



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: 24nd 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 23.12.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 23-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 23st December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 24-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)	54748	59494	43285	19307	2576	179410
Peak Shortage (MW)	0	0	0	693	0	693
Energy Met (MU)	1162	1441	1079	415	48	4145
Hydro Gen (MU)	111	39	50	20	11	231
Wind Gen (MU)	25	50	52	-	-	127
Solar Gen (MU)*	109.39	59.82	113.38	1.85	0.74	285
Energy Shortage (MU)	0.56	0.00	0.00	4.63	0.27	5.46
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	59810	72274	54820	20497	2678	206815
Time Of Maximum Demand Met	11:11	10:55	09:51	17:50	17:29	10:43

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	0.036	0.00	0.10	5.23	5.34	80.41	14.26

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	7277	0	143.4	38.8	0.0	239	0.00
	Haryana	7897	0	150.3	92.4	-1.4	132	0.00
	Rajasthan	17167	0	319.6	114.8	-4.3	329	0.00
	Delhi	4253	0	71.7	62.1	-0.8	204	0.00
	UP	17932	0	328.2	105.2	-3.8	474	0.00
	Uttarakhand	2392	0	43.6	29.8	0.1	221	0.14
	HP	2091	0	38.3	31.2	0.5	161	0.00
	J&K(UT) & Ladakh(UT)	2865	0	59.4	54.5	0.1	427	0.42
	Chandigarh	240	0	3.9	4.0	-0.1	38	0.00
Railways NR ISTS	179	0	3.5	3.3	0.2	60	0.00	
WR	Chhattisgarh	4666	0	93.8	38.6	-0.8	388	0.00
	Gujarat	20879	0	397.3	166.9	-1.1	844	0.00
	MP	17420	0	326.5	201.7	-5.7	404	0.00
	Maharashtra	26616	0	549.3	171.1	-1.7	1013	0.00
	Goa	684	0	13.8	13.5	-0.1	110	0.00
	DNHDDPDCL	1270	0	28.5	28.8	-0.3	52	0.00
	AMNSIL	854	0	19.2	10.3	0.0	264	0.00
	BALCO	518	0	12.4	12.5	-0.1	1	0.00
SR	Andhra Pradesh	10281	0	195.6	71.7	-1.6	674	0.00
	Telangana	12047	0	220.8	93.4	-0.3	573	0.00
	Karnataka	14454	0	261.6	104.1	-0.6	949	0.00
	Kerala	4032	0	82.8	63.7	1.9	436	0.00
	Tamil Nadu	15102	0	310.0	168.2	1.0	1392	0.00
	Puducherry	396	0	8.5	8.0	-0.2	35	0.00
ER	Bihar	4386	309	85.4	79.1	0.0	309	0.99
	DVC	3493	0	73.2	-47.4	-0.1	288	0.00
	Jharkhand	1735	396	30.9	22.7	-0.6	284	3.64
	Odisha	4479	0	89.6	27.6	0.0	284	0.00
	West Bengal	6672	0	133.9	28.3	-1.3	401	0.00
	Sikkim	106	0	1.9	1.8	0.0	25	0.00
Railways ER ISTS	23	0	0.1	0.1	0.0	4	0.00	
NER	Arunachal Pradesh	165	0	3.0	2.8	0.1	29	0.00
	Assam	1499	0	26.6	21.3	0.5	96	0.00
	Manipur	220	9	3.2	3.1	0.1	32	0.17
	Meghalaya	355	0	6.4	4.8	-0.1	42	0.10
	Mizoram	127	0	2.1	1.8	-0.2	14	0.00
	Nagaland	154	0	2.4	2.4	-0.1	16	0.00
Tripura	225	0	3.9	3.2	-0.1	32	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-8.3	-3.8	-19.3	-15.2
Day Peak (MW)	-560.0	-207.0	-1051.0	-764.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	207.5	-243.8	167.4	-132.2	1.1	0.0
Actual(MU)	196.2	-245.7	181.3	-141.1	1.0	-8.4
O/D/U/D(MU)	-11.3	-1.9	13.8	-8.9	-0.1	-8.4

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	7448	12052	9468	5201	155	34324	54
State Sector	7536	10812	6698	4006	190	29241	46
Total	14984	22863	16166	9207	345	63565	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	718	1583	592	606	16	3515	78
Lignite	27	23	53	0	0	103	2
Hydro	111	39	50	20	11	231	5
Nuclear	21	52	62	0	0	135	3
Gas, Naptha & Diesel	15	18	7	0	25	64	1
RES (Wind, Solar, Biomass & Others)	158	112	202	3	1	477	11
Total	1051	1827	966	630	52	4525	100

Share of RES in total generation (%)	15.06	6.14	20.95	0.54	1.46	10.54
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	27.68	11.16	32.59	3.71	22.62	18.67

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.015
Based on State Max Demands	1.040

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	206815	10:43	524
Non-Solar hr	188379	18:25	807

