**National Load Despatch Centre**
**राष्ट्रीय भार प्रेषण केंद्र**
**GRID CONTROLLER OF INDIA LIMITED**
**ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
**(Government of India Enterprise/ भारत सरकार का उद्यम)**
**B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016**
**बी-9, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016**

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 30th June 2023

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. 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.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009
   Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

**Sub: Daily PSP Report for the date 29.06.2023.**

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 29-जून-2023 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 29th June 2023, is available at the NLDC website.

धन्यवाद,

# ग्रिड कंट्रलर ऑफ इंडिया लिमिटेड
## राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

**Report for previous day** **Date of Reporting: 30-Jun-2023**

**A. Power Supply Position at All India and Regional level**

| | NR | WR | SR | ER | NER | TOTAL |
|---|---|---|---|---|---|---|
| Demand Met during Evening Peak hrs(MW) (at 20:00 hrs; from RLDCs) | 64990 | 51080 | 44854 | 24564 | 3104 | 188592 |
| Peak Shortage (MW) | 0 | 0 | 0 | 0 | 20 | 20 |
| Energy Met (MU) | 1480 | 1204 | 1107 | 504 | 61 | 4356 |
| Hydro Gen (MU) | 399 | 38 | 35 | 125 | 24 | 622 |
| Wind Gen (MU) | 20 | 156 | 218 | - | - | 395 |
| Solar Gen (MU)* | 121.70 | 34.81 | 106.65 | 2.11 | 0.84 | 266 |
| Energy Shortage (MU) | 0.00 | 0.00 | 0.00 | 0.04 | 0.87 | 0.91 |
| Maximum Demand Met During the Day (MW) (From NLDC SCADA) | 67566 | 53231 | 52510 | 24990 | 3128 | 190460 |
| Time Of Maximum Demand Met | 00:00 | 07:18 | 11:56 | 21:02 | 20:56 | 11:48 |

