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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 20th September 2023

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 19.09.2023.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 19-सितम्बर-2023 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 19th September 2023, is available at the NLDC website.

धन्यवाद,

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

Report for previous day **Date of Reporting: 20-Sep-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 20:00 hrs; from RLDCs)	64898	54712	46640	25113	2988	194351
Peak Shortage (MW)	230	0	0	1014	11	1255
Energy Met (MU)	1393	1259	1166	573	62	4453
Hydro Gen (MU)	327	95	66	96	29	614
Wind Gen (MU)	19	121	141	-	-	281
Solar Gen (MU)*	90.07	37.40	117.60	2.54	0.78	248
Energy Shortage (MU)	1.24	0.00	0.00	7.18	0.48	8.90
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	65120	57527	57100	25735	3087	198939
Time Of Maximum Demand Met	19:19	19:16	12:29	21:16	18:27	11:56

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	0.036	0.00	0.35	5.12	5.46	75.32	19.22

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	8501	0	192.0	117.1	-2.5	304	0.00
	Haryana	9530	0	201.6	148.0	1.4	359	1.16
	Rajasthan	11287	0	242.8	90.0	-4.3	298	0.00
	Delhi	6009	0	124.5	111.6	-1.8	131	0.00
	UP	25171	0	496.0	225.5	-1.6	556	0.00
	Uttarakhand	2285	0	48.0	23.5	0.4	109	0.00
	HP	1582	0	31.8	1.4	-0.4	50	0.00
	J&K(UT) & Ladakh(UT)	2448	0	46.6	23.1	0.3	191	0.08
	Chandigarh	319	0	6.4	6.4	-0.1	35	0.00
	Railways_NR ISTS	167	0	3.5	3.5	0.0	31	0.00
WR	Chhattisgarh	4784	0	109.3	55.2	0.5	319	0.00
	Gujarat	15599	0	336.0	152.7	0.0	851	0.00
	MP	11465	0	238.5	116.5	-4.2	349	0.00
	Maharashtra	22881	0	505.5	190.8	-4.2	785	0.00
	Goa	521	0	11.6	11.1	-0.1	49	0.00
	DNHDDPDCL	1219	0	27.5	27.5	0.0	43	0.00
	AMNSIL	833	0	17.9	9.5	-0.1	71	0.00
	BALCO	520	0	12.4	12.4	0.0	65	0.00
SR	Andhra Pradesh	11566	0	233.7	87.2	0.2	523	0.00
	Telangana	14906	0	286.7	162.9	1.7	1029	0.00
	Karnataka	13320	0	236.5	65.2	-0.8	1016	0.00
	Kerala	3949	0	78.2	63.0	1.2	238	0.00
	Tamil Nadu	15795	0	321.6	153.6	0.2	911	0.00
	Puducherry	439	0	9.5	9.0	-0.2	53	0.00
ER	Bihar	7202	269	149.7	141.0	2.8	508	3.90
	DVC	3475	0	77.4	-21.2	2.1	395	0.00
	Jharkhand	1582	0	36.2	29.6	1.4	326	3.29
	Odisha	5404	0	122.3	49.8	-2.9	300	0.00
	West Bengal	8793	0	185.7	64.2	-3.9	30	0.00
	Sikkim	96	0	1.3	1.5	-0.2	4	0.00
	Railways_ER ISTS	10	0	0.2	0.2	0.0	4	0.00
NER	Arunachal Pradesh	156	0	3.1	3.0	-0.2	34	0.00
	Assam	1999	0	41.9	33.4	2.1	204	0.39
	Manipur	183	0	2.5	2.8	-0.3	29	0.00
	Meghalaya	331	0	5.8	2.2	-0.2	62	0.09
	Mizoram	107	0	1.7	1.5	-0.2	24	0.00
	Nagaland	151	0	2.7	2.5	-0.2	15	0.00
	Tripura	289	0	4.8	5.4	0.2	55	0.00

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	20.9	11.0	-25.0	-31.1
Day Peak (MW)	1046.0	467.0	-1093.0	-1456.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	288.4	-326.5	148.6	-108.5	-2.1	0.0
Actual(MU)	279.8	-346.0	167.3	-106.4	0.3	-5.0
O/D/U/D(MU)	-8.6	-19.5	18.7	2.0	2.4	-5.0

