

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: 28<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 27.12.2023.**

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 27-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 27<sup>th</sup> December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 28-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)	56286	60003	44511	20143	2595	183538
Peak Shortage (MW)	0	0	0	292	36	328
Energy Met (MU)	1160	1448	1110	437	47	4203
Hydro Gen (MU)	110	44	48	15	11	227
Wind Gen (MU)	17	69	95	-	-	181
Solar Gen (MU)*	99.37	58.37	120.23	5.25	1.13	284
Energy Shortage (MU)	0.81	0.00	0.00	1.27	0.39	2.47
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	59622	74085	56097	21629	2740	212097
Time Of Maximum Demand Met	10:39	10:04	09:43	08:53	17:36	09:58

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	0.032	0.00	0.00	3.62	3.62	78.50	17.88

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	7368	0	139.9	47.6	1.0	261	0.00
	Haryana	7787	0	147.3	92.5	-1.8	115	0.00
	Rajasthan	16918	0	321.7	124.1	-2.3	236	0.00
	Delhi	4500	0	76.7	66.6	-0.2	332	0.00
	UP	18583	0	326.2	102.1	1.0	763	0.00
	Uttarakhand	2360	0	42.8	29.5	0.2	119	0.14
	HP	2162	22	38.2	31.3	0.5	280	0.34
	J&K(UT) & Ladakh(UT)	2920	0	60.5	55.3	0.3	277	0.33
	Chandigarh	250	0	4.1	4.1	0.0	45	0.00
Railways NR ISTS	163	0	3.0	3.3	-0.4	62	0.00	
WR	Chhattisgarh	4726	0	97.2	33.7	-1.2	541	0.00
	Gujarat	20607	0	391.4	168.2	-0.2	490	0.00
	MP	17248	0	328.2	204.4	-3.5	437	0.00
	Maharashtra	27755	0	557.8	177.5	-8.1	900	0.00
	Goa	676	0	13.4	13.4	-0.5	67	0.00
	DNHDDPDCL	1281	0	29.2	29.5	-0.3	30	0.00
	AMNSIL	858	0	18.7	9.8	-0.1	299	0.00
	BALCO	520	0	12.4	12.5	-0.1	5	0.00
SR	Andhra Pradesh	10851	0	202.8	83.0	-2.2	971	0.00
	Telangana	12416	0	231.7	98.7	0.7	739	0.00
	Karnataka	14627	0	263.6	102.9	-4.2	634	0.00
	Kerala	4113	0	82.8	65.1	1.1	387	0.00
	Tamil Nadu	15728	0	320.7	164.5	-0.1	1305	0.00
	Puducherry	402	0	8.8	8.4	-0.3	23	0.00
ER	Bihar	4593	0	89.6	81.9	1.2	180	0.00
	DVC	3380	0	72.1	-46.1	-0.2	305	0.00
	Jharkhand	1765	134	31.5	24.9	-2.3	286	1.27
	Odisha	5251	0	105.2	47.4	-1.0	354	0.00
	West Bengal	6804	0	136.5	22.0	-2.1	57	0.00
	Sikkim	107	0	1.7	1.9	-0.1	14	0.00
Railways ER ISTS	11	0	0.1	0.1	0.0	0	0.00	
NER	Arunachal Pradesh	174	0	3.1	2.8	0.2	28	0.00
	Assam	1537	0	26.3	20.5	0.0	104	0.00
	Manipur	223	2	3.2	3.1	0.1	37	0.12
	Meghalaya	344	31	6.3	4.7	-0.1	81	0.27
	Mizoram	134	0	2.1	1.7	-0.1	13	0.00
	Nagaland	156	0	2.4	2.4	-0.1	15	0.00
Tripura	231	0	3.9	3.2	-0.3	10	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-8.1	-3.7	-21.4	-16.0
Day Peak (MW)	-683.0	-344.0	-1039.0	-767.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	229.7	-241.7	142.9	-132.0	1.1	0.0
Actual(MU)	225.5	-258.7	166.1	-138.7	0.8	-5.0
O/D/U/D(MU)	-4.2	-16.9	23.2	-6.7	-0.3	-5.0

