

# 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: 22<sup>nd</sup> June 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. 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 21.06.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-जून-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 21st June 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 22-Jun-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)	59075	49106	41476	18614	2739	171010
Peak Shortage (MW)	2100	0	0	0	118	2218
Energy Met (MU)	1334	1160	993	454	53	3994
Hydro Gen (MU)	327	17	47	78	17	486
Wind Gen (MU)	12	67	159			238
Solar Gen (MU)*	27.09	21.30	65.59	2.08	0.03	116
Energy Shortage (MU)	11.3	0.0	0.0	0.0	0.8	12.2
Maximum Demand Met during the day	61444	51368	43100	21335	2738	175950
(MW) & time (from NLDC SCADA)	22:47	14:42	11:19	00:02	18:44	22:16

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	0.029	0.00	0.00	5.19	5.19	82.55	12.27

Region	States	Max. Demand Met during the	Shortage during maximum Demand (MW)	Energy Met (MU)	Drawal Schedule (MU)	OD(+)/UD(-) (MU)	Max OD (MW)	Energy Shortage (MU
	Punjab	day (MW) 11451	0	242.1	124.8	-0.9	114	0.0
	Harvana	8648	160	189.3	128.4	1.0	229	0.6
	Rajasthan	10708	0	228.2	65.0	0.1	729	0.0
	Delhi	5889	0	122.7	101.9	1.2	237	0.0
NR	UP	19175	720	425.1	195.6	2.2	606	0.0
	Uttarakhand	2063	0	45.8	17.5	1.6	161	0.0
	HP	1413	0	30.1	4.3	0.6	137	0.0
	J&K	2098	1049	45.4	20.1	0.4	241	10.7
	Chandigarh	277	0	5.5	6.3	-0.8	30	0.0
	Chhattisgarh	3704	0	85.9	27.3	-1.5	265	0.0
		15937	0	352.0	89.8	8.1	644	0.0
	Gujarat MP	8913	0	203.1	118.6	0.0	335	0.0
	Maharashtra	20951	0	474.3	130.0	0.8	698	0.0
WR		541	0	13.1	12.6	-0.1	74	0.0
	Goa DD	340	0	7.7	7.3	0.3	112	0.0
	DNH	777	0	18.2	18.5	-0.3	116	0.0
		308					288	
	Essar steel	308 9169	0	5.5	5.7	-0.2		0.0
	Andhra Pradesh		0	187.1	35.3	0.4	881	0.0
	Telangana	7262	0	156.8	42.5	-0.5	534	0.0
SR	Karnataka	11490	0	218.9	77.0	0.8	816	0.0
	Kerala	3434	0	71.0	56.0	1.6	345	0.0
	Tamil Nadu Pondy	15156 462	0	349.6 9.3	137.0 9.4	-0.5 -0.1	651 48	0.0
	Bihar	5371	0	109.2	102.9	2.1	200	0.0
	DVC	3371	0	63.2	-45.4	-0.3	410	0.0
	Jharkhand	999	0	22.8	18.8	-0.3	50	0.0
ER	Odisha	3792	0	82.2	33.3	-1.0	250	0.0
		8716			54.1	0.1	150	0.0
	West Bengal Sikkim	92	0	175.3 1.3	1.3	0.0	20	0.0
	Arunachal Pradesh	128	1	2.3	2.4	-0.1	40	0.0
		1742	110	33.2	27.8	-0.1 0.9	128	0.8
	Assam	1742	3	2.6	2.3	0.3	25	0.0
NER	Manipur	331	0	6.0	1.8	-0.1	53	0.0
INER	Meghalaya							
	Mizoram	81	1	1.7	1.4	0.3	8	0.0
	Nagaland	125	2	2.2	2.2	-0.2	39	0.0
	Tripura	277	0	5.4	4.5	-0.1	38	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	10.4	-10.9	-26.0
Day peak (MW)	729.3	-568.0	-1129.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	260.7	-249.0	16.0	-26.4	-0.8	0.5
Actual(MU)	267.5	-244.1	26.0	-44.4	-3.5	1.5
O/D/U/D(MU)	6.9	4.9	10.0	-18.0	-2.7	1.0

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5588	14609	6892	2625	190	29904
State Sector	5675	12791	6073	3100	50	27689
Total	11263	27400	12965	5725	239	57592
Total	11203	27400	12/03	3123	237	31372

