



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: 22nd 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 21.11.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-नवंबर -2023 की अखिल भारतीय प्रणाली की दैनिक ग्रीड 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 21st November 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 22-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)	49790	59054	47656	20116	2576	179192
Peak Shortage (MW)	0	0	0	292	30	322
Energy Met (MU)	1081	1470	1094	417	48	4110
Hydro Gen (MU)	124	35	47	22	14	242
Wind Gen (MU)	21	87	33	-	-	142
Solar Gen (MU)*	93.43	54.68	88.79	2.45	0.77	240
Energy Shortage (MU)	2.28	0.00	0.00	1.84	0.10	4.22
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	53234	72159	52096	21366	2701	197845
Time Of Maximum Demand Met	10:24	10:56	09:25	17:51	17:31	10:25

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	0.059	0.19	1.56	10.10	11.85	69.27	18.88

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	6830	0	132.5	40.4	-0.5	79	0.00
	Haryana	7109	0	135.4	99.7	-1.6	111	0.00
	Rajasthan	15630	0	302.8	109.7	-5.7	104	0.00
	Delhi	3548	0	69.7	58.6	2.0	316	0.00
	UP	17159	0	309.0	107.6	-1.9	958	0.39
	Uttarakhand	2042	0	38.6	28.4	0.7	169	0.00
	HP	1915	0	33.5	25.2	-0.1	93	0.73
	J&K(UT) & Ladakh(UT)	2520	0	51.9	43.7	2.3	439	1.16
	Chandigarh	197	0	3.4	3.4	0.0	20	0.00
Railways NR ISTS	181	0	3.7	3.8	-0.1	29	0.00	
WR	Chhattisgarh	4293	0	89.2	32.8	-0.9	188	0.00
	Gujarat	20681	0	393.7	157.6	0.2	1199	0.00
	MP	16835	0	334.8	203.8	-3.0	741	0.00
	Maharashtra	27641	0	577.1	223.9	-1.3	993	0.00
	Goa	730	0	14.7	13.3	0.8	113	0.00
	DNHDDPDCL	1212	0	27.9	28.0	-0.1	29	0.00
	AMNSIL	884	0	20.1	10.2	-0.3	255	0.00
	BALCO	524	0	12.5	12.2	0.3	215	0.00
SR	Andhra Pradesh	10471	0	210.3	96.7	-0.7	597	0.00
	Telangana	10213	0	211.3	104.8	0.0	569	0.00
	Karnataka	13956	0	262.2	114.1	1.1	633	0.00
	Kerala	4187	0	83.8	69.3	0.8	401	0.00
	Tamil Nadu	15991	0	317.3	175.8	-0.6	975	0.00
	Puducherry	436	0	9.3	9.0	-0.3	62	0.00
ER	Bihar	4484	0	80.9	76.3	-1.2	349	0.45
	DVC	3299	0	69.8	-43.1	0.7	278	0.00
	Jharkhand	1594	0	28.7	23.4	-3.3	201	1.38
	Odisha	4718	0	98.2	27.1	-0.4	321	0.00
	West Bengal	7140	0	138.0	7.6	-2.4	389	0.00
	Sikkim	93	0	1.4	1.4	0.1	18	0.00
Railways ER ISTS	10	0	0.1	0.1	0.0	2	0.00	
NER	Arunachal Pradesh	158	0	2.7	2.3	0.2	40	0.00
	Assam	1632	0	28.1	22.5	-0.2	110	0.00
	Manipur	182	0	2.7	2.6	0.1	44	0.00
	Meghalaya	331	0	6.3	4.2	-0.1	67	0.10
	Mizoram	136	0	2.0	1.7	-0.2	12	0.00
	Nagaland	142	0	2.3	2.2	-0.1	21	0.00
Tripura	237	0	4.2	3.6	-0.2	32	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-12.3	10.3	-22.9	-19.8
Day Peak (MW)	-552.3	491.5	-1058.0	-842.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	187.7	-167.0	174.3	-194.7	-0.3	0.0
Actual(MU)	174.6	-160.9	198.3	-215.8	-0.8	-4.5
O/D/U/D(MU)	-13.1	6.1	24.0	-21.2	-0.4	-4.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	5490	12344	5828	3266	155	27082	47
State Sector	9246	10649	7309	2967	145	30315	53
Total	14736	22992	13137	6233	300	57397	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	662	1504	649	680	14	3510	78
Lignite	27	14	52	0	0	93	2
Hydro	124	35	47	22	14	242	5
Nuclear	20	53	76	0	0	149	3
Gas, Naptha & Diesel	13	17	2	0	26	59	1
RES (Wind, Solar, Biomass & Others)	132	144	154	4	1	435	10
Total	978	1767	980	706	55	4487	100

Share of RES in total generation (%)	13.52	8.15	15.70	0.54	1.40	9.69
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	28.25	13.13	28.21	3.67	26.77	18.40

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.018
Based on State Max Demands	1.058

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	197845	10:25	413
Non-Solar hr	190808	18:18	810

