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: 21st 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 20.12.2021.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 20-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 20th 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:** **21-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)	53489	56039	39647	18709	2586	170470
Peak Shortage (MW)	250	0	0	605	0	855
Energy Met (MU)	1062	1253	887	388	45	3634
Hydro Gen (MU)	108	33	78	31	12	263
Wind Gen (MU)	2	38	41	-	-	81
Solar Gen (MU)*	65.82	41.82	102.70	4.90	0.28	216
Energy Shortage (MU)	19.69	0.00	0.00	6.07	0.00	25.76
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	55805	61376	43644	19052	2692	178046
Time Of Maximum Demand Met (From NLDC SCADA)	10:41	11:34	11:52	18:00	17:34	11:51

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	0.086	0.00	1.50	7.30	8.81	58.42	32.77

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	6963	0	135.3	71.7	-0.8	122	0.10
	Haryana	7395	0	134.2	80.2	0.7	200	0.00
	Rajasthan	15604	0	274.9	90.8	3.3	595	0.00
	Delhi	4327	0	72.1	59.6	-0.1	245	0.00
	UP	18430	0	319.6	104.0	0.8	555	0.00
	Uttarakhand	2189	0	41.4	28.1	0.7	141	0.00
	HP	1916	0	34.6	27.2	-0.2	320	0.00
	J&K(UT) & Ladakh(UT)	2193	300	45.9	41.0	-0.3	292	19.59
	Chandigarh	244	0	4.1	4.0	0.1	38	0.00
WR	Chhattisgarh	3687	0	79.8	29.6	-0.4	255	0.00
	Gujarat	17247	0	349.2	190.1	2.5	569	0.00
	MP	15480	0	292.8	183.5	2.0	837	0.00
	Maharashtra	23580	0	477.5	133.2	-2.2	729	0.00
	Goa	568	0	11.1	10.5	0.1	69	0.00
	DD	294	0	6.1	6.0	0.1	29	0.00
	DNH	838	0	19.2	19.0	0.2	75	0.00
	AMNSIL	826	0	17.3	7.2	0.1	313	0.00
SR	Andhra Pradesh	8554	0	165.8	71.2	1.3	408	0.00
	Telangana	9776	0	181.1	68.5	-0.2	394	0.00
	Karnataka	9819	0	182.4	37.3	0.2	575	0.00
	Kerala	3717	0	74.1	53.1	0.0	200	0.00
	Tamil Nadu	13845	0	276.6	166.1	-0.1	581	0.00
	Puducherry	346	0	6.8	7.3	-0.6	45	0.00
ER	Bihar	4678	0	77.9	68.7	-0.7	536	1.31
	DVC	3119	0	65.6	-44.4	-0.1	322	1.73
	Jharkhand	1469	0	28.7	19.1	-0.1	199	3.03
	Odisha	5726	0	105.1	46.0	1.3	448	0.00
	West Bengal	6038	0	108.9	-15.1	1.1	476	0.00
	Sikkim	112	0	1.5	1.7	-0.2	63	0.00
NER	Arunachal Pradesh	124	0	2.3	2.2	-0.1	29	0.00
	Assam	1476	0	24.2	17.9	0.0	98	0.00
	Manipur	233	0	3.3	3.3	0.0	16	0.00
	Meghalaya	383	0	7.3	5.6	0.1	47	0.00
	Mizoram	133	0	1.8	1.6	-0.2	25	0.00
	Nagaland	159	0	2.6	2.2	0.2	21	0.00
	Tripura	224	0	3.6	1.6	-0.2	30	0.00

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

	Bhutan	Nepal	Bangladesh
Actual (MU)	5.0	-4.9	-15.7
Day Peak (MW)	278.0	-492.7	-839.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	232.7	-132.1	73.4	-169.9	-4.1	0.0
Actual(MU)	219.1	-115.6	63.9	-166.6	-4.5	-3.7
O/D/U/D(MU)	-13.7	16.6	-9.5	3.3	-0.4	-3.7

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6362	13628	7892	2535	414	30830	42
State Sector	10581	17416	11411	3458	11	42876	58
Total	16943	31043	19303	5993	425	73706	100

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	595	1214	467	545	13	2834	76
Lignite	21	10	41	0	0	72	2
Hydro	108	33	78	32	12	263	7
Nuclear	33	33	69	0	0	136	4
Gas, Naptha & Diesel	15	10	7	0	29	61	2
RES (Wind, Solar, Biomass & Others)	94	81	172	5	0	352	9
Total	866	1381	835	581	54	3717	100

Share of RES in total generation (%)	10.80	5.88	20.65	0.85	0.52	9.48
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	27.16	10.67	38.27	6.27	22.85	20.20

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.025
Based on State Max Demands	1.077

