

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 16<sup>th</sup> Feb 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. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 General Manager, 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. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

## Sub: Daily PSP Report for the date 15.02.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 15-Feb - 2018 की अखिल भारतीय प्रणाली क्री 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> Feb 2018, 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 16-Feb-18

#### A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	42256	43496	42486	17819	2379	148436
Peak Shortage (MW)	521	32	0	0	43	595
Energy Met (MU)	877	1007	951	360	40	3236
Hydro Gen(MU)	98	28	42	26	8	202
Wind Gen(MU)	5	69	61			135
Solar Gen (MU)*	6.33	17.86	45.05	0.89	0.03	70
Energy Shortage (MU)	9.3	0.1	0.8	0.0	0.4	10.5
Maximum Demand Met during the day (MW) (from NLDC SCADA)	44111	45770	44198	17969	2329	150850

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	0.039	0.00	0.00	9.72	9.72	78.85	11.42

C. Power Supply Position in States

Power Supply Posi	don in States	Max. Demand Met	Shortage during		ъ .	OD(.)/IID(.)	14 OD	
RegionRegion	States	during the day	maximum Demand	Energy Met (MU)	Drawal	OD(+)/UD(-)	Max OD	Energy
0 0		(MW)	(MW)	- <b>a</b> , ( - /	Schedule (MU)	(MU)	(MW)	Shortage (MU)
	Punjab	5265	0	107.6	35.7	0.1	93	0.0
	Haryana	6332	0	119.7	69.5	1.4	250	0.0
NR	Rajasthan	11302	0	202.4	66.8	3.0	418	0.0
	Delhi	3638	0	63.1	50.5	-0.9	154	0.0
	UP	14399	0	274.4	88.9	0.5	780	0.0
	Uttarakhand	2005	0	37.8	26.7	0.4	221	0.0
	HP	1517	2	27.6	23.6	0.2	130	0.0
	J&K	2038	501	41.0	42.0	-4.7	0	9.2
	Chandigarh	208	0	3.4	3.2	0.1	25	0.0
	Chhattisgarh	3259	0	69.3	1.5	0.1	94	0.1
Gujarat MP	Gujarat	13482	0	298.8	110.6	2.8	559	0.0
	MP	9148	0	175.7	80.8	-1.4	243	0.0
WR	Maharashtra	19883	0	416.2	117.9	2.4	294	0.0
VVIX	Goa	487	0	9.7	8.8	0.5	42	0.0
	DD	327	0	7.3	6.9	0.4	47	0.0
	DNH	764	0	17.7	17.0	0.8	73	0.0
	Essar steel	567	0	12.3	12.4	-0.1	196	0.0
	Andhra Pradesh	8415	0	169.3	51.9	-0.7	675	0.1
	Telangana	9596	0	191.7	88.1	0.4	455	0.1
SR	Karnataka	9755	0	211.2	93.6	-1.9	333	0.2
JI.	Kerala	3661	0	71.2	58.7	1.3	218	0.1
	Tamil Nadu	13999	0	301.0	162.4	1.2	814	0.3
	Pondy	341	0	7.0	7.5	-0.5	29	0.0
	Bihar	3877	0	67.2	59.5	1.4	250	0.0
	DVC	3000	0	69.3	-43.8	-1.0	250	0.0
ER	Jharkhand	1084	0	22.3	15.1	1.2	150	0.0
-11	Odisha	4325	0	78.6	32.3	5.4	550	0.0
	West Bengal	6306	0	121.9	16.6	1.8	300	0.0
	Sikkim	102	0	1.0	1.4	-0.4	7	0.0
	Arunachal Pradesh	118	3	2.3	1.7	0.6	79	0.0
	Assam	1399	20	22.3	18.5	0.7	100	0.3
	Manipur	189	2	2.4	2.6	-0.3	12	0.0
NER	Meghalaya	301	4	5.6	2.9	0.0	52	0.0
	Mizoram	84	1	1.6	0.7	0.4	28	0.0
	Nagaland	119	4	2.3	1.9	0.2	66	0.0
	Tripura	225	3	3.9	2.1	0.6	45	0.0

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

<u> </u>	Bhutan	Nepal	Bangladesh
Actual(MU)	2.8	-10.6	-12.4
Day peak (MW)	248.3	-533,4	-620.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	180.5	-225.4	134.9	-89.5	3.3	3.8
Actual(MU)	176.4	-226.6	126.0	-77.8	3.6	1.7
O/D/U/D(MU)	-4.1	-1.2	-8.8	11.7	0.3	-2.1

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4717	14821	4872	1080	253	25743
State Sector	10260	18287	5360	5245	50	39202
Total	14977	33108	10232	6325	303	64945

