

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 17thAug 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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Chief General Manager, 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 16.08.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 16-अगस्त-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 16th August 2019, is available at the NLDC website.

धन्यवाद,

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

Report for previous day Date of Reporting 17-Aug-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)	52026	41772	40121	21033	2824	157776
Peak Shortage (MW)	488	42	0	0	130	660
Energy Met (MU)	1152	911	932	457	51	3502
Hydro Gen (MU)	359	106	127	129	23	744
Wind Gen (MU)	27	116	140			283
Solar Gen (MU)*	15.61	12.37	77.32	2.05	0.03	107
Energy Shortage (MU)	9.2	0.1	0.0	0.0	1.1	10.4
Maximum Demand Met during the day	53113	43179	42117	22030	2875	160386
(MW) & time (from NLDC SCADA)	20:54	19:40	07:43	20:20	19:05	19:55

B. Frequency Profile (%	(6)						
Region	FVI	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
All India	0.044	0.00	0.31	4.26	4.57	61.81	33.62

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	10577	0	226.5	142.2	-1.7	65	0.0
	Harvana	8436	0	177.7	147.6	-0.6	194	0.0
	Rajasthan	6903	0	156.0	42.2	-4.6	258	0.0
	Delhi	5073	0	107.7	91.5	-0.9	143	0.0
NR	UP	19433	0	377.1	181.8	-0.4	613	0.0
	Uttarakhand	1747	0	36.1	12.6	-0.6	81	0.0
	HP	1284	0	26.6	-6.2	-0.4	25	0.0
	J&K	1953	488	38.5	17.7	1.5	434	9.2
	Chandigarh	282	0	5.6	6.5	-0.9	10	0.0
	Chhattisgarh	3956	0	88.3	26.0	2.7	468	0.1
	Gujarat	12091	0	258.5	59.5	0.0	603	0.0
	MP	7207	0	149.7	40.3	-3.4	234	0.0
WR	Maharashtra	17311	0	378.1	115.4	1.7	636	0.0
WK	Goa	541	0	11.3	10.6	0.2	68	0.0
	DD	326	0	6.3	5.9	0.4	47	0.0
	DNH	750	0	16.2	16.4	-0.2	47	0.0
	Essar steel	156	0	2.5	1.7	0.9	322	0.0
	Andhra Pradesh	8635	0	183.3	24.5	1.5	704	0.0
	Telangana	10180	0	213.1	73.9	1.6	738	0.0
SR	Karnataka	8534	0	164.2	31.4	-0.5	707	0.0
JI.	Kerala	3291	0	62.5	45.6	1.7	234	0.0
	Tamil Nadu	13633	0	301.6	141.3	1.4	731	0.0
	Pondy	336	0	7.0	7.5	-0.5	36	0.0
	Bihar	5436	0	108.1	104.2	-0.2	50	0.0
	DVC	2922	0	61.4	-25.9	0.7	225	0.0
ER	Jharkhand	1075	0	25.2	15.2	0.4	60	0.0
L.I.	Odisha	5151	0	103.9	39.0	2.5	260	0.0
	West Bengal	7620	0	157.1	73.6	3.4	400	0.0
	Sikkim	72	0	0.8	1.3	-0.5	20	0.0
	Arunachal Pradesh	128	2	2.0	2.5	-0.5	51	0.0
	Assam	1798	80	33.2	26.8	1.7	123	1.0
	Manipur	160	1	2.4	2.2	0.1	28	0.0
NER	Meghalaya	310	0	5.5	1.0	-0.5	35	0.0
	Mizoram	97	2	1.3	0.7	0.4	34	0.0
	Nagaland	136	1	2.2	2.3	-0.3	54	0.0
	Tripura	305	2	4.5	3.8	-0.5	45	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	43.4	-5.0	-20.3
Day peak (MW)	2058.5	-314.0	-958.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	248.8	-262.6	37.0	-28.0	4.9	0.2
Actual(MU)	220.2	-264.4	64.3	-28.3	3.4	-4.7
O/D/U/D(MU)	-28.6	-1.8	27.3	-0.3	-1.5	-4.9

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4703	18468	9132	2105	703	35110
State Sector	9470	19279	10120	7880	50	46799
Total	14173	37747	19252	9985	752	81909

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	469	882	385	350	6	2091
Lignite	16	6	38	0	0	60
Hydro	359	106	127	129	23	744
Nuclear	28	29	58	0	0	115
Gas, Naptha & Diesel	26	37	16	0	21	101
RES (Wind, Solar, Biomass & Others)	59	137	249	2	0	447
Total	957	1197	872	481	51	3558

Share of RES in total generation (%)	6.20	11.42	28.51	0.44	0.06	12.56
Share of Non-fossil fuel (Hydro, Nuclear and	46.60	22.72	49.69	27.22	46 10	36.71
RES) in total generation (%)	40.00	22.12	49.09	21.32	46.18	30./1

11. Diversity 1 actor	
All India Demand Diversity Factor	1.018

^{*}Source: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.

