



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: 31st 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 30.12.2023.

महोदय/Dear Sir,

आईंईंजींसीं-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 30-दिसम्बर-2023 की अखिल भारतीय प्रणाली की दैनिक ग्रीड निष्पादन रिपोर्ट रांभांप्रेंकें 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 30th December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 31-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)	56868	59394	44618	20347	2583	183810
Peak Shortage (MW)	70	0	0	555	45	670
Energy Met (MU)	1179	1455	1119	430	47	4231
Hydro Gen (MU)	101	37	58	16	10	222
Wind Gen (MU)	20	50	73	-	-	143
Solar Gen (MU)*	88.63	53.16	109.12	3.09	1.15	255
Energy Shortage (MU)	6.28	0.00	0.00	3.98	0.45	10.71
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	60044	72764	56571	21433	2629	209381
Time Of Maximum Demand Met	12:21	10:29	09:47	17:37	18:38	11:40

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	0.066	0.44	2.40	10.44	13.27	72.17	14.56

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	7579	0	145.1	56.2	-0.9	183	0.00
	Haryana	8049	0	145.6	84.5	-0.2	155	0.00
	Rajasthan	16845	0	318.5	130.6	-2.0	300	3.97
	Delhi	4441	0	75.2	61.1	-0.5	291	0.00
	UP	18836	0	346.5	103.3	-1.0	1042	1.15
	Uttarakhand	2235	0	42.9	29.8	0.4	157	0.43
	HP	2106	0	37.8	30.8	0.7	348	0.00
	J&K(UT) & Ladakh(UT)	2854	0	60.5	56.0	-0.3	189	0.73
	Chandigarh	207	0	3.9	4.1	-0.1	32	0.00
Railways NR ISTS	170	0	3.3	3.0	0.3	66	0.00	
WR	Chhattisgarh	4787	0	98.6	38.9	-0.6	149	0.00
	Gujarat	21160	0	400.1	175.7	-0.2	499	0.00
	MP	17384	0	327.4	205.3	-3.8	535	0.00
	Maharashtra	26870	0	554.5	179.8	-0.1	797	0.00
	Goa	698	0	13.8	13.3	0.0	86	0.00
	DNHDDPDCL	1249	0	28.9	29.1	-0.2	36	0.00
	AMNSIL	867	0	19.5	9.8	-0.1	278	0.00
	BALCO	519	0	12.4	12.5	-0.1	6	0.00
SR	Andhra Pradesh	10913	0	205.3	79.0	-1.5	484	0.00
	Telangana	12627	0	231.8	100.7	0.2	669	0.00
	Karnataka	14725	0	269.2	111.5	-2.1	718	0.00
	Kerala	4113	0	84.8	64.7	1.2	346	0.00
	Tamil Nadu	15477	0	319.3	169.3	-0.9	600	0.00
	Puducherry	402	0	8.9	8.4	-0.3	27	0.00
ER	Bihar	4820	0	89.9	85.0	-1.2	276	1.40
	DVC	3399	0	72.1	-34.3	-0.2	228	0.00
	Jharkhand	1596	0	31.9	23.2	0.8	238	2.58
	Odisha	5366	0	99.6	41.5	-1.7	336	0.00
	West Bengal	6620	0	134.6	20.0	-2.4	166	0.00
	Sikkim	111	0	1.8	1.9	-0.1	20	0.00
Railways ER ISTS	12	0	0.1	0.1	0.0	1	0.00	
NER	Arunachal Pradesh	167	0	2.9	2.8	0.0	15	0.00
	Assam	1493	0	26.6	20.8	0.3	87	0.00
	Manipur	204	0	3.0	3.1	-0.1	32	0.17
	Meghalaya	341	45	6.3	4.9	-0.1	38	0.28
	Mizoram	133	0	2.1	1.8	-0.1	12	0.00
	Nagaland	157	0	2.4	2.4	-0.1	14	0.00
Tripura	238	0	4.0	2.9	-0.1	22	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-10.8	-4.0	-18.9	-15.4
Day Peak (MW)	-671.0	-224.0	-1038.0	-772.3

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	227.8	-242.0	136.3	-122.9	0.9	0.0
Actual(MU)	231.8	-248.9	139.1	-127.3	0.1	-5.2
O/D/U/D(MU)	4.1	-6.8	2.8	-4.4	-0.8	-5.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6398	8485	5648	4331	210	25071	44
State Sector	8661	10422	6948	5264	181	31475	56
Total	15059	18906	12596	9595	391	56546	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	739	1608	648	617	16	3629	78
Lignite	30	14	56	0	0	100	2
Hydro	101	37	58	16	10	222	5
Nuclear	21	53	66	0	0	140	3
Gas, Naptha & Diesel	22	25	7	0	25	78	2
RES (Wind, Solar, Biomass & Others)	133	105	219	5	1	464	10
Total	1046	1841	1054	638	53	4632	100

Share of RES in total generation (%)	12.69	5.72	20.78	0.83	2.17	10.01
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	24.38	10.64	32.66	3.31	21.52	17.87

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.019
Based on State Max Demands	1.049

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	209381	11:40	518
Non-Solar hr	191881	18:39	1341

