

## National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

# POWER SYSTEM OPERATION CORPORATION LIMITED पाँवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

5-9, QOTOB INSTITOTIONAL AREA, KATWARIA SARAI, NEW DELHI - 11001 बी-9, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 13<sup>th</sup>Sep 2019

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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग ७९३००६ Chief General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

### Sub: Daily PSP Report for the date 12.09.2019.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 12-सितंबर-2019 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 12<sup>th</sup> Sep 2019, is available at the NLDC website.

धन्यवाद,

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

Date of Reporting Report for previous day 13-Sep-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 2000 hrs; from RLDCs)	60384	39703	39181	21863	2695	163826
Peak Shortage (MW)	1592	0	0	92	148	1832
Energy Met (MU)	1429	941	935	452	53	3810
Hydro Gen (MU)	355	100	169	143	27	795
Wind Gen (MU)	42	92	126			260
Solar Gen (MU)*	27.52	11.4	63.51	2.17	0.02	105
Energy Shortage (MU)	21.3	0.0	0.1	0.3	3.1	24.7
Maximum Demand Met during the day	62472	42044	40851	21806	2845	165548
MW) & time (from NLDC SCADA)	14:37	10:17	10:40	20:35	18:47	19:27

B. Frequency Profile (%)
Region
All India FVI <49.7 49.7-49.8 49.8-49.9 <49.9 49.9-50.05 > 50.05 0.029 0.01

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	11564	0	264.6	135.6	-1.8	12	0.0
	Haryana	10360	0	222.6	169.5	-2.5	203	0.0
	Rajasthan	11275	0	253.0	66.0	-3.3	170	0.0
	Delhi	6502	0	137.2	113.8	-0.6	187	0.0
NR	UP	19847	710	426.5	219.8	-1.3	487	10.7
	Uttarakhand	1938	0	42.1	15.1	-0.4	112	0.0
	HP	1479	12	31.7	2.4	0.0	99	0.3
	J&K	2067	517	44.9	20.5	-0.4	138	10.3
	Chandigarh	337	0	6.7	6.9	-0.2	37	0.0
	Chhattisgarh	3733	0	84.7	27.5	-0.8	222	0.0
	Gujarat	11939	0	267.2	67.3	3.0	591	0.0
	MP	7657	0	167.9	71.9	-3.2	401	0.0
WR	Maharashtra	17711	0	377.8	126.0	0.6	419	0.0
WK	Goa	541	0	11.8	11.0	0.2	51	0.0
	DD	324	0	7.3	6.8	0.5	34	0.0
	DNH	782	0	18.5	18.5	0.0	26	0.0
	Essar steel	272	0	5.5	5.6	-0.1	276	0.0
	Andhra Pradesh	8255	0	183.0	26.2	0.6	476	0.0
	Telangana	9312	0	199.1	59.0	-0.2	578	0.0
SR	Karnataka	10392	0	194.7	45.3	-1.1	626	0.0
JI.	Kerala	3186	0	61.2	42.9	1.1	207	0.0
	Tamil Nadu	13082	0	289.2	122.1	-2.2	524	0.0
	Pondy	346	0	7.4	7.9	-0.5	28	0.0
	Bihar	5542	0	106.4	105.0	-2.8	100	0.0
	DVC	2925	0	62.2	-22.8	0.4	210	0.0
ER	Jharkhand	1194	0	23.4	17.5	-1.3	180	0.3
Liv	Odisha	4636	0	96.5	25.4	1.6	473	0.0
	West Bengal	8248	0	162.9	64.4	-0.4	250	0.0
	Sikkim	87	0	1.0	1.4	-0.4	6	0.0
	Arunachal Pradesh	117	2	2.1	3.4	-1.3	0	0.0
	Assam	1796	74	34.1	29.5	0.5	161	3.0
	Manipur	161	2	2.4	2.2	0.1	32	0.0
NER	Meghalaya	327	0	5.5	1.3	-0.3	33	0.0
	Mizoram	86	1	1.8	0.3	0.5	13	0.0
	Nagaland	119	1	2.2	2.3	-0.5	57	0.0
	Tripura	303	1	4.8	4.4	0.1	67	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	40.9	-6.4	-25.5
Day peak (MW)	1811.3	-433.3	-1087.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	309.4	-252.8	9.9	-74.7	8.4	0.2
Actual(MU)	311.3	-259.2	13.7	-68.1	7.8	5.5
O/D/U/D(MU)	1.9	-6.4	3.8	6.7	-0.6	5.4

#### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3726	15485	7812	2220	953	30196
State Sector	6210	20536	10550	6010	50	43355
Total	9936	36020	18362	8230	1002	73551

