

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: 14<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 13.12.2023.**

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 13-दिसम्बर-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 13<sup>th</sup> December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 14-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)	50817	57694	44817	19724	2518	175570
Peak Shortage (MW)	0	0	0	242	0	242
Energy Met (MU)	1117	1380	1064	413	46	4021
Hydro Gen (MU)	107	29	48	21	12	216
Wind Gen (MU)	10	52	59	-	-	121
Solar Gen (MU)*	110.01	60.79	108.00	2.88	0.93	283
Energy Shortage (MU)	1.03	0.00	0.00	1.63	0.00	2.66
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	58572	68205	51873	20560	2613	198520
Time Of Maximum Demand Met	10:23	10:25	11:28	18:21	17:17	10:24

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	0.041	0.31	0.75	5.21	6.27	76.99	16.73

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	7312	0	141.6	43.5	0.9	208	0.00
	Haryana	7896	0	149.6	103.0	-0.4	100	0.00
	Rajasthan	16419	0	298.3	111.7	-2.2	289	0.00
	Delhi	4061	0	70.3	61.9	-1.3	171	0.00
	UP	16772	0	313.9	114.8	0.1	1140	0.00
	Uttarakhand	2231	0	42.3	30.7	0.9	156	0.07
	HP	2108	0	37.8	30.7	0.3	170	0.07
	J&K(UT) & Ladakh(UT)	2681	0	56.3	51.6	-0.4	159	0.89
	Chandigarh	237	0	3.8	3.7	0.1	32	0.00
Railways NR ISTS	175	0	3.6	3.4	0.2	41	0.00	
WR	Chhattisgarh	4355	0	87.6	25.3	-1.2	235	0.00
	Gujarat	19900	0	391.7	176.9	-0.2	661	0.00
	MP	15046	0	280.3	175.6	-4.1	572	0.00
	Maharashtra	25637	0	546.7	189.8	1.4	697	0.00
	Goa	682	0	14.0	13.2	0.2	110	0.00
	DNHDDPDCL	1249	0	28.7	28.9	-0.2	26	0.00
	AMNSIL	850	0	18.6	9.4	0.1	232	0.00
	BALCO	523	0	12.5	12.5	0.0	38	0.00
SR	Andhra Pradesh	9111	0	185.8	71.2	-1.1	372	0.00
	Telangana	11460	0	213.0	99.4	-0.2	821	0.00
	Karnataka	14002	0	256.1	113.1	-3.1	589	0.00
	Kerala	4192	0	82.9	67.1	0.6	231	0.00
	Tamil Nadu	15636	0	317.7	173.2	-1.4	544	0.00
	Puducherry	400	0	8.8	8.5	-0.4	9	0.00
ER	Bihar	4399	0	79.2	73.6	-0.5	339	0.00
	DVC	3316	0	70.9	-46.5	1.7	408	0.00
	Jharkhand	1732	0	29.7	22.1	-1.6	335	1.63
	Odisha	5008	0	100.4	50.7	-0.3	456	0.00
	West Bengal	6401	0	130.8	19.5	-2.5	174	0.00
	Sikkim	102	0	1.7	1.7	0.0	21	0.00
Railways ER ISTS	13	0	0.1	0.1	0.0	3	0.00	
NER	Arunachal Pradesh	146	0	2.6	2.7	-0.3	32	0.00
	Assam	1503	0	26.3	20.9	0.3	147	0.00
	Manipur	212	0	2.9	2.8	0.1	45	0.00
	Meghalaya	353	0	6.6	4.6	-0.1	231	0.00
	Mizoram	146	0	1.9	1.7	0.0	27	0.00
	Nagaland	141	0	2.3	2.2	-0.1	32	0.00
Tripura	265	0	3.9	3.0	-0.2	78	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-7.3	-3.3	-20.8	-15.4
Day Peak (MW)	-278.0	252.0	-1023.0	-760.5

