



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: 01<sup>st</sup> January 2024

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 31.12.2023.**

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 31-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 31<sup>th</sup> December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 01-Jan-2024

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)	54293	55425	41020	20501	2457	173696
Peak Shortage (MW)	4	0	0	0	0	4
Energy Met (MU)	1153	1409	1066	427	46	4102
Hydro Gen (MU)	100	35	35	13	10	192
Wind Gen (MU)	22	83	75	-	-	180
Solar Gen (MU)*	95.78	55.14	118.39	2.35	1.15	273
Energy Shortage (MU)	0.19	0.00	0.00	0.36	0.21	0.76
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	60327	70759	53833	21730	2560	205249
Time Of Maximum Demand Met	12:20	10:37	09:28	18:02	17:26	10:29

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	0.038	0.00	0.36	2.53	2.89	74.62	22.49

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	7577	0	144.5	61.6	-0.7	255	0.00
	Haryana	7291	0	134.7	80.4	-1.3	140	0.00
	Rajasthan	16882	0	311.3	137.1	-4.2	234	0.00
	Delhi	4600	0	73.0	61.4	-1.1	278	0.00
	UP	19233	0	342.7	119.4	-2.0	1139	0.00
	Uttarakhand	2170	0	41.4	28.1	0.3	143	0.08
	HP	1961	0	34.8	29.1	-0.4	201	0.00
	J&K(UT) & Ladakh(UT)	2905	0	63.5	58.7	-0.5	57	0.11
	Chandigarh	233	0	4.2	4.3	-0.2	68	0.00
Railways NR ISTS	191	0	3.5	3.5	0.0	31	0.00	
WR	Chhattisgarh	4785	0	98.9	37.0	-0.4	197	0.00
	Gujarat	20596	0	389.4	167.8	-0.1	426	0.00
	MP	17581	0	323.6	200.1	-4.3	418	0.00
	Maharashtra	25994	0	526.6	176.4	-9.0	844	0.00
	Goa	628	0	12.7	12.5	-0.3	43	0.00
	DNHDDPDCL	1189	0	27.3	27.6	-0.3	26	0.00
	AMNSIL	805	0	17.9	9.3	0.2	219	0.00
	BALCO	518	0	12.4	12.5	-0.1	8	0.00
SR	Andhra Pradesh	11052	0	202.0	76.3	-2.6	269	0.00
	Telangana	12170	0	226.0	98.7	-0.7	435	0.00
	Karnataka	13942	0	254.0	108.2	-3.4	977	0.00
	Kerala	3839	0	77.3	66.0	1.2	241	0.00
	Tamil Nadu	14502	0	298.8	155.1	-0.2	572	0.00
	Puducherry	366	0	8.1	7.8	-0.4	23	0.00
ER	Bihar	4963	0	93.7	89.6	-2.2	143	0.00
	DVC	3359	0	73.0	-33.7	0.5	376	0.00
	Jharkhand	1827	0	32.7	26.0	-2.4	216	0.36
	Odisha	5154	0	100.4	45.2	-1.6	199	0.00
	West Bengal	6107	0	125.7	15.5	-2.8	142	0.00
	Sikkim	92	0	1.5	1.7	-0.2	4	0.00
Railways ER ISTS	17	0	0.1	0.1	0.0	12	0.00	
NER	Arunachal Pradesh	159	0	2.6	3.0	-0.4	23	0.00
	Assam	1449	0	25.6	20.4	0.2	90	0.00
	Manipur	216	0	3.2	3.1	0.1	33	0.17
	Meghalaya	324	15	6.5	5.4	-0.2	43	0.04
	Mizoram	121	0	2.1	1.7	-0.2	10	0.00
	Nagaland	143	0	2.4	2.4	-0.1	26	0.00
Tripura	217	0	3.9	2.8	-0.2	14	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-10.1	-4.2	-21.4	-15.6
Day Peak (MW)	-675.0	-304.0	-1039.0	-770.3