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	605	1211	554	434	16	2820
Lignite	21	16	47	0	0	84
Hydro	327	17	47	78	17	486
Nuclear	27	30	55	0	0	112
Gas, Naptha & Diesel	52	46	14	0	29	141
RES (Wind, Solar, Biomass & Others)	53	94	266	2	0	415
Total	1085	1414	983	515	63	4059

Share of RES in total generation (%)	4.85	6.68	27.09	0.41	0.05	10.23
Share of Non-fossil fuel (Hydro, Nuclear and	27 52	10.00	37.40	15.65	27 27	24.98
RES) in total generation (%)	31.33	10.00	37.40	15.65	21.21	24.70

H. Diversity Factor
All India Demand Diversity Factor

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

		INT	ER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	22-Jun-19
								Import=(+ve) /Export =(-ve) for
Sl No	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)  NET  (MU)
Import/E	Export of	ER (With NR)						
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	150	829 281	0.0	10.8	-10.8 0.6
3	703K V	GAYA-BALIA	S/C	0	582	0.0	11.3	-11.3
4	HVDC	ALIPURDUAR-AGRA	-	0	401	0.0	9.6	-9.6
5	HVDC	PUSAULI B/B	S/C	2	398	0.0	9.3	-9.3
6		PUSAULI-VARANASI	S/C	0	294	0.0	6.1	-6.1
7		PUSAULI -ALLAHABAD	S/C	34	167	0.0	3.0	-3.0
8	400 1-37	MUZAFFARPUR-GORAKHPUR	D/C	0	1041	0.0	15.0	-15.0
9	400 kV	PATNA-BALIA	Q/C D/C	0	1014 343	0.0	19.5 7.1	-19.5 -7.1
11		BIHARSHARIFF-BALIA MOTIHARI-GORAKHPUR	D/C D/C	280	0	4.7	0.0	4.7
12	1	BIHARSHARIFF-VARANASI	D/C	99	234	0.0	0.5	-0.5
13	220 kV	PUSAULI-SAHUPURI	S/C	0	201	0.0	3.4	-3.4
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	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	5.7	95.6	-89.9
Import/E	export of	ER (With WR)			1 1			
18	l _	JHARSUGUDA-DHARAMJAIGARH	Q/C	1309	0	23.1	0.0	23.1
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	1214	0	17.3	0.0	17.3
20		JHARSUGUDA-DURG	D/C	436	0	6.3	0.0	6.3
21	400 kV	JHARSUGUDA-RAIGARH	Q/C	593	0	11.0	0.0	11.0
22		RANCHI-SIPAT	D/C	431	0	6.6	0.0	6.6
23	220 kV	BUDHIPADAR-RAIGARH	S/C	12	67	0.0	0.6	-0.6
24		BUDHIPADAR-KORBA	D/C	190	0 ER-WR	3.3	0.0	3.3
Import/E	evnort of	ER (With SR)			EK-WK	67.8	0.6	67.1
25	765 kV	ANGUL-SRIKAKULAM	D/C	296.0	1070.0	0.0	9.8	-9.8
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	456.0	0.0	9.7	-9.7
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1582.0	0.0	29.7	-29.7
28	400 kV	TALCHER-I/C	D/C	172.0	814.0	0.0	3.5	-3.5
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
					ER-SR	0.0	49.2	-49.2
Import/E	Export of	ER (With NER)						
30	400 kV	BINAGURI-BONGAIGAON	D/C	0	423	0.0	5.6	-6
30 31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	141	222	0.0	0.8	-1
30	400 kV 220 kV				222 70	0.0	0.8	-1 -1
30 31 32	220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C	141	222	0.0	0.8	-1
30 31 32 Import/F	220 kV Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C D/C	141	222 70 <b>ER-NER</b>	0.0 0.0 <b>0.0</b>	0.8 0.6 <b>7.0</b>	-1 -1 -7.0
30 31 32	220 kV Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C	141	222 70 ER-NER	0.0 0.0 <b>0.0</b>	0.8 0.6 <b>7.0</b>	-1 -1 -7.0
30 31 32 Import/F	220 kV Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C D/C	141	222 70 <b>ER-NER</b>	0.0 0.0 <b>0.0</b>	0.8 0.6 <b>7.0</b>	-1 -1 -7.0
30 31 32 Import/F	220 kV Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA	D/C D/C	141	222 70 ER-NER	0.0 0.0 <b>0.0</b>	0.8 0.6 <b>7.0</b>	-1 -1 -7.0
30 31 32 Import/E 33	220 kV Export of HVDC Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR)	D/C D/C	141 4	222 70 ER-NER 503 NER-NR	0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5	-1 -1 -7.0 -11.5 -11.5
30 31 32 Import/E 33 Import/E 34	220 kV Export of HVDC Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA	D/C D/C - D/C	0	222 70 ER-NER 503 NER-NR	0.0 0.0 0.0 0.0 0.0	0.8 0.6 <b>7.0</b> 11.5 <b>11.5</b> 47.7	-1 -1 -7.0 -11.5 -11.5 -47.7
30 31 32 Import/F 33 Import/F 34 35	220 kV Export of HVDC Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B	D/C D/C D/C D/C	141 4 0 0 452	222 70 ER-NER 503 NER-NR 2005	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0	-1 -1 -1 -7.0 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1
30 31 32 Import/E 33 Import/F 34 35 36 37 38	220 kV Export of HVDC Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C  D/C  D/C  D/C  D/C  D/C  D/C	141 4 0 0 452 0 0 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0	-1 -1 -1 -7.0 -11.5 -11.5 -12.2 -36.3 -51.1 -23.0