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	224.3	-221.7	136.9	-143.9	4.4	0.0
Actual(MU)	218.0	-232.1	143.7	-142.1	5.5	-7.2
O/D/U/D(MU)	-6.4	-10.4	6.8	1.8	1.1	-7.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6257	11779	6418	4751	468	29673	46
State Sector	9931	12467	7189	5082	226	34893	54
Total	16188	24245	13607	9833	694	64567	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	665	1520	615	609	9	3419	78
Lignite	25	15	51	0	0	91	2
Hydro	107	29	48	21	12	216	5
Nuclear	21	40	76	0	0	137	3
Gas, Naptha & Diesel	14	14	4	0	24	57	1
RES (Wind, Solar, Biomass & Others)	144	114	200	5	1	465	11
Total	976	1733	994	635	46	4384	100

Share of RES in total generation (%)	14.77	6.59	20.13	0.86	2.02	10.60
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	27.82	10.57	32.55	4.10	28.15	18.64

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.016
Based on State Max Demands	1.041

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	198520	10:24	149
Non-Solar hr	184794	18:00	384

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: 14-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	-	2	49	0.0	1.1	-1.1
3	765 kV	GAYA-VARANASI	2	0	1219	0.0	18.8	-18.8
4	765 kV	SASARAM-FATEHPUR	1	0	610	0.0	10.4	-10.4
5	765 kV	GAYA-BALIA	1	0	741	0.0	14.2	-14.2
6	400 kV	PUSAULI-VARANASI	1	46	6	0.3	0.0	0.3
7	400 kV	PUSAULI-ALLAHABAD	1	0	74	0.0	1.3	-1.3
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	674	0.0	9.2	-9.2
9	400 kV	PATNA-BALIA	2	0	0	0.0	0.0	0.0
10	400 kV	NAUBATPUR-BALIA	2	0	732	0.0	13.3	-13.3
11	400 kV	BIHARSHARIFF-BALIA	2	0	367	0.0	5.2	-5.2
12	400 kV	MOTIHARI-GORAKHPUR	2	0	457	0.0	7.8	-7.8
13	400 kV	BIHARSHARIFF-VARANASI	2	0	426	0.0	5.8	-5.8
14	220 kV	SAHUPURI-KARAMNANA	1	4	92	0.0	1.2	-1.2
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>0.3</b>	<b>88.1</b>	<b>-87.8</b>
<b>Import/Export of ER (With WR)</b>								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	518	491	0.0	2.1	-2.1
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	370	938	0.0	2.2	-2.2
3	765 kV	JHARSUGUDA-DURG	2	0	717	0.0	12.2	-12.2
4	400 kV	JHARSUGUDA-RAIGARH	4	135	483	0.0	3.2	-3.2
5	400 kV	RANCHI-SIPAT	2	95	283	0.0	2.2	-2.2
6	220 kV	BUDHIPADAR-RAIGARH	1	0	127	0.0	1.8	-1.8
7	220 kV	BUDHIPADAR-KORBA	2	179	42	1.8	0.0	1.8
<b>ER-WR</b>						<b>1.8</b>	<b>23.6</b>	<b>-21.8</b>
<b>Import/Export of ER (With SR)</b>								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	544	0.0	12.4	-12.4
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1643	0.0	32.6	-32.6
3	765 kV	ANGUL-SRIKAKULAM	2	0	2355	0.0	43.6	-43.6
4	400 kV	TALCHER-I/C	2	721	0	12.1	0.0	12.1
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
<b>ER-SR</b>						<b>0.0</b>	<b>88.5</b>	<b>-88.5</b>
<b>Import/Export of ER (With NER)</b>								
1	400 kV	BINAGURI-BONGAIGAON	2	242	55	1.5	0.2	1.4
2	400 kV	ALIPURDUAR-BONGAIGAON	2	724	0	6.6	0.0	6.6
3	220 kV	ALIPURDUAR-SALAKATI	2	158	0	1.9	0.0	1.9
<b>ER-NER</b>						<b>10.0</b>	<b>0.2</b>	<b>9.9</b>
<b>Import/Export of NER (With NR)</b>								
1	HVDC	BISWANATH CHARIALI-AGRA	2	674	0	16.0	0.0	16.0
<b>NER-NR</b>						<b>16.0</b>	<b>0.0</b>	<b>16.0</b>
<b>Import/Export of WR (With NR)</b>								