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	4599	8080	5468	1160	355	19661	37
State Sector	7930	15702	6402	3870	255	34158	63
Total	12529	23782	11870	5030	609	53820	100

G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	682	1354	618	645	13	3313	69
Lignite	31	12	33	0	0	76	2
Hydro	327	95	66	96	29	614	13
Nuclear	29	54	76	0	0	158	3
Gas, Naptha & Diesel	17	32	6	0	26	81	2
RES (Wind, Solar, Biomass & Others)	116	162	283	4	1	566	12
Total	1202	1709	1083	745	69	4808	100

Share of RES in total generation (%)	9.63	9.49	26.16	0.51	1.13	11.77
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	39.25	18.21	39.29	13.42	43.17	27.84

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.048
Based on State Max Demands	1.080

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

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	198939	11:56	65
Non-Solar hr	198334	19:19	1684

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: 20-Sep-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	1002	0.0	25.2	-25.2
2	HVDC	PUSAULI B/B	-	0	146	0.0	3.6	-3.6
3	765 kV	GAYA-VARANASI	2	739	118	3.9	0.0	3.9
4	765 kV	SASARAM-FATEHPUR	1	256	191	0.0	1.5	-1.5
5	765 kV	GAYA-BALIA	1	0	589	0.0	9.5	-9.5
6	400 kV	PUSAULI-VARANASI	1	0	137	0.0	2.2	-2.2
7	400 kV	PUSAULI -ALLAHABAD	1	0	92	0.0	1.2	-1.2
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	49	547	0.0	7.1	-7.1
9	400 kV	PATNA-BALIA	2	31	369	0.0	5.7	-5.7
10	400 kV	NAUBATPUR-BALIA	2	84	366	0.0	5.0	-5.0
11	400 kV	BIHARSHARIFF-BALIA	2	246	125	0.5	0.0	0.5
12	400 kV	MOTIHARI-GORAKHPUR	2	39	304	0.0	4.1	-4.1
13	400 kV	BIHARSHARIFF-VARANASI	2	340	32	2.1	0.0	2.1
14	220 kV	SAHUPURI-KARAMNASA	1	24	102	0.0	1.2	-1.2
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND	1	30	0	0.5	0.0	0.5
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	7.0	66.2	-59.2
Import/Export of ER (With WR)								
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	887	186	10.9	0.0	10.9
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	1508	113	21.5	0.0	21.5
3	765 kV	JHARSUGUDA-DURG	2	0	405	0.0	4.7	-4.7
4	400 kV	JHARSUGUDA-RAIGARH	4	55	317	0.0	3.0	-3.0
5	400 kV	RANCHI-SIPAT	2	346	67	4.2	0.0	4.2
6	220 kV	BUDHIPADAR-RAIGARH	1	0	112	0.0	1.6	-1.6
7	220 kV	BUDHIPADAR-KORBA	2	102	0	1.3	0.0	1.3
					ER-WR	37.9	9.3	28.6
Import/Export of ER (With SR)								
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	559	0.0	12.5	-12.5
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	1986	0.0	36.4	-36.4
3	765 kV	ANGUL-SRIKAKULAM	2	0	2657	0.0	46.1	-46.1
4	400 kV	TALCHER-I/C	2	170	625	0.0	3.2	-3.2
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
					ER-SR	0.0	95.0	-95.0
Import/Export of ER (With NER)								
1	400 kV	BINAGURI-BONGAIGAON	2	0	471	0.0	8.4	-8.4
2	400 kV	ALIPURDUAR-BONGAIGAON	2	12	447	0.0	6.3	-6.3
3	220 kV	ALIPURDUAR-SALAKATI	2	0	121	0.0	1.7	-1.7
					ER-NER	0.0	16.3	-16.3
Import/Export of NER (With NR)								
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	703	0.0	17.1	-17.1
					NER-NR	0.0	17.1	-17.1
Import/Export of WR (With NR)								
1	HVDC	CHAMPA-KURUKSHETRA	2	0	5055	0.0	66.4	-66.4
2	HVDC	VINDHYACHAL B/B	-	225	0	6.1	0.0	6.1
3	HVDC	MUNDRA-MOHINDERGARH	2	0	976	0.0	20.5	-20.5
4	765 kV	GWALIOR-AGRA	2	0	1955	0.0	32.2	-32.2
5	765 kV	GWALIOR-PHAGI	2	152	1293	0.1	16.0	-15.9
6	765 kV	JABALPUR-ORAI	2	0	1078	0.0	27.8	-27.8
7	765 kV	GWALIOR-ORAI	1	799	0	0.0	13.3	-13.3
8	765 kV	SATNA-ORAI	1	0	939	0.0	17.2	-17.2
9	765 kV	BANASKANTHA-CHITORGARH	2	357	649	0.0	4.6	-4.6
10	765 kV	VINDHYACHAL-VARANASI	2	0	3267	0.0	60.5	-60.5
11	400 kV	ZERDA-KANKROLI	1	108	99	0.6	0.6	0.0
12	400 kV	ZERDA -BHINMAL	1	326	172	1.1	0.0	1.1
13	400 kV	VINDHYACHAL -RIHAND	1	895	0	21.5	0.0	21.5
14	400 kV	RAPP-SHUJALPUR	2	221	472	0.0	3.4	-3.4
15	220 kV	BHANPURA-RANPUR	1	0	90	0.0	1.5	-1.5
16	220 kV	BHANPURA-MORAK	1	0	30	0.0	1.8	-1.8
17	220 kV	MEHGAON-AURAIYA	1	96	0	1.2	0.0	1.2
18	220 kV	MALANPUR-AURAIYA	1	66	3	0.6	0.0	0.6
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	31.1	265.8	-234.7
Import/Export of WR (With SR)								
1	HVDC	BHADRAWATI B/B	-	0	1010	0.0	14.1	-14.1
2	HVDC	RAIGARH-PUGALUR	2	0	5015	0.0	60.8	-60.8
3	765 kV	SOLAPUR-RAICHUR	2	1201	1591	2.2	10.1	-7.9
4	765 kV	WARDHA-NIZAMABAD	2	0	3002	0.0	47.5	-47.5
5	400 kV	KOLHAPUR-KUDGI	2	1323	0	20.2	0.0	20.2
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	105	2.1	0.0	2.1
					WR-SR	24.5	132.4	-107.9

