National Load Despatch Centre
राष्ट्रीय भार प्रेषण केंद्र
POWER SYSTEM OPERATION CORPORATION LIMITED
पॉवर सिस्टम ऑपरेशन कारपोरेशन 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 Dec 2021

To,

1. कार्यकारी निदेशक, पू.क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता - 700033
   Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
2. 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
3. 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
4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग – 793006
   Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
5. 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 22.12.2021.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 22-दिसंबर-2021 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा०भा०प्रे०के० की वेबसाइट पर उप्लब्ध 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 2021, is available at the NLDC website.

धन्यवाद,

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Report for previous day **Date of Reporting:** **23-Dec-2021**

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)	55027	56748	40764	19513	2523	174575
Peak Shortage (MW)	889	0	0	335	0	1224
Energy Met (MU)	1092	1282	918	399	45	3736
Hydro Gen (MU)	109	35	87	29	11	270
Wind Gen (MU)	1	9	12	-	-	22
Solar Gen (MU)*	61.17	40.34	99.96	4.87	0.24	207
Energy Shortage (MU)	6.56	0.00	0.00	6.77	0.00	13.33
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	55876	62578	45954	19853	2693	181349
Time Of Maximum Demand Met (From NLDC SCADA)	18:25	10:59	08:28	18:15	17:31	10:21

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	0.033	0.00	0.60	5.10	5.71	77.71	16.58

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	7185	0	136.0	75.5	-1.0	137	0.00
	Haryana	7288	0	139.0	76.3	0.8	136	0.27
	Rajasthan	14908	0	277.4	86.5	1.2	372	1.44
	Delhi	4424	0	71.9	61.6	-2.2	496	0.00
	UP	18587	0	324.6	95.7	0.2	235	0.00
	Uttarakhand	2223	0	42.2	29.0	-0.2	130	0.00
	HP	1889	0	34.9	27.1	0.3	305	0.20
	J&K(UT) & Ladakh(UT)	3027	150	61.9	56.2	0.5	322	4.65
	Chandigarh	241	0	4.0	4.2	-0.2	22	0.00
WR	Chhattisgarh	3926	0	82.7	31.1	0.0	166	0.00
	Gujarat	17023	0	353.2	199.7	0.5	534	0.00
	MP	15589	0	300.5	193.5	-0.3	548	0.00
	Maharashtra	23840	0	489.5	140.5	-4.4	589	0.00
	Goa	561	0	11.8	10.9	0.3	36	0.00
	DD	332	0	7.4	7.1	0.3	39	0.00
	DNH	850	0	19.4	19.4	0.0	115	0.00
	AMNSIL	780	0	17.3	7.9	-0.2	257	0.00
SR	Andhra Pradesh	8851	0	168.8	77.8	-0.1	391	0.00
	Telangana	9963	0	185.5	67.7	0.8	676	0.00
	Karnataka	10637	0	193.9	47.7	-0.4	719	0.00
	Kerala	3765	0	74.4	53.7	-0.6	234	0.00
	Tamil Nadu	14107	0	288.5	193.7	-0.2	591	0.00
	Puducherry	353	0	7.0	7.2	-0.3	25	0.00
ER	Bihar	4776	0	82.7	70.3	0.1	300	0.00
	DVC	3190	0	66.9	-47.5	-1.7	289	2.02
	Jharkhand	1434	0	27.3	21.6	0.0	185	4.75
	Odisha	5401	0	106.2	51.6	0.2	469	0.00
	West Bengal	6178	0	113.6	-13.1	0.0	222	0.00
	Sikkim	120	0	2.0	1.7	0.3	53	0.00
NER	Arunachal Pradesh	142	0	2.3	2.2	0.0	29	0.00
	Assam	1473	0	24.4	18.0	0.0	157	0.00
	Manipur	226	0	3.2	3.3	0.0	24	0.00
	Meghalaya	389	0	7.3	5.9	0.0	44	0.00
	Mizoram	131	0	1.9	1.7	-0.2	12	0.00
	Nagaland	145	0	2.6	2.2	0.3	24	0.00
	Tripura	227	0	3.5	3.9	-0.4	21	0.00

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

	Bhutan	Nepal	Bangladesh
Actual (MU)	4.1	-5.7	-13.6
Day Peak (MW)	279.0	-570.9	-824.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	228.8	-151.9	90.5	-164.8	-2.6	0.0
Actual(MU)	213.3	-144.4	97.1	-165.2	-2.9	-2.2
O/D/U/D(MU)	-15.5	7.5	6.6	-0.4	-0.3	-2.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6452	12553	7332	2460	380	29177	42
State Sector	9081	16493	10951	4058	112	40694	58
Total	15533	29046	18283	6518	492	69871	100

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	641	1297	498	554	13	3004	79
Lignite	22	12	39	0	0	72	2
Hydro	109	35	87	29	11	270	7
Nuclear	33	33	70	0	0	135	4
Gas, Naptha & Diesel	15	13	6	0	28	62	2
RES (Wind, Solar, Biomass & Others)	88	51	138	5	0	281	7
Total	907	1439	837	588	53	3825	100

Share of RES in total generation (%)	9.69	3.51	16.47	0.82	0.46	7.36
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	25.31	8.20	35.12	5.76	21.67	17.96

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.031
Based on State Max Demands	1.071

Diversity factor = Sum of regional or state maximum demands / All India maximum demand