**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 | 0.073 | 0.00 | 0.19 | 6.19 | 6.38 | 66.50 | 27.13 |

**C. Power Supply Position in States**

| 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) |
|---|---|---|---|---|---|---|---|---|
| NR | Punjab | 14091 | 0 | 308.6 | 199.6 | -0.9 | 105 | 0.00 |
| | Haryana | 9901 | 0 | 209.5 | 161.9 | 0.4 | 271 | 0.00 |
| | Rajasthan | 11607 | 0 | 252.5 | 84.4 | -2.0 | 359 | 0.00 |
| | Delhi | 5651 | 0 | 115.6 | 111.3 | -1.4 | 234 | 0.00 |
| | UP | 22990 | 0 | 450.9 | 222.1 | -3.5 | 534 | 0.00 |
| | Uttarakhand | 2101 | 0 | 46.3 | 17.1 | -2.6 | 43 | 0.00 |
| | HP | 1657 | 0 | 34.2 | -9.0 | -0.5 | 110 | 0.00 |
| | J&K(UT) & Ladakh(UT) | 3636 | 0 | 53.1 | 27.1 | -0.5 | 394 | 0.00 |
| | Chandigarh | 287 | 0 | 6.0 | 6.2 | -0.2 | 18 | 0.00 |
| | Railways_NR ISTS | 183 | 0 | 4.0 | 3.6 | 0.4 | 36 | 0.00 |
| WR | Chhattisgarh | 4351 | 0 | 93.6 | 41.7 | 0.9 | 354 | 0.00 |
| | Gujarat | 15694 | 0 | 346.3 | 176.3 | -4.8 | 760 | 0.00 |
| | MP | 9265 | 0 | 202.1 | 87.6 | -3.0 | 425 | 0.00 |
| | Maharashtra | 21705 | 0 | 488.5 | 157.2 | -1.3 | 692 | 0.00 |
| | Goa | 593 | 0 | 12.6 | 12.5 | -0.3 | 52 | 0.00 |
| | DNHDDPDCL | 1264 | 0 | 29.0 | 29.0 | 0.0 | 93 | 0.00 |
| | AMNSIL | 843 | 0 | 19.2 | 10.0 | -0.1 | 315 | 0.00 |
| | BALCO | 520 | 0 | 12.4 | 12.5 | -0.1 | 2 | 0.00 |
| SR | Andhra Pradesh | 11298 | 0 | 235.5 | 61.0 | -0.4 | 977 | 0.00 |
| | Telangana | 9187 | 0 | 188.4 | 81.5 | 0.1 | 577 | 0.00 |
| | Karnataka | 12890 | 0 | 228.6 | 62.7 | -2.4 | 640 | 0.00 |
| | Kerala | 3505 | 0 | 71.4 | 61.5 | 1.1 | 280 | 0.00 |
| | Tamil Nadu | 17376 | 0 | 372.5 | 157.5 | -2.4 | 618 | 0.00 |
| | Puducherry | 455 | 0 | 10.4 | 10.1 | -0.5 | 41 | 0.00 |
| ER | Bihar | 5849 | 0 | 104.3 | 98.0 | -2.9 | 254 | 0.04 |
| | DVC | 3514 | 0 | 74.5 | -28.2 | 0.9 | 166 | 0.00 |
| | Jharkhand | 1580 | 0 | 31.7 | 22.9 | -0.1 | 193 | 0.00 |
| | Odisha | 5514 | 0 | 116.1 | 39.4 | -1.7 | 233 | 0.00 |
| | West Bengal | 8265 | 0 | 176.3 | 53.7 | -0.5 | 261 | 0.00 |
| | Sikkim | 82 | 0 | 1.2 | 1.5 | -0.3 | 8 | 0.00 |
| | Railways_ER ISTS | 20 | 0 | 0.2 | 0.2 | 0.0 | 12 | 0.00 |
| NER | Arunachal Pradesh | 160 | 0 | 2.9 | 2.8 | -0.1 | 20 | 0.00 |
| | Assam | 2108 | 0 | 40.8 | 34.3 | 0.4 | 141 | 0.00 |
| | Manipur | 172 | 0 | 2.5 | 2.5 | 0.1 | 30 | 0.00 |
| | Meghalaya | 326 | 5 | 5.5 | 2.4 | 0.0 | 59 | 0.87 |
| | Mizoram | 119 | 0 | 1.8 | 1.6 | -0.2 | 15 | 0.00 |
| | Nagaland | 157 | 0 | 2.8 | 2.5 | -0.2 | 8 | 0.00 |
| | Tripura | 285 | 0 | 4.7 | 4.2 | 0.3 | 86 | 0.00 |

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

| | Bhutan | Nepal | Bangladesh | Godda -> Bangladesh |
|---|---|---|---|---|
| Actual (MU) | 39.6 | 6.9 | -20.1 | -11.3 |
| Day Peak (MW) | 1949.9 | 289.1 | -1092.0 | -562.0 |

**E. Import/Export by Regions (in MU) - Import(+ve)/Export(-ve); OD(+)/UD(-)**

| | NR | WR | SR | ER | NER | TOTAL |
|---|---|---|---|---|---|---|
| Schedule(MU) | 326.0 | -219.8 | 47.0 | -158.5 | 5.3 | 0.0 |
| Actual(MU) | 290.3 | -208.7 | 73.6 | -169.2 | 8.9 | -5.2 |
| O/D/U/D(MU) | -35.7 | 11.2 | 26.6 | -10.8 | 3.5 | -5.2 |

**F. Generation Outage(MW)**

| | NR | WR | SR | ER | NER | TOTAL | % Share |
|---|---|---|---|---|---|---|---|
| Central Sector | 4389 | 13216 | 4648 | 1985 | 818 | 25056 | 45 |
| State Sector | 8605 | 15653 | 4608 | 1950 | 305 | 31120 | 55 |
| Total | 12994 | 28869 | 9256 | 3935 | 1122 | 56175 | 100 |

**G. Sourcewise generation (Gross) (MU)**

| | NR | WR | SR | ER | NER | All India | % Share |
|---|---|---|---|---|---|---|---|
| Coal | 657 | 1224 | 613 | 609 | 12 | 3115 | 66 |
| Lignite | 28 | 14 | 56 | 0 | 0 | 98 | 2 |
| Hydro | 399 | 38 | 35 | 125 | 24 | 622 | 13 |
| Nuclear | 29 | 47 | 46 | 0 | 0 | 122 | 3 |
| Gas, Naptha & Diesel | 16 | 7 | 6 | 0 | 22 | 51 | 1 |
| RES (Wind, Solar, Biomass & Others) | 149 | 192 | 348 | 3 | 1 | 692 | 15 |
| Total | 1278 | 1522 | 1105 | 737 | 58 | 4701 | 100 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Share of RES in total generation (%) | 11.62 | 12.63 | 31.48 | 0.37 | 1.44 | 14.77 |
| Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%) | 45.17 | 18.23 | 38.84 | 17.37 | 42.32 | 30.65 |

