259 | 42577 | 18993 | 2392 | 156106 |
| Peak Shortage (MW) | 531 | 0 | 0 | 200 | 99 | 830 |
| Energy Met (MU) | 888 | 1157 | 959 | 354 | 43 | 3402 |
| Hydro Gen (MU) | 140 | 18 | 80 | 46 | 9 | 292 |
| Wind Gen (MU) | 7 | 40 | 37 | | | 84 |
| Solar Gen (MU)* | 20.91 | 18.7 | 66.84 | 0.82 | 0.03 | 107 |
| Energy Shortage (MU) | 10.8 | 0.0 | 0.0 | 0.6 | 0.8 | 12.1 |
| Maximum Demand Met during the day | 43550 | 54809 | 43320 | 19043 | 2491 | 157704 |
| (MW) & time (from NLDC SCADA) | 18:56 | 10:49 | 07:26 | 18:01 | 17:47 | 18:19 |

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 | 0.057 | 0.00 | 1.22 | 15.90 | 17.12 | 75.15 | 7.73 | |

| Region | States | Max. Demand Met during the day (MW) | Shortage during maximum Demand (MW) | Energy Met (MU) | Drawal Schedule (MU) | OD(+)/UD(-) (MU) | Max OD (MW) | Energy Shortage (MU) |
|--------|-------------------|---|---|-----------------|-------------------------|---------------------|----------------|-------------------------|
| | Punjab | 5182 | 0 | 106.1 | 22.0 | -0.7 | 93 | 0.0 |
| | Haryana | 6196 | 0 | 113.1 | 67.2 | 1.4 | 199 | 0.0 |
| | Rajasthan | 11528 | 0 | 232.2 | 69.0 | 0.8 | 318 | 0.0 |
| | Delhi | 3292 | 0 | 62.5 | 46.7 | -0.4 | 143 | 0.0 |
| NR | UP | 13323 | 0 | 266.7 | 115.0 | 0.2 | 161 | 0.0 |
| | Uttarakhand | 1827 | 0 | 34.2 | 22.6 | 1.5 | 252 | 0.0 |
| | HP | 1448 | 0 | 25.7 | 16.5 | -0.5 | 114 | 0.1 |
| | J&K | 2182 | 545 | 44.8 | 37.9 | -1.3 | 319 | 10.7 |
| | Chandigarh | 175 | 0 | 3.2 | 3.2 | 0.0 | 40 | 0.0 |
| | Chhattisgarh | 3727 | 0 | 74.6 | 9.3 | -5.3 | 161 | 0.0 |
| | Gujarat | 14527 | 0 | 319.1 | 127.2 | 2.6 | 590 | 0.0 |
| | MP | 13138 | 0 | 267.7 | 160.3 | -4.3 | 400 | 0.0 |
| WR | Maharashtra | 22256 | 0 | 452.6 | 138.6 | -2.7 | 769 | 0.0 |
| WK | Goa | 496 | 0 | 10.1 | 9.7 | 0.1 | 59 | 0.0 |
| | DD | 311 | 0 | 6.9 | 6.1 | 0.8 | 59 | 0.0 |
| | DNH | 642 | 0 | 14.7 | 14.5 | 0.2 | 60 | 0.0 |
| | Essar steel | 543 | 0 | 11.4 | 11.1 | 0.3 | 250 | 0.0 |
| | Andhra Pradesh | 8406 | 0 | 182.9 | 61.2 | 1.4 | 414 | 0.0 |
| | Telangana | 8500 | 0 | 177.3 | 78.6 | 1.6 | 475 | 0.0 |
| SR | Karnataka | 10783 | 0 | 219.0 | 71.1 | -0.1 | 393 | 0.0 |
| 3N | Kerala | 3766 | 0 | 73.0 | 51.5 | 0.9 | 301 | 0.0 |
| | Tamil Nadu | 13948 | 0 | 300.1 | 145.0 | 1.6 | 442 | 0.0 |
| | Pondy | 319 | 0 | 6.6 | 6.9 | -0.3 | 16 | 0.0 |
| | Bihar | 4094 | 0 | 69.5 | 68.7 | -1.6 | 460 | 0.0 |
| | DVC | 2984 | 100 | 61.9 | -23.4 | 2.8 | 396 | 0.3 |
| ER | Jharkhand | 1146 | 0 | 24.4 | 14.3 | -0.4 | 169 | 0.0 |
| LIN | Odisha | 4307 | 100 | 84.4 | 30.3 | 3.3 | 267 | 0.3 |
| | West Bengal | 6750 | 0 | 113.1 | 24.3 | 2.5 | 309 | 0.0 |
| | Sikkim | 99 | 0 | 1.4 | 1.4 | 0.0 | 18 | 0.0 |
| | Arunachal Pradesh | 125 | 2 | 2.1 | 1.9 | 0.2 | 16 | 0.0 |
| | Assam | 1510 | 41 | 23.9 | 19.0 | 0.4 | 65 | 0.7 |
| | Manipur | 166 | 3 | 2.7 | 2.8 | -0.1 | 48 | 0.0 |
| NER | Meghalaya | 338 | 0 | 5.7 | 3.6 | -0.2 | 39 | 0.0 |
| | Mizoram | 84 | 1 | 1.8 | 1.0 | 0.4 | 8 | 0.0 |
| | Nagaland | 115 | 2 | 2.2 | 1.9 | 0.1 | 10 | 0.0 |
| | Tripura | 226 | 3 | 4.2 | 2.3 | 0.7 | 21 | 0.0 |