		IN	TER-REGI	ONAL EXCH	ANGES	Date of I	Reporting :	17-Aug-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/I		ER (With NR)				· ·		
2	765kV	GAYA-VARANASI	D/C S/C	403 396	64	5.3 6.3	0.0	5.3 6.3
3	703K V	SASARAM-FATEHPUR GAYA-BALIA	S/C	0	277	0.0	3.2	-3.2
4	HVDC	ALIPURDUAR-AGRA	-	0	1351	0.0	34.3	-34.3
5	HVDC	PUSAULI B/B	S/C	0	198	0.0	4.8	-4.8
6	4	PUSAULI-VARANASI	S/C	0	239	0.0	5.8	-5.8
7 8	-	PUSAULI -ALLAHABAD	S/C D/C	33 104	29 325	0.4	2.3	-2.3
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	Q/C	104	490	0.0	3.0	-3.0
10	100 K	BIHARSHARIFF-BALIA	D/C	42	137	0.0	0.4	-0.4
11	1	MOTIHARI-GORAKHPUR	D/C	0	0	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	355	0	6.1	0.0	6.1
13	220 kV	PUSAULI-SAHUPURI	S/C	0	186	0.0	3.2	-3.2
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.4	0.0	0.4
16	102 111	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
Tournaut/I	Ermont of	ED (With WD)			ER-NR	18.5	57.0	-38.5
_	export of	ER (With WR)	1 1		 	1		
18	7/5137	JHARSUGUDA-DHARAMJAIGARH	Q/C	2033	0	37.7	0.0	37.7
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	1454	0	26.0	0.0	26.0
20	1	JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	D/C Q/C	381 577	0	6.0 9.3	0.0	6.0 9.3
22	400 kV	RANCHI-SIPAT	D/C	506	1	5.7	0.0	5.7
23		BUDHIPADAR-RAIGARH	S/C	22	53	0.0	0.3	-0.3
24	220 kV	BUDHIPADAR-KORBA	D/C	161	0	2.8	0.0	2.8
					ER-WR	87.5	0.3	87.2
Import/I	Export of	ER (With SR)						•
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1769.0	0.0	25.4	-25.4
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	225.0	0.0	5.1	-5.1
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2476.0	0.0	35.9	-35.9
28	400 kV	TALCHER-I/C	D/C	31.0	1419.0	0.0	11.2	-11.2
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0 0.0	0.0 66.4	0.0 -66.4
Import/I	Export of	ER (With NER)			EK-5K	0.0	00.4	-00.4
30		BINAGURI-BONGAIGAON	D/C	0	696	0.0	12.4	-12
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	47	267	0.0	2.5	-3
32	220 kV	ALIPURDUAR-SALAKATI	D/C	0	139	0.0	2.6	-3
					ER-NER	0.0	17.5	-17.5
		NER (With NR)						
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	607	0.0	14.6	-14.6
Import/I	Evnort of	WR (With NR)			NER-NR	0.0	14.6	-14.6
34	Export or	CHAMPA-KURUKSHETRA	D/C	0	2002	0.0	37.9	-37.9
35	HVDC		D/C	362	0	7.1	0.0	7.1
36		APL -MHG	D/C	0	1356	0.0	17.1	-17.1
37	1	GWALIOR-AGRA	D/C	0	2368	0.0	47.0	-47.0
38	1	PHAGI-GWALIOR	D/C	0	959	0.0	16.5	-16.5
39		JABALPUR-ORAI		_		0.0	10.3	
	765 LV		D/C	796	900	0.0	33.1	-33.1
40	765 kV	GWALIOR-ORAI	S/C	286	900	0.0 4.6	33.1 0.0	-33.1 4.6
41	765 kV	GWALIOR-ORAI SATNA-ORAI	S/C S/C	286 0	900 0 1341	0.0 4.6 0.0	33.1 0.0 27.2	-33.1 4.6 -27.2
41 42	765 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	S/C S/C D/C	286 0 0	900 0 1341 1084	0.0 4.6 0.0 0.0	33.1 0.0 27.2 16.4	-33.1 4.6 -27.2 16.4
41 42 43	765 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	S/C S/C D/C S/C	286 0 0 29	900 0 1341 1084 160	0.0 4.6 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6	-33.1 4.6 -27.2 16.4 -1.6
41 42 43 44	765 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	S/C S/C D/C S/C S/C	286 0 0 29 158	900 0 1341 1084 160	0.0 4.6 0.0 0.0 0.0 0.0 0.5	33.1 0.0 27.2 16.4 1.6 1.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5
41 42 43 44 45		GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	S/C S/C D/C S/C S/C S/C	286 0 0 29 158 964	900 0 1341 1084 160 190	0.0 4.6 0.0 0.0 0.0 0.0 0.5 22.4	33.1 0.0 27.2 16.4 1.6 1.0 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4
41 42 43 44 45 46		GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR	S/C S/C D/C S/C S/C S/C D/C	286 0 0 29 158 964 36	900 0 1341 1084 160 190 0 434	0.0 4.6 0.0 0.0 0.0 0.0 0.5 22.4	33.1 0.0 27.2 16.4 1.6 1.0 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5
