

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-९, कुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 30th June 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 ७९३००६ 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 29.06.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 29-जून-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 29th June 2019, is available at the NLDC website.

धन्यवाद,

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Date of Reporting Report for previous day 30-Jun-19

A. Power Supply Position at All India and Regional level

| | NR | WR | SR | ER | NER | Total |
|---|-------|-------|-------|-------|-------|--------|
| Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs) | 60121 | 44841 | 41010 | 21404 | 2832 | 170208 |
| Peak Shortage (MW) | 2260 | 0 | 0 | 0 | 98 | 2358 |
| Energy Met (MU) | 1482 | 1034 | 949 | 457 | 51 | 3974 |
| Hydro Gen (MU) | 338 | 12 | 35 | 94 | 25 | 504 |
| Wind Gen (MU) | 41 | 126 | 201 | | | 368 |
| Solar Gen (MU)* | 28.35 | 17.33 | 62.52 | 2.23 | 0.03 | 110 |
| Energy Shortage (MU) | 18.8 | 0.0 | 0.0 | 0.0 | 2.6 | 21.4 |
| Maximum Demand Met during the day | 65574 | 46238 | 39835 | 22349 | 2854 | 173152 |
| (MW) & time (from NLDC SCADA) | 22:23 | 19:46 | 20:00 | 21:08 | 19:45 | 21:12 |

B. Frequency Profile (%)
Region
All India FVI <49.7 49.7-49.8 49.8-49.9 <49.9 49.9-50.05 > 50.05 0.049 10.31

| 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 | 12461 | 0 | 281.5 | 138.3 | -1.2 | 139 | 0.0 |
| | Haryana | 10185 | 0 | 224.5 | 152.1 | -0.1 | 184 | 0.4 |
| | Rajasthan | 11671 | 0 | 255.7 | 64.2 | -2.0 | 352 | 0.0 |
| | Delhi | 6664 | 0 | 136.7 | 114.7 | 0.7 | 227 | 0.0 |
| NR | UP | 20399 | 940 | 452.6 | 221.7 | 2.5 | 490 | 7.9 |
| | Uttarakhand | 2141 | 0 | 48.6 | 18.2 | 1.3 | 125 | 0.0 |
| | HP | 1534 | 0 | 31.5 | 1.5 | 1.4 | 241 | 0.0 |
| | J&K | 2252 | 563 | 44.6 | 19.8 | -0.4 | 305 | 10.6 |
| | Chandigarh | 355 | 0 | 6.8 | 7.0 | -0.2 | 25 | 0.0 |
| | Chhattisgarh | 3827 | 0 | 89.7 | 35.4 | 0.3 | 314 | 0.0 |
| | Gujarat | 14979 | 0 | 328.2 | 59.8 | 2.8 | 684 | 0.0 |
| | MP | 8097 | 0 | 187.4 | 103.2 | 0.1 | 506 | 0.0 |
| 1440 | Maharashtra | 17431 | 0 | 388.5 | 86.4 | -0.6 | 711 | 0.0 |
| WR | Goa | 541 | 0 | 10.9 | 10.4 | -0.1 | 49 | 0.0 |
| | DD | 326 | 0 | 7.2 | 6.9 | 0.3 | 50 | 0.0 |
| | DNH | 746 | 0 | 17.1 | 17.3 | -0.2 | 32 | 0.0 |
| | Essar steel | 325 | 0 | 5.4 | 5.4 | 0.0 | 347 | 0.0 |
| | Andhra Pradesh | 8292 | 0 | 184.6 | 17.1 | -0.8 | 489 | 0.0 |
| | Telangana | 6701 | 0 | 147.0 | 38.0 | -1.1 | 628 | 0.0 |
| SR | Karnataka | 9951 | 0 | 191.8 | 67.8 | -0.1 | 807 | 0.0 |
| 3K | Kerala | 3788 | 0 | 77.2 | 64.3 | 1.8 | 362 | 0.0 |
| | Tamil Nadu | 15048 | 0 | 339.7 | 131.8 | -0.2 | 649 | 0.0 |
| | Pondy | 411 | 0 | 8.6 | 8.7 | -0.1 | 51 | 0.0 |
| | Bihar | 5760 | 0 | 101.1 | 102.8 | -4.1 | 50 | 0.0 |
| ER | DVC | 3273 | 0 | 62.6 | -43.7 | -1.3 | 130 | 0.0 |
| | Jharkhand | 1269 | 0 | 25.3 | 15.8 | 0.0 | 90 | 0.0 |
| | Odisha | 4093 | 0 | 90.4 | 29.0 | 0.1 | 220 | 0.0 |
| | West Bengal | 8613 | 0 | 176.3 | 59.0 | 2.5 | 400 | 0.0 |
| | Sikkim | 93 | 0 | 1.2 | 1.4 | -0.1 | 10 | 0.0 |
| | Arunachal Pradesh | 134 | 2 | 2.3 | 2.7 | -0.4 | 82 | 0.0 |
| | Assam | 1759 | 81 | 31.1 | 22.8 | 2.9 | 196 | 2.5 |
| | Manipur | 177 | 3 | 2.8 | 2.4 | 0.4 | 51 | 0.0 |
| NER | Meghalaya | 340 | 0 | 5.8 | 1.4 | -0.4 | 35 | 0.0 |
| | Mizoram | 94 | 1 | 1.7 | 1.6 | 0.0 | 13 | 0.0 |
| | Nagaland | 130 | 2 | 2.2 | 2.4 | -0.4 | 20 | 0.0 |
| | Tripura | 286 | 0 | 5.4 | 4.7 | -0.1 | 47 | 0.0 |