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

| | Bhutan | Nepal | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU) | 7.6 | -2.2 | -14.5 |
| Day peak (MW) | 397.0 | -120.0 | -683.0 |

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

| | NR | WR | SR | ER | NER | TOTAL |
|--------------|-------|--------|-------|-------|------|-------|
| Schedule(MU) | 125.5 | -164.9 | 108.9 | -69.4 | -0.1 | 0.0 |
| Actual(MU) | 115.5 | -168.4 | 115.7 | -64.3 | -1.0 | -2.6 |
| O/D/U/D(MU) | -10.0 | -3.5 | 6.7 | 5.1 | -0.8 | -2.5 |

F. Generation Outage(MW)

| | NR | WR | SR | ER | NER | Total | | | |
|----------------|-------|-------|-------|------|-----|-------|--|--|--|
| Central Sector | 4701 | 13645 | 7532 | 1745 | 46 | 27669 | | | |
| State Sector | 11740 | 15021 | 8030 | 5155 | 50 | 39996 | | | |
| Total | 16441 | 28666 | 15562 | 6900 | 96 | 67664 | | | |

G. Sourcewise generation (MU)

| | NR | WR | SR | ER | NER | All India |
|-------------------------------------|-----|------|-----|-----|-----|-----------|
| Thermal (Coal & Lignite) | 543 | 1203 | 569 | 402 | 8 | 2725 |
| Hydro | 140 | 18 | 80 | 46 | 9 | 292 |
| Nuclear | 24 | 31 | 39 | 0 | 0 | 95 |
| Gas, Naptha & Diesel | 25 | 40 | 24 | 0 | 31 | 120 |
| RES (Wind, Solar, Biomass & Others) | 52 | 60 | 142 | 1 | 0 | 254 |
| Total | 784 | 1351 | 855 | 449 | 47 | 3485 |

| Share of RES in total generation (%) | 6.65 | 4.41 | 16.56 | 0.19 | 0.06 | 7.29 |
|--|-------|------|-------|-------|-------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and | 27.62 | 8.03 | 30.55 | 10.40 | 10 22 | 18.40 |
| RES) in total generation (%) | 27.02 | 8.03 | 30.55 | 10.40 | 18.32 | 18.40 |

H. Diversity Factor
All India Demand Diversity Factor
1.035
Diversity factor = Sum of regional maximum demands / All India maximum demand

 $[\]textbf{*\underline{Source:}} \ RLDCs \ for \ solar \ connected \ to \ ISTS; \ SLDCs \ for \ embedded \ solar. \ Limited \ visibility \ of \ embedded \ solar \ data.$