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: 21-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	3.7	-3.7
3	765 kV	GAYA-VARANASI	2	0	958	0.0	12.8	-12.8
4	765 kV	SASARAM-FATEHPUR	1	0	607	0.0	10.4	-10.4
5	765 kV	GAYA-BALIA	1	0	573	0.0	9.2	-9.2
6	400 kV	PUSAULI-VARANASI	1	7	117	0.0	1.5	-1.5
7	400 kV	PUSAULI -ALLAHABAD	1	0	168	0.0	2.1	-2.1
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	873	0.0	12.1	-12.1
9	400 kV	PATNA-BALIA	4	0	1459	0.0	27.0	-27.0
10	400 kV	BIHARSHARIFF-BALIA	2	0	417	0.0	6.3	-6.3
11	400 kV	MOTIHARI-GORAKHPUR	2	0	561	0.0	9.6	-9.6
12	400 kV	BIHARSHARIFF-VARANASI	2	0	436	0.0	5.9	-5.9
13	220 kV	PUSAULI-SAHUPURI	1	0	135	0.0	1.9	-1.9
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	102.3	-102.0
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	530	398	0.8	0.0	0.8
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	300	1148	0.0	11.8	-11.8
3	765 kV	JHARSUGUDA-DURG	2	94	287	0.0	2.2	-2.2
4	400 kV	JHARSUGUDA-RAIGARH	4	92	372	0.0	3.1	-3.1
5	400 kV	RANCHI-SIPAT	2	59	374	0.0	3.2	-3.2
6	220 kV	BUDHIPADAR-RAIGARH	1	55	66	0.0	0.2	-0.2
7	220 kV	BUDHIPADAR-KORBA	2	88	0	1.3	0.0	1.3
					ER-WR	2.1	20.5	-18.4
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	393	0	9.8	0.0	9.8
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	2043	0.0	40.6	-40.6
3	765 kV	ANGUL-SRIKAKULAM	2	0	2971	0.0	51.2	-51.2
4	400 kV	TALCHER-I/C	2	870	730	0.0	0.7	-0.7
5	220 kV	BALIMELA-UPPER-SILERRU	1	2	0	0.0	0.0	0.0
					ER-SR	9.8	91.8	-82.0
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	4	254	0.0	3.2	-3.2
2	400 kV	ALIPURDUAR-BONGAIGAON	2	0	361	0.0	3.9	-3.9
3	220 kV	ALIPURDUAR-SALAKATI	2	0	61	0.0	0.6	-0.6
					ER-NER	0.0	7.7	-7.7
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	503	0.0	12.2	-12.2
					NER-NR	0.0	12.2	-12.2
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	3018	0.0	53.9	-53.9
2	HVDC	VINDHYACHAL B/B	-	449	0	12.2	0.0	12.2
3	HVDC	MUNDRA-MOHINDERGARH	2	0	255	0.0	6.2	-6.2
4	765 kV	GWALIOR-AGRA	2	0	1745	0.0	20.6	-20.6
5	765 kV	GWALIOR-PHAGI	2	0	2186	0.0	34.4	-34.4
6	765 kV	JABALPUR-ORAI	2	0	842	0.0	22.9	-22.9
7	765 kV	GWALIOR-ORAI	1	918	0	9.3	0.0	9.3
8	765 kV	SATNA-ORAI	1	0	1022	0.0	18.2	-18.2
9	765 kV	BANASKANTHA-CHITORGARH	2	1462	0	23.9	0.0	23.9
10	765 kV	VINDHYACHAL-VARANASI	2	0	1992	0.0	32.5	-32.5
11	400 kV	ZERDA-KANKROLI	1	289	0	4.6	0.0	4.6
12	400 kV	ZERDA -BHINMAL	1	359	3	3.5	0.0	3.5
13	400 kV	VINDHYACHAL -RIHAND	1	970	0	21.3	0.0	21.3
14	400 kV	RAPP-SHUJALPUR	2	146	314	0.0	2.1	-2.1
15	220 kV	BHANPURA-RANPUR	1	0	0	0.0	0.0	0.0
16	220 kV	BHANPURA-MORAK	1	0	30	1.8	0.0	1.8
17	220 kV	MEHGAON-AURAIYA	1	154	0	1.5	0.0	1.5
18	220 kV	MALANPUR-AURAIYA	1	102	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	80.6	190.8	-110.3
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	990	363	5.4	5.0	0.4
2	HVDC	RAIGARH-PUGALUR	2	966	1251	0.0	8.2	-8.2
3	765 kV	SOLAPUR-RAICHUR	2	879	1176	0.0	3.7	-3.7
4	765 kV	WARDHA-NIZAMABAD	2	0	2724	0.0	36.1	-36.1
5	400 kV	KOLHAPUR-KUDGI	2	1472	0	23.1	0.0	23.1
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	1	58	0.8	0.0	0.8
					WR-SR	29.3	53.0	-23.7

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)	98	0	59	1.4
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP (6*170MW)	157	0	150	3.6
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	5	0	-5	-0.1
	NER	132kV GELEPHU-SALAKATI	7	0	1	0.0
	NER	132kV MOTANGA-RANGIA	11	0	3	0.1
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	-65	0	-18	-0.4
	ER	NEPAL IMPORT (FROM BIHAR)	-140	0	-57	-1.4
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	-288	0	-131	-3.2
BANGLADESH	ER	BHERAMARA B/B HVDC (BANGLADESH)	-741	-392	-573	-13.8
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-98	0	-82	-2.0