



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: 23rd 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 22.12.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 22-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 22nd December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 23-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)	55349	60055	44205	19224	2622	181455
Peak Shortage (MW)	0	0	0	796	0	796
Energy Met (MU)	1185	1454	1087	414	47	4187
Hydro Gen (MU)	113	45	62	19	11	250
Wind Gen (MU)	11	36	36	-	-	83
Solar Gen (MU)*	98.92	48.18	102.06	3.09	1.19	253
Energy Shortage (MU)	3.16	0.28	0.00	4.83	0.22	8.49
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	60651	74125	55064	20211	2722	209760
Time Of Maximum Demand Met	11:19	11:00	11:29	18:00	17:18	11:00

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	0.064	0.24	3.25	12.01	15.51	74.74	9.76

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	7299	0	145.3	39.1	-0.5	185	0.00
	Haryana	8088	0	152.3	92.4	-0.3	237	0.00
	Rajasthan	17257	0	320.6	125.0	-3.9	84	0.00
	Delhi	4570	0	75.9	65.8	-0.9	204	0.00
	UP	18193	0	342.0	111.5	-3.8	1099	0.00
	Uttarakhand	2306	0	44.2	30.3	0.5	254	0.55
	HP	2107	22	37.1	30.1	0.5	214	1.22
	J&K(UT) & Ladakh(UT)	2907	0	60.1	54.8	0.4	200	1.39
	Chandigarh	258	0	4.2	4.0	0.2	41	0.00
Railways NR ISTS	180	0	3.4	3.3	0.1	41	0.00	
WR	Chhattisgarh	4668	0	93.6	37.5	0.8	567	0.28
	Gujarat	21382	0	399.8	177.9	-1.5	517	0.00
	MP	17714	0	328.5	198.1	-3.0	566	0.00
	Maharashtra	27068	0	556.4	165.9	3.1	772	0.00
	Goa	692	0	13.7	13.7	-0.4	120	0.00
	DNHDDPDCL	1270	0	29.1	29.1	0.0	46	0.00
	AMNSIL	901	0	20.5	9.8	0.2	268	0.00
	BALCO	519	0	12.4	12.5	-0.1	10	0.00
SR	Andhra Pradesh	10267	0	194.3	76.5	0.1	568	0.00
	Telangana	12093	0	219.5	88.8	0.5	1241	0.00
	Karnataka	15005	0	271.0	108.6	0.2	986	0.00
	Kerala	4234	0	84.7	64.7	0.6	296	0.00
	Tamil Nadu	15186	0	308.8	175.4	1.2	1399	0.00
	Puducherry	395	0	8.8	8.3	-0.3	45	0.00
ER	Bihar	4438	0	86.3	79.8	0.1	178	1.50
	DVC	3421	0	72.8	-48.8	-0.2	290	0.00
	Jharkhand	1714	259	30.4	22.9	-1.6	304	3.33
	Odisha	4417	0	87.8	23.7	-0.5	382	0.00
	West Bengal	6837	0	134.9	22.6	-1.4	409	0.00
	Sikkim	110	0	1.9	1.8	0.1	21	0.00
Railways ER ISTS	17	0	0.1	0.1	0.0	1	0.00	
NER	Arunachal Pradesh	170	0	2.9	2.8	0.0	26	0.00
	Assam	1506	0	26.6	20.9	0.3	104	0.00
	Manipur	235	14	3.0	3.1	-0.1	51	0.22
	Meghalaya	342	0	6.3	4.9	-0.1	62	0.00
	Mizoram	138	0	2.0	1.8	-0.3	9	0.00
	Nagaland	155	0	2.4	2.4	-0.1	17	0.00
Tripura	239	0	3.9	3.0	-0.2	36	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-7.5	-5.4	-16.6	-14.5
Day Peak (MW)	-496.0	-332.0	-948.0	-765.2

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	241.1	-243.6	154.9	-153.0	0.7	0.0
Actual(MU)	221.4	-240.4	169.0	-158.7	-0.5	-9.2
O/D/U/D(MU)	-19.7	3.2	14.2	-5.7	-1.1	-9.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	7168	11159	9478	5791	155	33751	53
State Sector	8606	10702	6833	3456	190	29786	47
Total	15774	21860	16311	9247	345	63537	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	728	1616	616	628	16	3605	79
Lignite	28	22	54	0	0	103	2
Hydro	113	45	62	19	11	250	5
Nuclear	21	47	76	0	0	144	3
Gas, Naptha & Diesel	16	22	6	0	25	69	2
RES (Wind, Solar, Biomass & Others)	133	88	174	5	1	402	9
Total	1039	1840	989	652	53	4572	100

Share of RES in total generation (%)	12.81	4.80	17.63	0.79	2.24	8.79
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	25.72	9.85	31.66	3.68	23.25	17.44

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.014
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	209760	11:00	544
Non-Solar hr	188883	18:28	1131