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

| | Bhutan | Nepal | Bangladesh |
|---------------|--------|--------|------------|
| Actual(MU) | 21.7 | -7.4 | -25.8 |
| Day peak (MW) | 970.9 | -443.0 | -1106.0 |

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

| | NR | WR | SR | ER | NER | TOTAL |
|--------------|-------|--------|------|-------|------|-------|
| Schedule(MU) | 325.1 | -290.7 | 36.1 | -61.9 | -8.7 | -0.1 |
| Actual(MU) | 351.1 | -311.1 | 27.1 | -65.2 | -7.8 | -5.8 |
| O/D/U/D(MU) | 25.9 | -20.3 | -8.9 | -3.3 | 0.9 | -5.8 |

F. Generation Outage(MW)

| | NR | WR | SR | ER | NER | Total |
|----------------|-------|-------|-------|------|-----|-------|
| Central Sector | 5070 | 16900 | 8002 | 1525 | 56 | 31553 |
| State Sector | 5195 | 16476 | 7220 | 3800 | 50 | 32741 |
| Total | 10265 | 33376 | 15222 | 5325 | 106 | 64294 |
| • | | | | | | |

G. Sourcewise generation (MU)

| | NR | WR | SR | ER | NER | All India |
|-------------------------------------|------|------|-----|-----|-----|-----------|
| Coal | 652 | 1103 | 484 | 456 | 10 | 2704 |
| Lignite | 19 | 16 | 47 | 0 | 0 | 82 |
| Hydro | 338 | 12 | 35 | 94 | 25 | 504 |
| Nuclear | 27 | 31 | 55 | 0 | 0 | 113 |
| Gas, Naptha & Diesel | 32 | 39 | 12 | 0 | 29 | 112 |
| RES (Wind, Solar, Biomass & Others) | 85 | 153 | 299 | 2 | 0 | 540 |
| Total | 1152 | 1353 | 932 | 552 | 64 | 4054 |

| Share of RES in total generation (%) | 7.41 | 11.30 | 32.12 | 0.41 | 0.05 | 13.32 |
|--|-------|-------|-------|-------|-------|---------|
| Share of Non-fossil fuel (Hydro, Nuclear and | 39.05 | 14.44 | 41.71 | 17.51 | 39.22 | 28.52 |
| RES) in total generation (%) | 65106 | 1 | 111/1 | 1,101 | 07.22 | 1 20.02 |

H. Diversity Factor All India Demand Diversity Factor

All India Demand Diversity Factor 1.021
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}.$

