

National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

POWER SYSTEM OPERATION CORPORATION LIMITED पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 30th 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 ७९३००६ 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 29.11.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 29-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 29th 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 30-Nov-18

A. Maximum Demand

| | NR | WR | SR | ER | NER | Total |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs) | 42519 | 49431 | 39684 | 18059 | 2455 | 152148 |
| Peak Shortage (MW) | 532 | 0 | 0 | 0 | 52 | 584 |
| Energy Met (MU) | 911 | 1152 | 897 | 349 | 44 | 3354 |
| Hydro Gen (MU) | 119 | 23 | 71 | 45 | 8 | 266 |
| Wind Gen (MU) | 8 | 36 | 34 | | | 78 |
| Solar Gen (MU)* | 20.36 | 19.44 | 59.43 | 0.81 | 0.05 | 100 |
| Energy Shortage (MU) | 11.2 | 0.0 | 0.0 | 0.0 | 0.6 | 11.7 |
| Maximum Demand Met during the day | 43196 | 54935 | 41558 | 18476 | 2496 | 155261 |
| (MW) & time (from NLDC SCADA) | 17:59 | 10:33 | 07:28 | 18:45 | 17:20 | 17:59 |

B. Frequency Profile (%)
Region
All India <49.7 49.7-49.8 49.8-49.9 49.9-50.05 > 50.05 0.078 0.00 1.61 65.72 6.93

| 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 | 5581 | 0 | 126.2 | 35.7 | -0.3 | 228 | 0.0 |
| | Haryana | 6207 | 0 | 121.9 | 66.6 | 0.0 | 159 | 0.0 |
| | Rajasthan | 11545 | 0 | 227.8 | 63.5 | 1.2 | 372 | 0.0 |
| | Delhi | 3394 | 0 | 62.3 | 46.6 | 0.3 | 210 | 0.0 |
| NR | UP | 12429 | 20 | 259.6 | 107.9 | 0.6 | 402 | 0.0 |
| | Uttarakhand | 1866 | 0 | 35.0 | 22.2 | 0.9 | 126 | 0.0 |
| | HP | 1529 | 0 | 28.2 | 20.7 | -0.3 | 80 | 0.0 |
| | J&K | 2318 | 579 | 47.3 | 39.1 | 1.8 | 402 | 11.2 |
| | Chandigarh | 182 | 0 | 3.2 | 2.8 | 0.4 | 31 | 0.0 |
| | Chhattisgarh | 3572 | 0 | 76.9 | 7.8 | -1.0 | 233 | 0.0 |
| | Gujarat | 14967 | 0 | 329.5 | 128.1 | 1.6 | 628 | 0.0 |
| | MP | 13242 | 0 | 258.6 | 148.7 | -2.4 | 625 | 0.0 |
| WR | Maharashtra | 21771 | 0 | 442.5 | 116.3 | 0.3 | 1031 | 0.0 |
| WK | Goa | 480 | 0 | 9.8 | 9.3 | 0.2 | 92 | 0.0 |
| | DD | 304 | 0 | 6.9 | 6.3 | 0.6 | 65 | 0.0 |
| | DNH | 683 | 0 | 16.0 | 15.5 | 0.4 | 60 | 0.0 |
| | Essar steel | 590 | 0 | 12.3 | 12.4 | -0.1 | 107 | 0.0 |
| | Andhra Pradesh | 8104 | 0 | 172.6 | 65.5 | 0.8 | 575 | 0.0 |
| | Telangana | 8035 | 0 | 170.2 | 66.1 | 1.9 | 824 | 0.0 |
| SR | Karnataka | 10384 | 0 | 206.5 | 74.7 | -0.5 | 513 | 0.0 |
| JI. | Kerala | 3524 | 0 | 71.7 | 56.6 | 2.0 | 328 | 0.0 |
| | Tamil Nadu | 12689 | 0 | 269.7 | 129.9 | -2.1 | 531 | 0.0 |
| | Pondy | 326 | 0 | 6.6 | 6.9 | -0.3 | 29 | 0.0 |
| | Bihar | 4097 | 0 | 68.5 | 64.4 | 1.4 | 460 | 0.0 |
| | DVC | 2727 | 0 | 56.7 | -34.9 | 3.0 | 396 | 0.0 |
| ER | Jharkhand | 1037 | 0 | 23.0 | 13.6 | 0.4 | 169 | 0.0 |
| LIV | Odisha | 4332 | 0 | 85.5 | 36.7 | 3.1 | 267 | 0.0 |
| | West Bengal | 6459 | 0 | 114.3 | 21.4 | 0.4 | 309 | 0.0 |
| | Sikkim | 100 | 0 | 1.4 | 1.4 | 0.1 | 18 | 0.0 |
| | Arunachal Pradesh | 121 | 2 | 2,2 | 2.1 | 0.2 | 90 | 0.0 |
| | Assam | 1482 | 38 | 24.5 | 17.8 | 1.9 | 134 | 0.5 |
| | Manipur | 163 | 7 | 2.7 | 2.6 | 0.1 | 37 | 0.0 |
| NER | Meghalaya | 352 | 6 | 6.6 | 5.0 | 0.0 | 35 | 0.0 |
| | Mizoram | 92 | 11 | 1.8 | 1.0 | 0.3 | 14 | 0.0 |
| | Nagaland | 124 | 4 | 2.3 | 1.7 | 0.4 | 25 | 0.0 |
| | Tripura | 212 | 3 | 3.8 | 1.2 | 0.7 | 75 | 0.0 |