| | | INTER-REGIONAL EXCHANGES | | | | | Reporting : | 16-Nov-18 | |
|-----------------|------------------|--|------------|-----------------------|-----------------|-------------|----------------|--|--|
| | | | | | | | | Import=(+ve) /Export =(-ve) for NET (MU) | |
| Sl No | Voltage Level | Line Details | Circuit | Max Import (MW) | Max Export (MW) | Import (MU) | Export (MU) | NET (MU) | |
| Import/E | | ER (With NR) | 1 | (11111) | <u> </u> | | (MC) | (MC) | |
| 1 | # (F) X/ | GAYA-VARANASI | D/C | 74 | 218 | 0.0 | 1.8 | -1.8 | |
| 3 | 765kV | SASARAM-FATEHPUR GAYA-BALIA | S/C S/C | 160 | 92 179 | 0.2 | 2.2 | -2.2 | |
| 4 | | ALIPURDUAR-AGRA | - - | 0 | 306 | 0.0 | 7.4 | -7.4 | |
| 5 | HVDC | PUSAULI B/B | S/C | 0 | 297 | 0.0 | 5.6 | -5.6 | |
| 6 | | PUSAULI-VARANASI | S/C | 0 | 239 | 0.0 | 3.8 | -3.8 | |
| 7 | | PUSAULI -ALLAHABAD | S/C | 0 | 119 | 0.0 | 1.6 | -1.6 | |
| 8 | 400 kV | MUZAFFARPUR-GORAKHPUR PATNA-BALIA | D/C Q/C | 129 | 280 766 | 0.0 | 2.8 | -2.8 -11.6 | |
| 10 | | BIHARSHARIFF-BALIA | D/C | 28 | 75 | 0.0 | 1.8 | -11.0 | |
| 11 | | MOTIHARI-GORAKHPUR | D/C | 0 | 336 | 0.0 | 6.7 | -6.7 | |
| 12 | | BIHARSHARIFF-VARANASI | D/C | 212 | 39 | 1.0 | 0.0 | 1.0 | |
| 13 | 220 kV | PUSAULI-SAHUPURI | S/C | 0 | 127 | 0.0 | 2.4 | -2.4 | |
| 14 | | SONE NAGAR-RIHAND | S/C | 0 | 0 | 0.0 | 0.0 | 0.0 | |
| 15 | 132 kV | GARWAH-RIHAND | S/C | 25 | 0 | 0.7 | 0.0 | 0.7 | |
| 16 17 | | KARMANASA-SAHUPURI KARMANASA-CHANDAULI | S/C S/C | 0 | 0 | 0.0 | 0.0 | 0.0 | |
| - 17 | <u> </u> | | 5/0 | | ER-NR | 1.8 | 47.6 | -45.8 | |
| Import/E | export of | ER (With WR) | | | | | | | |
| 18 | 7(5 | JHARSUGUDA-DHARAMJAIGARH S/C | D/C | 850 | 0 | 31.5 | 0.0 | 31.5 | |
| 19 | 765 kV | NEW RANCHI-DHARAMJAIGARH | D/C | 270 | 174 | 1.2 | 0.0 | 1.2 | |
| 20 | 400 kV | JHARSUGUDA-RAIGARH | Q/C | 321 | 0 | 0.0 | 4.2 | -4.2 | |
| 21 | 400 KV | RANCHI-SIPAT | D/C | 265 | 0 | 3.8 | 0.0 | 3.8 | |
| 22 | 220 kV | BUDHIPADAR-RAIGARH | S/C | 44 | 74 | 0.0 | 0.7 | -0.7 | |
| 23 | | BUDHIPADAR-KORBA | D/C | 174 | 0 | 3.1 | 0.0 | 3.1 | |
| Import/E | vnort of | ER (With SR) | | | ER-WR | 39.6 | 4.9 | 34.7 | |
| 24 | | ANGUL-SRIKAKULAM | D/C | 0.0 | 1723.0 | 0.0 | 29.9 | -29.9 | |
| 25 | HVDC | JEYPORE-GAZUWAKA B/B | D/C | 0.0 | 631.0 | 0.0 | 14.9 | -14.9 | |
| 26 | LINK | TALCHER-KOLAR BIPOLE | D/C | 0.0 | 1977.0 | 0.0 | 43.7 | -43.7 | |
| 27 | 400 kV | TALCHER-I/C | D/C | 0.0 | 720.0 | 0.0 | 2.7 | -2.7 | |