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: 23-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	1111	0.0	18.9	-18.9
4	765 kV	SASARAM-FATEHPUR	1	0	491	0.0	9.3	-9.3
5	765 kV	GAYA-BALIA	1	0	685	0.0	13.8	-13.8
6	400 kV	PUSAULI-VARANASI	1	34	15	0.4	0.0	0.4
7	400 kV	PUSAULI-ALLAHABAD	1	0	81	0.0	1.5	-1.5
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	685	0.0	9.7	-9.7
9	400 kV	PATNA-BALIA	2	0	585	0.0	3.9	-3.9
10	400 kV	NAUBATPUR-BALIA	2	0	819	0.0	13.7	-13.7
11	400 kV	BIHARSHARIF-BALIA	2	0	397	0.0	6.2	-6.2
12	400 kV	MOTIHARI-GORAKHPUR	2	0	542	0.0	10.0	-10.0
13	400 kV	BIHARSHARIF-VARANASI	2	0	522	0.0	8.6	-8.6
14	220 kV	SAHUPURI-KARAMNANA	1	0	106	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	0.1	0.0	0.1
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						0.5	98.4	-97.9
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	753	327	6.7	0.0	6.7
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	356	947	0.0	6.8	-6.8
3	765 kV	JHARSUGUDA-DURG	2	0	1046	0.0	16.6	-16.6
4	400 kV	JHARSUGUDA-RAIGARH	4	0	653	0.0	9.9	-9.9
5	400 kV	RANCHI-SIPAT	2	86	346	0.0	3.3	-3.3
6	220 kV	BUDHIPADAR-RAIGARH	1	49	74	0.0	0.4	-0.4
7	220 kV	BUDHIPADAR-KORBA	2	127	59	0.7	0.0	0.7
ER-WR						7.4	37.0	-29.6
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	1991	0.0	40.8	-40.8
3	765 kV	ANGUL-SRIKAKULAM	2	0	2725	0.0	51.4	-51.4
4	400 kV	TALCHER-I/C	2	346	357	3.1	0.0	3.1
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	92.2	-92.2
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	287	0	2.7	0.0	2.7
2	400 kV	ALIPURDUAR-BONGAIGAON	2	910	0	10.4	0.0	10.4
3	220 kV	ALIPURDUAR-SALAKATI	2	169	0	2.3	0.0	2.3
ER-NER						15.4	0.0	15.4
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIAL-AGRA	2	665	0	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	980	0.0	24.2	-24.2
4	765 kV	GWALIOR-AGRA	2	0	2145	0.0	33.6	-33.6
5	765 kV	GWALIOR-PHAGI	2	0	2145	0.0	37.1	-37.1
6	765 kV	JABALPUR-ORAI	2	0	1029	0.0	34.9	-34.9
7	765 kV	GWALIOR-ORAI	1	930	0	17.7	0.0	17.7
8	765 kV	SATNA-ORAI	1	0	1123	0.0	23.4	-23.4
9	765 kV	BANASKANTHA-CHITORGARH	2	1317	275	13.0	0.2	12.8
10	765 kV	VINDHYACHAL-VARANASI	2	0	2693	0.0	43.1	-43.1
11	400 kV	ZERDA-KANKROLI	1	186	58	1.9	0.1	1.9
12	400 kV	ZERDA -BHINMAL	1	545	200	3.0	0.8	2.2
13	400 kV	VINDHYACHAL -RIHAND	1	979	0	22.6	0.0	22.6
14	400 kV	RAPP-SHUJALPUR	2	231	419	0.7	3.1	-2.4
15	220 kV	BHANPURA-RANPUR	1	0	158	0.0	2.6	-2.6
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.6	-1.6
17	220 kV	MEHGAON-AURAIYA	1	119	0	1.1	0.0	1.1
18	220 kV	MALANPUR-AURAIYA	1	94	15	0.6	0.0	0.6
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						60.6	206.9	-146.3
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1014	0.0	22.2	-22.2
2	HVDC	RAIGARH-PUGALUR	2	0	4009	0.0	56.5	-56.5
3	765 kV	SOLAPUR-RAICHUR	2	836	1152	4.9	6.1	-1.1
4	765 kV	WARDHA-NIZAMABAD	2	0	2221	0.0	30.6	-30.6
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2461	0.0	35.9	-35.9
6	400 kV	KOLHAPUR-KUDGI	2	1372	0	20.9	0.0	20.9
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						27.9	151.2	-123.3

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)	-189	-22	-108	-2.59
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	376	-93	62	1.49
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-294	-181	-244	-5.86
	NER	132kV GELEPHU-SALAKATI	-37	-18	-26	-0.62
	NER	132kV MOTANGA-RANGIA	18	-5	5	0.12
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	0	0	0	0.00
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-332	0	-225	-5.40
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-829	-242	-605	-14.52
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-765	-400	-604	-14.50
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	119	0	-87	-2.08

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 23-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	8.54	0.00	0.00	0.00	0.00	0.00	8.54
Nepal	0.37	0.00	4.23	0.00	0.00	0.20	0.00	0.00	4.80
Bangladesh	14.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.63
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	15.00	0.00	12.77	0.00	0.00	0.20	0.00	0.00	27.97

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
		IEX	PXIL	HPX	IEX	PXIL	HPX		
Bhutan	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
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	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60

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	0.60	0.00	-8.54	0.00	0.00	0.00	0.00	0.00	-7.94
Nepal	-0.37	0.00	-4.23	0.00	0.00	-0.20	0.00	0.00	-4.80
Bangladesh	-14.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-14.63
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-14.40	0.00	-12.77	0.00	0.00	-0.20	0.00	0.00	-27.37