



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: 20<sup>th</sup> December 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 19.12.2023.**

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 19-दिसम्बर-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 19<sup>th</sup> December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 20-Dec-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)	54713	59225	43882	20223	2626	180669
Peak Shortage (MW)	0	0	0	266	16	282
Energy Met (MU)	1178	1412	1050	421	47	4108
Hydro Gen (MU)	116	27	41	17	11	212
Wind Gen (MU)	17	155	71	-	-	242
Solar Gen (MU)*	104.68	59.29	86.72	5.67	1.19	258
Energy Shortage (MU)	0.00	0.00	0.00	2.41	0.25	2.66
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	61594	70457	52202	21636	2736	204239
Time Of Maximum Demand Met	10:37	10:24	08:11	18:27	17:24	10:23

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	0.054	0.00	0.84	6.90	7.74	68.70	23.56

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	7894	0	148.3	45.5	-0.6	312	0.00
	Haryana	8023	0	152.0	96.3	-0.8	119	0.00
	Rajasthan	17130	0	319.0	126.7	-2.5	369	0.00
	Delhi	4154	0	73.1	64.5	-0.8	190	0.00
	UP	19081	0	337.2	117.0	-0.8	850	0.00
	Uttarakhand	2417	0	44.0	30.2	0.7	190	0.00
	HP	2117	0	37.5	30.8	0.0	233	0.00
	J&K(UT) & Ladakh(UT)	2870	0	59.5	56.1	-2.0	156	0.00
	Chandigarh	247	0	4.1	3.9	0.1	18	0.00
Railways NR ISTS	173	0	3.5	3.5	-0.1	8	0.00	
WR	Chhattisgarh	4386	0	93.4	26.1	3.0	180	0.00
	Gujarat	20170	0	390.6	138.1	-2.9	840	0.00
	MP	17249	0	320.6	198.0	-3.7	693	0.00
	Maharashtra	26550	0	537.3	168.6	-3.7	752	0.00
	Goa	617	0	12.5	12.5	-0.6	52	0.00
	DNHDDPDCL	1184	0	26.8	26.9	-0.1	90	0.00
	AMNSIL	837	0	18.3	9.4	-0.2	247	0.00
BALCO	522	0	12.4	12.5	-0.1	10	0.00	
SR	Andhra Pradesh	9912	0	193.3	62.8	-1.2	593	0.00
	Telangana	11960	0	219.3	93.8	-0.9	1024	0.00
	Karnataka	14180	0	256.6	102.1	-0.6	866	0.00
	Kerala	4169	0	80.2	63.3	1.4	784	0.00
	Tamil Nadu	14925	0	292.1	172.1	-0.1	487	0.00
	Puducherry	397	0	8.6	8.3	-0.4	17	0.00
ER	Bihar	4608	0	85.5	79.0	0.5	455	0.41
	DVC	3413	0	69.8	-47.4	0.3	517	0.00
	Jharkhand	1714	0	30.7	24.0	-1.3	336	2.00
	Odisha	5038	0	99.5	26.7	-1.1	360	0.00
	West Bengal	6678	0	133.2	23.3	-2.1	135	0.00
	Sikkim	105	0	1.8	1.8	0.0	24	0.00
Railways ER ISTS	0	0	0.0	0.1	-0.1	0	0.00	
NER	Arunachal Pradesh	165	0	3.0	2.7	0.2	62	0.00
	Assam	1536	0	25.7	20.8	-0.5	76	0.00
	Manipur	216	34	3.2	3.0	0.2	43	0.19
	Meghalaya	347	16	6.5	4.9	-0.2	59	0.06
	Mizoram	140	0	2.3	1.9	0.0	6	0.00
	Nagaland	159	0	2.6	2.5	0.0	17	0.00
Tripura	235	0	3.9	2.8	0.0	30	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-6.6	-4.9	-20.2	-10.9
Day Peak (MW)	-449.0	320.0	-1038.0	-599.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	255.0	-271.3	156.4	-141.5	1.5	0.0
Actual(MU)	239.8	-270.1	170.8	-142.9	1.6	-0.8
O/D/U/D(MU)	-15.2	1.3	14.4	-1.4	0.1	-0.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6753	11759	8818	4331	355	32016	51
State Sector	8671	11148	7080	4156	190	31244	49
Total	15424	22907	15898	8487	545	63260	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	690	1488	584	620	15	3395	76
Lignite	30	17	49	0	0	96	2
Hydro	116	27	41	17	11	212	5
Nuclear	21	52	75	0	0	148	3
Gas, Naptha & Diesel	14	18	5	0	25	62	1
RES (Wind, Solar, Biomass & Others)	146	216	193	8	1	564	13
Total	1016	1817	947	645	52	4477	100