| 28 | 220 kV | BALIMELA-UPPER-SILERRU | S/C | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Tourn count /Ti | · | CED (With MED) | | | ER-SR | 0.0 | 88.5 | -88.5 | |
| 29 | xport of | ER (With NER) BINAGURI-BONGAIGAON | D/C | 0 | 439 | 0.0 | 6.8 | -7 | |
| 30 | 400 kV | ALIPURDUAR-BONGAIGAON | D/C | 0 | 242 | 0.0 | 3.0 | -3 | |
| 31 | 220 kV | ALIPURDUAR-SALAKATI | D/C | 0 | 125 | 0.0 | 1.2 | -1 | |
| | | | 1 | | ER-NER | 0.0 | 11.0 | -11.0 | |
| | | NER (With NR) | | | 1 | - | | 1 | |
| 32 | HVDC | BISWANATH CHARIALI-AGRA | - | 0 | 505 | 0.0 | 12.2 | -12.2 | |
| Import/E | 'xport of | WR (With NR) | | | NER-NR | 0.0 | 12.2 | -12.2 | |
| 33 | Aport or | CHAMPA-KURUKSHETRA | D/C | 0 | 902 | 0.0 | 21.5 | -21.5 | |
| 34 | HVDC | V'CHAL B/B | D/C | 241 | 0 | 6.5 | 0.0 | 6.5 | |
| 35 | | APL -MHG | D/C | 0 | 886 | 0.0 | 21.8 | -21.8 | |
| 36 | | GWALIOR-AGRA | D/C | 0 | 771 | 0.0 | 24.3 | -24.3 | |
| 37 | | PHAGI-GWALIOR | D/C | 0 | 1108 | 0.0 | 18.5 | -18.5 | |
| 38 | 765 kV | JABALPUR-ORAI | D/C | 216 | 172 | 1.3 | 0.0 | 1.3 | |
| 39 40 | | GWALIOR-ORAI SATNA-ORAI | S/C S/C | 507 | 0 1626 | 9.8 0.0 | 0.0 36.3 | 9.8 -36.3 | |
| 40 | | ZERDA-KANKROLI | S/C | 433 | 0 | 7.3 | 0.0 | 7.3 | |
| 42 | 400 7 77 | ZERDA -BHINMAL | S/C | 184 | 152 | 1.6 | 0.0 | 1.6 | |
| 43 | 400 kV | V'CHAL -RIHAND | S/C | 988 | 0 | 22.6 | 0.0 | 22.6 | |
| 44 | | RAPP-SHUJALPUR | D/C | 414 | 0 | 3 | 0 | 3 | |
| 45 | | BADOD-KOTA | S/C | 64 | 0 | 2.7 | 0.0 | 2.7 | |
| 46 | 220 kV | BADOD-MORAK | S/C | 55 | 35 | 0.2 | 0.0 | 0.2 | |
| 47 | | MEHGAON-AURAIYA | S/C | 117 | 0 | 1.5 | 0.0 | 1.5 | |
| 48 | 132kV | MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR | S/C S/C | 71 | 0 | 0.8 | 0.0 | 0.8 | |
| 47 | 134K V | O II ALION-SA WAI MADHUPUK | 3/C | U | WR-NR | 57.2 | 122.5 | -65.3 | |
| Import/E | export of | WR (With SR) | | | · · · | | | | |
| 50 | | BHADRAWATI B/B | - | 0 | 995 | 0.0 | 23.8 | -23.8 | |
| 51 | LINK | BARSUR-L.SILERU | - | 0 | 0 | 0.0 | 0.0 | 0.0 | |
| 52 | 765 kV | SOLAPUR-RAICHUR | D/C | 173 | 1878 | 0.0 | 22.4 | -22.4 | |
| 53 | | WARDHA-NIZAMABAD | D/C | 0 | 2370 | 0.0 | 32.8 | -32.8 | |
| 54 | 400 kV | KOLHAPUR-KUDGI | D/C | 768 | 0 | 9.4 | 0.0 | 9.4 | |
| 55 56 | 220 kV | KOLHAPUR-CHIKODI PONDA-AMBEWADI | D/C S/C | 0 | 0 | 0.0 | 0.0 | 0.0 | |
| 57 | -20 RV | XELDEM-AMBEWADI | S/C | 0 | 62 | 1.3 | 0.0 | 1.3 | |
| <u> </u> | 1 | 1 | | <u> </u> | WR-SR | 10.7 | 79.1 | -68.4 | |
| | | TR | NSNATI | ONAL EX | | 2011 | | 1 | |
| 58 | | BHUTAN | | LA | | | | 7.6 | |
| 59 | | NEPAL | | | | | | -2.2 | |
| 60 | | BANGLADESH | | | | | | -14.5 | |