



National Load Despatch Centre

राष्ट्रीय भार प्रेषण केंद्र

GRID CONTROLLER OF INDIA LIMITED

ग्रीड कंट्रोलर ऑफ इंडिया लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

बी-9, कुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 20th July 2023

To,

- कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के., 14, गोल्फ क्लब रोड, कोलकाता - 700033
Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
- 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
- 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
- कार्यकारी निदेशक, ऊ.पू.क्षे.भा.प्रे.के., डोंगतेिह, लोअर नोंग्रह, लापलंग, शिलोंग - 793006
Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 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 19.07.2023.

महोदय/Dear Sir,

आईंईंजींसीं-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 19-जुलाई-2023 की अखिल भारतीय प्रणाली की दैनिक ग्रीड निष्पादन रिपोर्ट रांभांप्रेंकें की वेबसाइट पर उपलब्ध 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 19th July 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 20-Jul-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)	71085	55171	44905	26669	3454	201284
Peak Shortage (MW)	1242	0	0	692	42	1976
Energy Met (MU)	1579	1277	1042	603	68	4570
Hydro Gen (MU)	377	50	60	135	34	655
Wind Gen (MU)	15	154	296	-	-	465
Solar Gen (MU)*	106.27	35.67	73.64	2.44	1.36	219
Energy Shortage (MU)	5.39	0.00	0.00	5.11	0.59	11.09
Maximum Demand During the Day (MW) (From NLDC SCADA)	72185	56566	49104	28558	3490	201837
Time Of Maximum Demand Met	22:42	19:48	10:39	23:06	19:30	19:48

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	0.028	0.00	0.54	2.93	3.47	79.39	17.14

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	12976	0	286.7	162.1	-1.4	130	0.00
	Haryana	9804	750	215.8	162.8	-0.8	186	2.50
	Rajasthan	13107	0	280.4	101.3	2.8	459	2.35
	Delhi	6466	0	130.2	118.9	-1.4	158	0.00
	UP	27001	0	531.7	255.1	0.1	271	0.46
	Uttarakhand	2060	0	45.1	24.0	0.5	403	0.07
	HP	1601	0	32.8	0.7	-0.5	142	0.01
	J&K(UT) & Ladakh(UT)	2420	0	46.3	22.5	-2.3	167	0.00
	Chandigarh	348	0	7.0	7.1	0.0	31	0.00
Railways_NR ISTS	149	0	3.2	3.5	-0.3	8	0.00	
WR	Chhattisgarh	4838	0	105.8	56.2	0.2	410	0.00
	Gujarat	16825	0	378.9	159.3	-1.1	897	0.00
	MP	11185	0	242.9	140.0	2.2	996	0.00
	Maharashtra	21745	0	478.4	165.4	-1.7	612	0.00
	Goa	586	0	11.9	12.0	-0.5	38	0.00
	DNHDDPDCL	1297	0	30.0	29.9	0.1	29	0.00
	AMNSIL	862	0	17.0	10.7	-0.9	242	0.00
	BALCO	520	0	12.4	12.5	-0.1	39	0.00
	Andhra Pradesh	8893	0	193.7	22.9	0.8	571	0.00
SR	Telangana	10039	0	189.9	74.8	0.8	620	0.00
	Karnataka	10657	0	201.6	23.5	-2.4	472	0.00
	Kerala	3891	0	78.3	55.5	1.5	318	0.00
	Tamil Nadu	16797	0	368.6	152.3	-3.0	366	0.00
	Puducherry	431	0	10.1	9.6	-0.3	42	0.00
	Bihar	6886	383	148.6	139.0	-0.9	252	4.63
ER	DVC	3429	0	76.2	-31.7	-1.1	203	0.00
	Jharkhand	1729	0	36.5	32.0	-0.2	137	0.48
	Odisha	6526	0	118.4	37.6	-0.8	488	0.00
	West Bengal	10280	0	222.1	109.8	-1.2	278	0.00
	Sikkim	88	0	1.2	1.1	0.0	34	0.00
	Railways_ER ISTS	23	0	0.1	0.3	-0.2	6	0.00
NER	Arunachal Pradesh	171	0	3.0	2.4	0.2	48	0.00
	Assam	2370	0	46.7	38.4	0.8	138	0.00
	Manipur	202	0	2.7	2.8	-0.1	21	0.00
	Meghalaya	322	0	5.3	0.6	-0.2	37	0.59
	Mizoram	116	0	1.8	1.6	-0.2	14	0.00
	Nagaland	168	0	3.0	2.6	0.0	19	0.00
	Tripura	325	0	6.0	5.7	0.1	52	0.00

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	43.6	5.9	-25.0	-17.1
Day Peak (MW)	1982.3	294.0	-1096.0	-741.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	326.7	-256.0	-2.0	-64.6	-4.2	0.0
Actual(MU)	315.8	-253.0	-2.8	-63.3	-1.0	-4.3
O/D/U/D(MU)	-10.9	3.0	-0.9	1.3	3.2	-4.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	3057	11709	7968	4030	271	27035	46
State Sector	6630	13976	7563	3830	212	32210	54
Total	9687	25684	15531	7860	483	59245	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	760	1320	553	594	13	3241	66
Lignite	28	12	57	0	0	97	2
Hydro	377	50	60	135	34	655	13
Nuclear	29	49	46	0	0	125	3
Gas, Naptha & Diesel	33	26	7	0	28	94	2
RES (Wind, Solar, Biomass & Others)	128	191	390	4	1	714	14
Total	1355	1649	1113	733	77	4926	100

Share of RES in total generation (%)	9.43	11.58	35.05	0.50	1.77	14.49
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	39.40	17.61	44.62	18.86	45.71	30.33

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.039
Based on State Max Demands	1.075

