

# National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र GRID CONTROLLER OF INDIA LIMITED ग्रिड कंटोलर ऑफ इंडिया लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 09<sup>th</sup> July 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
- 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 08.07.2023.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 08-जुलाई-2023 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 08<sup>th</sup> July 2023, is available at the NLDC website.

धन्यवाद,

# ग्रिड कंट्रलर ऑफ इंडिया लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली



Report for previous day

A. Power Supply Position at All India and Regional level

Date of Reporting: 09-Jul-2023

	NR	WR	SR	ER	NER	TOTAL
Demand Met during Evening Peak hrs(MW) (at 20:00 hrs; from RLDCs)	57236	53509	44075	25392	3318	183530
Peak Shortage (MW)	0	0	0	0	12	12
Energy Met (MU)	1304	1243	1071	554	64	4235
Hydro Gen (MU)	375	34	53	130	31	623
Wind Gen (MU)	5	128	210	-	-	342
Solar Gen (MU)*	100.14	37.90	88.63	2.24	1.12	230
Energy Shortage (MU)	0.19	0.00	0.00	0.95	1.01	2.15
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	64235	55931	50720	26653	3309	185373
Time Of Maximum Demand Met	00:07	19:51	12:43	23:23	20:01	00:00

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	0.042	0.00	0.49	4 90	5 38	69 90	24.72

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C. Power	· Supply	Position	in States	

		Max.Demand	Shortage during	Energy Met	Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the day (MW)	maximum Demand (MW)	(MU)	Schedule (MU)	(MU)	(MW)	Shortage (MU)
	Punjab	9584	0	190.0	126.8	-5.6	256	0.00
	Haryana	10666	0	196.1	153.3	-3.4	147	0.00
	Rajasthan	11040	0	240.5	93.8	-0.8	347	0.00
	Delhi	5790	0	111.3	108.1	-2.2	110	0.06
NR	UP	22500	0	433.6	203.0	-0.9	292	0.12
	Uttarakhand	1888	0	42.8	19.5	-0.8	135	0.00
	HP	1659	0	33.5	-10.1	0.5	231	0.01
	J&K(UT) & Ladakh(UT)	2352	0	48.1	21.1	0.5	215	0.00
	Chandigarh	260	0	5.2	5.6	-0.4	18	0.00
	Railways_NR ISTS	141	0	3.1	3.5	-0.5	0	0.00
	Chhattisgarh	4501	0	99.9	50.1	-0.9	259	0.00
	Gujarat	15456	0	350.5	176.1	0.0	724	0.00
	MP	10255	0	224.6	120.5	-2.5	1104	0.00
WR	Maharashtra	22345	0	495.1	164.0	-5.5	601	0.00
	Goa	614	0	12.3	12.1	-0.2	64	0.00
	DNHDDPDCL	1298	0	30.2	30.1	0.1	65	0.00
	AMNSIL	803	0	17.8	9.3	-0.3	265	0.00
	BALCO	521	0	12.4	12.5	-0.1	0	0.00
	Andhra Pradesh	9758	0	209.4	43.2	1.2	774	0.00
	Telangana	11144	0	216.9	98.1	1.9	1037	0.00
SR	Karnataka	10913	0	203.1	44.8	0.2	775	0.00
	Kerala	3548	0	70.8	51.4	1.3	262	0.00
	Tamil Nadu	16969	0	360.6	167.0	-2.5	420	0.00
	Puducherry	449	0	10.2	9.6	0.0	52	0.00
	Bihar	6555	0	133.6	130.3	-2.1	245	0.95
	DVC	3535	0	73.7	-27.5	0.6	223	0.00
	Jharkhand	1713	0	35.9	28.0	-0.8	123	0.00
$\mathbf{E}\mathbf{R}$	Odisha	6053	0	119.2	41.4	-2.9	240	0.00
	West Bengal	9343	0	189.8	76.4	-2.3	537	0.00
	Sikkim	78	0	1.2	1.3	-0.1	11	0.00
	Railways_ER ISTS	10	0	0.3	0.3	0.0	8	0.00
	Arunachal Pradesh	142	0	2.4	2.2	0.0	42	0.00
	Assam	2201	0	43.7	36.5	0.6	167	0.00
	Manipur	167	0	2.5	2.6	-0.1	27	0.00
NER	Meghalaya	334	0	5.2	1.7	-0.1	54	1.01
	Mizoram	115	0	1.8	1.6	-0.3	16	0.00
	Nagaland	153	0	2.9	2.6	-0.1	27	0.00
	Tripura	319	0	5.5	5.4	0.4	55	0.00