**H. All India Demand Diversity Factor**

| | |
|---|---|
| Based on Regional Max Demands | 1.057 |
| Based on State Max Demands | 1.098 |

**I. All India Peak Demand and shortage at Solar and Non-Solar Hour**

| | Max Demand Met(MW) | Time | Shortage(MW) |
|---|---|---|---|
| Solar hr | 190460 | 11:48 | 57 |
| Non-Solar hr | 190222 | 20:48 | 20 |

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

**Note: All generation MU figures are gross

***Godda (Jharkhand) -> Bangladesh power exchange is through the radial connection (isolated from Indian Grid)

Solar Hours -> 06:00 to 18:00hrs and rest are Non-Solar Hours

*Source: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.

**Executive Director-NLDC**

## INTER-REGIONAL EXCHANGES

**Import=(+ve) /Export =(-ve) for NET (MU)**

**Date of Reporting: 30-Jun-2023**

| Sl No | Voltage Level | Line Details | No. of Circuit | Max Import (MW) | Max Export (MW) | Import (MU) | Export (MU) | NET (MU) |
|---|---|---|---|---|---|---|---|---|
| **Import/Export of ER (With NR)** | | | | | | | | |
| 1 | HVDC | ALIPURDUAR-AGRA | 2 | 0 | 1502 | 0.0 | 37.0 | -37.0 |
| 2 | HVDC | PUSAULI B/B | - | 1 | 97 | 0.0 | 2.2 | -2.2 |
| 3 | 765 kV | GAYA-VARANASI | 2 | 312 | 615 | 0.0 | 4.0 | -4.0 |
| 4 | 765 kV | SASARAM-FATEHPUR | 1 | 1 | 307 | 0.0 | 4.2 | -4.2 |
| 5 | 765 kV | GAYA-BALIA | 1 | 0 | 802 | 0.0 | 11.6 | -11.6 |
| 6 | 400 kV | PUSAULI-VARANASI | 1 | 46 | 103 | 0.0 | 1.2 | -1.2 |
| 7 | 400 kV | PUSAULI -ALLAHABAD | 1 | 0 | 89 | 0.0 | 1.0 | -1.0 |
| 8 | 400 kV | MUZAFFARPUR-GORAKHPUR | 2 | 0 | 899 | 0.0 | 15.8 | -15.8 |
| 9 | 400 kV | PATNA-BALIA | 2 | 0 | 748 | 0.0 | 12.4 | -12.4 |
| 10 | 400 kV | NAUBATPUR-BALIA | 2 | 0 | 805 | 0.0 | 11.9 | -11.9 |
| 11 | 400 kV | BIHARSHARIFF-BALIA | 2 | 0 | 422 | 0.0 | 5.7 | -5.7 |
| 12 | 400 kV | MOTIHARI-GORAKHPUR | 2 | 0 | 577 | 0.0 | 9.9 | -9.9 |
| 13 | 400 kV | BIHARSHARIFF-VARANASI | 2 | 126 | 285 | 0.0 | 2.4 | -2.4 |
| 14 | 220 kV | SAHUPURI-KARAMNASA | 1 | 0 | 95 | 0.0 | 1.5 | -1.5 |
| 15 | 132 kV | NAGAR UNTARI-RIHAND | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 16 | 132 kV | GARWAH-RIHAND | 1 | 30 | 0 | 0.5 | 0.0 | 0.5 |
| 17 | 132 kV | KARMANASA-SAHUPURI | 1 | 0 | 47 | 0.0 | 0.0 | 0.0 |
| 18 | 132 kV | KARMANASA-CHANDAULI | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| | | | | | **ER-NR** | **0.5** | **120.7** | **-120.2** |
| **Import/Export of ER (With WR)** | | | | | | | | |
| 1 | 765 kV | JHARSUGUDA-DHARAMJAIGARH | 4 | 1168 | 275 | 11.1 | 0.0 | 11.1 |
| 2 | 765 kV | NEW RANCHI-DHARAMJAIGARH | 2 | 1010 | 253 | 12.5 | 0.0 | 12.5 |
| 3 | 765 kV | JHARSUGUDA-DURG | 2 | 17 | 314 | 0.0 | 3.6 | -3.6 |
| 4 | 400 kV | JHARSUGUDA-RAIGARH | 4 | 143 | 217 | 0.0 | 0.8 | -0.8 |
| 5 | 400 kV | RANCHI-SIPAT | 2 | 215 | 93 | 0.0 | 0.5 | -0.5 |
| 6 | 220 kV | BUDHIPADAR-RAIGARH | 1 | 0 | 44 | 0.0 | 1.7 | -1.7 |
| 7 | 220 kV | BUDHIPADAR-KORBA | 2 | 106 | 0 | 1.8 | 0.0 | 1.8 |
| | | | | | **ER-WR** | **25.4** | **6.6** | **18.8** |
| **Import/Export of ER (With SR)** | | | | | | | | |
| 1 | HVDC | JEYPORE-GAZUWAKA B/B | 2 | 0 | 234 | 0.0 | 5.1 | -5.1 |