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: 24-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	0	832	0.0	12.5	-12.5
4	765 kV	SASARAM-FATEHPUR	1	0	517	0.0	8.9	-8.9
5	765 kV	GAYA-BALIA	1	0	598	0.0	9.4	-9.4
6	400 kV	PUSAULI-VARANASI	1	12	41	0.0	0.2	-0.2
7	400 kV	PUSAULI-ALLAHABAD	1	0	59	0.0	1.0	-1.0
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	15	536	0.0	7.0	-7.0
9	400 kV	PATNA-BALIA	2	0	496	0.0	10.8	-10.8
10	400 kV	NAUBATPUR-BALIA	2	0	516	0.0	10.0	-10.0
11	400 kV	BIHARSHARIFF-BALIA	2	0	332	0.0	5.5	-5.5
12	400 kV	MOTIHARI-GORAKHPUR	2	0	417	0.0	7.7	-7.7
13	400 kV	BIHARSHARIFF-VARANASI	2	0	366	0.0	6.8	-6.8
14	220 kV	SAHUPURI-KARAMNANA	1	0	102	0.0	1.6	-1.6
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	82.6	-82.2
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1307	132	11.5	0.0	11.5
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	613	587	0.0	0.7	-0.7
3	765 kV	JHARSUGUDA-DURG	2	0	1043	0.0	18.5	-18.5
4	400 kV	JHARSUGUDA-RAIGARH	4	0	520	0.0	6.7	-6.7
5	400 kV	RANCHI-SIPAT	2	165	232	0.0	3.4	-3.4
6	220 kV	BUDHIPADAR-RAIGARH	1	80	47	0.0	0.3	-0.3
7	220 kV	BUDHIPADAR-KORBA	2	145	40	1.4	0.0	1.4
ER-WR						12.8	29.5	-16.7
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	1999	0.0	41.2	-41.2
3	765 kV	ANGUL-SRIKAKULAM	2	0	2879	0.0	51.1	-51.1
4	400 kV	TALCHER-I/C	2	64	726	0.0	8.0	-8.0
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	92.4	-92.4
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	287	31	2.4	0.0	2.4
2	400 kV	ALIPURDUAR-BONGAIGAON	2	858	0	10.5	0.0	10.5
3	220 kV	ALIPURDUAR-SALAKATI	2	163	0	2.3	0.0	2.3
ER-NER						15.1	0.0	15.1
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-KIRUKSHETRA	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	1451	0.0	26.0	-26.0
4	765 kV	GWALIOR-AGRA	2	0	2092	0.0	31.7	-31.7
5	765 kV	GWALIOR-PHAGI	2	0	2118	0.0	32.2	-32.2
6	765 kV	JABALPUR-ORAI	2	0	1060	0.0	33.5	-33.5
7	765 kV	GWALIOR-ORAI	1	1100	0	19.5	0.0	19.5
8	765 kV	SATNA-ORAI	1	0	1132	0.0	21.5	-21.5
9	765 kV	BANASKANTHA-CHITORGARH	2	1116	628	11.7	0.9	10.8
10	765 kV	VINDHYACHAL-VARANASI	2	0	2950	0.0	42.6	-42.6
11	400 kV	ZERDA-KANKROLI	1	147	71	1.8	0.1	1.7
12	400 kV	ZERDA -BHINMAL	1	503	142	4.0	0.3	3.7
13	400 kV	VINDHYACHAL -RIHAND	1	957	0	21.8	0.0	21.8
14	400 kV	RAPP-SHUJALPUR	2	238	365	0.9	2.6	-1.7
15	220 kV	BHANPURA-RANPUR	1	0	164	0.0	2.7	-2.7
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.5	-1.5
17	220 kV	MEHGAON-AURAIYA	1	110	0	1.1	0.0	1.1
18	220 kV	MALANPUR-AURAIYA	1	80	20	0.6	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						61.2	198.0	-136.7
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1016	0.0	21.6	-21.6
2	HVDC	RAIGARH-PUGALUR	2	0	3006	0.0	64.6	-64.6
3	765 kV	SOLAPUR-RAICHUR	2	1151	1439	5.6	4.4	1.2
4	765 kV	WARDHA-NIZAMABAD	2	0	2337	0.0	29.5	-29.5
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2631	0.0	34.7	-34.7
6	400 kV	KOLHAPUR-KUDGI	2	1385	0	21.9	0.0	21.9
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	109	2.1	0.0	2.1
WR-SR						29.6	154.9	-125.2

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)	-228	55	-124	-2.98
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	332	-115	36	0.86
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-311	-150	-239	-5.73
	NER	132kV GELEPHU-SALAKATI	-32	-16	-25	-0.60
	NER	132kV MOTANGA-RANGIA	12	4	5	0.12
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-19	0	-2	-0.05
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-207	0	-158	-3.78
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-921	-495	-711	-17.07
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-764	-407	-632	-15.17
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-130	0	-92	-2.20

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 24-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	8.50	0.00	0.00	0.39	0.00	0.00	8.89
Nepal	0.36	0.00	3.93	0.00	0.00	0.00	0.00	0.00	4.29
Bangladesh	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	17.36	0.00	12.43	0.00	0.00	0.39	0.00	0.00	30.18

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	0.33	0.00	0.00	0.33
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	0.33	0.00	0.00	0.92

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	-8.50	0.00	0.00	-0.39	0.00	0.00	-8.30
Nepal	-0.36	0.00	-3.93	0.00	0.00	0.33	0.00	0.00	-3.96
Bangladesh	-17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-17.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-16.77	0.00	-12.43	0.00	0.00	-0.06	0.00	0.00	-29.26