

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: 14th Jan 2018

To,

- 1. 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 13.01.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 13-जनवरी - 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 13th January 2018, is available at the NLDC website.

धन्यवाद,

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

Report for previous day 14-Jan-18

A. Maximum Demand

11. Maximum Demana				_		
	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak	43641	45115	39275	18472	2383	148887
hrs(MW) (at 1900 hrs; from RLDCs)	43041	4 3113	37213	10472	2303	140007
Peak Shortage (MW)	550	11	0	0	37	599
Energy Met (MU)	934	1073	923	361	43	3334
Hydro Gen(MU)	105	29	60	28	9	231
Wind Gen(MU)	2	24	32			57
Solar Gen (MU)*	2.99	12.33	40.70	0.57	0.01	57
Energy Shortage (MU)	12.9	0.0	0.8	0.0	0.5	14.2
Maximum Demand Met during the day	46402	50022	42522	10005	2271	155570
(MW) (from NLDC SCADA)	46402	50923	42532	18895	2371	155578

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	0.041	0.00	0.01	10.86	10.87	78.07	11.06

Power Supply Pos	nion in States	Max. Demand	Shortage during			OD() 777()	14 05	
RegionRegion	States	Met during the	maximum	Energy Met (MU)	Drawal	OD (+)/ UD (-)	Max OD	Energy Shortage (MU)
88	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	day (MW)	Demand (MW)		Schedule (MU)	(MU)	(MW)	
	Punjab	5525	0	102.5	20.6	0.1	205	0.0
	Haryana	6758	0	126.4	67.9	1.5	313	0.0
	Rajasthan	11327	0	213.0	74.7	3.4	507	0.7
	Delhi	3926	0	63.5	49.3	-1.7	214	0.0
NR	UP	14316	0	310.6	105.6	1.0	692	1.0
	Uttarakhand	2070	0	38.9	29.2	-0.6	143	0.0
	HP	1594	0	27.8	22.6	1.0	205	0.0
	J&K	2210	552	47.4	44.1	-0.5	80	11.2
	Chandigarh	218	0	3.5	3.8	-0.3	13	0.0
	Chhattisgarh	3299	0	78.1	3.8	-1.5	64	0.0
	Gujarat	14481	0	303.8	95.9	-0.3	476	0.0
	MP	12059	0	225.7	133.9	-0.9	401	0.0
W/D	Maharashtra	20749	0	420.8	132.8	2.2	381	0.0
WR	Goa	469	0	10.1	8.8	0.7	61	0.0
	DD	333	0	7.5	6.7	0.7	67	0.0
	DNH	731	0	17.2	16.4	0.8	16	0.0
	Essar steel	468	0	9.7	9.9	-0.2	529	0.0
	Andhra Pradesh	8558	0	170.0	52.9	2.7	529	0.1
	Telangana	9135	0	183.6	74.5	3.7	748	0.1
SR	Karnataka	9865	0	210.0	84.3	1.5	413	0.2
JI.	Kerala	3494	0	68.8	54.6	0.7	212	0.1
	Tamil Nadu	13757	0	284.2	150.4	4.2	544	0.3
	Pondy	326	0	6.7	7.3	-0.5	33	0.0
	Bihar	3973	0	74.0	71.8	-2.6	10	0.0
	DVC	3041	0	70.5	-43.8	-1.2	240	0.0
ER	Jharkhand	1111	0	22.8	13.5	0.4	110	0.0
LIN	Odisha	4335	0	79.8	38.0	3.0	405	0.0
	West Bengal	6661	0	112.7	18.0	0.9	185	0.0
	Sikkim	105	0	1.6	1.8	-0.2	4	0.0
	Arunachal Pradesh	116	4	2.3	1.8	0.4	39	0.0
	Assam	1423	31	23.9	19.4	1.7	135	0.4
	Manipur	190	1	2.6	2.8	-0.2	25	0.0
NER	Meghalaya	308	1	6.4	3.6	-0.2	45	0.0
	Mizoram	97	2	1.8	1.1	0.0	22	0.0
	Nagaland	136	2	2.2	1.9	0.2	38	0.0
	Tripura	221	5	3.5	1.6	0.1	55	0.1

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	2.8	-7.8	-8.9
Day peak (MW)	167.0	-441.9	-619.5

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	180.9	-223.2	104.4	-73.1	4.5	-6.6
Actual(MU)	175.2	-229.9	108.4	-65.9	5.0	-7.2
O/D/U/D(MU)	-5.7	-6.6	4.0	7.2	0.5	-0.7

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3884	13126	7622	1720	155	26506
State Sector	9590	16050	6110	5875	50	37675
Total	13474	29176	13732	7595	204	64181

