



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: 24<sup>th</sup> 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 23.11.2023.**

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 23-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 23<sup>rd</sup> November 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 24-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)	48788	59880	46041	20025	2529	177263
Peak Shortage (MW)	80	0	0	257	24	361
Energy Met (MU)	1083	1480	1054	417	48	4083
Hydro Gen (MU)	118	39	48	24	13	242
Wind Gen (MU)	4	26	25	-	-	55
Solar Gen (MU)*	104.11	55.86	71.42	2.31	1.14	235
Energy Shortage (MU)	2.45	0.00	0.00	1.41	0.08	3.94
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	53724	72402	49872	21226	2749	196282
Time Of Maximum Demand Met	09:59	10:29	09:16	17:58	17:16	10:21

**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	0.042	0.28	0.66	7.35	8.29	79.93	11.78

**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	6764	0	135.2	45.6	-0.2	245	0.00
	Haryana	7276	0	138.7	98.4	0.2	170	0.00
	Rajasthan	15894	0	302.4	110.3	-4.5	82	0.00
	Delhi	3656	0	71.6	59.3	3.0	324	0.00
	UP	16846	0	304.2	97.8	-0.8	870	0.00
	Uttarakhand	2016	0	39.1	30.1	-0.1	231	0.00
	HP	1963	0	33.3	25.7	-0.4	45	0.52
	J&K(UT) & Ladakh(UT)	2387	80	51.7	45.4	0.4	180	1.93
	Chandigarh	190	0	3.4	3.4	0.0	28	0.00
Railways NR ISTS	185	0	3.6	3.7	-0.1	20	0.00	
WR	Chhattisgarh	4277	0	90.8	31.4	0.1	225	0.00
	Gujarat	20348	0	397.4	178.9	-0.2	567	0.00
	MP	16835	0	334.8	198.4	2.4	872	0.00
	Maharashtra	27844	0	582.2	222.1	0.5	549	0.00
	Goa	730	0	15.4	12.8	2.0	126	0.00
	DNHDDPDCL	1231	0	27.9	27.9	0.0	41	0.00
	AMNSIL	895	0	19.3	9.2	0.0	274	0.00
	BALCO	524	0	12.4	12.5	-0.1	519	0.00
SR	Andhra Pradesh	9971	0	203.5	95.6	-1.2	551	0.00
	Telangana	10030	0	202.8	101.1	0.0	490	0.00
	Karnataka	13915	0	259.2	129.5	1.1	774	0.00
	Kerala	4051	0	81.6	66.2	0.4	242	0.00
	Tamil Nadu	15090	0	297.9	173.3	-2.6	388	0.00
	Puducherry	411	0	9.1	8.7	-0.3	32	0.00
ER	Bihar	4459	0	83.8	73.0	-0.5	260	0.00
	DVC	3181	0	71.3	-45.1	0.6	284	0.00
	Jharkhand	1583	0	29.7	22.6	-1.6	325	1.41
	Odisha	4871	0	94.8	29.4	-1.6	356	0.00
	West Bengal	6983	0	136.2	20.6	-3.4	31	0.00
	Sikkim	94	0	1.5	1.6	-0.1	41	0.00
Railways ER ISTS	13	0	0.1	0.1	0.0	11	0.00	
NER	Arunachal Pradesh	153	0	2.6	2.4	0.1	38	0.00
	Assam	1644	0	28.1	21.5	0.2	145	0.00
	Manipur	195	0	2.7	2.7	0.1	47	0.00
	Meghalaya	317	0	6.3	4.4	-0.1	50	0.08
	Mizoram	130	0	1.9	1.8	-0.2	7	0.00
	Nagaland	145	0	2.3	2.2	0.0	17	0.00
Tripura	235	0	4.0	3.5	-0.2	17	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-3.5	7.4	-23.1	-20.1
Day Peak (MW)	-217.3	374.0	-1059.0	-972.4