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	544	1062	560	435	9	2610
Hydro	98	27	42	26	8	201
Nuclear	29	24	69	0	0	122
Gas, Naptha & Diesel	21	42	20	0	23	105
RES (Wind, Solar, Biomass & Others)	37	87	149	2	0	275
Total	729	1242	839	464	40	3314

		11111	AC REGI	ONAL EXO	<u>CILITIGES</u>	Date of 1	Reporting :	16-Fe
								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 1	ER (With NR)	D/G		225	0.0	0.5	
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	337 190	0.0	8.7 0.9	-8.7 -0.9
3	7,001	GAYA-BALIA	S/C	0	349	0.0	5.8	-5.8
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5		PUSAULI B/B	S/C	0	198	0.0	4.6	-4.6
6	_	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	155 109	0.0	0.0	0.0
7 8		MUZAFFARPUR-GORAKHPUR	D/C	0	447	0.0	6.1	0.0 -6.1
9	400 kV		O/C	0	906	0.0	17.6	-17.6
10		BIHARSHARIFF-BALIA	D/C	0	328	0.0	6.4	-6.4
11		MOTIHARI-GORAKHPUR	D/C	0	0	0.0	5.4	-5.4
12		BIHARSHARIFF-VARANASI	D/C	0	142	0.0	1.9	-1.9
13	220 kV	PUSAULI-SAHUPURI	S/C	0	167	0.0	3.1	-3.1
14	_	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	0	0	0.4	0.0	0.4
16 17	-	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C S/C	0	0	0.0	0.0	0.0
	1		5/0		ER-NR	0.4	60.5	-60.2
	Export of 1	ER (With WR)						
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	12.3	0.0	12.3
19 20	+	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-RAIGARH	D/C O/C	0	449 0	7.2	3.6 0.0	-3.6 7.2
21	400 kV	RANCHI-SIPAT	D/C	0	78	1.1	0.0	1.1
22	220 1 7/	BUDHIPADAR-RAIGARH	S/C	0	139	0.0	2.0	-2.0
23	220 kV	BUDHIPADAR-KORBA	D/C	0	0	3.6	0.0	3.6
nort/I	Export of 1	ER (With SR)			ER-WR	24.2	5.6	18.6
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	0.0	0.0	21.6	-21.6
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	445.3	0.0	15.8	-15.8
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2331.5	0.0	50.2	-50.2
27	400 kV	TALCHER-I/C	D/C	0.0	126.9	7.2	0.8	6.3
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
nort/I	Export of	ER (With NER)			ER-SR	0.0	87.6	-87.6
29	T	BINAGURI-BONGAIGAON	D/C	0	239	2.3	0.0	2
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	0	228	3.9		4
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	0	0.0	0.5	0
					ER-NER	6.2	0.5	5.7
		NER (With NR)	1	101		40.7		10.7
32	HVDC	BISWANATH CHARIALI-AGRA	-	486	0	10.5	0.0	10.5
nont/I					MED ND		0.0	10.5
	Evport of '	WR (With NR)			NER-NR	10.5	0.0	10.5
	Export of '	WR (With NR)	D/C	0				
33 34	Export of '	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B	D/C D/C	0 250	1460	0.0	56.2 0.4	-56.2
33		CHAMPA-KURUKSHETRA	+	0 250 0			56.2	
33 34	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C	250	1460 50	0.0	56.2 0.4	-56.2 3.2
33 34 35 36 37		CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	250 0 0 477	1460 50 709 2618 1442	0.0 3.6 0.0 0.0 0.0	56.2 0.4 17.0 53.0 26.3	-56.2 3.2 -17.0 -53.0 -26.3
33 34 35 36 37 38	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI	D/C D/C D/C D/C S/C	250 0 0 477 226	1460 50 709 2618 1442 37	0.0 3.6 0.0 0.0 0.0 2.5	56.2 0.4 17.0 53.0 26.3 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5
33 34 35 36 37 38 39	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C S/C S/C	250 0 0 477 226 170	1460 50 709 2618 1442 37 208	0.0 3.6 0.0 0.0 0.0 2.5 0.3	56.2 0.4 17.0 53.0 26.3 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3
33 34 35 36 37 38 39 40	HVDC 765 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND	D/C D/C D/C D/C D/C S/C S/C S/C	250 0 0 477 226 170 954	1460 50 709 2618 1442 37 208 0	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7
33 34 35 36 37 38 39 40 41	HVDC 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL - MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C S/C S/C S/C S/C D/C	250 0 0 477 226 170 954 0	1460 50 709 2618 1442 37 208 0 425	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7	56.2 0.4 17.0 53.0 26.3 0.0 0.0 4	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7
33 34 35 36 37 38 39 40 41 42	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL - MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BADOD-KOTA	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	250 0 0 477 226 170 954 0 51	1460 50 709 2618 1442 37 208 0 425 15	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4
33 34 35 36 37 38 39 40 41	HVDC 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL - MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL - 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	250 0 0 477 226 170 954 0 51 31	1460 50 709 2618 1442 37 208 0 425	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6	56.2 0.4 17.0 53.0 26.3 0.0 0.0 4	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0
33 34 35 36 37 38 39 40 41 42 43	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	250 0 0 477 226 170 954 0 51	1460 50 709 2618 1442 37 208 0 425 15 57	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4