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	200861	11:54	16
Non-Solar hr	201837	19:48	1377

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: 20-Jul-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	1003	0.0	24.6	-24.6
2	HVDC	PUSAULI B/B	-	0	107	0.0	2.5	-2.5
3	765 kV	GAYA-VARANASI	2	604	285	0.9	0.0	0.9
4	765 kV	SASARAM-FATEHPUR	1	190	236	0.0	1.5	-1.5
5	765 kV	GAYA-BALIA	1	0	630	0.0	10.1	-10.1
6	400 kV	PUSAULI-VARANASI	1	0	127	0.0	2.0	-2.0
7	400 kV	PUSAULI -ALLAHABAD	1	12	63	0.0	0.5	-0.5
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	628	0.0	9.9	-9.9
9	400 kV	PATNA-BALIA	2	0	369	0.0	6.6	-6.6
10	400 kV	NAUBATPUR-BALIA	2	0	359	0.0	6.2	-6.2
11	400 kV	BIHARSHARIFF-BALIA	2	166	147	0.0	1.6	-1.6
12	400 kV	MOTIHARI-GORAKHPUR	2	0	400	0.0	7.0	-7.0
13	400 kV	BIHARSHARIFF-VARANASI	2	268	102	0.5	0.0	0.5
14	220 kV	SAHUPURI-KARAMNANA	1	0	119	0.0	1.7	-1.7
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.7	0.0	0.7
17	132 kV	KARMANASA-SAHUPURI	1	0	57	0.0	0.0	0.0
18	132 kV	KARMANASA-CHANDAUJI	1	0	0	0.0	0.0	0.0
ER-NR						2.1	74.3	-72.1
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1441	313	14.6	0.0	14.6
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	1572	0	26.0	0.0	26.0
3	765 kV	JHARSUGUDA-DURG	2	357	345	0.4	0.0	0.4
4	400 kV	JHARSUGUDA-RAIGARH	4	155	333	0.0	1.7	-1.7
5	400 kV	RANCHI-SIPAT	2	368	44	5.1	0.0	5.1
6	220 kV	BUDHIPADAR-RAIGARH	1	0	136	0.0	2.5	-2.5
7	220 kV	BUDHIPADAR-KORBA	2	85	0	0.7	0.0	0.7
ER-WR						46.9	4.2	42.7
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	189	0	4.9	0.0	4.9
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1638	0.0	32.2	-32.2
3	765 kV	ANGUL-SRIKAKULAM	2	0	2269	0.0	30.4	-30.4
4	400 kV	TALCHER-I/C	2	386	370	0.0	0.0	0.0
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						4.9	62.6	-57.7
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	4	316	0.0	5.1	-5.1
2	400 kV	ALIPURDUAR-BONGAIGAON	2	180	273	0.0	3.0	-3.0
3	220 kV	ALIPURDUAR-SALAKATI	2	25	80	0.0	0.9	-0.9
ER-NER						0.0	9.0	-9.0
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	503	0.0	12.0	-12.0
NER-NR						0.0	12.0	-12.0
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	5046	0.0	95.2	-95.2
2	HVDC	VINDHYACHAL B/B	-	435	0	4.2	0.1	4.1
3	HVDC	MUNDRA-MOHINDERGARH	2	261	0	5.8	0.0	5.8
4	765 kV	GWALIOR-AGRA	2	0	1986	0.0	28.6	-28.6
5	765 kV	GWALIOR-PHAGI	2	37	1568	0.0	21.7	-21.7
6	765 kV	JABALPUR-ORAI	2	0	1034	0.0	33.3	-33.3
7	765 kV	GWALIOR-ORAI	1	593	0	10.3	0.0	10.3
8	765 kV	SATNA-ORAI	1	0	954	0.0	19.4	-19.4
9	765 kV	BANASKANTHA-CHITORGARH	2	391	1450	1.4	12.1	-10.7
10	765 kV	VINDHYACHAL-VARANASI	2	0	3382	0.0	62.4	-62.4
11	400 kV	ZERDA-KANKROLI	1	89	248	0.4	1.7	-1.3
12	400 kV	ZERDA -BHINMAL	1	236	369	1.0	2.1	-1.1
13	400 kV	VINDHYACHAL -RIHAND	1	951	0	22.0	0.0	22.0
14	400 kV	RAPP-SHUJALPUR	2	133	525	0.4	5.7	-5.3
15	220 kV	BHANPURA-RANPUR	1	0	0	0.0	0.0	0.0
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	2.4	-2.4
17	220 kV	MEHGAON-AURAIYA	1	134	0	1.9	0.0	1.9
18	220 kV	MALANPUR-AURAIYA	1	99	0	1.1	0.0	1.1
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						48.5	284.5	-236.0
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	994	0	16.9	0.0	16.9
2	HVDC	RAIGARH-PUGALUR	2	0	1500	0.0	22.4	-22.4
3	765 kV	SOLAPUR-RAICHUR	2	1667	381	18.6	0.4	18.2
4	765 kV	WARDHA-NIZAMABAD	2	364	1899	1.0	16.9	-15.9
5	400 kV	KOLHAPUR-KUDGI	2	1408	0	27.6	0.0	27.6
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	97	1.8	0.0	1.8
WR-SR						65.9	39.7	26.1

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 MANGDECHHU HEP 4*180MW)	663	566	593	14.24	
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	1118	720	1031	24.75	
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	193	26	112	2.68	
	NER	132kV GELEPHU-SALAKATI	30	27	28	0.66	
	NER	132kV MOTANGA-RANGIA	70	8	51	1.23	
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-72	0	-48	-1.16	
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00	
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	366	211	294	7.06	
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-927	-780	-896	-21.51	
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-741	-655	-710	-17.05	
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-169	0	-146	-3.50	