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	175.9	-145.0	339.3	-199.5	-1.0	169.7
Actual(MU)	168.4	-133.9	363.5	-219.9	-0.5	177.7
O/D/U/D(MU)	-7.5	11.2	24.2	-20.3	0.5	8.1

**F. Generation Outage(MW)**

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	5443	11999	4968	3266	230	25905	43
State Sector	10711	11419	8069	3430	145	33773	57
Total	16154	23417	13037	6696	375	59678	100

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

	NR	WR	SR	ER	NER	All India	% Share
Coal	681	1538	647	685	14	3565	80
Lignite	30	14	45	0	0	89	2
Hydro	118	39	48	24	13	242	5
Nuclear	21	53	76	0	0	150	3
Gas, Naptha & Diesel	13	19	5	0	27	64	1
RES (Wind, Solar, Biomass & Others)	126	84	127	4	1	341	8
Total	990	1747	947	712	55	4451	100

Share of RES in total generation (%)	12.73	4.78	13.40	0.50	2.11	7.66
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	26.79	10.07	26.46	3.80	26.34	16.47

**H. All India Demand Diversity Factor**

Based on Regional Max Demands	1.018
Based on State Max Demands	1.056

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	196282	10:21	90
Non-Solar hr	187957	18:16	847

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: 24-Nov-2023

Sl No	Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
<b>Import/Export of ER (With NR)</b>								
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	1287	0.0	25.7	-25.7
4	765 kV	SASARAM-FATEHPUR	1	0	742	0.0	15.0	-15.0
5	765 kV	GAYA-BALIA	1	0	603	0.0	11.2	-11.2
6	400 kV	PUSAULI-VARANASI	1	33	23	0.1	0.0	0.1
7	400 kV	PUSAULI-ALLAHABAD	1	0	79	0.0	1.3	-1.3
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	847	0.0	14.3	-14.3
9	400 kV	PATNA-BALIA	2	0	0	0.0	0.0	0.0
10	400 kV	NAUBATPUR-BALIA	2	0	851	0.0	17.9	-17.9
11	400 kV	BIHARSHARIF-BALIA	2	0	379	0.0	7.0	-7.0
12	400 kV	MOTIHARI-GORAKHPUR	2	0	577	0.0	11.4	-11.4
13	400 kV	BIHARSHARIF-VARANASI	2	0	511	0.0	9.9	-9.9
14	220 kV	SAHUPURI-KARAMNANA	1	0	147	0.0	2.8	-2.8
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.2	0.0	0.2
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
<b>ER-NR</b>						<b>0.3</b>	<b>117.7</b>	<b>-117.4</b>
<b>Import/Export of ER (With WR)</b>								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	357	401	0.0	0.6	-0.6
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	0	1452	0.0	22.7	-22.7
3	765 kV	JHARSUGUDA-DURG	2	0	1124	0.0	22.5	-22.5
4	400 kV	JHARSUGUDA-RAIGARH	4	0	470	0.0	7.2	-7.2
5	400 kV	RANCHI-SIPAT	2	0	452	0.0	7.1	-7.1
6	220 kV	BUDHIPADAR-RAIGARH	1	0	141	0.0	2.0	-2.0
7	220 kV	BUDHIPADAR-KORBA	2	113	67	1.0	0.0	1.0
<b>ER-WR</b>						<b>1.0</b>	<b>62.0</b>	<b>-61.1</b>
<b>Import/Export of ER (With SR)</b>								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	546	0.0	12.5	-12.5
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1657	0.0	39.0	-39.0
3	765 kV	ANGUL-SRIKAKULAM	2	0	2599	0.0	51.2	-51.2
4	400 kV	TALCHER-I/C	2	640	0	5.7	0.0	5.7
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
<b>ER-SR</b>						<b>0.0</b>	<b>102.7</b>	<b>-102.7</b>
<b>Import/Export of ER (With NER)</b>								
1	400 kV	BINAGURI-BONGAIGAOON	2	288	0	2.7	0.0	2.7
2	400 kV	ALIPURDUAR-BONGAIGAOON	2	916	0	9.7	0.0	9.7
3	220 kV	ALIPURDUAR-SALAKATI	2	184	0	2.6	0.0	2.6