33 34 35 36 37 38 39 40 41 42 43 44	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	250 0 0 477 226 170 954 0 51 31 78	1460 50 709 2618 1442 37 208 0 425 15 57 0 0	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC 765 kV 400 kV 220 kV 132kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	250 0 0 477 226 170 954 0 51 31 78 80	1460 50 709 2618 1442 37 208 0 425 15 57 0	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5	56.2 0.4 17.0 53.0 26.3 0.0 0.0 4 0.0 0.3 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5
33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC 765 kV 400 kV 220 kV 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA 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	250 0 0 477 226 170 954 0 51 31 78 80	1460 50 709 2618 1442 37 208 0 425 15 57 0 0	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0 0.0 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5
33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC 765 kV 400 kV 220 kV 132kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	250 0 0 477 226 170 954 0 51 31 78 80 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9	56.2 0.4 17.0 53.0 26.3 0.0 0.0 4 0.0 0.3 0.0 0.0 0.0 156.8	-56.2 3.2 -17.0 -53.0 2.5 0.3 2.1.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'HVDC LINK	CHAMPA-KURUKSHETRA VCHAL B/B APL - MHG GWALIOR-AGRA PHAGI-GWALIOR 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	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	250 0 0 477 226 170 954 0 51 31 78 80 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0 0.0 0.0 156.8	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46 <b>Poort/I</b>	HVDC 765 kV 400 kV 220 kV 132kV Export of Y HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL - MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42	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	250 0 0 477 226 170 954 0 51 31 78 80 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR	0.0 3.6 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0 0.0 0.0 0.0 156.8	-56.2 3.2 -17.0 -53.0 -53.0 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'HVDC LINK	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42 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	250 0 0 477 226 170 954 0 51 31 78 80 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0 0.0 0.0 156.8	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'INK  765 kV  400 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B 176.42 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.3 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9 -22.1 0.0 -26.1 -43.7 6.1 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	HVDC  765 kV  400 kV  220 kV  132kV  Export of V HVDC LINK 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42 SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR  1000 0 1529 2174 24 0 0	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.0 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0 0.0	-56.2 3.2 -17.0 -53.0 -26.3 2.5 0.3 21.7 -4 0.6 0.0 0.0 -125.9 -22.1 0.0 -26.1 -43.7 6.1 0.0 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 46 47 48 49 50 51 52	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'INK  765 kV  400 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B 176.42 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR 1000 0 1529 2174 24 0 0 0	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	56.2 0.4 17.0 53.0 0.0 0.0 0.0 0.0 4 0.0 0.0 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-56.2 3.2 -17.0 -53.0 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9 -22.1 0.0 -26.1 -43.7 6.1 0.0 0.0 0.0 2.2
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'INK  765 kV  400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR 1000 0 1529 2174 24 0 0 0 WR-SR	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	56.2 0.4 17.0 53.0 26.3 0.0 0.0 0.0 4 0.0 0.0 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0 0.0	-56.2 3.2 -17.0 -53.0 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9 -22.1 0.0 -26.1 -43.7 6.1 0.0 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'INK  765 kV  400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR 1000 0 1529 2174 24 0 0 0 WR-SR	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	56.2 0.4 17.0 53.0 0.0 0.0 0.0 0.0 4 0.0 0.0 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-56.2 3.2 -17.0 -53.0 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9 -22.1 0.0 -26.1 -43.7 6.1 0.0 0.0 0.0 2.2
33 34 35 36 37 38 39 40 41 42 43 44 45 46 46 47 48 49 50 51 52 53	HVDC  765 kV  400 kV  220 kV  132kV  Export of 'INK  765 kV  400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR 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 176.42 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 S/C S	250 0 0 477 226 170 954 0 51 31 78 80 0 0 0 0 0 0 0 0 0 0 0 0 0	1460 50 709 2618 1442 37 208 0 425 15 57 0 0 WR-NR 1000 0 1529 2174 24 0 0 0 WR-SR	0.0 3.6 0.0 0.0 0.0 0.0 2.5 0.3 21.7 0 0.6 0.2 1.3 0.5 0.0 30.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	56.2 0.4 17.0 53.0 0.0 0.0 0.0 0.0 4 0.0 0.0 0.0 0.0 156.8  22.1 0.0 26.1 43.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-56.2 3.2 -17.0 -53.0 2.5 0.3 21.7 -4 0.6 0.0 1.3 0.5 0.0 -125.9 -22.1 0.0 -6.1 -43.7 6.1 0.0 0.0 2.2