

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: 19th Nov 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. 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.,२९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 18.11.2019.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 18-नवम्बर-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 18th Nov 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 19-Nov-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)	43318	47269	39326	17992	2324	150229
Peak Shortage (MW)	529	0	0	0	52	581
Energy Met (MU)	853	1084	909	333	40	3220
Hydro Gen (MU)	134	39	98	49	10	331
Wind Gen (MU)	2	39	37			78
Solar Gen (MU)*	25.12	19.9	74.60	1.89	0.03	122
Energy Shortage (MU)	11.2	0.0	0.0	0.0	0.4	11.6
Maximum Demand Met during the day	43453	48886	42146	18038	2391	154000
(MW) & time (from NLDC SCADA)	18:37	17:49	18:27	18:11	17:31	18:27

C. Power Sup	ply Posit	tion in	States
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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	5167	0	100.8	50.5	-1.6	85	0.0
	Haryana	5818	0	111.4	99.9	-0.1	209	0.0
	Rajasthan	10902	0	208.2	64.0	-0.1	342	0.0
	Delhi	3276	0	61.5	51.6	-1.8	119	0.0
NR	UP	14634	0	264.6	120.8	-0.2	947	1.1
	Uttarakhand	1734	0	33.2	18.2	0.5	107	0.0
	HP	1534	0	27.3	19.3	-0.3	55	0.0
	J&K	2118	529	42.5	35.7	-0.7	201	10.1
	Chandigarh	188	0	3.3	3.2	0.1	35	0.0
	Chhattisgarh	3398	0	70.8	25.0	-1.0	325	0.0
	Gujarat	14913	0	316.8	82.2	1.6	650	0.0
	MP	11738	0	232.0	151.4	-2.2	419	0.0
WR	Maharashtra	19557	0	421.9	137.5	-2.0	423	0.0
WK	Goa	541	0	12.0	12.2	-0.8	71	0.0
	DD	311	0	6.8	6.3	0.5	41	0.0
	DNH	787	0	18.1	18.1	0.0	29	0.0
	Essar steel	284	0	5.7	5.7	0.0	295	0.0
	Andhra Pradesh	8420	0	175.1	81.5	-0.1	481	0.0
	Telangana	9179	0	191.5	77.1	0.4	395	0.0
SR	Karnataka	9172	0	180.4	39.2	-0.7	774	0.0
311	Kerala	3705	0	72.1	55.4	1.0	179	0.0
	Tamil Nadu	13562	5	282.8	168.2	0.6	421	0.0
	Pondy	366	0	7.2	7.6	-0.5	40	0.0
	Bihar	4186	0	68.6	65.5	-0.1	400	0.0
	DVC	3046	0	61.8	-37.9	-0.1	350	0.0
ER	Jharkhand	1122	0	23.8	17.3	-1.6	31	0.0
LIN	Odisha	3637	0	66.7	7.0	-0.9	200	0.0
	West Bengal	6291	0	110.8	36.2	0.1	350	0.0
	Sikkim	100	0	1.3	1.4	0.0	30	0.0
	Arunachal Pradesh	112	2	2.1	1.6	0.4	28	0.0
	Assam	1385	35	22.6	17.1	0.3	150	0.4
	Manipur	162	1	2.5	2.3	0.2	31	0.0
NER	Meghalaya	335	0	5.9	3.0	0.3	54	0.0
	Mizoram	93	1	1.7	0.4	1.0	27	0.0
	Nagaland	116	2	2.3	1.9	0.1	21	0.0
	Tripura	232	1	3.5	2.4	-0.3	61	0.0

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

	1 1 1 1 1 1 1		
	Bhutan	Nepal	Bangladesh
Actual(MU)	11.2	-0.9	-17.0
Day peak (MW)	587.6	-189.0	-979.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	209.7	-211.4	112.6	-109.8	-0.1	1.0
Actual(MU)	202.0	-213.0	119.9	-113.1	2.0	-2.2
O/D/U/D(MU)	-7.7	-1.6	7.3	-3.3	2.1	-3.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4820	16461	7882	1580	834	31577
State Sector	13701	17782	10240	4870	11	46604
Total	18521	34243	18122	6450	846	78181