<b>ER-NER</b>						<b>15.0</b>	<b>0.0</b>	<b>15.0</b>
<b>Import/Export of NER (With NR)</b>								
1	HVDC	BISWANATH CHARIALI-AGRA	2	642	0	14.8	0.0	14.8
<b>NER-NR</b>						<b>14.8</b>	<b>0.0</b>	<b>14.8</b>
<b>Import/Export of WR (With NR)</b>								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	872	0.0	20.0	-20.0
2	HVDC	VINDHYACHAL B/B	-	431	0	7.7	0.0	7.7
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1170	0.0	27.6	-27.6
4	765 kV	GWALIOR-AGRA	2	459	1405	0.6	12.2	-11.6
5	765 kV	GWALIOR-PHAGI	2	0	1766	0.0	29.6	-29.6
6	765 kV	JABALPUR-ORAI	2	0	600	0.0	14.7	-14.7
7	765 kV	GWALIOR-ORAI	1	805	0	5.8	0.0	5.8
8	765 kV	SATNA-ORAI	1	0	944	0.0	18.3	-18.3
9	765 kV	BANASKANTHA-CHITORGARH	2	1920	0	25.9	0.0	25.9
10	765 kV	VINDHYACHAL-VARANASI	2	172	1404	0.0	16.8	-16.8
11	400 kV	ZERDA-KANKROLI	1	257	0	3.7	0.0	3.7
12	400 kV	ZERDA -BHINMAL	1	517	187	3.0	0.0	3.0
13	400 kV	VINDHYACHAL -RIHAND	1	945	0	21.8	0.0	21.8
14	400 kV	RAPP-SHUJALPUR	2	396	192	2.3	0.7	1.6
15	220 kV	BHANPURA-RANPUR	1	0	154	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	126	0	1.7	0.0	1.7
18	220 kV	MALANPUR-AURAIYA	1	94	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
<b>WR-NR</b>						<b>73.6</b>	<b>144.0</b>	<b>-70.4</b>
<b>Import/Export of WR (With SR)</b>								
1	HVDC	BHADRAWATI B/B	-	0	496	0.0	11.6	-11.6
2	HVDC	RAIGARH-PUGALUR	2	0	4011	0.0	81.2	-81.2
3	765 kV	SOLAPUR-RAICHUR	2	927	878	6.4	2.9	3.5
4	765 kV	WARDHA-NIZAMABAD	2	0	2047	0.0	33.2	-33.2
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2019	0.0	30.9	-30.9
6	400 kV	KOLHAPUR-KUDGI	2	1625	0	24.7	0.0	24.7
7	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV	PONDA-AMBEWADI	1	0	76	2.3	0.0	2.3
9	220 kV	XELDEM-AMBEWADI	1	0	122	2.3	0.0	2.3
<b>WR-SR</b>						<b>35.7</b>	<b>159.8</b>	<b>-124.2</b>

**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)	-66	8	-31	-0.75
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	199	139	146	3.50
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-277	-222	-249	-5.98
	NER	132kV GELEPHU-SALAKATI	-35	-13	-20	-0.48
	NER	132kV MOTANGA-RANGIA	12	-1	7	0.17
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	0	0	0	1.71
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	374	106	238	5.72
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-936	-699	-856	-20.53
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-972	-805	-838	-20.11
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-123	0	-108	-2.58

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 24-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	20.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.42
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	20.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.42

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	7.25	0.00	0.00	0.47	0.00	0.00	7.72
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	7.25	0.00	0.00	0.47	0.00	0.00	8.54

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	7.25	0.00	0.00	0.47	0.00	0.00	7.72
Bangladesh	-20.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-20.42
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-19.60	0.00	7.25	0.00	0.00	0.47	0.00	0.00	-11.88