

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 बी-9, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 07th Oct 2019

To,

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ 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 ७९३००६ Executive Director, 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 06.10.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-२०१० की धारा स.-5.5.१ के प्रावधान के अनुसार, दिनांक ०६-अक्टूबर-२०१९ 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 06th Oct 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 7-Oct-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)	44937	42784	36329	19212	2571	145833
Peak Shortage (MW)	452	0	0	0	28	480
Energy Met (MU)	976	984	834	404	48	3247
Hydro Gen (MU)	206	95	95	118	24	539
Wind Gen (MU)	13	9	11			33
Solar Gen (MU)*	26.22	20.8	66.36	2.03	0.04	115
Energy Shortage (MU)	9.3	0.0	0.0	0.0	0.3	9.6
Maximum Demand Met during the day	45578	43129	36582	19252	2655	146157
(MW) & time (from NLDC SCADA)	19:16	19:01	18:36	00:04	18:37	19:06

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	0.022	0.00	0.00	1.57	1.57	78.08	20.35

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	6587	0	141.1	71.3	-0.8	108	0.0
	Haryana	6702	0	142.9	100.6	0.0	268	0.0
	Rajasthan	8555	0	185.4	54.7	-3.1	231	0.0
	Delhi	3690	0	77.8	63.2	-1.9	32	0.0
NR	UP	16710	0	326.7	124.4	2.4	702	0.0
	Uttarakhand	1651	0	34.3	11.3	0.5	119	0.0
	HP	1332	0	25.6	9.1	-0.1	105	0.0
	J&K	1855	464	39.5	30.1	0.5	449	9.3
	Chandigarh	170	0	3.2	3.6	-0.5	13	0.0
	Chhattisgarh	3721	0	88.0	41.0	1.8	572	0.0
	Gujarat	12794	0	290.5	56.4	6.0	447	0.0
	MP	7890	0	170.2	88.1	-1.8	257	0.0
WR	Maharashtra	17481	0	392.1	150.3	1.1	418	0.0
WK	Goa	541	0	12.4	10.5	1.3	47	0.0
	DD	320	0	7.3	6.8	0.5	41	0.0
	DNH	760	0	17.3	17.3	0.0	94	0.0
	Essar steel	320	0	6.4	5.7	0.7	315	0.0
	Andhra Pradesh	7443	0	160.7	83.3	0.3	652	0.0
	Telangana	8435	0	174.3	73.0	0.4	463	0.0
SR	Karnataka	6881	0	138.7	32.6	0.6	776	0.0
3K	Kerala	3201	0	64.2	45.4	1.6	216	0.0
	Tamil Nadu	12577	0	288.7	139.3	0.3	493	0.0
	Pondy	347	0	7.4	7.6	-0.2	43	0.0
	Bihar	5121	0	93.7	95.7	-4.1	200	0.0
	DVC	2800	0	59.7	-10.9	1.0	190	0.0
ER	Jharkhand	1102	0	24.8	16.0	-0.9	100	0.0
EN	Odisha	3859	0	82.1	12.9	7.5	600	0.0
	West Bengal	7058	0	143.4	36.1	0.2	300	0.0
	Sikkim	63	0	0.7	1.2	-0.5	10	0.0
	Arunachal Pradesh	126	1	2.2	2.0	-0.1	26	0.0
	Assam	1636	13	29.2	22.6	0.3	127	0.2
	Manipur	157	2	2.5	2.2	0.3	15	0.0
NER	Meghalaya	293	0	5.2	0.1	-0.1	43	0.0
	Mizoram	83	1	1.7	0.3	0.3	57	0.0
	Nagaland	129	2	2.2	2.2	-0.2	46	0.0
	Tripura	277	2	4.8	4.1	-0.4	70	0.0

$\textbf{D. Transnational Exchanges} \ \ (\textbf{MU}) \ \textbf{- Import} (+\textbf{ve}) / \textbf{Export} (-\textbf{ve})$

	Bhutan	Nepal	Bangladesh
Actual(MU)	36.3	0.5	-25.2
Day peak (MW)	1581.6	-29.1	-1058.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	188.9	-191.6	79.5	-68.4	-8.4	0.0
Actual(MU)	163.3	-170.2	99.8	-78.9	-10.2	3.9
O/D/U/D(MU)	-25.6	21.4	20.3	-10.5	-1.8	3.9

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total			
Central Sector	4394	16913	8512	2070	97	31986			
State Sector	9231	20316	9570	5750	11	44878			
Total	13625	37229	18082	7820	108	76864			