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: 22-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	91	0.0	1.3	-1.3
3	765 kV	GAYA-VARANASI	2	0	1148	0.0	17.6	-17.6
4	765 kV	SASARAM-FATEHPUR	1	0	737	0.0	13.4	-13.4
5	765 kV	GAYA-BALIA	1	0	653	0.0	10.7	-10.7
6	400 kV	PUSAULI-VARANASI	1	16	30	0.0	0.2	-0.2
7	400 kV	PUSAULI-ALLAHABAD	1	0	67	0.0	1.2	-1.2
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	766	0.0	14.4	-14.4
9	400 kV	PATNA-BALIA	2	0	587	0.0	11.4	-11.4
10	400 kV	NAUBATPUR-BALIA	2	0	639	0.0	11.9	-11.9
11	400 kV	BIHARSHARIFF-BALIA	2	0	289	0.0	4.4	-4.4
12	400 kV	MOTIHARI-GORAKHPUR	2	0	527	0.0	9.7	-9.7
13	400 kV	BIHARSHARIFF-VARANASI	2	0	495	0.0	8.3	-8.3
14	220 kV	SAHUPURI-KARAMNANA	1	0	141	0.0	2.3	-2.3
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						0.4	106.7	-106.3
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	90	1305	0.0	15.6	-15.6
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	0	1489	0.0	21.7	-21.7
3	765 kV	JHARSUGUDA-DURG	2	0	746	0.0	14.3	-14.3
4	400 kV	JHARSUGUDA-RAIGARH	4	0	542	0.0	7.3	-7.3
5	400 kV	RANCHI-SIPAT	2	0	450	0.0	5.1	-5.1
6	220 kV	BUDHIPADAR-RAIGARH	1	31	102	0.0	1.1	-1.1
7	220 kV	BUDHIPADAR-KORBA	2	150	17	1.8	0.0	1.8
ER-WR						1.8	65.2	-63.3
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	553	0.0	12.6	-12.6
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1993	0.0	95.9	-95.9
3	765 kV	ANGUL-SRIKAKULAM	2	0	2733	0.0	48.2	-48.2
4	400 kV	TALCHER-I/C	2	0	423	0.0	2.9	-2.9
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	156.7	-156.7
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	309	0	3.1	0.0	3.1
2	400 kV	ALIPURDUAR-BONGAIGAON	2	963	0	11.0	0.0	11.0
3	220 kV	ALIPURDUAR-SALAKATI	2	184	0	2.4	0.0	2.4
ER-NER						16.5	0.0	16.5
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	658	0	16.0	0.0	16.0
NER-NR						16.0	0.0	16.0
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	844	0.0	19.4	-19.4
2	HVDC	VINDHYACHAL B/B	-	431	0	10.4	0.0	10.4
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1170	0.0	24.9	-24.9
4	765 kV	GWALIOR-AGRA	2	57	1789	0.0	22.5	-22.5
5	765 kV	GWALIOR-PHAGI	2	0	1979	0.0	30.0	-30.0
6	765 kV	JABALPUR-ORAI	2	0	752	0.0	19.4	-19.4
7	765 kV	GWALIOR-ORAI	1	1009	0	17.4	0.0	17.4
8	765 kV	SATNA-ORAI	1	0	1092	0.0	21.7	-21.7
9	765 kV	BANASKANTHA-CHITORGARH	2	2002	189	17.9	0.0	17.9
10	765 kV	VINDHYACHAL-VARANASI	2	98	1594	0.0	23.6	-23.6
11	400 kV	ZERDA-KANKROLI	1	246	10	2.6	0.0	2.6
12	400 kV	ZERDA -BHINMAL	1	439	131	1.9	0.0	1.9
13	400 kV	VINDHYACHAL -RIHAND	1	956	0	21.7	0.0	21.7
14	400 kV	RAPP-SHUJALPUR	2	376	194	0.0	1.1	-1.1
15	220 kV	BHANPURA-RANPUR	1	0	152	0.0	2.6	-2.6
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.6	-1.6
17	220 kV	MEHGAON-AURAIYA	1	134	0	1.7	0.0	1.7
18	220 kV	MALANPUR-AURAIYA	1	103	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						74.5	166.6	-92.1
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	499	0.0	12.0	-12.0
2	HVDC	RAIGARH-PUGALUR	2	0	5518	0.0	107.0	-107.0
3	765 kV	SOLAPUR-RAICHUR	2	2182	1017	11.8	1.7	10.1
4	765 kV	WARDHA-NIZAMABAD	2	49	2122	0.0	28.3	-28.3
5	765 kV	WARORA-WARANGAL(NEW)	2	0	0	0.0	25.2	-25.2
6	400 kV	KOLHAPUR-KUDGI	2	1952	0	26.9	0.0	26.9
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	116	2.2	0.0	2.2
WR-SR						40.9	174.1	-133.3

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	2	-35	-0.84
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	210	181	210	-5.83
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-268	-200	-243	-5.83
	NER	132kV GELEPHU-SALAKATI	0	0	0	0.00
	NER	132kV MOTANGA-RANGIA	20	0	10	0.24
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	0	0	0	1.73
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	415	214	358	8.60
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-933	-642	-847	-20.32
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-842	-809	-825	-19.79
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-125	0	-108	-2.58

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 22-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	20.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.31
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	20.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.31

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
Nepal	0.00	0.00	8.26	0.00	0.00	1.01	0.00	0.00	9.27
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	0.82	0.00	8.26	0.00	0.00	1.01	0.00	0.00	10.09

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	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
Nepal	0.00	0.00	8.26	0.00	0.00	1.01	0.00	0.00	9.27
Bangladesh	-20.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-20.31
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-19.49	0.00	8.26	0.00	0.00	1.01	0.00	0.00	-10.22