

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: 23rd January 2024

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 22.01.2024.

महोदय/Dear Sir,

आईंईंजींसीं-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 22-जनवरी-2024 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 22nd January 2024, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 23-Jan-2024

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)	60980	57481	46726	20761	2732	188680
Peak Shortage (MW)	450	0	0	1189	0	1639
Energy Met (MU)	1312	1431	1178	445	48	4414
Hydro Gen (MU)	98	49	62	24	10	241
Wind Gen (MU)	6	43	44	-	-	93
Solar Gen (MU)*	106.42	65.11	116.41	4.26	1.04	293
Energy Shortage (MU)	10.42	1.88	0.00	9.27	0.57	22.14
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	69524	71819	59522	21589	2755	221330
Time Of Maximum Demand Met	12:37	10:38	10:23	10:43	17:43	10:55

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	0.052	0.50	1.05	5.87	7.42	72.06	20.52

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	9019	0	165.3	59.4	-0.4	215	0.00
	Haryana	9036	231	159.3	98.8	0.3	167	6.29
	Rajasthan	17202	0	321.9	113.0	-2.8	311	0.00
	Delhi	5746	0	90.6	78.4	0.3	556	0.00
	UP	21871	0	417.3	136.3	3.3	1065	0.00
	Uttarakhand	2406	0	46.2	34.2	0.2	297	1.59
	HP	2146	0	37.2	30.3	1.8	471	0.25
	J&K(UT) & Ladakh(UT)	3067	0	65.9	60.6	0.9	351	2.29
	Chandigarh	338	0	5.6	4.8	0.8	134	0.00
Railways NR ISTS	169	0	3.1	3.0	0.1	61	0.00	
WR	Chhattisgarh	4944	0	101.2	49.1	-1.2	215	0.00
	Gujarat	18546	0	372.3	126.5	-2.3	596	0.00
	MP	17569	0	323.8	190.3	0.8	1095	1.88
	Maharashtra	28151	0	562.4	161.9	-2.5	591	0.00
	Goa	633	0	12.1	11.9	-0.2	137	0.00
	DNHDDPDCL	1167	0	27.3	27.3	0.0	40	0.00
	AMNSIL	876	0	19.5	8.9	0.4	259	0.00
	BALCO	518	0	12.4	12.4	0.0	9	0.00
SR	Andhra Pradesh	12132	0	219.2	89.2	0.4	625	0.00
	Telangana	13810	0	255.6	129.0	0.7	809	0.00
	Karnataka	15661	0	280.5	128.6	0.6	766	0.00
	Kerala	4354	0	86.4	64.9	1.3	345	0.00
	Tamil Nadu	16101	0	327.3	181.0	0.5	1060	0.00
	Puducherry	402	0	8.4	8.1	-0.2	27	0.00
ER	Bihar	5252	988	100.6	87.5	1.7	423	6.95
	DVC	3423	0	69.8	-48.9	-2.0	340	0.00
	Jharkhand	1815	252	31.4	23.3	-1.5	302	2.33
	Odisha	4670	0	91.2	11.3	-0.4	509	0.00
	West Bengal	7249	0	149.7	18.6	-1.8	144	0.00
	Sikkim	119	0	1.9	2.0	-0.1	16	0.00
Railways ER ISTS	6	0	0.1	0.1	0.0	2	0.00	
NER	Arunachal Pradesh	174	0	3.2	2.8	0.3	67	0.00
	Assam	1577	0	27.2	21.5	0.6	160	0.52
	Manipur	230	0	3.1	2.8	0.3	71	0.05
	Meghalaya	338	0	6.4	4.6	-0.1	85	0.00
	Mizoram	158	0	2.3	1.6	-0.2	13	0.00
	Nagaland	147	0	2.2	2.1	0.0	30	0.00
Tripura	233	0	4.0	3.4	-0.1	22	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-9.5	-9.5	-18.4	-29.4
Day Peak (MW)	-603.2	-618.9	-913.0	-1438.2

