

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 21st November 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., डोंगतेह, 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 20.11.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 20-नवंबर -2023 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रांभांप्रेके 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 20th November 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 21-Nov-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 19:00 hrs; from RLDCs)	48541	58048	46056	19819	2518	174982
Peak Shortage (MW)	220	0	0	81	18	319
Energy Met (MU)	1073	1439	1083	414	46	4055
Hydro Gen (MU)	123	36	45	21	14	239
Wind Gen (MU)	28	94	41	-	-	163
Solar Gen (MU)*	93.70	53.55	110.20	2.35	1.19	261
Energy Shortage (MU)	1.59	0.00	0.00	0.27	0.05	1.91
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	53149	71490	52793	21390	2673	197068
Time Of Maximum Demand Met	09:49	10:54	11:52	17:48	17:11	10:12

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	0.031	0.00	0.00	1.94	1.94	78.29	19.77

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	6528	0	126.3	39.4	-0.8	102	0.00
	Haryana	6891	0	129.9	95.4	-1.1	152	0.00
	Rajasthan	15451	0	295.5	113.4	-4.8	219	0.00
	Delhi	3504	0	66.3	57.6	-0.3	252	0.00
	UP	16152	0	325.5	130.0	-1.1	848	0.00
	Uttarakhand	1951	0	37.1	27.0	0.7	161	0.08
	HP	1916	0	32.9	24.8	-0.2	91	0.00
	J&K(UT) & Ladakh(UT)	2588	250	52.3	44.1	2.8	402	1.51
	Chandigarh	189	0	3.4	3.3	0.0	43	0.00
Railways NR ISTS	180	0	3.7	3.8	-0.1	18	0.00	
WR	Chhattisgarh	4267	0	88.3	33.2	-0.7	215	0.00
	Gujarat	19981	0	376.7	155.2	-3.9	586	0.00
	MP	16861	0	331.2	204.7	-4.1	614	0.00
	Maharashtra	27249	0	568.7	223.0	0.9	735	0.00
	Goa	710	0	14.5	13.2	0.8	90	0.00
	DNHDDPDCL	1209	0	27.1	27.4	-0.3	36	0.00
	AMNSIL	887	0	19.9	10.3	-0.2	264	0.00
	BALCO	521	0	12.4	12.5	-0.1	12	0.00
SR	Andhra Pradesh	11330	0	218.9	97.8	-1.2	501	0.00
	Telangana	10100	0	211.6	94.6	-0.2	357	0.00
	Karnataka	13941	0	253.8	112.6	-2.1	1000	0.00
	Kerala	4227	0	82.5	67.4	1.3	351	0.00
	Tamil Nadu	15275	0	308.0	166.2	0.7	602	0.00
	Puducherry	394	0	8.6	8.2	-0.2	45	0.00
ER	Bihar	4500	0	80.2	71.5	-0.5	260	0.00
	DVC	3259	0	69.2	-41.0	1.4	355	0.00
	Jharkhand	1589	0	29.4	23.1	-3.0	249	0.27
	Odisha	4738	0	99.6	25.9	-0.7	457	0.00
	West Bengal	6682	0	134.2	7.8	-2.7	162	0.00
	Sikkim	79	0	1.3	1.3	0.1	18	0.00
Railways ER ISTS	8	0	0.1	0.1	0.0	4	0.00	
NER	Arunachal Pradesh	146	0	2.6	2.4	0.1	42	0.00
	Assam	1573	0	26.7	19.3	0.5	126	0.00
	Manipur	178	0	2.6	2.6	0.0	44	0.00
	Meghalaya	345	18	5.8	4.3	0.0	53	0.05
	Mizoram	132	0	1.7	1.9	-0.5	9	0.00
	Nagaland	148	0	2.3	2.2	0.0	14	0.00
Tripura	238	0	4.1	3.6	-0.1	13	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-1.7	10.2	-23.0	-19.6
Day Peak (MW)	-121.4	463.5	-1078.0	-833.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	209.6	-166.2	158.2	-199.0	-2.6	0.0
Actual(MU)	202.8	-161.0	171.8	-222.0	-1.1	-9.5
O/D/U/D(MU)	-6.9	5.2	13.6	-23.0	1.5	-9.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	5930	11744	5828	2966	155	26622	47
State Sector	9496	11259	6209	2407	145	29515	53
Total	15426	23002	12037	5373	300	56137	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	626	1464	629	682	13	3413	77
Lignite	25	15	52	0	0	92	2
Hydro	123	36	45	21	14	239	5
Nuclear	20	52	76	0	0	149	3
Gas, Naptha & Diesel	13	17	2	0	27	58	1
RES (Wind, Solar, Biomass & Others)	139	152	183	4	1	479	11
Total	945	1735	988	707	54	4430	100