*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-2021

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	-	3	0	0.0	0.0	0.0
3	765 kV	GAYA-VARANASI	2	0	799	0.0	12.9	-12.9
4	765 kV	SASARAM-FATEHPUR	1	0	566	0.0	10.4	-10.4
5	765 kV	GAYA-BALIA	1	0	509	0.0	9.0	-9.0
6	400 kV	PUSAULI-VARANASI	1	0	102	0.0	2.0	-2.0
7	400 kV	PUSAULI -ALLAHABAD	1	0	138	0.0	1.8	-1.8
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	742	0.0	10.3	-10.3
9	400 kV	PATNA-BALIA	4	0	1289	0.0	23.3	-23.3
10	400 kV	BIHARSHARIFF-BALIA	2	0	350	0.0	5.7	-5.7
11	400 kV	MOTIHARI-GORAKHPUR	2	0	484	0.0	8.0	-8.0
12	400 kV	BIHARSHARIFF-VARANASI	2	0	351	0.0	5.1	-5.1
13	220 kV	PUSAULI-SAHUPURI	1	6	147	0.0	1.7	-1.7
14	132 kV	SONE NAGAR-RIHAND	1	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	1	25	0	0.3	0.0	0.3
16	132 kV	KARMANASA-SAHUPURI	1	0	0	0.0	0.0	0.0
17	132 kV	KARMANASA-CHANDAULI	1	0	0	0.0	0.0	0.0
					ER-NR	0.3	90.2	-89.9
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	447	264	1.6	0.0	1.6
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	5	982	0.0	9.8	-9.8
3	765 kV	JHARSUGUDA-DURG	2	57	297	0.0	2.8	-2.8
4	400 kV	JHARSUGUDA-RAIGARH	4	167	258	0.0	1.6	-1.6
5	400 kV	RANCHI-SIPAT	2	35	247	0.0	1.6	-1.6
6	220 kV	BUDHIPADAR-RAIGARH	1	104	22	1.0	0.0	1.0
7	220 kV	BUDHIPADAR-KORBA	2	112	0	1.9	0.0	1.9
					ER-WR	4.5	15.9	-11.4
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	393	549	0.0	6.6	-6.6
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	2475	0.0	45.8	-45.8
3	765 kV	ANGUL-SRIKAKULAM	2	0	2534	0.0	41.0	-41.0
4	400 kV	TALCHER-I/C	2	329	905	0.0	7.1	-7.1
5	220 kV	BALIMELA-UPPER-SILERRU	1	2	0	0.0	0.0	0.0
					ER-SR	0.0	93.4	-93.4
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	0	291	0.0	3.8	-3.8
2	400 kV	ALIPURDUAR-BONGAIGAON	2	0	392	0.0	4.6	-4.6
3	220 kV	ALIPURDUAR-SALAKATI	2	0	70	0.0	0.8	-0.8
					ER-NER	0.0	9.2	-9.2
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	503	0.0	12.1	-12.1
					NER-NR	0.0	12.1	-12.1
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	3008	0.0	54.1	-54.1
2	HVDC	VINDHYACHAL B/B	-	445	2	8.5	0.0	8.5
3	HVDC	MUNDRA-MOHINDERGARH	2	0	253	0.0	6.2	-6.2
4	765 kV	GWALIOR-AGRA	2	0	1480	0.0	23.2	-23.2
5	765 kV	GWALIOR-PHAGI	2	0	2084	0.0	36.7	-36.7
6	765 kV	JABALPUR-ORAI	2	0	756	0.0	26.2	-26.2
7	765 kV	GWALIOR-ORAI	1	1021	0	16.7	0.0	16.7
8	765 kV	SATNA-ORAI	1	0	1028	0.0	20.8	-20.8
9	765 kV	BANASKANTHA-CHITORGARH	2	1457	0	27.4	0.0	27.4
10	765 kV	VINDHYACHAL-VARANASI	2	0	2015	0.0	33.7	-33.7
11	400 kV	ZERDA-KANKROLI	1	291	0	5.3	0.0	5.3
12	400 kV	ZERDA -BHINMAL	1	360	11	4.4	0.0	4.4
13	400 kV	VINDHYACHAL -RIHAND	1	978	0	21.9	0.0	21.9
14	400 kV	RAPP-SHUJALPUR	2	230	344	0.6	2.0	-1.4
15	220 kV	BHANPURA-RANPUR	1	0	0	0.0	0.0	0.0
16	220 kV	BHANPURA-MORAK	1	0	30	1.6	0.0	1.5
17	220 kV	MEHGAON-AURAIYA	1	153	0	1.4	0.0	1.4
18	220 kV	MALANPUR-AURAIYA	1	98	0	2.4	0.0	2.4
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	90.2	203.0	-112.8
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	591	1016	5.0	8.8	-3.8
2	HVDC	RAIGARH-PUGALUR	2	578	3508	0.0	28.9	-28.9
3	765 kV	SOLAPUR-RAICHUR	2	1157	1188	4.0	6.9	-2.9
4	765 kV	WARDHA-NIZAMABAD	2	0	2646	0.0	31.6	-31.6
5	400 kV	KOLHAPUR-KUDGI	2	1502	0	22.9	0.0	22.9
6	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
7	220 kV	PONDA-AMBEWADI	1	0	0	0.0	0.0	0.0
8	220 kV	XELDEM-AMBEWADI	1	0	72	1.2	0.0	1.2
					WR-SR	33.1	76.1	-42.9

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 MANGDECHU HEP 4*180MW)	82	0	50	1.2
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP (6*170MW)	169	0	140	3.4
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	17	0	-21	-0.5
	NER	132kV GELEPHU-SALAKATI	4	0	0	0.0
	NER	132kV MOTANGA-RANGIA	7	0	1	0.0
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-63	0	-3	-0.1
	ER	NEPAL IMPORT (FROM BIHAR)	-148	-41	-79	-1.9
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-360	15	-155	-3.7
BANGLADESH	ER	BHERAMARA B/B HVDC (BANGLADESH)	-732	-352	-493	-11.8
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-92	0	-75	-1.8