

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: 22nd 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 21.12.2023.

महोदय/Dear Sir,

आईईजीसी-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-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 21st December 2023, is available at the NLDC website.

धन्यवाद,

Report for previous day

Date of Reporting: 22-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)	55652	59813	44231	19656	2645	181997
Peak Shortage (MW)	243	0	0	795	10	1048
Energy Met (MU)	1182	1431	1075	418	46	4152
Hydro Gen (MU)	114	39	59	21	11	243
Wind Gen (MU)	8	84	51	-	-	143
Solar Gen (MU)*	114.25	52.73	88.40	2.91	1.22	260
Energy Shortage (MU)	2.94	0.00	0.00	3.63	0.23	6.80
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	59977	72174	53505	20359	2746	206140
Time Of Maximum Demand Met	10:54	10:02	10:20	18:56	17:35	10:39

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	0.068	0.78	3.63	8.39	12.80	75.07	12.13

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	7658	0	147.2	42.2	-0.1	145	0.00
	Haryana	7926	0	151.5	91.2	-0.4	158	0.92
	Rajasthan	17169	0	317.9	117.9	-2.4	215	0.00
	Delhi	4287	0	74.1	65.4	-0.9	230	0.00
	UP	18308	0	341.3	111.1	-1.7	587	0.00
	Uttarakhand	2390	0	44.0	30.0	0.5	214	0.08
	HP	2109	0	37.8	30.0	0.8	325	0.00
	J&K(UT) & Ladakh(UT)	2889	0	60.3	55.1	0.5	311	1.94
	Chandigarh	254	0	4.1	4.1	0.0	38	0.00
Railways NR ISTS	168	0	3.5	3.3	0.2	42	0.00	
WR	Chhattisgarh	4582	0	92.3	29.9	-1.5	126	0.00
	Gujarat	20588	0	387.2	177.4	-0.1	1370	0.00
	MP	17431	0	327.2	196.9	-4.2	665	0.00
	Maharashtra	26503	0	550.3	163.4	1.7	762	0.00
	Goa	685	0	14.2	13.6	0.0	86	0.00
	DNHDDPDCL	1256	0	29.0	28.7	0.3	84	0.00
	AMNSIL	884	0	18.6	9.3	0.1	179	0.00
BALCO	524	0	12.4	12.5	-0.1	7	0.00	
SR	Andhra Pradesh	10242	0	195.6	72.8	1.0	880	0.00
	Telangana	12143	0	222.4	92.0	-0.8	905	0.00
	Karnataka	14707	0	263.3	105.4	-1.2	462	0.00
	Kerala	4185	0	83.9	64.6	0.8	446	0.00
	Tamil Nadu	15057	0	301.2	175.1	1.7	1157	0.00
	Puducherry	400	0	8.4	8.1	-0.4	24	0.00
ER	Bihar	4518	0	85.7	79.7	-0.1	156	0.97
	DVC	3397	0	72.8	-47.1	-0.3	351	0.00
	Jharkhand	1662	96	30.8	23.4	-1.2	325	2.66
	Odisha	4949	0	92.0	22.1	0.0	735	0.00
	West Bengal	6844	0	134.3	21.1	-1.4	286	0.00
	Sikkim	109	0	1.9	1.8	0.0	23	0.00
Railways ER ISTS	14	0	0.1	0.1	0.0	1	0.00	
NER	Arunachal Pradesh	167	0	3.1	2.8	0.2	31	0.00
	Assam	1573	0	24.8	20.9	-1.6	63	0.00
	Manipur	231	15	3.2	3.1	0.2	37	0.23
	Meghalaya	336	0	6.5	4.9	-0.1	40	0.00
	Mizoram	137	0	2.1	1.8	-0.2	10	0.00
	Nagaland	154	0	2.5	2.5	-0.1	15	0.00
Tripura	229	0	3.9	2.9	-0.2	10	0.00	

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-7.8	-4.5	-19.3	-15.5
Day Peak (MW)	-485.0	263.0	-964.0	-760.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	239.7	-245.4	153.5	-148.7	0.9	0.0
Actual(MU)	223.2	-246.0	167.1	-153.7	-0.4	-9.8
O/D/U/D(MU)	-16.4	-0.7	13.6	-5.0	-1.3	-9.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	7698	11339	8818	5131	155	33141	51
State Sector	7896	12066	7080	4116	190	31347	49
Total	15594	23404	15898	9247	345	64488	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	714	1565	602	624	16	3520	78
Lignite	27	18	51	0	0	97	2
Hydro	114	39	59	21	11	243	5
Nuclear	21	40	76	0	0	137	3
Gas, Naptha & Diesel	12	20	7	0	25	64	1
RES (Wind, Solar, Biomass & Others)	146	141	175	5	1	468	10
Total	1034	1823	969	649	53	4529	100

Share of RES in total generation (%)	14.11	7.73	18.04	0.78	2.28	10.33
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	27.24	12.11	31.93	3.96	23.42	18.77

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.012
Based on State Max Demands	1.051

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	206140	10:39	276
Non-Solar hr	187503	18:40	1518

