

### 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, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 24 Dec 2019

To,

- 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 23.12.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 23-दिसम्बर-2019 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ 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 23 Dec 2019, is available at the NLDC website.

धन्यवाद,

Report for previous day Date of Reporting 24-Dec-19

### A. Power Supply Position at All India and Regional level

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	48874	48017	38618	18055	2407	155971
Peak Shortage (MW)	690	0	0	0	19	709
Energy Met (MU)	949	1145	945	339	41	3420
Hydro Gen (MU)	125	54	95	36	9	320
Wind Gen (MU)	18	65	44			126
Solar Gen (MU)*	30.68	17.50	70.92	1.69	0.02	121
Energy Shortage (MU)	12.2	0.0	0.0	0.1	0.8	13.0
Maximum Demand Met during the day (MW) & time	49367	55629	45829	17853	2533	165904
(from NLDC SCADA)	18:26	11:08	09:41	18:26	17:30	09:38

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	0.043	0.00	0.82	9.40	10.22	74.13	15.65

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
	Punjab	5913	0	112.8	52.1	-2.0	55	0.0
	Haryana	6835	0	125.5	85.7	0.9	288	0.1
	Rajasthan	12948	0	232.5	58.4	-2.5	427	0.0
	Delhi	4486	0	74.2	58.5	-1.3	174	0.0
NR	UP	15326	0	280.7	114.3	-0.3	920	0.0
	Uttarakhand	2049	0	38.8	23.9	0.1	113	0.0
	HP	1700	0	30.0	22.6	-0.2	208	0.0
	J&K(UT) and Ladakh(UT)	2759	690	50.8	42.4	0.9	497	12.0
	Chandigarh	264	0	4.4	4.5	-0.1	25	0.0
	Chhattisgarh	3666	0	78.0	21.4	-0.8	533	0.0
	Gujarat	16097	0	326.4	81.0	-2.0	409	0.0
	MP	13714	0	246.6	125.1	-3.0	824	0.0
WR	Maharashtra	21891	0	447.6	149.5	0.6	468	0.0
WK	Goa	601	0	12.9	12.1	0.2	38	0.0
	DD	329	0	7.2	6.8	0.4	44	0.0
	DNH	813	0	18.9	18.7	0.2	156	0.0
	Essar steel	409	0	7.4	7.3	0.1	324	0.0
	Andhra Pradesh	8334	0	166.1	63.8	-0.3	476	0.0
	Telangana	10711	0	218.6	111.8	0.9	350	0.0
SR	Karnataka	11250	0	203.7	43.0	-0.5	699	0.0
JK.	Kerala	3522	0	71.9	52.8	1.8	289	0.0
	Tamil Nadu	13616	0	277.7	156.9	-0.5	544	0.0
	Pondy	283	0	6.8	7.3	-0.5	25	0.0
	Bihar	4272	0	72.2	71.9	-0.4	270	0.0
	DVC	3340	0	66.9	-32.2	0.8	415	0.0
ER	Jharkhand	1320	0	25.9	17.0	-0.3	135	0.1
EN	Odisha	3675	0	65.7	11.4	-0.1	250	0.0
	West Bengal	6007	0	106.8	26.4	0.9	402	0.0
	Sikkim	133	0	1.9	1.8	0.2	45	0.0
	Arunachal Pradesh	122	1	2.4	1.9	0.3	58	0.0
	Assam	1365	20	22.8	17.9	0.3	102	0.3
	Manipur	195	1	2.5	3.0	-0.4	65	0.0
NER	Meghalaya	339	0	6.0	2.4	0.5	40	0.4
	Mizoram	109	0	1.9	1.2	0.2	25	0.0
	Nagaland	121	1	2.1	2.3	-0.4	17	0.0
	Tripura	225	0	3.3	1.4	0.0	60	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	5.0	-7.7	-10.1
Day peak (MW)	475.7	-462.4	-763.0

 $E.\ Import/export\ By\ Regions (in\ MU)\ -\ Import(+ve)/Export(-ve);\ OD(+)/UD(-)$ 

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	217.9	-237.4	112.8	-97.3	3.9	-0.1
Actual(MU)	211.0	-251.9	129.6	-92.6	4.5	0.5
O/D/U/D(MU)	-6.9	-14.5	16.8	4.7	0.6	0.6

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4691	16033	8002	1520	597	30842
State Sector	12300	16549	8670	6050	11	43580
Total	16991	32581	16672	7570	608	74422

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	470	1181	458	411	14	2535
Lignite	24	14	51	0	0	90
Hydro	125	54	95	36	9	320
Nuclear	29	28	44	0	0	101
Gas, Naptha & Diesel	33	35	16	0	17	102
RES (Wind, Solar, Biomass & Others)	77	97	159	2	0	335
Total	759	1409	825	450	41	3483

Share of RES in total generation (%)	10.18	6.90	19.28	0.38	0.05	9.62
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	30.50	12.69	36.22	8.47	22.72	21.72

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.032	
Based on State Max Demands	1.077	

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

 $<sup>\</sup>textbf{*Source} : \textbf{RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.}$ 