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)	311	238	285	6.85
	ER	400kV TALA-BINAGURI 1,2,4 (& 400kV MALBASE - BINAGURI) i.e. BINAGURI RECEIPT (from TALA HEP 6*170MW)	524	365	476	11.43
	ER	220kV CHUKHA-BIRPARA 1&2 (& 220kV MALBASE - BIRPARA) i.e. BIRPARA RECEIPT (from CHUKHA HEP 4*84MW)	123	-42	54	1.30
	NER	132kV GELEPHU-SALAKATI	19	0	6	0.14
	NER	132kV MOTANGA-RANGIA	53	45	50	1.20
NEPAL	NR	132kV MAHENDRANAGAR-TANAKPUR(NHPC)	0	0	0	1.22
	ER	NEPAL IMPORT (FROM BIHAR)	0	0	0	0.00
	ER	400kV DHALKEBAR-MUZAFFARPUR 1&2	467	304	406	9.74
BANGLADESH	ER	BHERAMARA B/B HVDC (B'DESH)	-927	-786	-899	-21.57
	ER (Isolated from Indian Grid)	400kV GODDA_TPS-RAHANPUR (B'DESH) D/C	-1456	-1131	-1294	-31.07
	NER	132kV COMILLA-SURAJMANI NAGAR 1&2	-166	0	-145	-3.48

CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 20-Sep-2023

Export From India (in MU)

Country	(ISGS/LTA/MTOA) PPA	STOA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	21.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.56
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Export	21.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.56

Import by India(in MU)

Country	(ISGS/LTA/MTOA) PPA	STOA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	17.28	1.53	0.00	0.00	0.00	0.00	0.00	0.00	18.81
Nepal	0.00	2.63	7.55	0.00	0.00	0.00	0.00	0.00	10.18
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	17.28	4.16	7.55	0.00	0.00	0.00	0.00	0.00	28.99

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

Country	(ISGS/LTA/MTOA) PPA	STOA							TOTAL
		BILATERAL TOTAL	COLLECTIVE						
			IDAM			RTM			
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	17.28	1.53	0.00	0.00	0.00	0.00	0.00	0.00	18.81
Nepal	0.00	2.63	7.55	0.00	0.00	0.00	0.00	0.00	10.18
Bangladesh	-21.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-21.56
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Net	-4.28	4.16	7.55	0.00	0.00	0.00	0.00	0.00	7.43