

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: 9th Jan 2020

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. 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 08.01.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 08-जनवरी-2020 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 08th Jan 2020, is available at the NLDC website.

धन्यवाद,

Report for previous day Date of Reporting 9-Jan-20

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)	47439	46086	38755	17364	2365	152009
Peak Shortage (MW)	704	0	0	0	34	738
Energy Met (MU)	940	1102	965	342	41	3391
Hydro Gen (MU)	108	40	83	32	8	271
Wind Gen (MU)	7	41	35			83
Solar Gen (MU)*	23.92	20.10	77.10	1.26	0.03	122
Energy Shortage (MU)	12.3	0.0	0.0	0.0	0.7	13.0
Maximum Demand Met during the day (MW) & time	47323	52829	46290	16939	2431	159710
(from NLDC SCADA)	19:00	11:06	07:57	18:17	18:58	09:54

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	0.90	5.61	6.52	75.56	17.93

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	5748	0	112.6	57.4	-1.4	12	0.0
	Haryana	6531	0	120.2	74.9	0.1	202	0.0
	Rajasthan	12950	79	239.0	75.5	-0.8	430	0.0
	Delhi	4282	0	74.7	63.4	-0.2	324	0.0
NR	UP	14413	0	269.2	103.8	-2.4	620	0.0
	Uttarakhand	2153	0	40.1	23.5	-0.6	81	0.0
	HP	1608	0	27.9	23.3	-0.6	137	0.0
	J&K(UT) and Ladakh(UT)	2696	674	51.9	45.8	0.6	449	12.3
	Chandigarh	278	0	4.7	4.5	0.3	38	0.0
	Chhattisgarh	3597	0	74.2	20.4	-1.3	311	0.0
	Gujarat	15183	0	320.9	92.2	-0.5	747	0.0
	MP	12574	0	227.7	119.5	-3.4	834	0.0
WR	Maharashtra	21599	0	436.9	145.7	-1.9	494	0.0
WK	Goa	493	0	10.4	10.1	-0.3	37	0.0
	DD	326	0	7.3	6.8	0.5	61	0.0
	DNH	803	0	18.9	18.9	0.0	55	0.0
	Essar steel	298	0	5.9	6.3	-0.4	240	0.0
	Andhra Pradesh	7990	0	166.8	62.1	-0.8	245	0.0
	Telangana	10744	0	209.4	112.8	0.4	462	0.0
SR	Karnataka	11803	0	216.7	57.4	-0.5	569	0.0
JK.	Kerala	3335	0	66.7	55.0	1.2	185	0.0
	Tamil Nadu	14372	0	298.3	155.8	0.5	440	0.0
	Pondy	327	0	6.9	7.3	-0.4	27	0.0
	Bihar	4457	0	79.5	77.9	0.2	217	0.0
	DVC	3142	0	63.6	-29.2	-0.6	205	0.0
ER	Jharkhand	1333	0	25.6	16.7	-0.3	130	0.0
EN	Odisha	3533	0	64.6	3.1	0.3	210	0.0
	West Bengal	5533	0	106.8	26.5	-0.2	250	0.0
	Sikkim	149	0	2.1	2.0	0.2	57	0.0
	Arunachal Pradesh	114	2	2.1	1.9	0.2	23	0.0
	Assam	1312	16	22.0	19.2	0.3	99	0.2
	Manipur	201	2	2.6	3.1	-0.5	14	0.0
NER	Meghalaya	372	0	6.5	3.1	0.8	79	0.5
	Mizoram	100	0	1.8	1.4	0.1	26	0.0
	Nagaland	128	1	2.2	2.1	-0.2	22	0.0
	Tripura	217	0	3,9	2.5	0.8	62	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	4.5	-9.1	-10.1
Day peak (MW)	601.7	-562.1	-766.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	214.2	-259.8	126.2	-82.3	1.1	-0.5
Actual(MU)	211.3	-271.9	140.8	-80.5	3.3	2.9
O/D/U/D(MU)	-2.9	-12.2	14.6	1.8	2.1	3.4

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4093	14894	7482	2310	698	29478
State Sector	10096	16347	7860	5650	11	39965
Total	14189	31242	15342	7960	710	69442

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	522	1207	490	419	13	2651
Lignite	19	14	44	0	0	77
Hydro	108	40	83	32	8	271
Nuclear	29	28	40	0	0	97
Gas, Naptha & Diesel	23	36	18	0	21	99
RES (Wind, Solar, Biomass & Others)	59	69	161	1	0	289
Total	760	1394	835	452	43	3484

Share of RES in total generation (%)	7.71	4.95	19.23	0.29	0.07	8.31
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	25.74	9.80	33.93	7.46	18.59	18.86