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	254.6	-259.9	121.5	-117.9	1.7	0.0
Actual(MU)	252.1	-263.2	131.4	-128.3	0.4	-7.6
O/D/U/D(MU)	-2.5	-3.4	9.9	-10.4	-1.3	-7.6

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6628	8680	6908	4331	155	26701	46
State Sector	9916	10812	6555	4414	281	31977	54
Total	16544	19491	13463	8745	436	58678	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	680	1556	614	612	15	3476	77
Lignite	27	11	57	0	0	96	2
Hydro	100	35	35	13	10	192	4
Nuclear	23	53	67	0	0	143	3
Gas, Naptha & Diesel	15	7	7	0	26	55	1
RES (Wind, Solar, Biomass & Others)	141	143	229	26	1	539	12
Total	987	1805	1008	650	51	4501	100

Share of RES in total generation (%)	14.27	7.89	22.71	3.94	2.24	11.98
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	26.82	12.80	32.83	5.93	21.00	19.46

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.019
Based on State Max Demands	1.048

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	205249	10:29	139
Non-Solar hr	182550	18:30	15

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: 01-Jan-2024

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	989	0.0	15.7	-15.7
4	765 kV	SASARAM-FATEHPUR	1	0	530	0.0	8.8	-8.8
5	765 kV	GAYA-BALIA	1	0	681	0.0	11.2	-11.2
6	400 kV	PUSAULI-VARANASI	1	39	26	0.3	0.0	0.3
7	400 kV	PUSAULI-ALLAHABAD	1	0	88	0.0	1.5	-1.5
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	732	0.0	9.9	-9.9
9	400 kV	PATNA-BALIA	2	0	527	0.0	8.4	-8.4
10	400 kV	NAUBATPUR-BALIA	2	0	557	0.0	9.1	-9.1
11	400 kV	BIHARSHARIFF-BALIA	2	43	246	0.0	3.7	-3.7
12	400 kV	MOTIHARI-GORAKHPUR	2	0	543	0.0	8.8	-8.8
13	400 kV	BIHARSHARIFF-VARANASI	2	0	392	0.0	6.0	-6.0
14	220 kV	SAHUPURI-KARAMNANA	1	0	119	0.0	1.5	-1.5
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.5	0.0	0.5
17	132 kV	KARMANASA-SAHUPURI	1	0	0	0.0	0.0	0.0
18	132 kV	KARMANASA-CHANDALI	1	0	0	0.0	0.0	0.0
<b>ER-NR</b>						<b>0.8</b>	<b>85.8</b>	<b>-85.1</b>
<b>Import/Export of ER (With WR)</b>								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1049	181	6.0	0.0	6.0
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	809	577	0.7	0.0	0.7
3	765 kV	JHARSUGUDA-DURG	2	0	921	0.0	17.6	-17.6
4	400 kV	JHARSUGUDA-RAIGARH	4	0	574	0.0	8.2	-8.2
5	400 kV	RANCHI-SIPAT	2	194	215	0.0	1.7	-1.7
6	220 kV	BUDHIPADAR-RAIGARH	1	31	58	0.0	0.3	-0.3
7	220 kV	BUDHIPADAR-KORBA	2	128	33	1.0	0.0	1.0
<b>ER-WR</b>						<b>7.7</b>	<b>27.8</b>	<b>-20.1</b>
<b>Import/Export of ER (With SR)</b>								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	17	0.0	0.4	-0.4
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1642	0.0	37.4	-37.4
3	765 kV	ANGUL-SRIKAKULAM	2	0	2678	0.0	46.8	-46.8
4	400 kV	TALCHER-I/C	2	520	0	7.3	0.0	7.3
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
<b>ER-SR</b>						<b>0.0</b>	<b>84.6</b>	<b>-84.6</b>
<b>Import/Export of ER (With NER)</b>								
1	400 kV	BINAGURI-BONGAIGAOON	2	295	62	2.4	0.1	2.3
2	400 kV	ALIPURDUAR-BONGAIGAOON	2	911	0	10.4	0.0	10.4
3	220 kV	ALIPURDUAR-SALAKATI	2	155	0	2.0	0.0	2.0
<b>ER-NER</b>						<b>14.7</b>	<b>0.1</b>	<b>14.7</b>
<b>Import/Export of NER (With NR)</b>								
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	659	15.6	0.0	15.6