| 2 | HVDC | TALCHER-KOLAR BIPOLE | 2 | 0 | 1982 | 0.0 | 33.4 | -33.4 |
| 3 | 765 kV | ANGUL-SRIKAKULAM | 2 | 0 | 3262 | 0.0 | 45.9 | -45.9 |
| 4 | 400 kV | TALCHER-I/C | 2 | 261 | 1239 | 0.0 | 5.6 | -5.6 |
| 5 | 220 kV | BALIMELA-UPPER-SILERRU | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| | | | | | **ER-SR** | **0.0** | **84.4** | **-84.4** |
| **Import/Export of ER (With NER)** | | | | | | | | |
| 1 | 400 kV | BINAGURI-BONGAIGAON | 2 | 0 | 466 | 0.0 | 8.5 | -8.5 |
| 2 | 400 kV | ALIPURDUAR-BONGAIGAON | 2 | 135 | 350 | 0.0 | 4.5 | -4.5 |
| 3 | 220 kV | ALIPURDUAR-SALAKATI | 2 | 0 | 112 | 0.0 | 1.8 | -1.8 |
| | | | | | **ER-NER** | **0.0** | **14.8** | **-14.8** |
| **Import/Export of NER (With NR)** | | | | | | | | |
| 1 | HVDC | BISWANATH CHARIALI-AGRA | 2 | 0 | 307 | 0.0 | 7.4 | -7.4 |
| | | | | | **NER-NR** | **0.0** | **7.4** | **-7.4** |
| **Import/Export of WR (With NR)** | | | | | | | | |
| 1 | HVDC | CHAMPA-KURUKSHETRA | 2 | 0 | 4526 | 0.0 | 74.3 | -74.3 |
| 2 | HVDC | VINDHYACHAL B/B | - | 444 | 0 | 12.2 | 0.0 | 12.2 |
| 3 | HVDC | MUNDRA-MOHINDERGARH | 2 | 0 | 254 | 4.1 | 0.0 | 4.1 |
| 4 | 765 kV | GWALIOR-AGRA | 2 | 11 | 2417 | 0.0 | 30.9 | -30.9 |
| 5 | 765 kV | GWALIOR-PHAGI | 2 | 557 | 1498 | 1.7 | 17.6 | -15.9 |
| 6 | 765 kV | JABALPUR-ORAI | 2 | 0 | 1117 | 0.0 | 30.9 | -30.9 |
| 7 | 765 kV | GWALIOR-ORAI | 1 | 537 | 0 | 9.2 | 0.0 | 9.2 |
| 8 | 765 kV | SATNA-ORAI | 1 | 0 | 1122 | 0.0 | 20.4 | -20.4 |
| 9 | 765 kV | BANASKANTHA-CHITORGARH | 2 | 1198 | 1000 | 8.5 | 3.7 | 4.8 |
| 10 | 765 kV | VINDHYACHAL-VARANASI | 2 | 0 | 3075 | 0.0 | 51.5 | -51.5 |
| 11 | 400 kV | ZERDA-KANKROLI | 1 | 210 | 105 | 2.0 | 0.3 | 1.8 |
| 12 | 400 kV | ZERDA -BHINMAL | 1 | 484 | 98 | 5.0 | 0.2 | 4.7 |
| 13 | 400 kV | VINDHYACHAL -RIHAND | 1 | 962 | 0 | 20.2 | 0.0 | 20.2 |
| 14 | 400 kV | RAPP-SHUJALPUR | 2 | 372 | 572 | 2.1 | 4.5 | -2.5 |
| 15 | 220 kV | BHANPURA-RANPUR | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 16 | 220 kV | BHANPURA-MORAK | 1 | 0 | 30 | 0.0 | 2.2 | -2.2 |
| 17 | 220 kV | MEHGAON-AURAIYA | 1 | 73 | 1 | 0.7 | 0.0 | 0.7 |
| 18 | 220 kV | MALANPUR-AURAIYA | 1 | 48 | 20 | 0.3 | 0.1 | 0.2 |
| 19 | 132 kV | GWALIOR-SAWAI MADHOPUR | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 20 | 132 kV | RAJGHAT-LALITPUR | 2 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| | | | | | **WR-NR** | **66.1** | **236.7** | **-170.6** |
| **Import/Export of WR (With SR)** | | | | | | | | |
| 1 | HVDC | BHADRAWATI B/B | - | 996 | 0 | 12.1 | 0.0 | 12.1 |
| 2 | HVDC | RAIGARH-PUGALUR | 2 | 0 | 2004 | 0.0 | 30.4 | -30.4 |
| 3 | 765 kV | SOLAPUR-RAICHUR | 2 | 2027 | 2006 | 14.1 | 6.0 | 8.1 |
| 4 | 765 kV | WARDHA-NIZAMABAD | 2 | 0 | 3149 | 0.0 | 34.9 | -34.9 |
| 5 | 400 kV | KOLHAPUR-KUDGI | 2 | 1573 | 0 | 23.7 | 0.0 | 23.7 |
| 6 | 220 kV | KOLHAPUR-CHIKODI | 2 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 7 | 220 kV | PONDA-AMBEWADI | 1 | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 8 | 220 kV | XELDEM-AMBEWADI | 1 | 0 | 117 | 2.2 | 0.0 | 2.2 |
| | | | | | **WR-SR** | **52.0** | **71.3** | **-19.2** |