| | | IN | TER-REGI | ONAL EXCH | ANGES | Date of 1 | Reporting : | 30-Jun-19 |
|--|----------------------------------|---|---------------------------|-------------------------------|--|----------------------------------|---------------------------------|--|
| | | | | | | | | 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) |
| | Export of | ER (With NR) | D/G | 0 | 2.52 | 0.0 | | |
| 2 | 765kV | GAYA-VARANASI SASARAM-FATEHPUR | D/C S/C | 0 251 | 363 | 0.0 3.4 | 5.4 0.0 | -5.4 3.4 |
| 3 | 1 | GAYA-BALIA | S/C | 0 | 551 | 0.0 | 11.3 | -11.3 |
| 4 | HVDC | ALIPURDUAR-AGRA | - | 0 | 1200 | 0.0 | 28.0 | -28.0 |
| 5 | | PUSAULI B/B PUSAULI-VARANASI | S/C S/C | 0 | 346 297 | 0.0 | 8.3 | -8.3 |
| 7 | | PUSAULI-ALLAHABAD | S/C | 0 | 127 | 0.0 | 6.1 2.0 | -6.1 -2.0 |
| 8 | | MUZAFFARPUR-GORAKHPUR | D/C | 0 | 755 | 0.0 | 10.4 | -10.4 |
| 9 | 400 kV | PATNA-BALIA | Q/C | 0 | 1221 | 0.0 | 22.2 | -22.2 |
| 10 | | BIHARSHARIFF-BALIA | D/C | 0 | 455 | 0.0 | 8.4 | -8.4 |
| 11 | | MOTIHARI-GORAKHPUR | D/C | 314 | 0 | 4.7 | 0.0 | 4.7 |
| 12 | | BIHARSHARIFF-VARANASI | D/C | 196 | 95 | 1.4 | 0.0 | 1.4 |
| 13 | 220 kV | PUSAULI-SAHUPURI | S/C | 0 | 204 | 0.0 | 3.9 | -3.9 |
| 14 | | SONE NAGAR-RIHAND | S/C | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 15 16 | 132 kV | GARWAH-RIHAND | S/C S/C | 30 0 | 0 | 0.3 | 0.0 | 0.3 |
| 17 | _ | KARMANASA-SAHUPURI KARMANASA-CHANDAULI | S/C | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 17 | 1 | REMODELLE | 5/0 | 0 | ER-NR | 9.8 | 105.8 | -96.0 |
| Import/E | Export of | ER (With WR) | | | | | | |
| 18 | | JHARSUGUDA-DHARAMJAIGARH | Q/C | 1016 | 0 | 16.1 | 0.0 | 16.1 |
| 19 | 765 kV | NEW RANCHI-DHARAMJAIGARH | D/C | 1312 | 0 | 23.7 | 0.0 | 23.7 |
| 20 | | JHARSUGUDA-DURG | D/C D/C | 280 | 3 | 3.4 | 0.0 | 3.4 |
| 21 | 400 kV | JHARSUGUDA-RAIGARH | Q/C | 385 | 0 | 5.0 | 0.0 | 5.0 |
| 22 | 400 KV | RANCHI-SIPAT | D/C | 546 | 0 | 9.4 | 0.0 | 9.4 |
| 23 | 220 kV | BUDHIPADAR-RAIGARH | S/C | 27 | 55 | 0.0 | 0.2 | -0.2 |
| 24 | | BUDHIPADAR-KORBA | D/C | 232 | 0 | 4.6 | 0.0 | 4.6 |
| Immout/E | Ermout of | ED (With CD) | | | ER-WR | 62.1 | 0.2 | 61.8 |
| 25 | _ | ER (With SR) ANGUL-SRIKAKULAM | D/C | 23.0 | 1173.0 | 0.0 | 16.5 | -16.5 |
| 26 | HVDC | JEYPORE-GAZUWAKA B/B | D/C | 0.0 | 425.0 | 0.0 | 12.4 | -12.4 |
| 27 | LINK | TALCHER-KOLAR BIPOLE | D/C | 0.0 | 1978.0 | 0.0 | 32.2 | -32.2 |
| 28 | 400 kV | TALCHER-I/C | D/C | 179.0 | 700.0 | 0.0 | 1.5 | -1.5 |
| 29 | 220 kV | BALIMELA-UPPER-SILERRU | S/C | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | ER-SR | 0.0 | 61.2 | -61.2 |
| _ | Export of | ER (With NER) | | | 1 | | | ı |
| 30 | 400 kV | BINAGURI-BONGAIGAON | D/C | 0 | 635 | 0.0 | 8.6 | -9 |
| 31 | 220 kV | ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI | D/C D/C | 299 10 | 141 99 | 2.3 0.0 | 1.0 | -1 |
| 32 | 220 KV | ALIFUNDUAR-SALAKATI | D/C | 10 | ER-NER | 2.3 | 9.5 | -7.3 |
| Import/E | Export of | NER (With NR) | | | | 210 | 710 | 7.0 |
| 33 | HVDC | BISWANATH CHARIALI-AGRA | - | 0 | 703 | 0.0 | 16.5 | -16.5 |
| | | | | | NER-NR | 0.0 | 16.5 | -16.5 |
| | Export of | WR (With NR) | 1 1 | | | | | 1 |