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	295.2	-291.4	150.8	-161.5	6.9	0.0
Actual(MU)	296.0	-308.5	163.9	-166.0	7.5	-7.1
O/D/U/D(MU)	0.8	-17.1	13.1	-4.4	0.6	-7.1

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	8422	9452	4378	5272	651	28175	51
State Sector	6501	9746	8475	2256	281	27259	49
Total	14923	19198	12853	7528	932	55434	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	795	1605	697	666	11	3773	79
Lignite	33	16	57	0	0	106	2
Hydro	98	49	62	24	10	241	5
Nuclear	26	40	74	0	0	140	3
Gas, Naptha & Diesel	16	43	6	0	25	90	2
RES (Wind, Solar, Biomass & Others)	136	112	194	6	1	450	9
Total	1104	1865	1089	696	47	4800	100

Share of RES in total generation (%)	12.35	6.03	17.81	0.87	2.22	9.37
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	23.57	10.80	30.23	4.32	22.75	17.32

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.017
Based on State Max Demands	1.044

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	221330	10:55	3573
Non-Solar hr	194122	18:00	1747

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 -> 07:00 to 17:00hrs 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-Jan-2024

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	927	0.0	16.3	-16.3
4	765 kV	SASARAM-FATEHPUR	1	0	545	0.0	9.9	-9.9
5	765 kV	GAYA-BALIA	1	0	880	0.0	16.6	-16.6
6	400 kV	PUSAULI-VARANASI	1	17	33	0.2	0.0	0.2
7	400 kV	PUSAULI-ALLAHABAD	1	0	66	0.0	1.0	-1.0
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	836	0.0	12.0	-12.0
9	400 kV	PATNA-BALIA	2	0	602	0.0	12.0	-12.0
10	400 kV	NAUBATPUR-BALIA	2	0	640	0.0	12.6	-12.6
11	400 kV	BIHARSHARIF-BALIA	2	0	424	0.0	7.4	-7.4
12	400 kV	MOTIHARI-GORAKHPUR	2	0	588	0.0	10.2	-10.2
13	400 kV	BIHARSHARIF-VARANASI	2	0	422	0.0	8.0	-8.0
14	220 kV	SAHUPURI-KARAMNANA	1	0	132	0.0	2.2	-2.2
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-CHANDAUJI	1	0	0	0.0	0.0	0.0
ER-NR						0.7	110.0	-109.3
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	0	812	0.0	11.7	-11.7
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	875	623	0.0	1.1	-1.1
3	765 kV	JHARSUGUDA-DURG	2	0	783	0.0	14.6	-14.6
4	400 kV	JHARSUGUDA-RAIGARH	4	0	666	0.0	11.4	-11.4
5	400 kV	RANCHI-SIPAT	2	164	250	0.0	3.2	-3.2
6	220 kV	BUDHIPADAR-RAIGARH	1	7	157	0.0	1.6	-1.6
7	220 kV	BUDHIPADAR-KORBA	2	29	180	0.0	1.5	-1.5
ER-WR						0.0	45.1	-45.1
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	660	0.0	14.4	-14.4
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	3	0.0	0.0	0.0
3	765 kV	ANGUL-SRIKAKULAM	2	0	2830	0.0	52.0	-52.0
4	400 kV	TALCHER-I/C	2	1923	0	44.6	0.0	44.6
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	66.4	-66.4
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	145	86	0.9	0.0	0.9
2	400 kV	ALIPURDUAR-BONGAIGAON	2	545	27	6.0	0.0	6.0
3	220 kV	ALIPURDUAR-SALAKATI	2	82	3	1.0	0.0	1.0
ER-NER						7.9	0.0	7.9
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	660	0	16.0	0.0	16.0
NER-NR						16.0	0.0	16.0
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KIRUKSHETRA	2	0	4012	0.0	58.5	-58.5
2	HVDC	VINDHYACHAL B/B	-	428	0	6.2	0.0	6.2
3	HVDC	MUNDRA-MOHINDERGARH	2	0	1122	0.0	20.1	-20.1
4	765 kV	GWALIOR-AGRA	2	0	3049	0.0	45.2	-45.2
5	765 kV	GWALIOR-PHAGI	2	0	1355	0.0	20.1	-20.1
6	765 kV	JABALPUR-ORAI	2	0	1281	0.0	35.7	-35.7
7	765 kV	GWALIOR-ORAI	1	955	0	14.9	0.0	14.9
8	765 kV	SATNA-ORAI	1	0	1163	0.0	21.9	-21.9
9	765 kV	BANASKANTHA-CHITORGARH	2	699	1154	4.7	3.5	1.2
10	765 kV	VINDHYACHAL-VARANASI	2	0	3387	0.0	46.3	-46.3
11	400 kV	ZERDA-KANKROLI	1	122	200	0.7	0.9	-0.3
12	400 kV	ZERDA-BHINMAL	1	292	428	1.4	2.3	-0.9
13	400 kV	VINDHYACHAL-RIHAND	1	981	0	22.1	0.0	22.1
14	400 kV	RAPP-SHUALPUR	2	0	616	0.0	5.5	-5.5
15	220 kV	BHANPURA-RANPUR	1	142	96	0.9	0.3	0.6
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	0.7	-0.7
17	220 kV	MEHGAON-AURAIYA	1	71	15	0.9	0.0	0.9
18	220 kV	MALANPUR-AURAIYA	1	35	40	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						52.1	260.9	-208.8
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	306	0.0	7.2	-7.2
2	HVDC	RAIGARH-PUGALUR	2	0	2503	0.0	43.9	-43.9
3	765 kV	SOLAPUR-RAICHUR	2	442	2155	0.5	23.8	-23.3
4	765 kV	WARDHA-NIZAMABAD	2	0	2664	0.0	43.6	-43.6
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2551	0.0	41.6	-41.6
6	400 kV	KOLHAPUR-KUDGI	2	1303	0	14.9	0.0	14.9
7	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV	PONDA-AMBEWADI	1	0	1	0.0	0.0	0.0
9	220 kV	XELDEM-AMBEWADI	1	1	99	0.2	0.0	0.2
WR-SR						15.6	160.1	-144.5