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	41.0	6.5	-26.0	-14.6
Day Peak (MW)	1833.0	344.1	-1098.0	-630.7

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	261.0	-225.4	63.3	-99.4	0.5	0.0
Actual(MU)	222.5	-221.8	94.7	-104.9	3.1	-6.4
O/D/U/D(MU)	-38.5	3.6	31.4	-5.6	2.6	-6.4

# F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	5931	9911	6768	1700	351	24662	43
State Sector	8690	15669	5733	2250	251	32593	57
Total	14621	25580	12501	3950	602	57254	100

G. Sourcewise generation (Gross) (MU)

G. Bour cewise generation (Gross) (MC)							
	NR	WR	SR	ER	NER	All India	% Share
Coal	578	1222	540	549	11	2900	68
Lignite	17	12	36	0	0	65	2
Hydro	372	24	52	130	30	609	14
Nuclear	22	42	43	0	0	108	3
Gas, Naptha & Diesel	7	15	6	0	16	43	1
RES (Wind, Solar, Biomass & Others)	112	167	314	3	1	597	13
Total	1107	1483	991	682	58	4321	100
Share of RES in total generation (%)	9.61	10.60	29.98	0.49	1.64	13.10	
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	43.92	15.76	39.45	19.00	46.30	29.36	

H.	All	India	Dei	nand	Divers	ity Facto	r
7	-	_	•		,		

Based on Regional Max Demands	1.083
Based on State Max Demands	1.106

I. All India Peak	Demand an	d shortage at Sol	ar and Non-Solar H	Iour
	,		TT)	

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	183028	10:57	26
Non-Solar hr	185373	0:00	112