G. Sourcewise generation (MU)

NR	WR	SR	ER	NER	All India
620	919	407	397	4	2346
18	10	45	0	0	73
355	100	169	143	27	795
27	31	60	0	0	119
41	50	16	0	20	128
87	109	229	2	0	428
1149	1220	926	542	51	3888
	620 18 355 27 41 87	620 919 18 10 355 100 27 31 41 50 87 109	620         919         407           18         10         45           355         100         169           27         31         60           41         50         16           87         109         229	620         919         407         397           18         10         45         0           355         100         169         143           27         31         60         0           41         50         16         0           87         109         229         2	620         919         407         397         4           18         10         45         0         0           355         100         169         143         27           27         31         60         0         0           41         50         16         0         20           87         109         229         2         0

Share of RES in total generation (%)	7.58	8.95	24.74	0.40	0.04	11.00
Share of Non-fossil fuel (Hydro, Nuclear and	40.88	19.74	49.51	26.78	52 14	34.50
RES) in total generation (%)	40.00	19.74	49.51	20.78	55.14	34.50

H. Diversity Factor
All India Demand Diversity Factor
Diversity factor = Sum of regional maximum demands / All India maximum demand

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

		<u>IN'</u>	TER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	13-Sep-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)
Import/E		ER (With NR)						
1	765kV	GAYA-VARANASI	D/C	189	473	0.0	5.9	-5.9
3	705KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	299	75 421	2.3 0.0	0.0 8.1	2.3 -8.1
4	HVDC	ALIPURDUAR-AGRA	-	0	1403	0.0	30.6	-30.6
5	HVDC	PUSAULI B/B	S/C	0	196	0.0	5.0	-5.0
6		PUSAULI-VARANASI	S/C	0	201	0.0	3.6	-3.6
7		PUSAULI -ALLAHABAD	S/C	0	92	0.0	1.2	-1.2
8	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C Q/C	0	845 1001	0.0	11.4	-11.4 -18.3
10	400 K	BIHARSHARIFF-BALIA	D/C	0	294	0.0	4.8	-18.5
11	-	MOTIHARI-GORAKHPUR	D/C	0	15	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	239	151	0.4	0.0	0.4
13	220 kV	PUSAULI-SAHUPURI	S/C	0	193	0.0	3.5	-3.5
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.3	0.0	0.3
16		KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 3.0	0.0	0.0 -89.3
Import/F	Export of	ER (With WR)			rk-NK	3.0	92.3	-89.3
_		1	0/0	1000	0	12.0	0.0	12.0
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1008	0	12.9	0.0	12.9
19 20		NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	843 301	10	13.9 4.1	0.0	13.9 4.1
21		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	Q/C	378	13	5.4	0.0	5.4
22	400 kV	RANCHI-SIPAT	D/C	363	0	6.0	0.0	6.0
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	114	0.0	2.0	-2.0
24	220 R V	BUDHIPADAR-KORBA	D/C	138	0	2.3	0.0	2.3
-					ER-WR	44.6	2.0	42.6
	_	ER (With SR)	D/G	0.0	1262.0	0.0	10.4	10.4
25 26	765 kV HVDC	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	316.0	0.0	0.0 7.4	19.4	-19.4 7.4
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	495.0	0.0	12.1	-12.1
28	400 kV	TALCHER-I/C	D/C	364.0	0.0	6.9	0.0	6.9
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
					ER-SR	7.4	31.6	-24.2
_	Export of	ER (With NER)			1	1		
30	400 kV	BINAGURI-BONGAIGAON	D/C	0	818	0.0	12.9	-13
31	220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C D/C	19	362 162	0.0	2.6	-4 -3
32	220 KV	ALIFUNDUAK-SALAKATI	D/C	0	ER-NER	0.0	19.1	-19.1
Import/E	Export of	NER (With NR)				0.0	1311	2,12
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	603	0.0	13.7	-13.7
					NER-NR	0.0	13.7	-13.7