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39	220 kV Export of HVDC Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C	0 0 0 452 0 0 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C  D/C  D/C  D/C  D/C  D/C  D/C	0 0 452 0 0 0 0 0 0 505	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0	-1 -1 -1 -1 -1.5 -11.5 -11.5 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C	141 4 0 0 452 0 0 0 0 0 505 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1	-1 -1 -1 -1 -1.5 -11.5 -11.5 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL 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 D/C D/C D/C S/C S/C D/C	0 0 452 0 0 0 0 0 0 505 0 332	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C	0 0 452 0 0 0 0 0 505 0 332	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0	-1 -1 -1 -1 -7.0 -11.5 -11.5 -11.5 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41 42 43	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C	0 0 452 0 0 0 0 0 505 0 332 144 259	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 1.5 1.8 2.6	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0	-1 -1 -7.0 -11.5 -11.5 -17.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41 42 43 44 45	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	D/C 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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0 0.0	-1 -1 -7.0 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 7.7 -23.1 1.5 1.8 2.6 22.4
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	D/C	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0 0.0 36.3	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 7.7 -23.1 1.5 1.8 2.6 22.4 -3
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41 42 43 44 45 46 47	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B'B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-SHIIMMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	D/C 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	141 4 0 0 452 0 0 0 0 0 505 0 332 144 259 968 0 38	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0 0.0 36.3	-1 -10 -10 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	220 kV Export of HVDC Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B'B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	D/C 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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 36.3 1.1	-1 -10 -10 -11.5 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	220 kV Export of HVDC Export of HVDC - 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG 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	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	141 4 0 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0 0.4	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0 0.0 36.3 1.1 0.0	-1 -10 -10 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1 0.4
30 31 32 Import/F 33 Import/F 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	220 kV Export of HVDC Export of HVDC - 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B'B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	D/C 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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 36.3 1.1	-1 -10 -10 -11.5 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	220 kV Export of HVDC Export of HVDC  400 kV  220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	220 kV Export of HVDC Export of HVDC  - 765 kV  - 400 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0 0.0	0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  220 kV  132kV  Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18	0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 1.5 1.8 2.6 22.4 0 0.1 0.0 0.0	0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E	220 kV Export of HVDC Export of HVDC  - 765 kV  - 400 kV  - 132kV  Export of	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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 GWALIOR-SAWAI MADHOPUR  WR (With SR)	D/C 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	141 4 0 0 452 0 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 23.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1 0.4 0.2 0.0 -178.0 -15.9 0.0
30 31 32 Import/E 33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	220 kV Export of HVDC Export of HVDC  400 kV  220 kV  132kV  Export of HVDC  LINK	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG 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 BARSUR-L.SILERU SOLAPUR-RAICHUR	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	141 4 0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1 0.4 0.2 0.0 -178.0
30 31 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  220 kV  132kV  Export of HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHASBUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C 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	141 4 0 0 452 0 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 0.0 0.0	-1 -1 -7.0 -11.5 -11.5 -11.5 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0 -178.0 -15.9 -0.0 -7.9 -4.8