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	488	927	404	382	10	2211
Lignite	13	9	46	0	0	69
Hydro	206	95	95	118	24	539
Nuclear	28	30	59	0	0	116
Gas, Naptha & Diesel	31	63	15	0	29	138
RES (Wind, Solar, Biomass & Others)	58	35	112	2	0	207
Total	823	1160	731	503	64	3280

Share of RES in total generation (%)	7.01	3.01	15.31	0.41	0.06	6.30
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	35.34	13.85	36.30	23.93	38.42	26.27

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

 $[\]textbf{*\underline{Source}:} \ RLDCs \ for \ solar \ connected \ to \ ISTS; \ SLDCs \ for \ embedded \ solar. \ Limited \ visibility \ of \ embedded \ solar \ data.$

		<u>IN</u>	TER-REGIO	ONAL EXCHA	ANGES	Date of I	Reporting :	7-Oct-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	182	206	0.0	0.5	-0.5
3	/05KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	0	168 258	0.0	4.9	-0.2 -4.9
4	HVDC	ALIPURDUAR-AGRA	-	0	800	0.0	18.8	-18.8
5	HVDC	PUSAULI B/B	S/C	0	196	0.0	4.9	-4.9
6		PUSAULI-VARANASI	S/C	0	204	0.0	4.2	-4.2
7	_	PUSAULI -ALLAHABAD	S/C	0	77	0.0	0.6	-0.6
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C O/C	0	917 864	0.0	11.6	-11.6 -16.2
10	400 K	BIHARSHARIFF-BALIA	D/C	0	340	0.0	4.8	-4.8
11		MOTIHARI-GORAKHPUR	D/C	0	9	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	167	139	1.4	0.0	1.4
13	220 kV	PUSAULI-SAHUPURI	S/C	0	143	0.0	2.6	-2.6
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 1.7	0.0	0.0
Import/F	Export of	ER (With WR)			ER-NK	1./	69.3	-67.6
-		· · · · · · · · · · · · · · · · · · ·	0/0	1502	0	20.7	0.0	20.7
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1593	0	28.7	0.0	28.7
19 20		NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	511 136	283 59	5.1 1.3	0.0	5.1
21		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	Q/C	184	185	0.0	0.0	-0.2
22	400 kV	RANCHI-SIPAT	D/C	180	119	1.6	0.0	1.6
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	70	0.0	0.9	-0.9
24	220 KV	BUDHIPADAR-KORBA	D/C	83	0	1.1	0.0	1.1
					ER-WR	37.8	1.0	36.8
	_	ER (With SR)	1 1					
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1875.0	0.0	35.4	-35.4
26 27	HVDC LINK	JEYPORE-GAZUWAKA B/B	D/C D/C	0.0	714.0 1481.0	0.0	16.2 25.1	-16.2 -25.1
28	400 kV	TALCHER-KOLAR BIPOLE TALCHER-I/C	D/C D/C	437.0	460.0	2.2	0.0	2.2
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	22011			1.0	ER-SR	0.0	76.7	-76.7
Import/E	Export of	ER (With NER)						
30	400 kV	BINAGURI-BONGAIGAON	D/C	55	335	0.0	2.7	-3
31		ALIPURDUAR-BONGAIGAON	D/C	237	57	1.8	0.0	2
32	220 kV	ALIPURDUAR-SALAKATI	D/C	6	63 ED MED	0.0	0.8	-1
Import/E	Evnort of	NER (With NR)			ER-NER	1.8	3.5	-1.8
33	HVDC	BISWANATH CHARIALI-AGRA	1 . 1	0	603	0.0	13.6	-13.6
33	11.20			-	NER-NR	0.0	13.6	-13.6
Import/E	Export of	WR (With NR)				U U		1
34		CHAMPA-KURUKSHETRA	D/C	0	304	0.0	0.0	0.0
35	HVDC	V'CHAL B/B		449	-			
36	İ		D/C		0	0.0	0.0	0.0
37		APL -MHG	D/C	0	1078	0.0	22.5	-22.5
		GWALIOR-AGRA	D/C D/C	0	1078 1571	0.0	22.5 29.4	-22.5 -29.4
38	_	GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C	0	1078 1571 837	0.0 0.0 0.0	22.5 29.4 14.9	-22.5 -29.4 -14.9
38 39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C	0 0 0	1078 1571 837 475	0.0 0.0 0.0 0.0	22.5 29.4 14.9 8.1	-22.5 -29.4 -14.9 -8.1
38 39 40	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C S/C	0 0 0 357	1078 1571 837 475 0	0.0 0.0 0.0 0.0 6.1	22.5 29.4 14.9 8.1 0.0	-22.5 -29.4 -14.9 -8.1 6.1
38 39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C	0 0 0	1078 1571 837 475	0.0 0.0 0.0 0.0	22.5 29.4 14.9 8.1	-22.5 -29.4 -14.9 -8.1
38 39 40 41	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C S/C S/C	0 0 0 357 0	1078 1571 837 475 0 1196	0.0 0.0 0.0 0.0 6.1 0.0	22.5 29.4 14.9 8.1 0.0 26.5	-22.5 -29.4 -14.9 -8.1 6.1 -26.5
38 39 40 41 42	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C S/C S/C D/C	0 0 0 357 0 74	1078 1571 837 475 0 1196 745	0.0 0.0 0.0 0.0 6.1 0.0	22.5 29.4 14.9 8.1 0.0 26.5 8.3	-22.5 -29.4 -14.9 -8.1 6.1 -26.5 -8.2
38 39 40 41 42 43	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 0 357 0 74 45 207 968	1078 1571 837 475 0 1196 745 109 157	0.0 0.0 0.0 0.0 6.1 0.0 0.0 0.1 0.7 22.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1	-22.5 -29.4 -14.9 -8.1 6.1 -26.5 -8.2 -0.3 -0.5 22.6