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)	-249	-39	-198	-4.74
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	-246	240	-23	-0.56
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-237	-49	-155	-3.71
	NER	132kV GELEPHU-SALAKATI	-31	-18	-25	-0.60
	NER	132kV MOTANGA-RANGIA	18	-7	6	0.15
NEPAL	NR	NEPAL IMPORT (FROM UP)	0	0	0	0.70
	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-74	0	-63	-1.51
	ER	NEPAL IMPORT (FROM BIHAR)	-153	-3	-17	-0.40
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-466	-55	-346	-8.31
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-789	-446	-664	-15.93
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-1438	-901	-1226	-29.43
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-124	0	-102	-2.44

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 23-Jan-2024

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	10.22	0.00	0.00	0.46	0.00	0.00	10.68	
Nepal	0.24	0.00	7.47	0.00	0.00	0.22	0.00	0.00	7.93	
Bangladesh	15.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.79	
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Export	16.03	0.00	17.69	0.00	0.00	0.68	0.00	0.00	34.40	

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL	
		BILATERAL TOTAL	COLLECTIVE							
			IDAM			RTM				
			IEX	PXIL	HPX	IEX	PXIL	HPX		
Bhutan	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	
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	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	

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	0.47	0.00	-10.22	0.00	0.00	-0.46	0.00	0.00	-10.21	
Nepal	-0.24	0.00	-7.47	0.00	0.00	-0.22	0.00	0.00	-7.93	
Bangladesh	-15.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-15.79	
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Net	-15.56	0.00	-17.69	0.00	0.00	-0.68	0.00	0.00	-33.93	