

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 16<sup>th</sup> Oct 2018

To,

- कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033
   Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, 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 15.10.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 15-अक्टूबर-2018 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 15<sup>th</sup> October 2018, is available at the NLDC website.

धन्यवाद.

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

**Date of Reporting** 

16-Oct-18

> 50.05

6.74

Report for previous day

#### A. Maximum Demand

NR WR SR ER NER Total Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)
Peak Shortage (MW) 46081 54589 42912 20097 2446 166125 677 149 91 917 Energy Met (MU) 975 1288 988 415 44 3710 Hydro Gen (MU) 174 34 105 79 20 412 Wind Gen (MU) 17 20 41 Solar Gen (MU)\* 22.00 0.44 0.04 19.92 58.00 100 Energy Shortage (MU) 9.7 8.4 57770 18.1 0.0 0.0 0.1 Maximum Demand Met during the day 47755 2532 44201 20650 168735 (MW) & time (from NLDC SCADA) 11:46 18:35 18:04 18:47 11:41 18:50

B. Frequency Profile (%) FVI <49.7 49.7-49.8 49.8-49.9 <49.9 49.9-50.05 All India 0.054 0.00 1.64 14.31 15.95 77.31

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	6296	0	143.4	58.7	-0.8	101	0.0
	Haryana	6685	0	140.3	99.1	2.0	316	0.5
	Rajasthan	10650	0	217.4	45.4	0.8	380	0.0
	Delhi	3837	0	75.1	55.0	-1.2	140	0.0
NR	UP	15921	0	294.9	114.9	-1.5	252	0.0
	Uttarakhand	1779	0	35.0	11.8	0.2	170	0.0
	HP	1431	0	26.6	11.3	0.4	144	0.0
	J&K	1881	470	38.8	37.7	-6.6	44	9.2
	Chandigarh	185	0	3.4	3.5	-0.1	21	0.0
	Chhattisgarh	4447	0	101.1	27.4	-1.0	333	0.1
	Gujarat	17415	0	383.8	139.5	9.6	958	0.0
	MP	11224	0	245.2	132.7	-1.1	579	0.0
WR	Maharashtra	24650	836	515.2	202.9	0.3	617	8.2
WK	Goa	470	0	11.1	10.1	0.6	86	0.0
	DD	323	0	7.2	6.3	0.8	88	0.0
	DNH	754	0	17.4	16.5	1.0	93	0.0
	Essar steel	396	0	7.3	8.1	-0.8	211	0.0
	Andhra Pradesh	9245	0	194.3	82.4	2.9	498	0.0
	Telangana	10487	0	219.5	95.7	3.8	495	0.0
SR	Karnataka	10292	0	203.5	45.7	0.7	475	0.0
SK	Kerala	3528	0	69.5	41.9	0.6	200	0.0
	Tamil Nadu	13670	0	294.1	133.7	1.8	444	0.0
	Pondy	362	0	7.3	7.4	-0.1	46	0.0
	Bihar	4669	0	81.4	80.2	-0.7	400	0.0
	DVC	2818	0	58.7	-26.6	2.8	250	0.0
ER	Jharkhand	1000	0	24.5	13.6	-0.4	0	0.0
EK	Odisha	4867	-250	107.0	38.6	4.1	300	0.0
	West Bengal	7517	0	142.5	17.7	-2.5	10	0.0
	Sikkim	93	0	1.1	1.1	0.0	15	0.0
	Arunachal Pradesh	108	3	2.3	2.1	0.2	34	0.0
	Assam	1557	42	25.3	19.0	1.0	263	0.0
	Manipur	164	3	2.4	2.3	0.1	24	0.0
NER	Meghalaya	282	0	5.3	0.5	0.1	18	0.0
	Mizoram	87	1	1.7	0.8	0.5	9	0.0
	Nagaland	115	2	2.3	1.6	0.2	6	0.0
	Tripura	254	0	4.5	3.3	-0.2	82	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	12.6	-2.2	-19.4
Day peak (MW)	752.5	-126.0	-904.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	156.8	-146.6	87.3	-89.2	-4.3	3.9
Actual(MU)	134.9	-144.3	95.2	-83.4	-5.4	-3.1
O/D/U/D(MU)	-21.9	2.3	7.9	5.8	-1.1	-7.0

#### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3104	12353	6972	1010	306	23745
State Sector	8400	13435	5920	5085	50	32890
Total	11504	25788	12892	6095	356	56634

### G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	581	1296	614	431	5	2925
Hydro	174	34	105	79	20	412
Nuclear	24	26	34	0	0	83
Gas, Naptha & Diesel	41	53	24	0	29	148
RES (Wind, Solar, Biomass & Others)	44	38	121	0	0	203
Total	864	1446	897	510	53	3771

Share of RES in total generation (%)	5.05	2.61	13.46	0.09	0.07	5.37
Share of Non-fossil fuel (Hydro, Nuclear and	28.00	671	28.94	15.63	36.74	18.51
RES) in total generation (%)	28.00	0./1	20.94	15.05	30.74	10.51

H. Diversity Factor
All India Demand Diversity Factor
1.025
Diversity factor = Sum of regional maximum demands / All India maximum demand

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

								16-Oct-
								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)
	Export of	ER (With NR)	D/C	70	452	0.0		
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	78 300	452 51	0.0	0.0	-6.3 0.9
3	70011	GAYA-BALIA	S/C	0	240	0.0	4.3	-4.3
4	HVDC	ALIPURDUAR-AGRA	-	0	400	0.0	9.5	-9.5
5	11,50	PUSAULI B/B	S/C	0	399	0.0	9.4	-9.4
6	-	PUSAULI-VARANASI	S/C	0	308	0.0	6.2	-6.2
7 8	1	PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	S/C D/C	0	173 650	0.0	9.3	-3.3 -9.3
9	400 kV	PATNA-BALIA	O/C	0	845	0.0	15.4	-15.4
10	100 K	BIHARSHARIFF-BALIA	D/C	0	264	0.0	4.3	-4.3
11	1	MOTIHARI-GORAKHPUR	D/C	0	386	0.0	7.1	-7.1
12	Ī	BIHARSHARIFF-VARANASI	D/C	200	182	0.0	1.0	-1.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	202	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	0	0	0.6	0.0	0.6
16	1 KY	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
port/I	Export of	ER (With WR)			ER-NR	1.5	79.6	-78.1
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	833	0.0	13.4	-13.4
19	<u> </u>	NEW RANCHI-DHARAMJAIGARH	D/C	297	563	0.0	5.7	-5.7
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	181	497	0.0	4.9	-4.9
21	ļ	RANCHI-SIPAT	D/C	217 0	164	0.0	0.8	-0.8
23	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	S/C D/C	144	1	1.7	0.0	1.7
23		BUDHIPADAR-KURBA	D/C	144	ER-WR	1.7	24.7	-23.0
		ER (With SR)	D/G	0.0	0.0	0.0	0.0	0.0
24	765 kV	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	0.0	0.0 634.0	0.0	0.0	0.0 -14.8
26	HVDC LINK	TALCHER-KOLAR BIPOLE	D/C	1.0	397.0	0.0	0.0	0.0
27	400 kV	TALCHER-I/C	D/C	245.0	0.0	33.6	0.0	33.6
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
		PED (HIM NED)			ER-SR	0.0	14.8	-14.8
29	T .	ER (With NER) BINAGURI-BONGAIGAON	D/C	0	501	0.0	6.3	-6
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	58	313	0.0	1.9	-2
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	110	0.0	1.1	-1
					ER-NER	0.0	9.4	-9.4
32		NER (With NR) BISWANATH CHARIALI-AGRA	_	0	703	0.0	15.8	-15.8
	II.DC	DIS WITH VITTI CITE HELLER FROM I			NER-NR	0.0	15.8	-15.8
iport/I	Export of	WR (With NR)						
33		CHAMPA-KURUKSHETRA	D/C	0	454	0.0	10.7	-10.7
34	HVDC	V'CHAL B/B	D/C	242	0	6.1	0.0	6.1
35	<b> </b>	APL -MHG	D/C	0	595	0.0	14.6	-14.6
36	4	GWALIOR-AGRA	D/C	0	625	0.0	21.4	-21.4
			D/C			0.0	19.7	-19.7 -2.3
37	765 LV	PHAGI-GWALIOR	D/C		1021	0.0	7.2	-2.3
37 38	765 kV	JABALPUR-ORAI	D/C	163	124	0.0	2.3	0.2
37 38 39	765 kV	JABALPUR-ORAI GWALIOR-ORAI	D/C S/C	163 419	124 0	9.3	0.0	9.3 -35.5
37 38	765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C	163	124			9.3 -35.5 8.9
37 38 39 40		JABALPUR-ORAI GWALIOR-ORAI	D/C S/C S/C	163 419 0	124 0 1609	9.3 0.0	0.0 35.5	-35.5
37 38 39 40 41	765 kV 400 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C S/C S/C S/C	163 419 0 509	124 0 1609 0	9.3 0.0 8.9	0.0 35.5 0.0	-35.5 8.9