Share of RES in total generation (%)	14.33	11.88	20.38	1.20	2.30	12.59
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	27.82	16.28	32.68	3.87	24.16	20.67

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.021
Based on State Max Demands	1.055

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	204239	10:23	23
Non-Solar hr	191073	18:26	325

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-Dec-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	1072	0.0	14.1	-14.1
4	765 kV	SASARAM-FATEHPUR	1	0	510	0.0	7.6	-7.6
5	765 kV	GAYA-BALIA	1	0	760	0.0	12.8	-12.8
6	400 kV	PUSAULI-VARANASI	1	31	29	0.0	0.0	0.0
7	400 kV	PUSAULI-ALLAHABAD	1	0	81	0.0	1.3	-1.3
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	704	0.0	8.6	-8.6
9	400 kV	PATNA-BALIA	2	0	2	0.0	0.0	0.0
10	400 kV	NAUBATPUR-BALIA	2	0	819	0.0	11.1	-11.1
11	400 kV	BIHARSHARIFF-BALIA	2	0	412	0.0	5.6	-5.6
12	400 kV	MOTIHARI-GORAKHPUR	2	0	523	0.0	7.5	-7.5
13	400 kV	BIHARSHARIFF-VARANASI	2	0	435	0.0	6.3	-6.3
14	220 kV	SAHUPURI-KARAMNANA	1	26	106	0.0	1.0	-1.0
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.0	0.0	0.0
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>0.0</b>	<b>77.1</b>	<b>-77.1</b>
<b>Import/Export of ER (With WR)</b>								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	161	922	0.0	12.9	-12.9
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	444	826	0.0	2.1	-2.1
3	765 kV	JHARSUGUDA-DURG	2	0	708	0.0	12.8	-12.8
4	400 kV	JHARSUGUDA-RAIGARH	4	0	548	0.0	6.7	-6.7
5	400 kV	RANCHI-SIPAT	2	152	257	0.0	0.7	-0.7
6	220 kV	BUDHIPADAR-RAIGARH	1	0	101	0.0	1.1	-1.1
7	220 kV	BUDHIPADAR-KORBA	2	145	33	1.6	0.0	1.6
<b>ER-WR</b>						<b>1.6</b>	<b>36.4</b>	<b>-34.8</b>
<b>Import/Export of ER (With SR)</b>								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	21	0.0	0.0	0.0
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1994	0.0	43.8	-43.8
3	765 kV	ANGUL-SRIKAKULAM	2	0	2546	0.0	44.4	-44.4
4	400 kV	TALCHER-I/C	2	403	502	0.0	2.4	-2.4
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
<b>ER-SR</b>						<b>0.0</b>	<b>88.2</b>	<b>-88.2</b>
<b>Import/Export of ER (With NER)</b>								
1	400 kV	BINAGURI-BONGAIGAOON	2	278	0	2.4	0.0	2.4
2	400 kV	ALIPURDUAR-BONGAIGAOON	2	882	0	9.7	0.0	9.7
3	220 kV	ALIPURDUAR-SALAKATI	2	157	0	2.1	0.0	2.1
<b>ER-NER</b>						<b>14.2</b>	<b>0.0</b>	<b>14.2</b>
<b>Import/Export of NER (With NR)</b>								
1	HVDC	BISWANATH CHARIALI-AGRA	2	668	0	16.2	0.0	16.2
<b>NER-NR</b>						<b>16.2</b>	<b>0.0</b>	<b>16.2</b>
<b>Import/Export of WR (With NR)</b>								
1	HVDC	CHAMPA-KURUKSHETRA	2	1	0	0.0	0.0	0.0
2	HVDC	VINDHYACHAL B/B	-	226	0	6.1	0.0	6.1
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1170	0.0	18.5	-18.5
4	765 kV	GWALIOR-AGRA	2	0	2396	0.0	41.4	-41.4