	Export of	WR (With NR)			1	1		
34		CHAMPA-KURUKSHETRA	D/C	0	2512	0.0	50.3	-50.3
35	HVDC	V'CHAL B/B	D/C	451	346	3.3	2.9	0.4
36 37		APL -MHG GWALIOR-AGRA	D/C D/C	0	1742 2332	0.0	38.2 46.0	-38.2 -46.0
38	1	PHAGI-GWALIOR	D/C	0	1023	0.0	18.7	-18.7
39	m/	JABALPUR-ORAI	D/C	0	874	0.0	33.5	-33.5
40	765 kV	GWALIOR-ORAI	S/C	294	0	4.5	0.0	4.5
41		SATNA-ORAI	S/C	0	1420	0.0	30.9	-30.9
42		CHITTORGARH-BANASKANTHA	D/C	0	1121	0.0	11.5	-11.5
43	1	ZERDA-KANKROLI	S/C	72	123	0.1	1.0	-0.9
44	400 kV	ZERDA -BHINMAL V'CHAL -RIHAND	S/C	153	104	1.0	0.3	0.7
45	1	RAPP-SHUJALPUR	S/C D/C	981	0 327	22.9	0.0	22.9 -2
46		BHANPURA-RANPUR	S/C	23	38	0.1	0.2	-0.1
48	1	BHANPURA-MORAK	S/C	0	91	0.0	1.1	-1.1
	220 kV	MEHGAON-AURAIYA	S/C	60	21	0.3	0.0	0.3
49			S/C	19	50	0.0	0.6	-0.6
49 50		MALANPUR-AURAIYA	5/ C		· —	0.0	0.0	0.0
	132kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C	0	0	0.0		
50 51	ı	GWALIOR-SAWAI MADHOPUR	_	0	0 WR-NR	32.2	237.5	-205.3
50 51 <b>Import/E</b>	Export of	GWALIOR-SAWAI MADHOPUR  WR (With SR)	S/C		WR-NR	32.2	237.5	-205.3
50 51 <b>Import/E</b> 52	Export of	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B	S/C	0	WR-NR 214	0.0	<b>237.5</b> 4.9	<b>-205.3</b> -4.9
50 51 <b>Import/E</b> 52 53	Export of HVDC LINK	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU	S/C	0	214 0	0.0 0.0	237.5 4.9 0.0	-205.3 -4.9 0.0
50 51 <b>Import/E</b> 52 53 54	Export of	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR	- D/C	0 0 928	WR-NR  214  0  441	0.0 0.0 0.0 5.5	237.5 4.9 0.0 0.9	-205.3 -4.9 0.0 4.6
50 51 <b>Import/E</b> 52 53	Export of HVDC LINK	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU	S/C	0	214 0	0.0 0.0	237.5 4.9 0.0	-205.3 -4.9 0.0
50 51 Import/E 52 53 54 55	Export of HVDC LINK 765 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD	D/C D/C	0 0 928 0	WR-NR  214  0  441  1261	0.0 0.0 0.0 5.5 0.0	237.5 4.9 0.0 0.9 17.6	-205.3 -4.9 0.0 4.6 -17.6
50 51 Import/E 52 53 54 55 56	Export of HVDC LINK 765 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI	D/C D/C D/C	0 0 928 0 676	WR-NR  214  0  441  1261  0	0.0 0.0 5.5 0.0 10.4	237.5 4.9 0.0 0.9 17.6 0.0	-205.3 -4.9 0.0 4.6 -17.6 10.4
50 51 Import/E 52 53 54 55 56 57	Export of HVDC LINK - 765 kV 400 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI	S/C	0 0 928 0 676	214 0 441 1261 0	0.0 0.0 5.5 0.0 10.4 0.0	237.5 4.9 0.0 0.9 17.6 0.0 0.0	-4.9 0.0 4.6 -17.6 10.4 0.0
50 51 Import/E 52 53 54 55 56 57	Export of HVDC LINK - 765 kV 400 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI	5/C	0 0 928 0 676 0	214 0 441 1261 0 0 68	32.2 0.0 0.0 5.5 0.0 10.4 0.0 0.0	237.5 4.9 0.0 0.9 17.6 0.0 0.0 1.3	-4.9 0.0 4.6 -17.6 10.4 0.0 -1.3
50 51 Import/E 52 53 54 55 56 57	Export of HVDC LINK - 765 kV 400 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI  XELDEM-AMBEWADI	S/C	0 0 928 0 676 0	WR-NR  214  0  441  1261  0  0  68  39  WR-SR	32.2 0.0 0.0 5.5 0.0 10.4 0.0 0.0 0.8	237.5 4.9 0.0 0.9 17.6 0.0 0.0 1.3 0.0	-205.3 -4.9 0.0 4.6 -17.6 10.4 0.0 -1.3 0.8
50 51 Import/E 52 53 54 55 56 57 58 59	Export of HVDC LINK - 765 kV 400 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B BARSUR-L.SILERU  SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  T BHUTAN	S/C	0 0 928 0 676 0	WR-NR  214  0  441  1261  0  0  68  39  WR-SR	32.2 0.0 0.0 5.5 0.0 10.4 0.0 0.0 0.8	237.5 4.9 0.0 0.9 17.6 0.0 0.0 1.3 0.0	-205.3 -4.9 0.0 4.6 -17.6 10.4 0.0 -1.3 0.8 -8.0
50 51 Import/E 52 53 54 55 56 57 58 59	Export of HVDC LINK - 765 kV 400 kV	GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI  XELDEM-AMBEWADI	S/C	0 0 928 0 676 0	WR-NR  214  0  441  1261  0  0  68  39  WR-SR	32.2 0.0 0.0 5.5 0.0 10.4 0.0 0.0 0.8	237.5 4.9 0.0 0.9 17.6 0.0 0.0 1.3 0.0	-205.3  -4.9  0.0  4.6  -17.6  10.4  0.0  -1.3  0.8  -8.0