## INTERNATIONAL EXCHANGES

**Import(+ve)/Export(-ve)**

| State | Region | Line Name | Max (MW) | Min (MW) | Avg (MW) | Energy Exchange (MU) |
|---|---|---|---|---|---|---|
| BHUTAN | ER | 400kV MANGDECHHU-ALIPURDUAR 1,2&3 i.e. ALIPURDUAR RECEIPT (from MANGDECHU HEP 4*180MW) | 622 | 439 | 541 | 12.99 |
| | ER | 400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW) | 1023 | 572 | 938 | 22.50 |
| | ER | 220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW) | 147 | 104 | 120 | 2.87 |
| | NER | 132kV GELEPHU-SALAKATI | 33 | 6 | 21 | 0.51 |
| | NER | 132kV MOTANGA-RANGIA | 81 | 5 | 30 | 0.73 |
| NEPAL | NR | 132kV MAHENDRANAGAR-TANAKPUR(NHPC) | -72 | 0 | -38 | -0.92 |
| | ER | NEPAL IMPORT (FROM BIHAR) | -32 | 0 | -8 | -0.19 |
| | ER | 400kV DHALKEBAR-MUZAFFARPUR 1&2 | 393 | 250 | 332 | 7.96 |
| BANGLADESH | ER | BHERAMARA B/B HVDC (B'DESH) | -937 | -598 | -720 | -17.28 |
| | ER (Isolated from Indian Grid) | 400kV GODDA_TPS-RAHANPUR (B'DESH) D/C | -562 | -343 | -469 | -11.25 |
| | NER | 132kV COMILLA-SURAJMANI NAGAR 1&2 | -155 | 0 | -119 | -2.86 |