41 42 43 44 45	400 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	S/C S/C D/C S/C S/C S/C	286 0 0 29 158 964	900 0 1341 1084 160 190	0.0 4.6 0.0 0.0 0.0 0.0 0.5 22.4	33.1 0.0 27.2 16.4 1.6 1.0 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4
41 42 43 44 45 46 47		GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR	S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C	286 0 0 29 158 964 36 21	900 0 1341 1084 160 190 0 434 41	0.0 4.6 0.0 0.0 0.0 0.0 0.5 22.4 0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3
41 42 43 44 45 46 47 48	400 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	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	286 0 0 29 158 964 36 21 0	900 0 1341 1084 160 190 0 434 41 150	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1
41 42 43 44 45 46 47 48 49	400 kV	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	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	286 0 0 29 158 964 36 21 0 36	900 0 1341 1084 160 190 0 434 41 150 31	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0
41 42 43 44 45 46 47 48 49 50 51	- 400 kV - 220 kV	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	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	286 0 0 29 158 964 36 21 0 36 12	900 0 1341 1084 160 190 0 434 41 150 31 58	0.0 4.6 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7
41 42 43 44 45 46 47 48 49 50 51	400 kV - 220 kV - 132kV	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)	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	286 0 0 29 158 964 36 21 0 36 12	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.2 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 Import/I	400 kV - 220 kV - 132kV - Export of - HVDC	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	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	286 0 0 29 158 964 36 21 0 36 12 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 Import/I 52	400 kV - 220 kV - 132kV	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 BARSUR-L.SILERU	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	286 0 0 29 158 964 36 21 0 36 12 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54	400 kV - 220 kV - 132kV - Export of - HVDC	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 BARSUR-L.SILERU SOLAPUR-RAICHUR	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	286 0 0 29 158 964 36 21 0 36 12 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55	- 400 kV - 220 kV - 132kV - 132kV - 132kV - 132kV - 765 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	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	286 0 0 29 158 964 36 21 0 36 12 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 S1 S2 S3 S4 S5 S6	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 16.6	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	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	286 0 0 29 158 964 36 21 0 36 12 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6 0.0
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0 0.0	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6 0.0 -1.2
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239 0 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0 0.0 1.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6 0.0 -1.2 0.7
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58 59	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0 0.0 1.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6 0.0 -1.2 0.7 -25.2
41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	286 0 0 29 158 964 36 21 0 36 12 0 0 1426 418 1239 0 0	900 0 1341 1084 160 190 0 434 41 150 31 58 0 WR-NR	0.0 4.6 0.0 0.0 0.0 0.5 22.4 0 0.1 0.0 0.2 0.0 0.0 34.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	33.1 0.0 27.2 16.4 1.6 1.0 0.0 5 0.3 2.1 0.2 0.7 0.0 206.2 13.1 0.0 2.8 25.5 0.0 0.0 1.2	-33.1 4.6 -27.2 16.4 -1.6 -0.5 22.4 -5 -0.3 -2.1 0.0 -0.7 0.0 -138.6 -13.1 0.0 -2.8 -25.5 16.6 0.0 -1.2 0.7