



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: 25nd 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 24.12.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 24-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 24st December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 25-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)	51079	56111	39444	18751	2426	167811
Peak Shortage (MW)	0	0	0	570	9	579
Energy Met (MU)	1127	1409	1018	418	46	4018
Hydro Gen (MU)	110	31	40	17	10	209
Wind Gen (MU)	33	96	69	-	-	198
Solar Gen (MU)*	93.01	60.32	107.37	2.33	0.93	264
Energy Shortage (MU)	0.43	0.04	0.00	2.33	0.16	2.96
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	58938	71268	51760	19225	2459	201253
Time Of Maximum Demand Met	10:40	10:28	09:59	18:17	17:26	10:36

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	0.057	0.49	1.37	6.41	8.26	74.62	17.12

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	7434	0	139.8	49.5	-1.5	95	0.00
	Haryana	7089	0	133.4	81.5	-1.9	157	0.00
	Rajasthan	16833	0	314.0	104.1	-4.8	141	0.00
	Delhi	4253	0	68.9	59.7	-0.8	246	0.00
	UP	18073	0	327.6	109.9	-0.2	990	0.00
	Uttarakhand	2222	0	40.1	26.8	0.0	167	0.00
	HP	1989	22	35.0	28.5	0.0	186	0.43
	J&K(UT) & Ladakh(UT)	2858	0	60.8	57.2	-1.2	99	0.00
	Chandigarh	210	0	3.7	3.9	-0.2	12	0.00
Railways NR ISTS	171	0	3.5	3.4	0.1	30	0.00	
WR	Chhattisgarh	4497	0	93.2	39.9	-0.7	468	0.04
	Gujarat	20385	0	391.6	153.4	-3.3	720	0.00
	MP	17471	0	324.3	198.7	-4.9	382	0.00
	Maharashtra	26120	0	528.0	166.7	-8.9	830	0.00
	Goa	634	0	12.5	12.5	-0.3	41	0.00
	DNHDDPDCL	1191	0	27.6	27.6	0.0	56	0.00
	AMNSIL	855	0	19.1	10.4	-0.1	260	0.00
	BALCO	519	0	12.4	12.5	-0.1	5	0.00
SR	Andhra Pradesh	10445	0	193.8	77.9	-0.4	880	0.00
	Telangana	11880	0	221.5	95.8	-1.7	719	0.00
	Karnataka	13367	0	241.6	96.3	-3.8	440	0.00
	Kerala	3692	0	74.3	60.8	1.3	257	0.00
	Tamil Nadu	13578	0	279.2	148.7	0.0	604	0.00
	Puducherry	350	0	8.1	7.7	-0.3	31	0.00
ER	Bihar	4492	294	86.4	81.4	-1.5	320	0.13
	DVC	3315	0	71.8	-45.6	0.2	285	0.00
	Jharkhand	1777	0	30.3	23.6	-1.5	184	2.20
	Odisha	4058	0	102.4	31.0	-0.7	201	0.00
	West Bengal	5946	0	124.9	23.6	-2.6	356	0.00
	Sikkim	96	0	1.6	1.7	-0.1	12	0.00
Railways ER ISTS	18	0	0.1	0.1	0.0	5	0.00	
NER	Arunachal Pradesh	163	0	2.7	2.9	-0.3	18	0.00
	Assam	1358	0	25.3	19.2	0.5	77	0.00
	Manipur	204	8	3.1	3.3	-0.1	28	0.09
	Meghalaya	345	9	6.6	5.6	0.0	65	0.07
	Mizoram	126	0	2.0	1.9	-0.3	18	0.00
	Nagaland	142	0	2.5	2.4	-0.1	27	0.00
Tripura	220	0	3.8	3.3	-0.3	4	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-8.9	-4.1	-21.7	-15.4
Day Peak (MW)	-521.0	-264.0	-1040.0	-770.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	214.5	-231.5	137.0	-120.8	0.8	0.0
Actual(MU)	202.8	-231.9	143.9	-122.6	-0.5	-8.1
O/D/U/D(MU)	-11.7	-0.4	7.0	-1.7	-1.3	-8.1

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	7733	13612	8668	5791	155	35959	53
State Sector	8811	11249	6635	4606	190	31490	47
Total	16544	24861	15303	10397	345	67449	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	676	1500	583	594	15	3370	77
Lignite	27	22	49	0	0	99	2
Hydro	110	31	40	17	10	209	5
Nuclear	21	53	52	0	0	126	3
Gas, Naptha & Diesel	12	7	7	0	26	52	1
RES (Wind, Solar, Biomass & Others)	150	160	208	4	1	523	12
Total	996	1775	940	616	52	4378	100

Share of RES in total generation (%)	15.00	9.03	22.17	0.67	1.92	11.95
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	28.19	13.84	31.99	3.28	21.93	19.62

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.011
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	201253	10:36	327
Non-Solar hr	177049	17:57	11