37 38 39 40 41 42		JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL	D/C S/C S/C S/C S/C	163 419 0 509 381	124 0 1609 0	9.3 0.0 8.9 6.4	0.0 35.5 0.0 0.0	-35.5 8.9 6.4
37 38 39 40 41 42 43		JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C S/C S/C S/C S/C S/C	163 419 0 509 381 490	124 0 1609 0 0	9.3 0.0 8.9 6.4 11.4	0.0 35.5 0.0 0.0 0.0	-35.5 8.9 6.4 11.4
37 38 39 40 41 42 43 44	- 400 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	D/C S/C S/C S/C S/C S/C D/C	163 419 0 509 381 490 215	124 0 1609 0 0 0	9.3 0.0 8.9 6.4 11.4	0.0 35.5 0.0 0.0 0.0 0	-35.5 8.9 6.4 11.4 3
37 38 39 40 41 42 43 44 45 46 47		JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120	124 0 1609 0 0 0 0 0 0 0 0	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5
37 38 39 40 41 42 43 44 45 46 47 48	- 400 kV - 220 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134	124 0 1609 0 0 0 0 0 0 0 0 0	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5
37 38 39 40 41 42 43 44 45 46 47	- 400 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120	124 0 1609 0 0 0 0 0 0 0 0	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5
37 38 39 40 41 42 43 44 45 46 47 48 49	400 kV 220 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134	124 0 1609 0 0 0 0 0 0 0 0 0 0	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49	220 kV 132kV Export of HVDC	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4
37 38 39 40 41 42 43 44 45 46 47 48 49	400 kV 220 kV 132kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 104.2	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4
37 38 39 40 41 41 42 43 44 45 46 47 48 49 50 51 51 52	220 kV 132kV Export of HVDC	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 0.0 -50.4
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	400 kV  220 kV  132kV  Export of HVDC LINK	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8 0.0 0.0 0.0 0.0 9.8	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	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 S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8  0.0 0.0 0.0 0.0 9.8 0.0	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 49 50 51 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	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 S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8 0.0 0.0 0.0 0.0 0.0 0.0	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8 0.0 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 50 51 52 53 54 55	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	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 S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 WR-NR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8  0.0 0.0 0.0 0.0 9.8 0.0	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 50 51 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 0 WR-NR  999 0 2112 2941 0 0 0 0 WR-SR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8 0.0 0.0 0.0 0.0 0.0 0.0 1.3	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8 0.0 0.0 1.3
37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 50 51 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV	JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	163 419 0 509 381 490 215 123 120 134 90 0 0 0 0 1 0 1 0 1 0 1 0	124 0 1609 0 0 0 0 0 0 0 0 0 0 0 0 WR-NR  999 0 2112 2941 0 0 0 0 WR-SR	9.3 0.0 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 53.8 0.0 0.0 0.0 0.0 0.0 0.0 1.3	0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-35.5 8.9 6.4 11.4 3 2.7 2.1 2.5 1.5 0.0 -50.4 -24.0 0.0 -42.3 -60.2 9.8 0.0 0.0 1.3