<b>NER-NR</b>						<b>15.6</b>	<b>0.0</b>	<b>15.6</b>
<b>Import/Export of WR (With NR)</b>								
1	HVDC	CHAMPA-KIRUKSHETRA	2	1	0	0.0	0.0	0.0
2	HVDC	VINDHYACHAL B/B	-	182	0	4.8	0.0	4.8
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1451	0.0	36.3	-36.3
4	765 kV	GWALIOR-AGRA	2	0	2589	0.0	41.3	-41.3
5	765 kV	GWALIOR-PHAGI	2	0	2409	0.0	37.8	-37.8
6	765 kV	JABALPUR-ORAI	2	0	1239	0.0	40.4	-40.4
7	765 kV	GWALIOR-ORAI	1	1015	0	18.1	0.0	18.1
8	765 kV	SATNA-ORAI	1	0	1205	0.0	23.8	-23.8
9	765 kV	BANASKANTHA-CHITORGARH	2	1029	868	4.8	3.1	1.7
10	765 kV	VINDHYACHAL-VARANASI	2	0	2993	0.0	49.0	-49.0
11	400 kV	ZERDA-KANKROLI	1	134	131	0.7	0.5	0.2
12	400 kV	ZERDA -BHINMAL	1	564	262	2.6	1.4	1.2
13	400 kV	VINDHYACHAL -RIHAND	1	969	0	22.1	0.0	22.1
14	400 kV	RAPP-SHUJALPUR	2	173	608	0.4	5.1	-4.8
15	220 kV	BHANPURA-RANPUR	1	0	152	0.0	2.7	-2.7
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.3	-1.3
17	220 kV	MEHGAON-AURAIYA	1	92	6	0.8	0.0	0.8
18	220 kV	MALANPUR-AURAIYA	1	57	28	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>54.4</b>	<b>242.8</b>	<b>-188.3</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	3007	0.0	56.5	-56.5
3	765 kV	SOLAPUR-RAICHUR	2	1949	1050	11.8	4.0	7.8
4	765 kV	WARDHA-NIZAMABAD	2	50	1883	0.0	21.6	-21.6
5	765 kV	WARORA-WARANGAL(NEW)	2	0	0	0.0	24.3	-24.3
6	400 kV	KOLHAPUR-KUDGI	2	1597	0	21.8	0.0	21.8
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	110	2.0	0.0	2.0
<b>WR-SR</b>						<b>35.6</b>	<b>130.3</b>	<b>-94.7</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)	-233	19	-140	-3.36
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	235	-230	-63	-1.50
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-246	-102	-183	-4.40
	NER	132kV GELEPHU-SALAKATI	-38	-21	-29	-0.70
	NER	132kV MOTANGA-RANGIA	-15	0	-5	-0.12
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-59	0	-41	-0.98
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-304	0	-136	-3.26
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-931	-598	-808	-19.38
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-770	-409	-650	-15.61
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-108	0	-84	-2.02

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 01-Jan-2024

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	10.34	0.00	0.00	0.38	0.00	0.00	10.72
Nepal	0.28	0.00	3.33	0.00	0.00	0.11	0.00	0.00	3.72
Bangladesh	19.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.35
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	19.63	0.00	13.67	0.00	0.00	0.49	0.00	0.00	33.79

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
Nepal	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10
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	0.56	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.66

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	0.56	0.00	-10.34	0.00	0.00	-0.38	0.00	0.00	-10.16
Nepal	-0.28	0.00	-3.33	0.00	0.00	0.00	0.00	0.00	-3.61
Bangladesh	-19.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-19.35
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-19.07	0.00	-13.67	0.00	0.00	-0.38	0.00	0.00	-33.12