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

| | Bhutan | Nepal | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU) | 8.9 | -2.8 | -13.4 |
| Day peak (MW) | 363.0 | -140.0 | -814.0 |

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

| | NR | WR | SR | ER | NER | TOTAL |
|--------------|-------|--------|------|-------|-----|-------|
| Schedule(MU) | 156.8 | -161.5 | 91.3 | -86.7 | 0.2 | 0.1 |
| Actual(MU) | 150.2 | -171.3 | 88.1 | -71.3 | 2.5 | -1.7 |
| O/D/U/D(MU) | -6.6 | -9.8 | -3.1 | 15.4 | 2.3 | -1.8 |

F. Generation Outage(MW)

| | NR | WR | SR | ER | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 4770 | 16010 | 6282 | 1760 | 695 | 29517 |
| State Sector | 11395 | 14353 | 7670 | 5665 | 50 | 39133 |
| Total | 16165 | 30363 | 13952 | 7425 | 744 | 68649 |
| | | | | | | |

G. Sourcewise generation (MU)

| | NR | WR | SR | ER | NER | All India |
|--------------------------------------|------|------|-------|------|------|-----------|
| Coal | 528 | 1190 | 493 | 409 | 10 | 2631 |
| Lignite | 23 | 16 | 58 | 0 | 0 | 97 |
| Hydro | 119 | 23 | 71 | 45 | 8 | 266 |
| Nuclear | 25 | 19 | 36 | 0 | 0 | 80 |
| Gas, Naptha & Diesel | 30 | 36 | 26 | 0 | 28 | 120 |
| RES (Wind, Solar, Biomass & Others) | 59 | 57 | 132 | 1 | 0 | 249 |
| Total | 783 | 1343 | 816 | 455 | 45 | 3442 |
| _ | | | | | | |
| Share of RES in total generation (%) | 7.51 | 4.27 | 16.16 | 0.19 | 0.11 | 7.23 |
| | | | | | | |

| Share of RES in total generation (%) | 7.51 | 4.27 | 16.16 | 0.19 | 0.11 | 7.23 |
|--|-------|------|-------|-------|-------|-------|
| Share of Non-fossil fuel (Hydro, Nuclear and | 25 91 | 7.41 | 29.31 | 10.02 | 17.30 | 17.27 |
| RES) in total generation (%) | 25.81 | 7.41 | 29.31 | 10.02 | 17.30 | 17.27 |