5	765 kV	GWALIOR-PHAGI	2	0	1980	0.0	33.6	-33.6
6	765 kV	JABALPUR-ORAI	2	0	1076	0.0	35.4	-35.4
7	765 kV	GWALIOR-ORAI	1	1039	0	16.2	0.0	16.2
8	765 kV	SATNA-ORAI	1	0	1192	0.0	23.9	-23.9
9	765 kV	BANASKANTHA-CHITORGARH	2	159	897	0.2	8.8	-8.6
10	765 kV	VINDHYACHAL-VARANASI	2	0	2820	0.0	49.9	-49.9
11	400 kV	ZERDA-KANKROLI	1	24	137	0.0	1.3	-1.3
12	400 kV	ZERDA -BHINMAL	1	111	404	0.2	4.1	-3.8
13	400 kV	VINDHYACHAL -RIHAND	1	972	0	21.3	0.0	21.3
14	400 kV	RAPP-SHUALPUR	2	85	457	0.1	3.8	-3.7
15	220 kV	BHANPURA-RANPUR	1	0	142	0.0	2.5	-2.5
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.4	-1.4
17	220 kV	MEHGAON-AURAIYA	1	92	11	0.7	0.0	0.7
18	220 kV	MALANPUR-AURAIYA	1	60	26	0.3	0.1	0.2
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>45.0</b>	<b>224.8</b>	<b>-179.8</b>
<b>Import/Export of WR (With SR)</b>								
1	HVDC	BHADRAWATI B/B	-	0	1013	0.0	23.9	-23.9
2	HVDC	RAIGARH-PUGALUR	2	0	5012	0.0	88.0	-88.0
3	765 kV	SOLAPUR-RAICHUR	2	1537	1172	9.4	2.0	7.4
4	765 kV	WARDHA-NIZAMABAD	2	0	1960	0.0	21.3	-21.3
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2150	0.0	24.4	-24.4
6	400 kV	KOLHAPUR-KUDGI	2	1376	0	22.7	0.0	22.7
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	97	2.0	0.0	2.0
<b>WR-SR</b>						<b>34.1</b>	<b>159.5</b>	<b>-125.4</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)	-174	-28	-119	-2.86
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	340	-91	85	2.05
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-279	-139	-226	-5.41
	NER	132kV GELEPHU-SALAKATI	-34	-17	-24	-0.57
	NER	132kV MOTANGA-RANGIA	19	0	9	0.22
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-74	0	-39	-0.94
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	320	1	-163	-3.92
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-928	-525	-753	-18.07
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-599	-390	-452	-10.85
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-110	0	-90	-2.16

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 20-Dec-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	7.12	0.00	0.00	0.30	0.00	0.00	7.42
Nepal	0.37	0.00	3.93	0.00	0.00	0.19	0.00	0.00	4.49
Bangladesh	18.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.19
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	18.56	0.00	11.05	0.00	0.00	0.49	0.00	0.00	30.10

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96
Nepal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96

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	0.96	0.00	-7.12	0.00	0.00	-0.30	0.00	0.00	-6.46
Nepal	-0.37	0.00	-3.93	0.00	0.00	-0.19	0.00	0.00	-4.49
Bangladesh	-18.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-18.19
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-17.60	0.00	-11.05	0.00	0.00	-0.49	0.00	0.00	-29.14