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: 31-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	49	0.0	1.9	-1.9
3	765 kV	GAYA-VARANASI	2	0	965	0.0	16.8	-16.8
4	765 kV	SASARAM-FATEHPUR	1	0	523	0.0	9.5	-9.5
5	765 kV	GAYA-BALIA	1	0	653	0.0	11.0	-11.0
6	400 kV	PUSAULI-VARANASI	1	30	40	0.1	0.0	0.1
7	400 kV	PUSAULI-ALLAHABAD	1	0	80	0.0	1.2	-1.2
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	739	0.0	10.3	-10.3
9	400 kV	PATNA-BALIA	2	0	542	0.0	8.7	-8.7
10	400 kV	NAUBATPUR-BALIA	2	0	574	0.0	8.9	-8.9
11	400 kV	BIHARSHARIFF-BALIA	2	8	246	0.0	2.8	-2.8
12	400 kV	MOTIHARI-GORAKHPUR	2	0	537	0.0	8.7	-8.7
13	400 kV	BIHARSHARIFF-VARANASI	2	0	395	0.0	5.3	-5.3
14	220 kV	SAHUPURI-KARAMNANA	1	0	113	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	0.5	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
ER-NR						0.6	86.4	-85.8
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1292	96	12.8	0.0	12.8
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	687	632	0.0	0.0	0.0
3	765 kV	JHARSUGUDA-DURG	2	0	899	0.0	17.6	-17.6
4	400 kV	JHARSUGUDA-RAIGARH	4	0	556	0.0	7.7	-7.7
5	400 kV	RANCHI-SIPAT	2	138	235	0.0	1.7	-1.7
6	220 kV	BUDHIPADAR-RAIGARH	1	42	62	0.0	0.1	-0.1
7	220 kV	BUDHIPADAR-KORBA	2	122	49	0.9	0.0	0.9
ER-WR						13.7	27.2	-13.5
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	17	0.0	0.0	0.0
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1643	0.0	39.7	-39.7
3	765 kV	ANGUL-SRIKAKULAM	2	0	2722	0.0	50.6	-50.6
4	400 kV	TALCHER-I/C	2	289	0	5.3	0.0	5.3
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	90.3	-90.3
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	273	39	2.2	0.0	2.2
2	400 kV	ALIPURDUAR-BONGAIGAON	2	851	0	10.5	0.0	10.5
3	220 kV	ALIPURDUAR-SALAKATI	2	142	0	2.0	0.0	2.0
ER-NER						14.7	0.0	14.7
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIAL-AGRA	2	660	0	16.1	0.0	16.1
NER-NR						16.1	0.0	16.1
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KIRUKSHETRA	2	1	0	0.0	0.0	0.0
2	HVDC	VINDHYACHAL B/B	-	181	0	4.9	0.0	4.9
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1452	0.0	25.7	-25.7
4	765 kV	GWALIOR-AGRA	2	0	2536	0.0	39.9	-39.9
5	765 kV	GWALIOR-PHAGI	2	0	2421	0.0	42.8	-42.8
6	765 kV	JABALPUR-ORAI	2	0	1252	0.0	39.0	-39.0
7	765 kV	GWALIOR-ORAI	1	1198	0	20.3	0.0	20.3
8	765 kV	SATNA-ORAI	1	0	1185	0.0	23.9	-23.9
9	765 kV	BANASKANTHA-CHITORGARH	2	1029	861	9.7	1.7	8.0
10	765 kV	VINDHYACHAL-VARANASI	2	0	2904	0.0	46.2	-46.2
11	400 kV	ZERDA-KANKROLI	1	147	137	1.2	0.3	0.9
12	400 kV	ZERDA -BHINMAL	1	412	274	2.2	0.9	1.3
13	400 kV	VINDHYACHAL -RIHAND	1	968	0	22.3	0.0	22.3
14	400 kV	RAPP-SHUALPUR	2	0	563	0.0	5.5	-5.5
15	220 kV	BHANPURA-RANPUR	1	0	165	0.0	2.8	-2.8
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.3	-1.3
17	220 kV	MEHGAON-AURAIYA	1	108	1	1.0	0.0	1.0
18	220 kV	MALANPUR-AURAIYA	1	85	24	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
WR-NR						62.1	230.0	-168.0
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1014	0.0	19.2	-19.2
2	HVDC	RAIGARH-PUGALUR	2	0	3012	0.0	46.7	-46.7
3	765 kV	SOLAPUR-RAICHUR	2	1702	1492	7.9	7.9	0.0
4	765 kV	WARDHA-NIZAMABAD	2	0	1811	0.0	19.6	-19.6
5	765 kV	WARORA-WARANGAL(NEW)	2	0	0	0.0	33.5	-33.5
6	400 kV	KOLHAPUR-KUDGI	2	1563	0	22.5	0.0	22.5
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	115	2.1	0.0	2.1
WR-SR						32.5	126.9	-94.4

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)	-226	1	-130	-3.12
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	244	-235	-110	-2.65
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-239	-83	-177	-4.25
	NER	132kV GELEPHU-SALAKATI	-35	0	-28	-0.68
	NER	132kV MOTANGA-RANGIA	-10	0	-4	-0.10
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-62	0	-35	-0.85
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-224	0	-129	-3.10
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-932	-427	-705	-16.92
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-772	-407	-642	-15.40
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-106	0	-84	-2.02

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 31-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	9.85	0.00	0.00	0.13	0.00	0.00	9.98
Nepal	0.28	0.00	3.13	0.00	0.00	0.00	0.00	0.00	3.41
Bangladesh	16.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.96
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	17.24	0.00	12.98	0.00	0.00	0.13	0.00	0.00	30.35

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	0.00	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	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56

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	-9.85	0.00	0.00	-0.13	0.00	0.00	-9.42
Nepal	-0.28	0.00	-3.13	0.00	0.00	0.00	0.00	0.00	-3.41
Bangladesh	-16.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-16.96
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-16.68	0.00	-12.98	0.00	0.00	-0.13	0.00	0.00	-29.79