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

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

# INTER-REGIONAL EXCHANGES

Import=(+ve) /Export =(-ve) for NET (MU)
Date of Reporting: 09-Jul-2023

Sl No	Voltage Level	Line Details	No. of Circuit Max Import (MW)		Max Export (MW) Import (MU)		Export (MU)	NET (MU)
_	Export of ER (V		1.500		20.2			
2	HVDC HVDC	ALIPURDUAR-AGRA PUSAULI B/B	2	0	1503 148	0.0	38.2 3.5	-38.2 -3.5
3	765 kV 765 kV	GAYA-VARANASI SASARAM-FATEHPUR	2	775 228	186 100	4.6 1.0	0.0	4.6 1.0
5	765 kV 400 kV	GAYA-BALIA PUSAULI-VARANASI	1	0	680 151	0.0	9.1 2.7	-9.1 -2.7
7	400 kV	PUSAULI -ALLAHABAD	1	0	82	0.0	0.7	-0.7
8	400 kV 400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	2 2	0	617 498	0.0	9.1 7.6	-9.1 -7.6
10 11	400 kV 400 kV	NAUBATPUR-BALIA BIHARSHARIFF-BALIA	2 2	0 59	524 195	0.0	7.5 2.7	-7.5 -2.7
12	400 kV	MOTIHARI-GORAKHPUR	2	40	348	0.0	4.7	-4.7
13 14	400 kV 220 kV	BIHARSHARIFF-VARANASI SAHUPURI-KARAMNASA	2	288 17	64 97	2.1 0.0	0.0 0.8	2.1 -0.8
15 16	132 kV 132 kV	NAGAR UNTARI-RIHAND GARWAH-RIHAND	1	0 30	0	0.0	0.0	0.0
17	132 kV	KARMANASA-SAHUPURI	1	0	39	0.0	0.0	0.0
18	132 kV	KARMANASA-CHANDAULI	1	0	0 ER-NR	0.0 8.5	86.7	0.0 -78.1
Import	Export of ER (V			1446	244			
2	765 kV 765 kV	JHARSUGUDA-DHARAMJAIGARH NEW RANCHI-DHARAMJAIGARH	2	1446 1417	241 536	17.7 19.7	0.0	17.7 19.7
3	765 kV 400 kV	JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	2 4	142 29	546 383	0.0	4.8	-4.8 -3.0
5	400 kV 220 kV	RANCHI-SIPAT BUDHIPADAR-RAIGARH	2	301	157 44	4.0 0.0	0.0 1.2	4.0
7		BUDHIPADAR-KARGAKH BUDHIPADAR-KORBA	2	105	0	1.4	0.0	1.4
Import	Export of ER (V	With SR)			ER-WR	42.9	9.0	33.9
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	460	0.0	10.3	-10.3
3	HVDC 765 kV	TALCHER-KOLAR BIPOLE ANGUL-SRIKAKULAM	2 2	0	1628 3048	0.0	23.7 42.9	-23.7 -42.9
4 5	400 kV	TALCHER-I/C BALIMELA-UPPER-SILERRU	2	1009	499	4.3 0.0	0.0	4.3
					ER-SR	0.0	76.9	-76.9
Import 1	E/Export of ER (V 400 kV	With NER) BINAGURI-BONGAIGAON	2	0	496	0.0	7.4	-7.4
2	400 kV	ALIPURDUAR-BONGAIGAON	2	118	416	0.0	4.0	-4.0
3	220 kV	ALIPURDUAR-SALAKATI	2	0	152 ER-NER	0.0	2.2 13.6	-2.2 -13.6
	Export of NER				•			
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	503 NER-NR	0.0	12.0 12.0	-12.0 -12.0
Import	Export of WR (				•	0.0		
2	HVDC HVDC	CHAMPA-KURUKSHETRA VINDHYACHAL B/B	2	0 227	5045 0	0.0	75.0 5.5	-75.0 -5.5
3	HVDC	MUNDRA-MOHINDERGARH	2	264	0	0.0	6.0	-6.0
5	765 kV 765 kV	GWALIOR-AGRA GWALIOR-PHAGI	2 2	678 672	1822 1597	1.3 1.6	16.3 18.4	-15.0 -16.8
7	765 kV 765 kV	JABALPUR-ORAI GWALIOR-ORAI	2	113 823	908	0.0 11.6	19.2 0.0	-19.2 11.6
8	765 kV	SATNA-ORAI	1	0	941	0.0	14.8	-14.8
9	765 kV 765 kV	BANASKANTHA-CHITORGARH VINDHYACHAL-VARANASI	2 2	985 0	677 3199	10.4 0.0	2.2 54.7	8.2 -54.7
11	400 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL	1	193 447	115 177	2.0 4.2	0.5 0.8	1.5 3.4
13	400 kV	VINDHYACHAL -RIHAND	1 2	972	0	20.3	0.0 4.2	20.3
14 15	400 kV 220 kV	RAPP-SHUJALPUR BHANPURA-RANPUR	1	360	606	2.3	0.0	-1.9 0.0
16 17	220 kV 220 kV	BHANPURA-MORAK MEHGAON-AURAIYA	1	0 108	30	0.0 1.3	2.0	-2.0 1.3
18 19	220 kV 132 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	1	90	8	0.8	0.0	0.8
20	132 kV	RAJGHAT-LALITPUR	2	0	0	0.0	0.0	0.0
Import	Export of WR (	With SR)			WR-NR	55.8	219.4	-163.6
1	HVDC	BHADRAWATI B/B		993	1009	2.4	0.0	2.4
3	HVDC 765 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR	2 2	0 1787	4009 2178	0.0 11.5	43.1 5.8	-43.1 5.7
5	765 kV 400 kV	WARDHA-NIZAMABAD KOLHAPUR-KUDGI	2 2	0 1350	3403 0	0.0 20.9	36.1 0.0	-36.1 20.9
6	220 kV	KOLHAPUR-CHIKODI	2	0	0	0.0	0.0	0.0
8	220 kV 220 kV	PONDA-AMBEWADI XELDEM-AMBEWADI	1	0	0 105	0.0 2.0	0.0 0.0	0.0 2.0
					WR-SR	36.9	85.0	-48.1
		IN	TERNATIONAL EX					(+ve)/Export(-ve) Energy Exchange
	State	Region		Name	Max (MW)	Min (MW)	Avg (MW)	(MU)
		ER	400kV MANGDECHHU- ALIPURDUAR RECEIPT		671	440	647	15.52
			HEP 4*180MW) 400kV TALA-BINAGURI	`	-	*		
		ER	MALBASE - BINAGUR	I) i.e. BINAGURI	1047	877	975	23.40
			RECEIPT (from TALA H 220kV CHUKHA-BIRPA					
	BHUTAN	ER	MALBASE - BIRPARA) i		191	129	151	3.63
			(from CHUKHA HEP 4*8					
		NER	132kV GELEPHU-SALA	KATI	-47	-25	-33	-0.80
			122LV MOTANCA DANG	GY.			24	
	NER		132kV MOTANGA-RANG	GIA	-52	-14	-34	-0.81
	NR		132kV MAHENDRANAG	AR-TANAKPUR(NHPC)	-59	0	-22	-0.52
		AVK	132K V MITTEL (DICTION)	one man entre est	-37		-22	-0.52
	NEPAL	ER	NEPAL IMPORT (FROM	I BIHAR)	-32	0	-76	-1.82
			,		-			
		ER	400kV DHALKEBAR-MU	UZAFFARPUR 1&2	435	285	368	8.82
		ER	BHERAMARA B/B HVD	C (B'DESH)	-932	0	-932	-22.37
		ER						
BA	ANGLADESH	(Isolated from Indian Grid)	400kV GODDA_TPS-RAI	HANPUR (B'DESH) D/C	-631	-262	-610	-14.65
		MED	122hV COMILLA CUBA	IMANI NACAD 193	166	Δ.	152	274
		NER	132kV COMILLA-SURA	JIMANI NAGAR 1&2	-166	0	-152	-3.64

#### CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 09-Jul-2023

Export From India (in MU)

Export From India (in MU)									
			STOA						
	(ISGS/LTA/MTOA)		COLLECTIVE						
Country	PPA	BILATERAL	IDAM			RTM			TOTAL
		TOTAL	IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nepal	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.21
Bangladesh	22.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.38
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	22.38	0.00	0.21	0.00	0.00	0.00	0.00	0.00	22.59

Import by India(in MU)

			STOA						
	(ISGS/LTA/MTOA)		COLLECTIVE						7
Country	PPA	BILATERAL	IDAM			RTM			TOTAL
		TOTAL	IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	40.83	2.47	0.00	0.00	0.00	0.00	0.00	0.00	43.30
Nepal	0.00	0.00	8.90	0.00	0.00	0.00	0.00	0.00	8.90
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	40.83	2.47	8.90	0.00	0.00	0.00	0.00	0.00	52.20

Net from India(in MU) -ve : Export / +ve : Import

Tet from mala(m MC)									nport	
			STOA							
	(ISGS/LTA/MTOA)		COLLECTIVE							
Country	PPA	BILATERAL		IDAM			RTM			
		TOTAL	IEX	PXIL	HPX	IEX	PXIL	HPX		
Bhutan	40.83	2.47	0.00	0.00	0.00	0.00	0.00	0.00	43.30	
Nepal	0.00	0.00	8.69	0.00	0.00	0.00	0.00	0.00	8.69	
Bangladesh	-22.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-22.38	
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Net	18.45	2.47	8.69	0.00	0.00	0.00	0.00	0.00	29.61	