38 39 40 41 42 43 44 45 46	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145	1078 1571 837 475 0 1196 745 109 157 0	0.0 0.0 0.0 0.0 6.1 0.0 0.0 0.1 0.7 22.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0
38 39 40 41 42 43 44 45 46	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	D/C D/C D/C D/C S/C S/C S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9	1078 1571 837 475 0 1196 745 109 157 0 106 47	0.0 0.0 0.0 0.0 6.1 0.0 0.0 0.1 0.7 22.6 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 22.6 0 -0.5
38 39 40 41 42 43 44 45 46 47	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9	1078 1571 837 475 0 1196 745 109 157 0 106 47	0.0 0.0 0.0 0.0 6.1 0.0 0.0 0.1 0.7 22.6 0 0.0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 22.6 0 -0.5 -1.2
38 39 40 41 42 43 44 45 46 47 48 49	400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0	0.0 0.0 0.0 0.0 6.1 0.0 0.1 0.7 22.6 0 0.0 0.0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3
38 39 40 41 42 43 44 45 46 47 48 49 50	400 kV - 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0	0.0 0.0 0.0 0.0 6.1 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -0.5 -1.2 1.3 -0.5
38 39 40 41 42 43 44 45 46 47 48 49	400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0	0.0 0.0 0.0 0.0 6.1 0.0 0.1 0.7 22.6 0 0.0 0.0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3
38 39 40 41 42 43 44 45 46 47 48 49 50	- 400 kV - 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0	0.0 0.0 0.0 0.0 6.1 0.0 0.1 0.7 22.6 0 0.0 0.0 0.1	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0
38 39 40 41 42 43 44 45 46 47 48 49 50	- 400 kV - 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0	0.0 0.0 0.0 0.0 6.1 0.0 0.1 0.7 22.6 0 0.0 0.0 0.1	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV 132kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIOR BHANPURA-WALIOR GWALIOR-SAWAI MADHOPUR WR (With SR)	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92 56	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 6.1 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 0.0 31.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 113.8	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	400 kV 220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-WORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 38.7	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C D/C D/C D/C D/C	0 0 0 357 0 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 0.0 113.8	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIOR GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58	400 kV 220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 3357 0 74 445 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0 -1.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIOR GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C S/C D/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR 1006 0 1564 2066 0 0 59	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8 0.0 22.0 38.7 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0 -1.2 0.7
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR 1006 0 1564 2066 0 0 59 36 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0 -1.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58 59	220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-SANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BASUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 3357 0 74 445 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR 1006 0 1564 2066 0 0 59 36 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8 0.0 22.0 38.7 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0 -1.2 0.7 -51.1
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 357 0 74 45 207 968 145 9 0 92 56 0	1078 1571 837 475 0 1196 745 109 157 0 106 47 98 0 0 WR-NR 1006 0 1564 2066 0 0 59 36 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.7 22.6 0 0.0 0.0 1.3 0.5 0.0 31.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	22.5 29.4 14.9 8.1 0.0 26.5 8.3 0.5 1.1 0.0 1 0.5 1.2 0.0 0.0 0.0 113.8 0.0 22.0 38.7 0.0 0.0	-22.5 -29.4 -14.9 -8.1 -6.1 -26.5 -8.2 -0.3 -0.5 -22.6 0 -0.5 -1.2 1.3 0.5 0.0 -82.2 0.0 0.0 -22.0 -38.7 10.1 0.0 -1.2 0.7