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	591	1194	562	423	8	2777
Hydro	105	27	60	28	9	229
Nuclear	29	24	67	0	0	120
Gas, Naptha & Diesel	30	44	18	0	24	116
RES (Wind, Solar, Biomass & Others)	29	37	115	2	0	182
Total	784	1326	821	453	41	3425

						Date of I	Reporting	: 14-Jan-
								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)
nport/E	export of	ER (With NR)	D/C		272	0.0		
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	273 71	0.0 2.1	5.4	-5.4 2.1
3	705KV	GAYA-BALIA	S/C	0	338	0.0	6.4	-6.4
4	HVDC	ALIPURDUAR-AGRA	-	0	89	0.0	2.5	-2.5
5	22,23	PUSAULI B/B	S/C	0	247	0.0	6.1	-6.1
6 7		PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	214 97	0.0	0.0	0.0
8		MUZAFFARPUR-GORAKHPUR	D/C	0	390	0.0	2.3	-2.3
9	400 kV	PATNA-BALIA	Q/C	0	862	0.0	12.1	-12.1
10		BIHARSHARIFF-BALIA	D/C	0	250	0.0	2.5	-2.5
11		MOTIHARI-GORAKHPUR	D/C	0	0	0.0	7.0	-7.0
12		BIHARSHARIFF-VARANASI	D/C	0	376	1.3	0.0	1.3
13	220 kV	PUSAULI-SAHUPURI	S/C	0	0	0.0	0.0	0.0
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	S/C	0	0	0.5	0.0	0.5
16 17	-	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C S/C	0	0	0.0	0.0	0.0
1 /	<u> </u>	IN MAINTANA CHAMDAULI	S/C	<u> </u>	ER-NR	3.9	44.3	-40.4
port/E	Export of	ER (With WR)			LATIN	0.0	- 1.0	1 101-1
18		JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	3.9	0.0	3.9
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C D/C	0	230	2.7	0.0	2.7
20		JHARSUGUDA-RAIGARH	Q/C	0	0	14.0	0.0	14.0
21	400 kV	RANCHI-SIPAT	D/C	0	0	4.1	0.0	4.1
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	213	0.0	2.0	-2.0
23	220 K V	BUDHIPADAR-KORBA	D/C	0	0	2.1	0.0	2.1
					ER-WR	26.8	2.0	24.8
-	1 -	ER (With SR)	D /G	0.0		0.0	10.0	10.0
24 25	765 kV	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	0.0	0.0 383.9	0.0	18.0	-18.0 -15.4
26	HVDC LINK	TALCHER-KOLAR BIPOLE	D/C D/C	0.0	2279.0	0.0	48.5	-13.4
27		TALCHER-I/C	D/C	0.0	1124.7	0.0	13.1	-13.1
28		BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
			l		ER-SR	0.0	81.8	-81.8
nport/E	Export of	ER (With NER)						
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	1219	0.0	6.5	-6
30		ALIPURDUAR-BONGAIGAON	D/C	0	1002	0.0	4.5	-4
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	0	0.0	1.7	-2
mont/E	'wnont of	NED (With ND)			ER-NER	0.0	12.7	-12.7
_	xport of	NER (With NR) BISWANATH CHARIALI-AGRA		0	500	0.0	8.1	-8.1
37	HVDC			I U		0.0	0.1	
32	HVDC	Dis Will Willi Gill Hell El Meller	-	_	L	0.0	8.1	-8.1
			<u> </u>	<u> </u>	NER-NR	0.0	8.1	-8.1
		WR (With NR) CHAMPA-KURUKSHETRA	D/C	0	L	0.0	48.8	-48.8
nport/E	Export of	WR (With NR)		0 50	NER-NR			
port/E 33	Export of	WR (With NR) CHAMPA-KURUKSHETRA	D/C		NER-NR 1433	0.0	48.8	-48.8
33 34 35 36	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C D/C	50 0 0	NER-NR 1433 250 1412 2672	0.0 0.2 0.0 0.0	48.8 4.5 32.9 49.9	-48.8 -4.2 -32.9 -49.9
33 34 35 36 37	Export of	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	50 0 0 486	NER-NR 1433 250 1412 2672 0	0.0 0.2 0.0 0.0 0.0	48.8 4.5 32.9 49.9 21.6	-48.8 -4.2 -32.9 -49.9 -21.6
33 34 35 36 37 38	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C	50 0 0 486 154	NER-NR 1433 250 1412 2672 0 38	0.0 0.2 0.0 0.0 0.0 1.7	48.8 4.5 32.9 49.9 21.6 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7
33 34 35 36 37 38 39	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C C D/C S/C S/C	50 0 0 486 154 84	NER-NR 1433 250 1412 2672 0 38 218	0.0 0.2 0.0 0.0 0.0 1.7 0.0	48.8 4.5 32.9 49.9 21.6 0.0 1.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0
33 34 35 36 37 38 39 40	HVDC 765 kV	WR (With NR) 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 C D/C S/C S/C S/C	50 0 0 486 154 84 478	NER-NR 1433 250 1412 2672 0 38 218 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5
33 34 35 36 37 38 39 40 41	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C S/C S/C S/C D/C	50 0 0 486 154 84 478	NER-NR 1433 250 1412 2672 0 38 218 0 1544	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2
33 34 35 36 37 38 39 40	HVDC 765 kV	WR (With NR) 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 C D/C S/C S/C S/C	50 0 0 486 154 84 478 0 102	NER-NR 1433 250 1412 2672 0 38 218 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4
33 34 35 36 37 38 39 40 41 42	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	50 0 0 486 154 84 478	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2
33 34 35 36 37 38 39 40 41 42 43	HVDC 765 kV	WR (With NR) 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	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	50 0 0 486 154 84 478 0 102 52	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3