Share of RES in total generation (%)	14.69	8.74	18.57	0.59	2.23	10.82
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	29.81	13.84	30.82	3.61	27.47	19.57

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.022
Based on State Max Demands	1.044

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	197068	10:12	0
Non-Solar hr	189106	18:16	429

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: 21-Nov-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	0	0.0	0.0	0.0
2	HVDC	PUSAULI B/B	-	0	49	0.0	1.3	-1.3
3	765 kV	GAYA-VARANASI	2	0	1359	0.0	21.5	-21.5
4	765 kV	SASARAM-FATEHPUR	1	0	763	0.0	13.5	-13.5
5	765 kV	GAYA-BALIA	1	0	586	0.0	11.2	-11.2
6	400 kV	PUSAULI-VARANASI	1	39	10	0.3	0.0	0.3
7	400 kV	PUSAULI-ALLAHABAD	1	0	85	0.0	1.5	-1.5
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	941	0.0	15.5	-15.5
9	400 kV	PATNA-BALIA	2	0	686	0.0	12.3	-12.3
10	400 kV	NAUBATPUR-BALIA	2	0	739	0.0	13.1	-13.1
11	400 kV	BIHARSHARIF-BALIA	2	0	457	0.0	6.9	-6.9
12	400 kV	MOTIHARI-GORAKHPUR	2	0	570	0.0	10.6	-10.6
13	400 kV	BIHARSHARIF-VARANASI	2	0	570	0.0	8.5	-8.5
14	220 kV	SAHUPURI-KARAMNANA	1	0	166	0.0	2.5	-2.5
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.4	0.0	0.4
17	132 kV	KARMANASA-SAHUPURI	1	0	0	0.0	0.0	0.0
18	132 kV	KARMANASA-CHANDAULI	1	0	0	0.0	0.0	0.0
ER-NR						0.7	118.4	-117.7
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	38	1311	0.0	17.8	-17.8
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	329	1294	0.0	12.7	-12.7
3	765 kV	JHARSUGUDA-DURG	2	0	782	0.0	15.0	-15.0
4	400 kV	JHARSUGUDA-RAIGARH	4	0	601	0.0	8.8	-8.8
5	400 kV	RANCHI-SIPAT	2	72	441	0.0	4.8	-4.8
6	220 kV	BUDHIPADAR-RAIGARH	1	15	120	0.0	1.2	-1.2
7	220 kV	BUDHIPADAR-KORBA	2	140	50	1.2	0.0	1.2
ER-WR						1.2	60.3	-59.0
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	552	0.0	12.6	-12.6
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1990	0.0	42.8	-42.8
3	765 kV	ANGUL-SRIKAKULAM	2	0	2657	0.0	49.4	-49.4
4	400 kV	TALCHER-I/C	2	275	659	0.2	0.0	0.2
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	104.8	-104.8
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	275	24	3.0	0.0	3.0
2	400 kV	ALIPURDUAR-BONGAIGAON	2	873	0	10.2	0.0	10.2
3	220 kV	ALIPURDUAR-SALAKATI	2	161	0	2.2	0.0	2.2
ER-NER						15.3	0.0	15.3
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	661	0	15.0	0.0	15.0
NER-NR						15.0	0.0	15.0
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KIRUKSHETRA	2	6	872	0.0	2.3	-2.3
2	HVDC	VINDHYACHAL B/B	-	432	0	8.9	0.0	8.9
3	HVDC	MUNDRA-MOHINDERGARH	2	0	978	0.0	15.1	-15.1
4	765 kV	GWALIOR-AGRA	2	0	1856	0.0	29.3	-29.3
5	765 kV	GWALIOR-PHAGI	2	0	1983	0.0	31.1	-31.1
6	765 kV	JABALPUR-ORAI	2	0	833	0.0	26.6	-26.6
7	765 kV	GWALIOR-ORAI	1	1009	0	16.7	0.0	16.7