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	7019	10644	8308	5031	185	31187	50
State Sector	8601	10387	7555	4846	190	31578	50
Total	15620	21030	15863	9877	375	62765	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	706	1585	611	629	16	3546	77
Lignite	23	16	59	0	0	98	2
Hydro	110	44	48	15	11	227	5
Nuclear	21	53	52	0	0	126	3
Gas, Naptha & Diesel	15	23	7	0	25	69	2
RES (Wind, Solar, Biomass & Others)	140	129	251	8	1	529	12
Total	1014	1850	1027	651	52	4595	100

Share of RES in total generation (%)	13.78	6.99	24.39	1.17	2.16	11.50
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	26.72	12.26	34.12	3.46	23.31	19.22

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.009
Based on State Max Demands	1.035

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	212097	9:58	402
Non-Solar hr	191792	18:29	403

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: 28-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	48	0.0	1.2	-1.2
3	765 kV	GAYA-VARANASI	2	0	1014	0.0	16.4	-16.4
4	765 kV	SASARAM-FATEHPUR	1	0	472	0.0	3.7	-3.7
5	765 kV	GAYA-BALIA	1	0	697	0.0	12.2	-12.2
6	400 kV	PUSAULI-VARANASI	1	20	54	0.0	0.1	-0.1
7	400 kV	PUSAULI-ALLAHABAD	1	7	73	0.0	1.1	-1.1
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	666	0.0	9.9	-9.9
9	400 kV	PATNA-BALIA	2	0	690	0.0	12.0	-12.0
10	400 kV	NAUBATPUR-BALIA	2	0	571	0.0	9.1	-9.1
11	400 kV	BIHARSHARIF-BALIA	2	0	342	0.0	4.9	-4.9
12	400 kV	MOTIHARI-GORAKHPUR	2	0	513	0.0	8.8	-8.8
13	400 kV	BIHARSHARIF-VARANASI	2	0	443	0.0	6.8	-6.8
14	220 kV	SAHUPURI-KARAMNANA	1	26	196	0.0	2.2	-2.2
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.4	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
<b>ER-NR</b>						<b>0.4</b>	<b>88.3</b>	<b>-88.0</b>
<b>Import/Export of ER (With WR)</b>								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1150	23	9.8	0.0	9.8
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	304	860	0.0	5.2	-5.2
3	765 kV	JHARSUGUDA-DURG	2	0	1006	0.0	18.5	-18.5
4	400 kV	JHARSUGUDA-RAIGARH	4	0	442	0.0	5.3	-5.3
5	400 kV	RANCHI-SIPAT	2	47	262	0.0	2.2	-2.2
6	220 kV	BUDHIPADAR-RAIGARH	1	44	71	0.0	0.1	-0.1
7	220 kV	BUDHIPADAR-KORBA	2	137	11	1.8	0.0	1.8
<b>ER-WR</b>						<b>11.6</b>	<b>31.3</b>	<b>-19.6</b>
<b>Import/Export of ER (With SR)</b>								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	17	0.0	0.0	0.0
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1989	0.0	42.1	-42.1
3	765 kV	ANGUL-SRIKAKULAM	2	0	2561	0.0	49.5	-49.5
4	400 kV	TALCHER-I/C	2	649	400	2.4	0.0	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>91.6</b>	<b>-91.6</b>
<b>Import/Export of ER (With NER)</b>								
1	400 kV	BINAGURI-BONGAIGAON	2	298	24	2.6	0.0	2.6
2	400 kV	ALIPURDUAR-BONGAIGAON	2	833	0	9.7	0.0	9.7
3	220 kV	ALIPURDUAR-SALAKATI	2	148	0	1.9	0.0	1.9
<b>ER-NER</b>						<b>14.1</b>	<b>0.0</b>	<b>14.1</b>
<b>Import/Export of NER (With NR)</b>								
1	HVDC	BISWANATH CHARIAL-AGRA	2	664	0	15.7	0.0	15.7
<b>NER-NR</b>						<b>15.7</b>	<b>0.0</b>	<b>15.7</b>
<b>Import/Export of WR (With NR)</b>								
1	HVDC	CHAMPA-KIRUKSHETRA	2	1	1	0.0	0.0	0.0
2	HVDC	VINDHYACHAL B/B	-	438	101	8.2	0.7	7.5