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	415	1104	431	432	8	2390
Lignite	21	16	51	0	0	88
Hydro	134	39	98	49	10	331
Nuclear	30	28	55	0	0	113
Gas, Naptha & Diesel	23	50	16	0	24	113
RES (Wind, Solar, Biomass & Others)	49	70	146	2	0	267
Total	671	1306	798	483	43	3302
Share of RES in total generation (%)	7.26	5.36	18.29	0.40	0.07	8.08
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	31.70	10.47	37.52	10.62	24.14	21.52

H. All India Demand Diversity Factor

III III III III Belliulu Bireliyi Tuetoi						
Based on Regional Max Demands	1.006					
Based on State Max Demands	1.053					

Diversity factor = Sum of regional or state-wise maximum demands / All India maximum demand

 $[\]textbf{*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 :	19-Nov-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	0	806	0.0	12.0	-12.0
3	/05KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	0	461 432	0.0	6.7 7.8	-6.7 -7.8
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5	HVDC	PUSAULI B/B	S/C	0	196	0.0	4.7	-4.7
6		PUSAULI-VARANASI	S/C	0	156	0.0	2.9	-2.9
7	_	PUSAULI -ALLAHABAD	S/C	0	116	0.0	1.8	-1.8
8	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C O/C	0	1093 1135	0.0	17.2 22.9	-17.2 -22.9
10	400 K	BIHARSHARIFF-BALIA	D/C	0	375	0.0	6.7	-6.7
11	-	MOTIHARI-GORAKHPUR	D/C	0	6	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	0	305	0.0	3.9	-3.9
13	220 kV	PUSAULI-SAHUPURI	S/C	0	79	0.0	1.2	-1.2
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		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
Import/F	Evnert of	FR (With WP)			ER-NR	0.4	87.7	-87.4
_	vybort of	ER (With WR)	1		1	ı		1
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1654	0	22.9	0.0	22.9
19	/03 KV	NEW RANCHI-DHARAMJAIGARH	D/C	268	518	0.0	1.2	-1.2
20		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	D/C Q/C	32 189	219 227	0.0	0.7	-1.5 -0.7
22	400 kV	RANCHI-SIPAT	D/C	137	162	0.0	0.0	0.4
23		BUDHIPADAR-RAIGARH	S/C	6	77	0.0	0.9	-0.9
24	220 kV	BUDHIPADAR-KORBA	D/C	140	0	1.8	0.0	1.8
					ER-WR	25.1	4.2	20.9
Import/E	Export of	ER (With SR)						
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	2044.0	0.0	39.2	-39.2
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	684.0	0.0	14.5	-14.5
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2475.0	0.0	47.5	-47.5
28 29	400 kV 220 kV	TALCHER-I/C BALIMELA-UPPER-SILERRU	D/C S/C	375.0 1.0	694.0 0.0	0.0	0.0	-4.8 0.0
29	220 KV	BALIWELA-UFFER-SILERRU	3/C	1.0	ER-SR	0.0	101.2	-101.2
Import/E	Export of	ER (With NER)				0.0	10112	10112
30	Ĺ	BINAGURI-BONGAIGAON	D/C	264	63	3.9	0.0	4
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	281	75	3.6	0.0	4
32	220 kV	ALIPURDUAR-SALAKATI	D/C	51	35	0.5	0.0	1
					ER-NER	8.1	0.0	8.1
		NER (With NR)						
33	HVDC	BISWANATH CHARIALI-AGRA	-	371	0 NED-ND	9.2	0.0	9.2
Import/F	Export of	WR (With NR)			NER-NR	9.2	0.0	9.2
34	Aport or	CHAMPA-KURUKSHETRA	D/C	0	855	0.0	23.9	-23.9
35	HVDC	V'CHAL B/B		454				
36		ADI MIIC	D/C		0	12.1	0.0	12.1
37		APL -MHG	D/C D/C	0	0 1552	12.1 0.0	0.0 32.6	12.1 -32.6
		GWALIOR-AGRA	_					
38			D/C	0	1552	0.0	32.6	-32.6
39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C	0 0 0 816	1552 2105 1318 797	0.0 0.0 0.0 0.0	32.6 37.1 20.8 26.7	-32.6 -37.1 -20.8 -26.7
39 40	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C S/C	0 0 0 816 591	1552 2105 1318 797 0	0.0 0.0 0.0 0.0 10.6	32.6 37.1 20.8 26.7 0.0	-32.6 -37.1 -20.8 -26.7 10.6
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 0 816 591	1552 2105 1318 797 0 1326	0.0 0.0 0.0 0.0 10.6 0.0	32.6 37.1 20.8 26.7 0.0 28.1	-32.6 -37.1 -20.8 -26.7 10.6 -28.1
39 40 41 42	765 kV	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 0 816 591 0	1552 2105 1318 797 0 1326 933	0.0 0.0 0.0 0.0 10.6 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5
39 40 41 42 43	-	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	0 0 0 816 591 0 170	1552 2105 1318 797 0 1326 933 135	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1
39 40 41 42 43 44	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	0 0 0 816 591 0 170 100 75	1552 2105 1318 797 0 1326 933 135 315	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4
39 40 41 42 43	-	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	0 0 0 816 591 0 170	1552 2105 1318 797 0 1326 933 135	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1
39 40 41 42 43 44 45	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	0 0 0 816 591 0 170 100 75 985	1552 2105 1318 797 0 1326 933 135 315	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6