33 34 35 36 37 38 39 40 41 42 43 44	HVDC 765 kV	WR (With NR) 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	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	50 0 0 486 154 84 478 0 102 52 94	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8
33 34 35 36 37 38 39 40 41 42 43 44 45	HVDC 765 kV 400 kV	WR (With NR) 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	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	50 0 0 486 154 84 478 0 102 52 94 50	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8
33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC 765 kV 400 kV 220 kV 220 kV	WR (With NR) 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	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 0.0 160.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1
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	WR (With NR) 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 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	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 0.0 160.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1
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	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1
33 34 35 36 37 38 39 40 41 42 43 44 45 46 nport/E 47 48	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 inport/E 47 48 49 50	Aport of HVDC 765 kV 400 kV 220 kV 220 kV Aport of HVDC LINK 765 kV	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 40.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46 nport/E 47 48 49 50 51	Aport of HVDC 765 kV 400 kV 220 kV 220 kV Aport of HVDC LINK 765 kV	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD 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	50 0 0 486 154 84 478 0 102 52 94 50 0 0 0 0 494	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536 116	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 0.0 0.0 0.0 0.0	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 40.9 0.4	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9 4.2
33 34 35 36 37 38 39 40 41 42 43 44 45 46 inport/E 47 48 49 50	Aport of HVDC 765 kV 400 kV 220 kV Aport of HVDC LINK 765 kV 400 kV	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 0.0 0.0 0.0 0.0	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 40.9	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9
33 34 35 36 37 38 39 40 41 42 43 44 45 46 nport/E 47 48 49 50 51 52	Aport of HVDC 765 kV 400 kV 220 kV Aport of HVDC LINK 765 kV 400 kV	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	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	50 0 0 486 154 84 478 0 102 52 94 50 0 0 0 0 0 494 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536 116 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 0.0 0.0 0.0 0.0	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 40.9 0.4 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9 4.2 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	Aport of HVDC 765 kV 400 kV 220 kV Aport of HVDC LINK 765 kV 400 kV	WR (With NR) 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 WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0 0 0 0 494 0 0	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536 116 0 0	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 40.9 0.4 0.0 0.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9 4.2 0.0 0.0 1.5
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	Aport of HVDC 765 kV 400 kV 220 kV Aport of HVDC LINK 765 kV 400 kV	WR (With NR) 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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0 0 0 0 0 494 0 0 73	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536 116 0 0 0 WR-SR	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 0.0 16.0 40.9 0.4 0.0 0.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9 4.2 0.0 0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/E 47 48 49 50 51 52 53	Aport of HVDC 765 kV 400 kV 220 kV Aport of HVDC LINK 765 kV 400 kV	WR (With NR) 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 BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 486 154 84 478 0 102 52 94 50 0 0 0 0 0 494 0 0 73	NER-NR 1433 250 1412 2672 0 38 218 0 1544 0 16 0 0 WR-NR 1000 0 1419 2536 116 0 0 0 WR-SR	0.0 0.2 0.0 0.0 0.0 1.7 0.0 22.5 0 1.4 0.4 1.8 0.8 0.0 28.8 0.0 28.8	48.8 4.5 32.9 49.9 21.6 0.0 1.0 0.0 2 0.0 0.1 0.0 0.0 160.9 20.0 0.0 16.0 40.9 0.4 0.0 0.0 0.0	-48.8 -4.2 -32.9 -49.9 -21.6 1.7 -1.0 22.5 -2 1.4 0.3 1.8 0.8 0.0 -132.1 -20.0 0.0 -16.0 -40.9 4.2 0.0 0.0 1.5