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

 $[\]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}.$

| | | INTER-REGIONAL EXCHANGES Date | | | | | | 30-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 | Export of | ER (With NR) | | | | | | |
| 1 | 5 C 5 L 3 7 | GAYA-VARANASI | D/C | 25 | 566 | 0.0 | 6.6 | -6.6 |
| 3 | 765kV | SASARAM-FATEHPUR GAYA-BALIA | S/C S/C | 0 | 294 281 | 0.0 | 3.7 4.8 | -3.7 -4.8 |
| 4 | | ALIPURDUAR-AGRA | - | 0 | 200 | 0.0 | 5.0 | -5.0 |
| 5 | HVDC | PUSAULI B/B | S/C | 4 | 0 | 0.0 | 0.0 | 0.0 |
| 6 | | PUSAULI-VARANASI | S/C | 58 | 14 | 0.4 | 0.0 | 0.4 |
| 7 | | PUSAULI -ALLAHABAD | S/C | 99 | 44 | 0.8 | 0.0 | 0.8 |
| 8 | 400 1-37 | MUZAFFARPUR-GORAKHPUR | D/C | 146 | 398 | 0.0 | 2.2 | -2.2 |
| 9 | 400 kV | | Q/C D/C | 0 | 664 122 | 0.0 | 9.2 | -9.2 -1.2 |
| 11 | | BIHARSHARIFF-BALIA MOTIHARI-GORAKHPUR | D/C | 0 | 310 | 0.0 | 6.4 | -6.4 |
| 12 | | BIHARSHARIFF-VARANASI | D/C | 164 | 140 | 0.0 | 0.3 | -0.3 |
| 13 | 220 kV | PUSAULI-SAHUPURI | S/C | 0 | 120 | 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 | 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 | 1.9 | 41.7 | -39.8 |
| 18 | 765 kV | JHARSUGUDA-DHARAMJAIGARH S/C | D/C | 1340 | 0 | 18.7 | 0.0 | 18.7 |
| 19 | /05 KV | NEW RANCHI-DHARAMJAIGARH | D/C | 253 | 312 | 0.0 | 0.3 | -0.3 |
| 20 | 400 kV | JHARSUGUDA-RAIGARH | Q/C | 279 | 74 | 1.5 | 0.0 | 1.5 |
| 21 | 400 K V | RANCHI-SIPAT | D/C | 200 | 0 | 3.0 | 0.0 | 3.0 |
| 22 | 220 kV | BUDHIPADAR-RAIGARH | S/C | 7 | 97 | 0.0 | 1.0 | -1.0 |
| 23 | | BUDHIPADAR-KORBA | D/C | 226 | 0 ER-WR | 3.9 27.1 | 0.0 | 3.9 25.9 |
| Import/E | Export of | ER (With SR) | | | | | | |
| 24 | 765 kV | ANGUL-SRIKAKULAM | D/C | 0.0 | 1553.0 | 0.0 | 26.2 | -26.2 |
| 25 | HVDC | JEYPORE-GAZUWAKA B/B | D/C | 0.0 | 631.0 | 0.0 | 14.6 | -14.6 |
| 26 | LINK | TALCHER-KOLAR BIPOLE | D/C | 0.0 | 1978.0 | 0.0 | 42.3 | -42.3 |
| 27 | 400 kV 220 kV | TALCHER-I/C BALIMELA-UPPER-SILERRU | D/C S/C | 0.0 1.0 | 676.0 0.0 | 0.0 | 0.3 | -0.3 0.0 |
| | | | 3/C | 1.0 | ER-SR | 0.0 | 83.1 | -83.1 |
| | Export of | ER (With NER) | | | T | Г | | T |
| 29 | 400 kV | BINAGURI-BONGAIGAON | D/C | 0 | 618 | 0.0 | 8.1 | -8 |