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: 22-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	1138	0.0	17.5	-17.5
4	765 kV	SASARAM-FATEHPUR	1	0	509	0.0	8.9	-8.9
5	765 kV	GAYA-BALIA	1	0	775	0.0	13.6	-13.6
6	400 kV	PUSAULI-VARANASI	1	36	10	0.3	0.0	0.3
7	400 kV	PUSAULI-ALLAHABAD	1	0	85	0.0	1.5	-1.5
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	721	0.0	10.7	-10.7
9	400 kV	PATNA-BALIA	2	0	0	0.0	0.0	0.0
10	400 kV	NAUBATPUR-BALIA	2	0	870	0.0	15.8	-15.8
11	400 kV	BIHARSHARIFF-BALIA	2	0	434	0.0	6.9	-6.9
12	400 kV	MOTIHARI-GORAKHPUR	2	0	570	0.0	9.8	-9.8
13	400 kV	BIHARSHARIFF-VARANASI	2	0	441	0.0	7.2	-7.2
14	220 kV	SAHUPURI-KARAMNANA	1	0	131	0.0	1.5	-1.5
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.0	0.0	0.0
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	94.6	-94.3
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	722	522	0.0	3.9	-3.9
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	86	1108	0.0	8.8	-8.8
3	765 kV	JHARSUGUDA-DURG	2	0	867	0.0	13.5	-13.5
4	400 kV	JHARSUGUDA-RAIGARH	4	0	561	0.0	7.8	-7.8
5	400 kV	RANCHI-SIPAT	2	22	366	0.0	2.8	-2.8
6	220 kV	BUDHIPADAR-RAIGARH	1	54	86	0.0	0.4	-0.4
7	220 kV	BUDHIPADAR-KORBA	2	164	25	1.5	0.0	1.5
ER-WR						1.5	37.2	-35.7
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	21	0.0	0.0	0.0
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1651	0.0	38.6	-38.6
3	765 kV	ANGUL-SRIKAKULAM	2	0	2537	0.0	46.4	-46.4
4	400 kV	TALCHER-I/C	2	679	0	6.3	0.0	6.3
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
ER-SR						0.0	85.0	-85.0
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	275	0	2.7	0.0	2.7
2	400 kV	ALIPURDUAR-BONGAIGAON	2	868	0	9.6	0.0	9.6
3	220 kV	ALIPURDUAR-SALAKATI	2	158	0	2.4	0.0	2.4
ER-NER						14.6	0.0	14.6
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIAL-AGRA	2	663	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	0	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	2210	0.0	34.0	-34.0
5	765 kV	GWALIOR-PHAGI	2	0	1918	0.0	33.9	-33.9
6	765 kV	JABALPUR-ORAI	2	0	1055	0.0	34.5	-34.5
7	765 kV	GWALIOR-ORAI	1	866	0	16.2	0.0	16.2
8	765 kV	SATNA-ORAI	1	0	1135	0.0	23.3	-23.3
9	765 kV	BANASKANTHA-CHITORGARH	2	1446	702	9.8	1.2	8.6
10	765 kV	VINDHYACHAL-VARANASI	2	0	2672	0.0	44.2	-44.2
11	400 kV	ZERDA-KANKROLI	1	224	91	1.8	0.1	1.7
12	400 kV	ZERDA -BHINMAL	1	618	297	3.5	1.5	2.0
13	400 kV	VINDHYACHAL -RIHAND	1	970	0	22.3	0.0	22.3
14	400 kV	RAPP-SHUALPUR	2	265	462	1.0	3.0	-2.0
15	220 kV	BHANPURA-RANPUR	1	0	156	0.0	2.7	-2.7
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	0.6	-0.6
17	220 kV	MEHGAON-AURAIYA	1	89	1	0.9	0.0	0.9
18	220 kV	MALANPUR-AURAIYA	1	59	22	0.4	0.0	0.4
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						56.1	205.6	-149.6
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1014	0.0	20.8	-20.8
2	HVDC	RAIGARH-PUGALUR	2	0	5011	0.0	86.4	-86.4
3	765 kV	SOLAPUR-RAICHUR	2	1186	1053	7.6	2.6	4.9
4	765 kV	WARDHA-NIZAMABAD	2	0	2021	0.0	25.5	-25.5
5	765 kV	WARORA-WARANGAL(NEW)	2	0	2177	0.0	29.4	-29.4
6	400 kV	KOLHAPUR-KUDGI	2	1490	0	23.0	0.0	23.0
7	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV	PONDA-AMBEWADI	1	0	70	0.0	0.0	0.0
9	220 kV	XELDEM-AMBEWADI	1	0	110	2.1	0.0	2.1
WR-SR						32.7	164.7	-132.1

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)	-185	-21	-103	-2.46
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	368	-99	45	1.07
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	-302	-181	-248	-5.96
	NER	132kV GELEPHU-SALAKATI	-35	-4	-25	-0.60
	NER	132kV MOTANGA-RANGIA	12	3	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	263	1	-186	-4.46
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-858	-571	-717	-17.20
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-760	-403	-646	-15.51
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-106	0	-87	-2.08

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 22-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	8.99	0.00	0.00	0.00	0.00	0.00	8.99
Nepal	0.35	0.00	4.45	0.00	0.00	0.12	0.00	0.00	4.92
Bangladesh	17.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.18
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	17.53	0.00	13.44	0.00	0.00	0.12	0.00	0.00	31.09

Import by India(in MU)

Country	GNA (ISGA/PPA)	T-GNA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
		IEX	PXIL	HPX	IEX	PXIL	HPX		
Bhutan	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
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	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61

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	0.61	0.00	-8.99	0.00	0.00	0.00	0.00	0.00	-8.38
Nepal	-0.35	0.00	-4.45	0.00	0.00	-0.12	0.00	0.00	-4.92
Bangladesh	-17.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-17.18
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-16.92	0.00	-13.44	0.00	0.00	-0.12	0.00	0.00	-30.48