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.038	
Based on State Max Demands	1.094	

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

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

		INTER-REGIONAL EXCHANGES Date of Reporting:						
								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)					(1120)	(110)
4	HVDC	ALIPURDUAR-AGRA	-	0	501	0.0	12.0	-12.0
5	-	PUSAULI B/B	S/C	0	297	0.0	7.7	-7.7
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	162 155	603 245	0.0	5.0 0.3	-5.0 -0.3
3	- 70011	GAYA-BALIA	S/C	0	548	0.0	8.2	-8.2
6		PUSAULI-VARANASI	S/C	0	275	0.0	6.0	-6.0
7		PUSAULI -ALLAHABAD	S/C	0	96	0.0	1.5	-1.5
8	1	MUZAFFARPUR-GORAKHPUR	D/C	165	490	0.0	2.3	-2.3
9	400 kV	PATNA-BALIA	Q/C	0	1105	0.0	16.2	-16.2
10		BIHARSHARIFF-BALIA	D/C	0	515	0.0	6.5	-6.5
11		MOTIHARI-GORAKHPUR	D/C	0	5	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	196	155	1.8	0.0	1.8
13	220 kV	PUSAULI-SAHUPURI	S/C	0	129	0.0	2.6	-2.6
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15		GARWAH-RIHAND	S/C	30	0	0.7	0.0	0.7
16	132 kV	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
					ER-NR	2.4	48.6	-46.2
Import/I	Export of	ER (With WR)						
18		JHARSUGUDA-DHARAMJAIGARH	Q/C	1657	0	20.6	0.0	20.6
	765 kV							
19 20	+	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	610 166	0 247	8.4 0.5	0.0	8.4 0.2
21	 	JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	Q/C	303	141	1.9	0.0	1.9
22	400 kV	RANCHI-SIPAT	D/C	251	0	3.5	0.0	3.5
23	1	BUDHIPADAR-RAIGARH	S/C	35	85	0.0	0.7	-0.7
24	220 kV	BUDHIPADAR-KORBA	D/C	226	0	3.8	0.0	3.8
	1				ER-WR	38.7	0.9	37.8
Import/I	Export of	ER (With SR)				L. L.		II.
26	T	JEYPORE-GAZUWAKA B/B	D/C	0.0	666.0	0.0	16.2	-16.2
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	2469.0	0.0	45.5	-45.5
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1804.0	0.0	32.6	-32.6
28	400 kV	TALCHER-I/C	D/C	999.0	1394.0	0.0	7.2	-7.2
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	· L				ER-SR	0.0	94.2	-94.2
Import/I	Export of	ER (With NER)						-
30	400 kV	BINAGURI-BONGAIGAON	D/C	0	333	0.0	4.8	-5
31	400 K 1	ALIPURDUAR-BONGAIGAON	D/C	226	111	1.2	0.0	1
32	220 kV	ALIPURDUAR-SALAKATI	D/C	10	57	0.0	0.6	-1
					ER-NER	1.2	5.4	-4.2
		NER (With NR)			1			1
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	0	0.0	0.0	0.0
					NER-NR	0.0	0.0	0.0
						0.0	0.0	
	Export of	WR (With NR)			1	1		
34	Î	CHAMPA-KURUKSHETRA	D/C	0	2229	0.0	44.9	-44.9
34 35	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	448	489	0.0	44.9	-44.9 0.5
34 35 36	Î	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C	448	489 1553	0.0 0.5 0.0	44.9 0.0 35.6	-44.9 0.5 -35.6
34 35 36 37	Î	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	0 0	489 1553 2176	0.0 0.5 0.0 0.0	44.9 0.0 35.6 36.4	-44.9 0.5 -35.6 -36.4
34 35 36 37 38	Î	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 0 0	489 1553 2176 1316	0.0 0.5 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9	-44.9 0.5 -35.6 -36.4 -14.9
34 35 36 37 38 39	Î	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C	0 0 0 0 0	489 1553 2176 1316 720	0.0 0.5 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2	-44.9 0.5 -35.6 -36.4 -14.9 -22.2
34 35 36 37 38 39 40	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	448 0 0 0 0 0 0	489 1553 2176 1316 720	0.0 0.5 0.0 0.0 0.0 0.0 0.0 9.6	44.9 0.0 35.6 36.4 14.9 22.2 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6
34 35 36 37 38 39 40 41	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C D/C S/C S/C	448 0 0 0 0 0 619 0	489 1553 2176 1316 720 0	0.0 0.5 0.0 0.0 0.0 0.0 0.0 9.6 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5
34 35 36 37 38 39 40 41 42	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C D/C S/C S/C D/C	448 0 0 0 0 0 619 0 357	489 1553 2176 1316 720 0 1329 511	0.0 0.5 0.0 0.0 0.0 0.0 0.0 9.6 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6
34 35 36 37 38 39 40 41 42 43	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C S/C	448 0 0 0 0 0 619 0 357 170	489 1553 2176 1316 720 0 1329 511 87	0.0 0.5 0.0 0.0 0.0 0.0 9.6 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5
34 35 36 37 38 39 40 41 42 43	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	448 0 0 0 0 619 0 357 170 109	489 1553 2176 1316 720 0 1329 511 87 354	0.0 0.5 0.0 0.0 0.0 0.0 9.6 0.0 0.0 1.5	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8
34 35 36 37 38 39 40 41 42 43 44 45	HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	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	448 0 0 0 0 619 0 357 170 109 978	489 1553 2176 1316 720 0 1329 511 87 354 0	0.0 0.5 0.0 0.0 0.0 0.0 9.6 0.0 0.0 1.5 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8
34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR	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	448 0 0 0 0 619 0 357 170 109 978 224	489 1553 2176 1316 720 0 1329 511 87 354 0 206	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	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	448 0 0 0 0 0 619 0 357 170 109 978 224 22	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63	0.0 0.5 0.0 0.0 0.0 0.0 9.6 0.0 0.0 1.5 0.0 22.8 1	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 619 0 357 170 109 978 224 22 40	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0 0.1	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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 D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0.1	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	HVDC - 765 kV - 400 kV - 220 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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	D/C D/C D/C D/C D/C D/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	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0 