

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: 29th 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 28.12.2023.

महोदय/Dear Sir,

आईंईंजींसीं-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 28-दिसम्बर-2023 की अखिल भारतीय प्रणाली की दैनिक ग्रिड 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 28th December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 29-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)	54911	60405	45197	20320	2582	183415
Peak Shortage (MW)	182	0	0	469	39	690
Energy Met (MU)	1167	1456	1122	437	47	4230
Hydro Gen (MU)	107	42	55	15	11	229
Wind Gen (MU)	19	75	98	-	-	192
Solar Gen (MU)*	108.91	54.71	107.72	5.38	1.07	278
Energy Shortage (MU)	1.57	0.00	0.00	2.59	0.41	4.57
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	59732	73989	56084	21292	2696	211417
Time Of Maximum Demand Met	10:28	10:27	09:43	18:01	17:21	10:29

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	0.055	0.15	2.71	6.90	9.76	76.39	13.85

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	7522	0	139.3	47.1	0.7	202	0.00
	Haryana	7856	0	145.5	86.4	-1.2	174	0.00
	Rajasthan	17261	0	322.8	118.0	-2.8	146	0.00
	Delhi	4515	0	76.5	67.7	-1.0	220	0.00
	UP	18312	0	334.1	99.5	0.5	792	0.25
	Uttarakhand	2252	0	42.3	29.4	0.1	118	0.21
	HP	2118	0	37.9	31.2	0.2	156	0.00
	J&K(UT) & Ladakh(UT)	2825	0	61.5	56.4	0.3	449	1.11
	Chandigarh	250	0	4.1	4.2	-0.1	46	0.00
Railways NR ISTS	182	0	3.1	3.3	-0.2	66	0.00	
WR	Chhattisgarh	4700	0	97.6	34.2	-0.8	348	0.00
	Gujarat	21328	0	401.6	165.3	-0.1	872	0.00
	MP	17305	0	327.1	204.1	-6.2	429	0.00
	Maharashtra	27291	0	556.0	175.6	-9.1	669	0.00
	Goa	680	0	13.4	13.1	-0.2	160	0.00
	DNHDDPDCL	1265	0	29.1	29.4	-0.3	22	0.00
	AMNSIL	834	0	18.9	10.3	-0.1	285	0.00
	BALCO	520	0	12.4	12.5	-0.1	3	0.00
SR	Andhra Pradesh	10873	0	205.1	80.2	-0.8	706	0.00
	Telangana	12595	0	231.1	104.5	-0.3	1057	0.00
	Karnataka	14491	0	266.1	101.9	-0.3	854	0.00
	Kerala	4244	0	84.4	64.8	1.2	290	0.00
	Tamil Nadu	15920	0	326.4	168.8	-0.3	547	0.00
	Puducherry	418	0	8.9	8.3	-0.1	57	0.00
ER	Bihar	4564	0	88.4	81.4	0.7	154	0.53
	DVC	3329	0	72.8	-42.8	-0.1	265	0.00
	Jharkhand	1758	0	30.3	24.0	-2.3	250	2.06
	Odisha	5432	0	107.2	50.1	-1.9	345	0.00
	West Bengal	6794	0	137.1	23.8	-2.0	151	0.00
	Sikkim	110	0	1.7	1.7	0.0	23	0.00
Railways ER ISTS	12	0	0.1	0.2	0.0	0	0.00	
NER	Arunachal Pradesh	176	0	3.0	2.8	0.1	78	0.00
	Assam	1499	0	26.5	20.5	0.1	103	0.00
	Manipur	224	0	3.1	3.0	0.1	30	0.15
	Meghalaya	345	39	6.2	5.0	-0.1	81	0.26
	Mizoram	133	0	2.1	1.7	-0.2	18	0.00
	Nagaland	152	0	2.4	2.4	-0.1	19	0.00
Tripura	228	0	3.8	2.9	-0.3	9	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-9.4	-4.8	-21.1	-16.6
Day Peak (MW)	-699.0	-423.0	-1026.0	-767.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	205.7	-246.3	144.4	-105.2	1.4	0.0
Actual(MU)	198.3	-245.4	156.5	-114.5	0.3	-4.9
O/D/U/D(MU)	-7.4	0.8	12.1	-9.3	-1.0	-4.9

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6519	10454	7708	6091	185	30957	50
State Sector	8056	10079	6755	5696	181	30766	50
Total	14575	20533	14463	11787	366	61723	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	738	1591	613	608	16	3566	77
Lignite	23	15	59	0	0	97	2
Hydro	107	42	55	15	11	229	5
Nuclear	21	53	57	0	0	132	3
Gas, Naptha & Diesel	15	20	7	0	25	67	1
RES (Wind, Solar, Biomass & Others)	151	132	243	8	1	536	12
Total	1056	1853	1034	630	52	4626	100

Share of RES in total generation (%)	14.32	7.12	23.53	1.23	2.04	11.57
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	26.50	12.29	34.44	3.39	22.42	19.39

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.011
Based on State Max Demands	1.042

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	211417	10:29	178
Non-Solar hr	191961	18:31	970