39 40 41 42 43 44 45 46	400 kV	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 D/C S/C S/C D/C S/C S/C D/C S/C	0 0 0 816 591 0 170 100 75 985	1552 2105 1318 797 0 1326 933 135 315 0	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6
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	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 0 816 591 0 170 100 75 985 145 24	1552 2105 1318 797 0 1326 933 135 315 0 125	0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3
39 40 41 42 43 44 45 46 47 48	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	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 0 816 591 0 170 100 75 985 145 24	1552 2105 1318 797 0 1326 933 135 315 0 125 42	0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0
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 0 816 591 0 170 100 75 985 145 24 43	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0 0.3 0.2 0.0 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 -0.0 1.6 0.5
39 40 41 42 43 44 45 46 47 48 49 50 51	- 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 0 816 591 0 170 100 75 985 145 24 43 120	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 1 0.0 0.0 1 0.0 0.0 0.0 0.	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0 0.3 0.2 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5
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 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7	0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0 0.3 0.2 0.0 0.3 0.2 0.0 178.4	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E	400 kV 220 kV 132kV Export of HVDC	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53	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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	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 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
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	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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR	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 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 0.0 0 0.3 0.2 0.0 0.0 0.0 178.4	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 -22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0 0.2 0.0 0.0 0.0 178.4 12.3 0.0 21.1 40.9	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2 -12.3 0.0 -20.2 -40.9
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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 0.0 0 0.3 0.2 0.0 0.0 0.0 178.4	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 0 7 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2
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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.5 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 -22.6 1 -0.3 0.0 -1.6 0.5 0.0 -129.2 -12.3 0.0 -20.2 -40.9 9.8 0.0
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	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 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.5 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0 0.0 1.3	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 -22.6 1 -0.3 -0.0 1.6 0.5 0.0 -129.2 -12.3 0.0 -20.2 -40.9 9.8 0.0 -1.3
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	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 D/C S/C S/C S/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 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 -22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2 -12.3 0.0 -20.2 -40.9 9.8 0.0 -1.3 1.5
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	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 D/C S/C S/C S/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 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -5.5 0.1 -2.4 -22.6 1 -0.3 0.0 1.6 0.5 0.0 -129.2 -12.3 0.0 -20.2 -40.9 9.8 0.0 -1.3 1.5
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-MORAK MEHGAON-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	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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 816 591 0 170 100 75 985 145 24 43 120 67 0	1552 2105 1318 797 0 1326 933 135 315 0 125 42 67 0 7 0 WR-NR	0.0 0.0 0.0 0.0 10.6 0.0 0.0 0.5 0.0 22.6 1 0.0 0.2 1.6 0.5 0.0 49.2	32.6 37.1 20.8 26.7 0.0 28.1 5.5 0.5 2.5 0.0 0 0.3 0.2 0.0 0.0 178.4 12.3 0.0 21.1 40.9 0.0 0.0	-32.6 -37.1 -20.8 -26.7 10.6 -28.1 -2.4 -22.6 1 -0.3 -0.0 -1.6 -0.5 -0.0 -129.2 -12.3 -0.0 -20.2 -40.9 -9.8 -0.0 -1.3 -1.5 -63.3