30 31 32 Import/F 33 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	220 kV Export of HVDC Export of HVDC  400 kV  220 kV  132kV  Export of HVDC  LINK	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C	141 4 0 0 452 0 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 0.0 0.0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -8 -9.2 -1.1 -0.4 -0.2 -0.0 -178.0 -15.9 -0.0 -7.9 -4.8 -15.4
30 31 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C	0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 1.1 0.0 0.0 0.0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -1.1 -0.4 -0.2 -1.1 -0.4 -0.2 -1.1 -1.5 -1.5 -1.5 -1.8 -1.1 -2.0 -1.1 -2.1 -2.1 -2.1 -2.1 -2.1 -2.1 -2.1
30 31 32  Import/E 33  Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55 56 57 58	220 kV Export of HVDC Export of HVDC  765 kV  220 kV  132kV Export of HVDC  LINK  765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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 SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C 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	141 4 0 0 0 452 0 0 0 0 505 0 332 144 259 968 0 0 38 0 41 46 0 0 0 1388 958 1093 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0 75	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 1.1 1.5 11.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -1.1 -0.4 -0.2 -1.1 -1.5 -1.5 -1.8 -1.1 -2.0 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1
30 31 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C	0 0 452 0 0 0 0 505 0 332 144 259 968 0 38 0 41 46 0	222 70 ER-NER 503 NER-NR 2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 38 71 0 18 0 WR-NR 995 0 746 1289 0 0 0 75 42	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 1.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0 -178.0 -15.9 -0.0 -7.9 -4.8 -15.4 -0.0 -1.4 -0.8
30 31 32  Import/E 33  Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55 56 57 58	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-RAPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  WR (With SR) BHARDARWATI 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 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	141 4 0 0 0 452 0 0 0 0 505 0 0 332 144 259 968 0 0 38 0 41 46 0 0 0 1388 958 1093 0 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0 75 42 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 1.1 1.5 11.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -1.1 -0.4 -0.2 -1.1 -1.5 -1.5 -1.8 -1.1 -2.0 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1
30 31 32  Import/E 33  Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55 56 57 58	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-WANDUR BHANPURA-WANDUR 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 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	141 4 0 0 0 452 0 0 0 0 505 0 332 144 259 968 0 0 38 0 41 46 0 0 0 1388 958 1093 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0 75 42 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 1.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0 -178.0 -15.9 -0.0 -7.9 -4.8 -15.4 -0.0 -1.4 -0.8 -1.9
30 31 32  Import/F 33  Import/F 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 58 59	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-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 WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI TI BHUTAN	D/C 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	141 4 0 0 0 452 0 0 0 0 505 0 0 332 144 259 968 0 0 38 0 41 46 0 0 0 1388 958 1093 0 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0 75 42 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 1.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 1.5 1.8 2.6 22.4 -3 -0.2 -1.1 0.4 0.2 0.0 -178.0 -15.9 0.0 7.9 -4.8 15.4 0.0 -1.4 0.8 1.9
30 31 32  Import/E 33  Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55 56 57 58 59	220 kV Export of HVDC Export of HVDC  765 kV  400 kV  132kV  Export of HVDC  LINK 765 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI  NER (With NR) BISWANATH CHARIALI-AGRA  WR (With NR) 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-WANDUR BHANPURA-WANDUR 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 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	141 4 0 0 0 452 0 0 0 0 505 0 0 332 144 259 968 0 0 38 0 41 46 0 0 0 1388 958 1093 0 0 0	222 70 ER-NER  503 NER-NR  2005 0 1453 2623 1303 1117 11 1407 200 13 20 0 320 0 320 38 71 0 18 0 WR-NR  995 0 746 1289 0 0 0 75 42 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.6 7.0 11.5 11.5 11.5 47.7 0.0 36.3 51.1 23.0 41.7 0.0 0.0 0.0 0.0 0.0 0.0 1.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1 -1 -7.0 -11.5 -11.5 -11.5 -47.7 -12.2 -36.3 -51.1 -23.0 -41.7 -7.7 -23.1 -1.5 -1.8 -2.6 -22.4 -3 -0.2 -1.1 -0.4 -0.2 -0.0 -178.0 -15.9 -0.0 -7.9 -4.8 -15.4 -0.0 -1.4 -0.8 -1.9