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: 29-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	1.2	-1.2
3	765 kV	GAYA-VARANASI	2	0	838	0.0	13.8	-13.8
4	765 kV	SASARAM-FATEHPUR	1	0	520	0.0	8.1	-8.1
5	765 kV	GAYA-BALIA	1	0	595	0.0	9.9	-9.9
6	400 kV	PUSAULI-VARANASI	1	16	41	0.0	0.2	-0.2
7	400 kV	PUSAULI-ALLAHABAD	1	0	66	0.0	1.1	-1.1
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	620	0.0	7.5	-7.5
9	400 kV	PATNA-BALIA	2	0	470	0.0	8.1	-8.1
10	400 kV	NAUBATPUR-BALIA	2	0	492	0.0	8.0	-8.0
11	400 kV	BIHARSHARIF-BALIA	2	64	141	0.0	1.3	-1.3
12	400 kV	MOTIHARI-GORAKHPUR	2	0	438	0.0	7.4	-7.4
13	400 kV	BIHARSHARIF-VARANASI	2	0	345	0.0	5.1	-5.1
14	220 kV	SAHUPURI-KARAMNANA	1	2	117	0.0	0.9	-0.9
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	72.6	-72.2
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1006	126	9.3	0.0	9.3
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	479	737	0.0	1.4	-1.4
3	765 kV	JHARSUGUDA-DURG	2	0	1022	0.0	18.6	-18.6
4	400 kV	JHARSUGUDA-RAIGARH	4	12	474	0.0	5.0	-5.0
5	400 kV	RANCHI-SIPAT	2	91	238	0.0	2.0	-2.0
6	220 kV	BUDHIPADAR-RAIGARH	1	60	84	0.0	0.4	-0.4
7	220 kV	BUDHIPADAR-KORBA	2	148	0	1.9	0.0	1.9
ER-WR						11.2	27.4	-16.2
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	1986	0.0	38.0	-38.0
3	765 kV	ANGUL-SRIKAKULAM	2	0	2569	0.0	49.5	-49.5
4	400 kV	TALCHER-I/C	2	512	146	7.0	0.0	7.0
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	87.5	-87.5
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	290	0	2.6	0.0	2.6
2	400 kV	ALIPURDUAR-BONGAIGAON	2	896	0	10.0	0.0	10.0
3	220 kV	ALIPURDUAR-SALAKATI	2	152	0	1.9	0.0	1.9
ER-NER						14.4	0.0	14.4
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIAL-AGRA	2	659	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	-	438	0	12.2	0.0	12.2
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1912	0.0	34.6	-34.6
4	765 kV	GWALIOR-AGRA	2	0	2443	0.0	38.8	-38.8
5	765 kV	GWALIOR-PHAGI	2	0	2108	0.0	34.0	-34.0
6	765 kV	JABALPUR-ORAI	2	0	1127	0.0	33.4	-33.4
7	765 kV	GWALIOR-ORAI	1	1138	0	18.1	0.0	18.1
8	765 kV	SATNA-ORAI	1	0	1126	0.0	22.6	-22.6
9	765 kV	BANASKANTHA-CHITORGARH	2	1374	464	12.6	0.5	12.0
10	765 kV	VINDHYACHAL-VARANASI	2	0	2687	0.0	45.0	-45.0
11	400 kV	ZERDA-KANKROLI	1	172	76	1.9	0.1	1.8
12	400 kV	ZERDA -BHINMAL	1	504	289	3.2	1.2	2.0
13	400 kV	VINDHYACHAL -RIHAND	1	970	0	22.2	0.0	22.2
14	400 kV	RAPP-SHUALPUR	2	172	525	0.4	3.6	-3.2
15	220 kV	BHANPURA-RANPUR	1	0	157	0.0	2.8	-2.8
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.2	-1.2
17	220 kV	MEHGAON-AURAIYA	1	109	0	0.9	0.0	0.9
18	220 kV	MALANPUR-AURAIYA	1	73	21	0.4	0.1	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						71.7	217.8	-146.1
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1012	0.0	16.6	-16.6
2	HVDC	RAIGARH-PUGALUR	2	0	5011	0.0	63.9	-63.9
3	765 kV	SOLAPUR-RAICHUR	2	1250	933	6.9	4.8	2.2
4	765 kV	WARDHA-NIZAMABAD	2	0	1962	0.0	29.2	-29.2
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2186	0.0	33.6	-33.6
6	400 kV	KOLHAPUR-KUDGI	2	1578	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	96	1.9	0.0	1.9
WR-SR						32.6	148.1	-115.5

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)	-221	8	-136	-3.26
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	290	-230	-52	-1.24
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-230	-84	-175	-4.21
	NER	132kV GELEPHU-SALAKATI	-35	-21	-29	-0.70
	NER	132kV MOTANGA-RANGIA	16	-18	1	0.03
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-70	0	-40	-0.97
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-423	-47	-160	-3.84
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-924	-591	-788	-18.90
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-767	-452	-692	-16.61
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-102	0	-91	-2.18

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 29-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	10.16	0.00	0.00	0.04	0.00	0.00	10.20
Nepal	0.31	0.00	3.59	0.00	0.00	0.29	0.00	0.00	4.19
Bangladesh	18.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.88
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	19.19	0.00	13.75	0.00	0.00	0.33	0.00	0.00	33.27

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	0.04	0.00	0.00	0.04
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	0.04	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	0.56	0.00	-10.16	0.00	0.00	-0.04	0.00	0.00	-9.64
Nepal	-0.31	0.00	-3.59	0.00	0.00	-0.25	0.00	0.00	-4.15
Bangladesh	-18.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-18.88
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-18.63	0.00	-13.75	0.00	0.00	-0.29	0.00	0.00	-32.67