| 30 | 220 kV | ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI | D/C D/C | 0 | 483 178 | 0.0 | 5.3 2.3 | -5 -2 |
| 31 | 220 K V | ALII UKDUAK-SALAKATI | D/C | 0 | ER-NER | 0.0 | 15.6 | -15.6 |
| | | NER (With NR) | | | 1 | 1 | | , |
| 32 | HVDC | BISWANATH CHARIALI-AGRA | - | 0 | 653 | 0.0 | 13.4 | -13.4 |
| Import/E | export of | WR (With NR) | | | NER-NR | 0.0 | 13.4 | -13.4 |
| 33 | Aport or | CHAMPA-KURUKSHETRA | D/C | 0 | 1506 | 0.0 | 27.8 | -27.8 |
| 34 | HVDC | V'CHAL B/B | D/C | 241 | 0 | 5.7 | 0.0 | 5.7 |
| 35 | 1 | APL -MHG | D/C | 0 | 980 | 0.0 | 23.7 | -23.7 |
| 36 | | GWALIOR-AGRA | D/C | 0 | 835 | 0.0 | 28.5 | -28.5 |
| 37 | | PHAGI-GWALIOR | D/C | 0 | 1452 | 0.0 | 20.5 | -20.5 |
| 38 | 765 kV | | D/C | 121 | 322 | 0.0 | 6.6 | -6.6 |
| 39 | - | GWALIOR-ORAI | S/C | 685 | 0 | 8.3 | 0.0 | 8.3 |
| 40 | | SATNA-ORAI ZERDA-KANKROLI | S/C S/C | 309 | 1988 | 0.0 5.3 | 38.7 0.0 | -38.7 5.3 |
| 41 | | ZERDA-KANKROLI ZERDA -BHINMAL | S/C S/C | 180 | 156 | 1.8 | 0.0 | 1.8 |
| 43 | 400 kV | V'CHAL -RIHAND | S/C | 997 | 0 | 22.4 | 0.0 | 22.4 |
| 44 | 1 | RAPP-SHUJALPUR | D/C | 310 | 138 | 1 | 0 | 1 |
| 45 | | BADOD-KOTA | S/C | 47 | 16 | 1.3 | 0.0 | 1.3 |
| 46 | 220 kV | BADOD-MORAK | S/C | 40 | 39 | 0.2 | 0.2 | 0.0 |
| 47 | | MEHGAON-AURAIYA | S/C | 116 | 0 | 1.8 | 0.0 | 1.8 |
| 48 | | MALANPUR-AURAIYA | S/C | 74 | 0 | 1.0 | 0.0 | 1.0 |
| 49 | 132kV | GWALIOR-SAWAI MADHOPUR | S/C | 0 | 0 WR-NR | 0.0 48.9 | 0.0 146.0 | 0.0 -97.1 |
| Import/E | Export of | WR (With SR) | | | | | | |
| 50 | | BHADRAWATI B/B | - | 0 | 999 | 0.0 | 21.2 | -21.2 |
| 51 | LINK | BARSUR-L.SILERU | - | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 52 | 765 kV | SOLAPUR-RAICHUR | D/C | 521 | 1384 | 0.0 | 15.8 | -15.8 |
| 53 | 400 7 77 | WARDHA-NIZAMABAD | D/C | 0 | 1984 | 0.0 | 27.3 | -27.3 |
| 54 55 | 400 kV | KOLHAPUR-KUDGI KOLHAPUR-CHIKODI | D/C D/C | 1032 | 0 | 15.2 0.0 | 0.0 | 15.2 0.0 |
| 56 | 220 kV | PONDA-AMBEWADI | S/C | 1 | 0 | 0.0 | 0.0 | 0.0 |
| 57 | 1 | XELDEM-AMBEWADI | S/C | 0 | 66 | 1.2 | 0.0 | 1.2 |
| | | | • | | WR-SR | 16.4 | 64.3 | -47.9 |
| | | TRA | ANSNATI | ONAL EX | CHANGE | | | |
| 58 | | BHUTAN | | _ | | _ | _ | 8.9 |
| 59 | | NEPAL PANGI ADESH | + | | | | | -2.8 |
| 60 | 1 | BANGLADESH | 1 | | | | | -13.4 |