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: 25-Dec-2023

Sl No	Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
Import/Export of ER (With NR)								
1	HVDC	ALIPURDUAR-AGRA	2	0	0	0.0	0.0	0.0
2	HVDC	PUSAULI B/B	-	0	48	0.0	1.3	-1.3
3	765 kV	GAYA-VARANASI	2	12	857	0.0	11.6	-11.6
4	765 kV	SASARAM-FATEHPUR	1	0	509	0.0	7.7	-7.7
5	765 kV	GAYA-BALIA	1	0	608	0.0	10.3	-10.3
6	400 kV	PUSAULI-VARANASI	1	12	43	0.0	0.1	-0.1
7	400 kV	PUSAULI-ALLAHABAD	1	0	58	0.0	1.1	-1.1
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	613	0.0	7.7	-7.7
9	400 kV	PATNA-BALIA	2	0	522	0.0	9.4	-9.4
10	400 kV	NAUBATPUR-BALIA	2	0	550	0.0	9.8	-9.8
11	400 kV	BIHARSHARIFF-BALIA	2	0	309	0.0	3.8	-3.8
12	400 kV	MOTIHARI-GORAKHPUR	2	0	439	0.0	7.7	-7.7
13	400 kV	BIHARSHARIFF-VARANASI	2	0	395	0.0	5.5	-5.5
14	220 kV	SAHUPURI-KARAMNANA	1	0	120	0.0	1.4	-1.4
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
ER-NR						0.4	77.3	-76.9
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	753	264	4.9	0.0	4.9
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	619	608	1.1	0.0	1.1
3	765 kV	JHARSUGUDA-DURG	2	0	1122	0.0	19.3	-19.3
4	400 kV	JHARSUGUDA-RAIGARH	4	0	517	0.0	6.4	-6.4
5	400 kV	RANCHI-SIPAT	2	180	246	0.0	0.3	-0.3
6	220 kV	BUDHIPADAR-RAIGARH	1	64	47	0.0	0.2	-0.2
7	220 kV	BUDHIPADAR-KORBA	2	129	64	1.0	0.0	1.0
ER-WR						7.0	26.3	-19.3
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	19	0.0	0.0	0.0
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1495	0.0	36.1	-36.1
3	765 kV	ANGUL-SRIKAKULAM	2	0	2584	0.0	50.2	-50.2
4	400 kV	TALCHER-I/C	2	409	177	6.8	0.0	6.8
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	86.3	-86.3
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	285	1	2.7	0.0	2.7
2	400 kV	ALIPURDUAR-BONGAIGAON	2	894	0	10.4	0.0	10.4
3	220 kV	ALIPURDUAR-SALAKATI	2	158	0	2.1	0.0	2.1
ER-NER						15.3	0.0	15.3
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIAL-AGRA	2	0	662	15.7	0.0	15.7
NER-NR						15.7	0.0	15.7
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	1	1	0.0	0.0	0.0
2	HVDC	VINDHYACHAL B/B	-	0	101	0.0	2.4	-2.4
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1450	0.0	21.4	-21.4
4	765 kV	GWALIOR-AGRA	2	0	2171	0.0	36.2	-36.2
5	765 kV	GWALIOR-PHAGI	2	0	2125	0.0	30.9	-30.9
6	765 kV	JABALPUR-ORAI	2	0	990	0.0	29.5	-29.5
7	765 kV	GWALIOR-ORAI	1	1123	0	17.3	0.0	17.3
8	765 kV	SATNA-ORAI	1	0	1070	0.0	21.1	-21.1
9	765 kV	BANASKANTHA-CHITORGARH	2	981	532	7.8	1.4	6.3
10	765 kV	VINDHYACHAL-VARANASI	2	0	2520	0.0	46.8	-46.8
11	400 kV	ZERDA-KANKROLI	1	141	52	1.3	0.1	1.2
12	400 kV	ZERDA -BHINMAL	1	393	132	3.1	0.4	2.7
13	400 kV	VINDHYACHAL -RIHAND	1	954	0	17.9	0.0	17.9
14	400 kV	RAPP-SHUJALPUR	2	195	340	0.9	2.3	-1.4
15	220 kV	BHANPURA-RANPUR	1	0	156	0.0	2.6	-2.6
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.4	-1.4
17	220 kV	MEHGAON-AURAIYA	1	84	0	0.9	0.0	0.9
18	220 kV	MALANPUR-AURAIYA	1	55	19	0.4	0.0	0.3
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
WR-NR						49.4	196.5	-147.1
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1013	0.0	22.0	-22.0
2	HVDC	RAIGARH-PUGALUR	2	0	3006	0.0	54.8	-54.8
3	765 kV	SOLAPUR-RAICHUR	2	1365	950	5.7	2.8	2.9
4	765 kV	WARDHA-NIZAMABAD	2	0	2044	0.0	22.7	-22.7
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2286	0.0	32.8	-32.8
6	400 kV	KOLHAPUR-KUDGI	2	1544	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	0	0.0	0.0	0.0
9	220 kV	XELDEM-AMBEWADI	1	0	110	2.0	0.0	2.0
WR-SR						31.5	135.1	-103.6

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)	-184	-34	-129	-3.11
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	309	-168	-13	-0.31
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-314	-94	-205	-4.92
	NER	132kV GELEPHU-SALAKATI	-40	-19	-25	-0.60
	NER	132kV MOTANGA-RANGIA	5	0	2	0.05
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-43	0	-16	-0.38
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-264	0	-155	-3.71
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-917	-592	-804	-19.30
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-770	-462	-640	-15.36
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-123	0	-100	-2.40

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 25-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	9.83	0.00	0.00	0.05	0.00	0.00	9.88
Nepal	0.36	0.00	4.39	0.00	0.00	0.00	0.00	0.00	4.75
Bangladesh	19.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.25
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	19.61	0.00	14.22	0.00	0.00	0.05	0.00	0.00	33.88

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59
Nepal	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.64
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	0.59	0.00	0.00	0.00	0.00	0.64	0.00	0.00	1.23

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	0.59	0.00	-9.83	0.00	0.00	-0.05	0.00	0.00	-9.29
Nepal	-0.36	0.00	-4.39	0.00	0.00	0.64	0.00	0.00	-4.11
Bangladesh	-19.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-19.25
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-19.02	0.00	-14.22	0.00	0.00	0.59	0.00	0.00	-32.65