1	HVDC	CHAMPA-KIRUKSHETRA	2	1	1014	0.0	12.9	-12.9
2	HVDC	VINDHYACHAL B/B	-	440	102	4.0	0.0	4.0
3	HVDC	MUNDRA-MOHINDERGARH	2	0	979	0.0	19.8	-19.8
4	765 kV	GWALIOR-AGRA	2	0	2279	0.0	38.8	-38.8
5	765 kV	GWALIOR-PHAGI	2	0	2362	0.0	39.6	-39.6
6	765 kV	JABALPUR-ORAI	2	0	1035	0.0	34.8	-34.8
7	765 kV	GWALIOR-ORAI	1	1171	0	18.2	0.0	18.2
8	765 kV	SATNA-ORAI	1	0	1195	0.0	24.1	-24.1
9	765 kV	BANASKANTHA-CHITORGARH	2	1478	216	19.0	0.2	18.8
10	765 kV	VINDHYACHAL-VARANASI	2	0	2521	0.0	42.4	-42.4
11	400 kV	ZERDA-KANKROLI	1	187	21	2.5	0.0	2.5
12	400 kV	ZERDA -BHINMAL	1	341	236	2.3	1.2	1.1
13	400 kV	VINDHYACHAL -RIHAND	1	954	0	22.0	0.0	22.0
14	400 kV	RAPP-SHUJALPUR	2	142	418	0.3	3.7	-3.3
15	220 kV	BHANPURA-RANPUR	1	0	135	0.0	2.2	-2.2
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.2	-1.2
17	220 kV	MEHGAON-AURAIYA	1	80	20	0.5	0.0	0.5
18	220 kV	MALANPUR-AURAIYA	1	53	32	0.3	0.2	0.1
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>69.1</b>	<b>220.8</b>	<b>-151.7</b>
<b>Import/Export of WR (With SR)</b>								
1	HVDC	BHADRAWATI B/B	-	0	1005	0.0	22.9	-22.9
2	HVDC	RAIGARH-PUGALUR	2	0	3005	0.0	61.4	-61.4
3	765 kV	SOLAPUR-RAICHUR	2	1845	733	10.6	1.7	8.9
4	765 kV	WARDHA-NIZAMABAD	2	0	1789	0.0	23.3	-23.3
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2056	0.0	28.4	-28.4
6	400 kV	KOLHAPUR-KUDGI	2	1502	0	23.8	0.0	23.8
7	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV	PONDA-AMBEWADI	1	0	70	0.0	0.8	-0.8
9	220 kV	XELDEM-AMBEWADI	1	0	110	2.1	0.0	2.1
<b>WR-SR</b>						<b>36.4</b>	<b>138.5</b>	<b>-102.1</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)	-220	174	-110	-2.64
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	303	-80	50	1.21
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-287	-125	-226	-5.42
	NER	132kV GELEPHU-SALAKATI	-34	-5	-23	-0.56
	NER	132kV MOTANGA-RANGIA	13	-6	3	0.08
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-62	0	-25	-0.61
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	252	1	-114	-2.73
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-923	-535	-788	-18.91
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-761	-451	-642	-15.40
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-100	0	-79	-1.90

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 14-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	6.89	0.00	0.00	1.21	0.00	0.00	8.10
Nepal	0.08	0.00	1.72	0.00	0.00	1.21	0.00	0.00	3.01
Bangladesh	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.90
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	18.98	0.00	8.61	0.00	0.00	2.42	0.00	0.00	30.01

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
Nepal	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.23
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	0.66	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.89

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	0.66	0.00	-6.89	0.00	0.00	-1.21	0.00	0.00	-7.44
Nepal	-0.08	0.00	-1.49	0.00	0.00	-1.21	0.00	0.00	-2.78
Bangladesh	-18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-18.90
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-18.32	0.00	-8.38	0.00	0.00	-2.42	0.00	0.00	-29.12