		IN	ΓER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	: 24-Dec-19
								Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
	Export of	ER (With NR)	1		1			
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	299	0.0	7.1	0.0 -7.1
1		GAYA-VARANASI	D/C	0	906	0.0	11.5	-11.5
2	765kV	SASARAM-FATEHPUR	S/C	0	428	0.0	5.0	-5.0
3		GAYA-BALIA	S/C	0	440	0.0	6.8	-6.8
6 7	_	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	219 166	0.0	4.0 2.8	-4.0 -2.8
8		MUZAFFARPUR-GORAKHPUR	D/C	0	911	0.0	9.9	-9.9
9	400 kV	PATNA-BALIA	Q/C	0	881	0.0	14.0	-14.0
10		BIHARSHARIFF-BALIA	D/C	0	411	0.0	6.3	-6.3
11		MOTIHARI-GORAKHPUR	D/C	4	4	0.0	0.0	0.0
12	220 kV	BIHARSHARIFF-VARANASI PUSAULI-SAHUPURI	D/C S/C	28	360 78	0.0	3.7 0.8	-3.7 -0.8
14	220 KV	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15		GARWAH-RIHAND	S/C	30	0	0.4	0.0	0.4
16	132 kV	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
Import/F	Evnout -P	ED (With WP)			ER-NR	0.4	64.9	-64.5
-	export of	ER (With WR)			_		_	
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1450	0	19.8	0.0	19.8
19 20	- 702 117	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	534 158	203 150	4.0 0.2	0.0	4.0 0.2
21	400 :	JHARSUGUDA-RAIGARH	Q/C	360	70	3.2	0.0	3.2
22	400 kV	RANCHI-SIPAT	D/C	248	37	2.4	0.0	2.4
23	220 kV	BUDHIPADAR-RAIGARH	S/C	18	97	0.0	1.0	-1.0
24		BUDHIPADAR-KORBA	D/C	189	0 ER-WR	2.4	0.0	2.4
Import/F	Export of	ER (With SR)			EK-WK	32.0	1.0	31.0
26		JEYPORE-GAZUWAKA B/B	D/C	0.0	675.0	0.0	11.9	-11.9
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	2460.0	0.0	48.9	-48.9
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	2168.0	0.0	34.8	-34.8
28	400 kV	TALCHER-I/C	D/C	0.0	1243.0	0.0	18.8	-18.8
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0	0.0 95.5	0.0
Import/F	Export of	ER (With NER)			ER-SK	0.0	95.5	-95.5
30	Ĺ	BINAGURI-BONGAIGAON	D/C	298	151	2.5	0.0	2
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	347	142	3.2	0.0	3
32	220 kV	ALIPURDUAR-SALAKATI	D/C	63	49	0.3	0.0	0
I		NIED (WEAL NID)			ER-NER	6.0	0.0	6.0
33	HVDC	NER (With NR) BISWANATH CHARIALI-AGRA	1 . 1	488	0	11.5	0.0	11.5
33	пове	DISWARVITTI CHARLES-NORA		400	NER-NR		0.0	11.5
Import/E	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0	1507	0.0	31.7	-31.7
35	HVDC	V'CHAL B/B	D/C	450	0	8.8	0.0	8.8
36		APL -MHG	D/C	0	1550	0.0	31.9	-31.9
37 38		GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C	0	2808 1421	0.0	49.5 18.6	-49.5 -18.6
39		JABALPUR-ORAI	D/C	0	958	0.0	31.6	-31.6
40	765 kV	GWALIOR-ORAI	S/C	682	0	10.5	0.0	10.5
41		SATNA-ORAI	S/C	0	1503	0.0	28.6	-28.6
42		CHITTORGARH-BANASKANTHA	D/C	192	795	0.0	5.1	-5.1
43	1	ZERDA-KANKROLI ZERDA RHINMAI	S/C	139 195	109 228	0.9	0.0	0.9
44	400 kV	ZERDA -BHINMAL V'CHAL -RIHAND	S/C S/C	971	0	0.0 20.7	0.4	-0.4 20.7
46	1	RAPP-SHUJALPUR	D/C	208	271	0	1	-1
47		BHANPURA-RANPUR	S/C	33	64	0.8	0.1	0.7
48	220 kV	BHANPURA-MORAK	S/C	34	84	0.2	0.6	-0.5
49		MEHGAON-AURAIYA	S/C	83	0	1.0	0.0	1.0
50	1227	MALANPUR-AURAIYA	S/C	33	38	0.2	0.1	0.0
51	132kV	GWALIOR-SAWAI MADHOPUR	S/C	0	0 WR-NR	0.0 42.9	0.0 198.8	0.0 -155.9
Import/E	Export of	WR (With SR)			A11-M1.	74.7	170.0	-133.7
52	HVDC	BHADRAWATI B/B	-	0	515	0.0	12.3	-12.3
53	HADC	BARSUR-L.SILERU	-	0	0	0.0	0.0	0.0
54	765 kV	SOLAPUR-RAICHUR	D/C	531	2016	0.0	23.6	-23.6
55		WARDHA-NIZAMABAD	D/C	0	2698	0.0	42.3	-42.3
56	400 kV	KOLHAPUR-KUDGI	D/C	872 0	0	12.6	0.0	12.6
57 58	220 kV	KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C S/C	0	0 81	0.0	0.0 1.5	0.0 -1.5
59		XELDEM-AMBEWADI	S/C	0	90	1.7	0.0	1.7
	•			~	WR-SR	14.3	79.7	-65.4
		Т	RANSNATI	ONAL EXCHA	NGE			
60		BHUTAN	RANSNATI	ONAL EXCHA	ANGE			5.0
60 61 62			RANSNATI	ONAL EXCHA	ANGE			5.0 -7.7 -10.1