| 34 | | CHAMPA-KURUKSHETRA | D/C | 0 | 3027 | 0.0 | 71.0 | -71.0 |
| 35 | HVDC | V'CHAL B/B | D/C | 230 | 493 | 2.3 | 4.8 | -2.5 |
| 36 37 | | APL -MHG GWALIOR-AGRA | D/C D/C | 0 | 2366 2894 | 0.0 | 56.1 54.1 | -56.1 -54.1 |
| 38 | 1 | PHAGI-GWALIOR | D/C D/C | 0 | 1131 | 0.0 | 21.8 | -34.1 |
| 39 | 1 | JABALPUR-ORAI | D/C | 0 | 1037 | 0.0 | 40.0 | -40.0 |
| 40 | 765 kV | GWALIOR-ORAI | S/C | 404 | 0 | 8.5 | 0.0 | 8.5 |
| 41 | | SATNA-ORAI | S/C | 0 | 1513 | 0.0 | 32.1 | -32.1 |
| 42 | | CHITTORGARH-BANASKANTHA | D/C | 237 | 439 | 0.0 | 2.4 | 2.4 |
| 43 | | ZERDA-KANKROLI | S/C | 143 | 23 | 1.1 | 0.0 | 1.1 |
| 44 | 400 kV | ZERDA -BHINMAL | S/C | 281 | 0 | 3.4 | 0.0 | 3.4 |
| 45 | 1 | V'CHAL -RIHAND | S/C | 978 | 0 | 22.5 | 0.0 | 22.5 |
| 46 | | RAPP-SHUJALPUR | D/C | 0 | 287 | 0 | 2 | -2 |
| 47 | - | BHANPURA-RANPUR BHANPURA-MORAK | S/C S/C | 0 | 45 | 0.0 | 0.4 1.5 | -0.4 -1.5 |
| 48 | 220 kV | MEHGAON-AURAIYA | S/C S/C | 126 | 115 21 | 1.0 | 0.1 | 0.9 |
| 50 | 1 | MALANPUR-AURAIYA | S/C | 4 | 91 | 0.0 | 0.1 | -0.9 |
| 51 | 132kV | GWALIOR-SAWAI MADHOPUR | S/C | 0 | 0 | 0.0 | 0.0 | 0.0 |
| | • | · | | | WR-NR | 38.8 | 287.3 | -243.7 |
| T | | WR (With SR) | | | | | - | |
| ттроги/г | Export of | | - | 189 | 505 | 2.2 | 10.8 | -8.7 |
| 52 | HVDC | BHADRAWATI B/B | | | 0 | 0.0 | 0.0 | 0.0 |
| 52 53 | T . | BARSUR-L.SILERU | - | 0 | | | | |
| 52 53 54 | HVDC | BARSUR-L.SILERU SOLAPUR-RAICHUR | - D/C | 1088 | 1012 | 0.5 | 0.0 | 0.5 |
| 52 53 54 55 | HVDC LINK 765 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD | D/C D/C | 1088 637 | 1012 1119 | 0.0 | 8.7 | -8.7 |
| 52 53 54 55 56 | HVDC LINK | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI | D/C D/C D/C | 1088 637 1135 | 1012 1119 40 | 0.0 13.1 | 8.7 0.0 | -8.7 13.1 |
| 52 53 54 55 56 57 | HVDC LINK 765 kV 400 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI | - D/C D/C D/C D/C D/C | 1088 637 1135 0 | 1012 1119 40 0 | 0.0 13.1 0.0 | 8.7 0.0 0.0 | -8.7 13.1 0.0 |
| 52 53 54 55 56 57 58 | HVDC LINK 765 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI | D/C D/C D/C D/C S/C | 1088 637 1135 0 | 1012 1119 40 0 85 | 0.0 13.1 0.0 0.0 | 8.7 0.0 0.0 1.2 | -8.7 13.1 0.0 -1.2 |
| 52 53 54 55 56 57 | HVDC LINK 765 kV 400 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI | - D/C D/C D/C D/C D/C | 1088 637 1135 0 | 1012 1119 40 0 85 47 | 0.0 13.1 0.0 0.0 0.7 | 8.7 0.0 0.0 1.2 0.0 | -8.7 13.1 0.0 -1.2 0.7 |
| 52 53 54 55 56 57 58 | HVDC LINK 765 kV 400 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI | - D/C D/C D/C D/C S/C S/C | 1088 637 1135 0 1 | 1012 1119 40 0 85 47 WR-SR | 0.0 13.1 0.0 0.0 | 8.7 0.0 0.0 1.2 | -8.7 13.1 0.0 -1.2 |
| 52 53 54 55 56 57 58 59 | HVDC LINK 765 kV 400 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI | - D/C D/C D/C D/C S/C S/C | 1088 637 1135 0 | 1012 1119 40 0 85 47 WR-SR | 0.0 13.1 0.0 0.0 0.7 | 8.7 0.0 0.0 1.2 0.0 | -8.7 13.1 0.0 -1.2 0.7 -4.3 |
| 52 53 54 55 56 57 58 | HVDC LINK 765 kV 400 kV | BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI | - D/C D/C D/C D/C S/C S/C | 1088 637 1135 0 1 | 1012 1119 40 0 85 47 WR-SR | 0.0 13.1 0.0 0.0 0.7 | 8.7 0.0 0.0 1.2 0.0 | -8.7 13.1 0.0 -1.2 0.7 |