8	765 kV	SATNA-ORAI	1	0	1118	0.0	22.7	-22.7
9	765 kV	BANASKANTHA-CHITORGARH	2	1440	277	10.6	0.0	10.6
10	765 kV	VINDHYACHAL-VARANASI	2	0	2093	0.0	30.1	-30.1
11	400 kV	ZERDA-KANKROLI	1	175	52	1.6	0.1	1.5
12	400 kV	ZERDA -BHINMAL	1	369	251	0.4	0.0	0.4
13	400 kV	VINDHYACHAL -RIHAND	1	938	0	16.2	0.0	16.2
14	400 kV	RAPP-SHUJALPUR	2	256	238	1.5	1.8	-0.3
15	220 kV	BHANPURA-RANPUR	1	0	160	0.0	2.5	-2.5
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.6	-1.6
17	220 kV	MEHGAON-AURAIYA	1	119	0	1.5	0.0	1.5
18	220 kV	MALANPUR-AURAIYA	1	87	0	0.8	0.0	0.8
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						58.1	163.2	-105.1
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1010	0.0	11.8	-11.8
2	HVDC	RAIGARH-PUGALUR	2	0	5011	0.0	91.3	-91.3
3	765 kV	SOLAPUR-RAICHUR	2	2240	827	10.9	0.0	10.9
4	765 kV	WARDHA-NIZAMABAD	2	0	1915	0.0	26.8	-26.8
5	765 kV	WARORA-WARANGAL(NEW)	2	127	1929	0.0	25.2	-25.2
6	400 kV	KOLHAPUR-KUDGI	2	1741	0	27.0	0.0	27.0
7	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV	PONDA-AMBEWADI	1	0	0	0.0	0.0	0.0
9	220 kV	XELDEM-AMBEWADI	1	0	117	2.2	0.0	2.2
WR-SR						40.1	155.1	-114.9

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)	-70	31	-20	-0.47
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	246	54	187	4.48
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-269	-98	-243	-5.83
	NER	132kV GELEPHU-SALAKATI	15	-41	4	0.10
	NER	132kV MOTANGA-RANGIA	14	-17	2	0.04
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	0	0	0	1.69
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	259	0	259	8.53
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-938	-647	-841	-20.19
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-833	-804	-818	-19.64
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-140	0	-116	-2.78

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 21-Nov-2023

Export From India (in MU)

Country	GNA (ISGS/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nepal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	20.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.24
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	20.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.24

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
Nepal	0.00	0.00	9.43	0.00	0.00	0.64	0.00	0.00	10.07
Bangladesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Import	0.85	0.00	9.43	0.00	0.00	0.64	0.00	0.00	10.92

Net from India(in MU)

-ve : Export / +ve : Import

Country	GNA (ISGS/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
Nepal	0.00	0.00	9.43	0.00	0.00	0.64	0.00	0.00	10.07
Bangladesh	-20.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-20.24
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-19.39	0.00	9.43	0.00	0.00	0.64	0.00	0.00	-9.32