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1913	0.0	37.3	-37.3
4	765 kV	GWALIOR-AGRA	2	0	2384	0.0	39.7	-39.7
5	765 kV	GWALIOR-PHAGI	2	0	2111	0.0	37.4	-37.4
6	765 kV	JABALPUR-ORAI	2	0	1096	0.0	35.1	-35.1
7	765 kV	GWALIOR-ORAI	1	1109	0	19.3	0.0	19.3
8	765 kV	SATNA-ORAI	1	0	1184	0.0	23.0	-23.0
9	765 kV	BANASKANTHA-CHITORGARH	2	1164	493	11.0	0.6	10.4
10	765 kV	VINDHYACHAL-VARANASI	2	0	2632	0.0	42.7	-42.7
11	400 kV	ZERDA-KANKROLI	1	154	63	1.8	0.1	1.7
12	400 kV	ZERDA -BHINMAL	1	439	208	2.5	1.0	1.5
13	400 kV	VINDHYACHAL -RIHAND	1	979	0	21.9	0.0	21.9
14	400 kV	RAPP-SHUALPUR	2	124	498	0.1	3.8	-3.7
15	220 kV	BHANPURA-RANPUR	1	0	156	0.0	2.7	-2.7
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.0	-1.0
17	220 kV	MEHGAON-AURAIYA	1	110	0	1.0	0.0	1.0
18	220 kV	MALANPUR-AURAIYA	1	85	15	0.5	0.0	0.5
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>66.1</b>	<b>224.9</b>	<b>-158.8</b>
<b>Import/Export of WR (With SR)</b>								
1	HVDC	BHADRAWATI B/B	-	0	1013	0.0	21.0	-21.0
2	HVDC	RAIGARH-PUGALUR	2	0	5012	0.0	65.1	-65.1
3	765 kV	SOLAPUR-RAICHUR	2	1629	943	0.0	6.0	-6.0
4	765 kV	WARDHA-NIZAMABAD	2	0	1876	0.0	24.6	-24.6
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2152	0.0	29.8	-29.8
6	400 kV	KOLHAPUR-KUDGI	2	1587	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	0	0.0	0.0	0.0
9	220 kV	XELDEM-AMBEWADI	1	0	103	1.9	0.0	1.9
<b>WR-SR</b>						<b>26.6</b>	<b>146.6</b>	<b>-120.0</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)	-209	-46	-97	-2.33
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	249	-214	-41	-0.98
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-236	-94	-173	-4.16
	NER	132kV GELEPHU-SALAKATI	-35	-22	-28	-0.68
	NER	132kV MOTANGA-RANGIA	12	-10	1	0.02
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-63	0	-36	-0.86
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-344	-31	-119	-2.85
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-926	-597	-793	-19.03
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-767	-403	-666	-15.99
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-113	0	-98	-2.34

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 28-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	9.49	0.00	0.00	0.26	0.00	0.00	9.75
Nepal	0.34	0.00	3.40	0.00	0.00	0.00	0.00	0.00	3.74
Bangladesh	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	19.34	0.00	12.89	0.00	0.00	0.26	0.00	0.00	32.49

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
IEX	PXIL	HPX	IEX	PXIL	HPX				
Bhutan	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
Nepal	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.24
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	0.58	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.82

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	0.58	0.00	-9.49	0.00	0.00	-0.26	0.00	0.00	-9.17
Nepal	-0.34	0.00	-3.40	0.00	0.00	0.24	0.00	0.00	-3.50
Bangladesh	-19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-19.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-18.76	0.00	-12.89	0.00	0.00	-0.02	0.00	0.00	-31.67