0.1 0.7 0.0 0.1	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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 D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0 1.8 0.0 0 0.1 0.7 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C D/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	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0 0.1 0.7 0.0 0.1	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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)	D/C 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	448 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 9.6 0.0 0.0 1.5 0.0 22.8 1 0.7 0.2 0.9 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0.1 0.7 0.0 0.1 0.0 185.7	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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	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	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0 0.1 0.7 0.0 0.1 0.0 185.7	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53	HVDC - 765 kV - 400 kV - 220 kV - 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0 0.1 0.7 0.0 0.1 0.0 185.7	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54	HVDC - 765 kV - 400 kV - 220 kV - 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG 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-WORAK 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0 1.8 0.0 0.1 0.7 0.0 0.1 0.0 185.7	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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	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 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	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0 1.8 0.0 0 0.1 0.7 0.0 0.1 0.0 185.7 22.3 0.0 30.2 37.2	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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 BHASUL-SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C 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 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	448 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0 0.1 0.7 0.0 0.1 0.0 185.7 22.3 0.0 30.2 37.2 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55 56	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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) BHASWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C 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	448 0 0 0 0 0 619 0 357 170 109 978 224 40 85 42 0 0 0 180 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0.1 0.7 0.0 0.1 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55 56 57 58	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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-WARAI 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 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 D/C S/C S/C D/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	448 0 0 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0 0 0 434 0 1	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0.1 0.7 0.0 0.1 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 (Import/F) 52 53 54 55 56 57	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG 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) BHASWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C 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	448 0 0 0 0 0 619 0 357 170 109 978 224 40 85 42 0 0 0 180 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0.1 0.7 0.0 0.1 0.7 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0 1.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55 56 57 58	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIANA MALANPUR-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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0 0 0 434 0 1 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 1.8 0.0 0.1 0.7 0.0 0.1 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55 56 57 58	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIANA MALANPUR-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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	448 0 0 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0 0 0 434 0 1	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0.1 0.7 0.0 0.1 0.7 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0 1.7
34 35 36 37 38 39 40 41 42 43 44 45 50 51 mmport/F 55 56 57 58 59	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WORAK 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 TBHUTAN	D/C 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 D/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	448 0 0 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0 0 0 434 0 1 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0.1 0.7 0.0 0.1 0.7 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0 1.7 -84.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55 56 57 58 59	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABAL-PUR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJAL-PUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIAYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C 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 D/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	448 0 0 0 0 0 0 0 619 0 357 170 109 978 224 22 40 85 42 0 0 0 434 0 1 0	489 1553 2176 1316 720 0 1329 511 87 354 0 206 63 82 14 24 0 WR-NR	0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	44.9 0.0 35.6 36.4 14.9 22.2 0.0 27.5 1.6 0.0 0.1 0.7 0.0 0.1 0.7 0.0 185.7 22.3 0.0 30.2 37.2 0.0 0.0 0.0 0.0 0.0	-44.9 0.5 -35.6 -36.4 -14.9 -22.2 9.6 -27.5 -1.6 1.5 -1.8 22.8 1 0.6 -0.5 0.9 0.1 0.0 -147.9 -22.3 0.0 -30.2 -37.2 3.4 0.0 0.0 1.7