

National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

POWER SYSTEM OPERATION CORPORATION LIMITED पाँवर 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: 22nd Sept 2018

То

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. कार्यकारी निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
- 3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई -400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong 793006, Meghalaya
- 5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 21.09.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-सितंबर-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 21st September 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** 22-Sep-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	52743	48924	41342	17515	2676	163200
Peak Shortage (MW)	506	0	35	250	160	951
Energy Met (MU)	1207	1201	922	370	51	3750
Hydro Gen (MU)	239	27	92	115	24	497
Wind Gen (MU)	15	64	155			234
Solar Gen (MU)*	19.31	16.8	39.62	0.78	0.00	77
Energy Shortage (MU)	10.3	0.0	0.0	0.8	1.6	12.6
Maximum Demand Met during the day	54666	54470	41061	18478	2786	164877
(MW) & time (from NLDC SCADA)	00:51	02:41	18:59	20:28	18:05	19:25

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	0.022	0.00	0.00	2.22	2.22	86.33	11.45

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
NR	Punjab	10066	0	238.2	108.6	-1.2	50	0.0
	Haryana	8352	0	181.5	126.7	0.5	218	0.0
	Rajasthan	10554	0	230.1	60.4	1.5	507	0.0
	Delhi	4976	0	104.2	77.0	-1.1	254	0.1
	UP	16646	0	333.9	149.1	-0.9	191	0.0
	Uttarakhand	1996	0	40.7	20.4	0.9	254	0.0
	HP	1439	0	30.0	8.8	0.8	236	0.0
	J&K	2075	519	42.8	33.5	-6.0	-26	10.2
	Chandigarh	254	0	5.2	5.3	-0.1	23	0.0
	Chhattisgarh	3703	0	75.3	19.4	-4.3	438	0.0
	Gujarat	18221	0	403.2	110.7	5.6	585	0.0
	MP	9355	0	199.5	93.3	-0.7	613	0.0
WR	Maharashtra	22399	0	474.0	150.7	0.1	2062	0.0
WK	Goa	460	0	12.6	9.9	-0.3	67	0.0
	DD	330	0	7.5	6.0	1.5	106	0.0
	DNH	781	0	18.3	17.1	1.2	164	0.0
	Essar steel	488	0	10.7	10.7	0.0	235	0.0
	Andhra Pradesh	6969	0	153.3	12.3	0.9	498	0.0
	Telangana	8411	0	182.5	86.6	0.2	495	0.0
SR	Karnataka	9678	0	199.2	29.6	0.5	489	0.0
3N	Kerala	3396	0	68.8	41.9	1.6	256	0.0
	Tamil Nadu	14406	0	310.6	103.0	0.9	491	0.0
	Pondy	342	0	7.5	7.4	0.1	51	0.0
	Bihar	3973	0	65.8	69.3	-3.8	400	0.0
	DVC	2917	1	60.7	-23.5	6.9	375	0.8
ER	Jharkhand	972	0	19.1	14.4	-1.2	40	0.0
EN	Odisha	4490	0	90.0	18.3	2.3	350	0.0
	West Bengal	7201	0	133.6	45.9	0.5	50	0.0
	Sikkim	97	0	1.2	1.0	0.2	10	0.0
	Arunachal Pradesh	125	3	2.4	2.6	-0.2	42	0.0
	Assam	1752	114	32.8	26.7	1.0	206	1.4
	Manipur	183	3	2.3	2.3	0.1	54	0.0
NER	Meghalaya	280	0	4.9	0.3	0.2	88	0.0
	Mizoram	75	3	1.4	1.1	0.0	16	0.0
	Nagaland	123	2	2.3	1.8	0.2	37	0.0
	Tripura	270	5	4.5	4.1	-0.4	150	0.1

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	30.1	-3.4	-21.9
Day peak (MW)	1368.6	-210.0	-989.2

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	248.2	-188.5	-5.3	-56.9	3.4	0.9
Actual(MU)	232.1	-188.5	-5.6	-53.3	3.0	-12.3
O/D/U/D(MU)	-16.1	0.0	-0.3	3.6	-0.4	-13.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	2739	16197	7492	6305	439	33172
State Sector	6880	13546	7100	6305	50	33881
Total	9619	29743	14592	12610	489	67053

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	643	1214	565	333	4	2758
Hydro	239	27	92	115	24	497
Nuclear	23	27	19	0	0	70
Gas, Naptha & Diesel	38	49	23	0	22	133
RES (Wind, Solar, Biomass & Others)	53	81	238	1	0	373
Total	996	1397	937	449	50	3829
<u> </u>				-		

Share of RES in total generation (%)	5.34	5.78	25.39	0.18	0.04	9.73
Share of Non-fossil fuel (Hydro, Nuclear and	31.66	0.64	27.22	25.92	48.11	24.52
RES) in total generation (%)	31.00	9.64	31.23	25.02	40.11	24.52

H. Diversity Factor
All India Demand Diversity Factor
1.040
Diversity factor = Sum of regional maximum demands / All India maximum demand

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

						Date of I	Reporting :	22-Sep-
								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	62	431	0.0	4.3	-4.3
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	S/C	314	0	4.3	0.0	4.3
3		GAYA-BALIA	S/C	0	333	0.0	5.0	-5.0
4	HVDC	ALIPURDUAR-AGRA	-	0	1501	0.0	34.1	-34.1
5		PUSAULI B/B	S/C	0	398	0.0	9.6	-9.6
7	_	PUSAULI-VARANASI	S/C S/C	0	295 170	0.0	6.2 3.2	-6.2 -3.2
8	_	PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	D/C	0	591	0.0	7.5	-7.5
9	400 kV	PATNA-BALIA	Q/C	0	693	0.0	10.7	-10.7
10	_	BIHARSHARIFF-BALIA	D/C	52	177	0.0	1.8	-1.8
11		MOTIHARI-GORAKHPUR	D/C	257	2	3.0	0.0	3.0
12		BIHARSHARIFF-VARANASI	D/C	226	43	1.5	0.0	1.5
13	220 kV	PUSAULI-SAHUPURI	S/C	0	166	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	35	0	0.2	0.0	0.2
16	4	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 9.0	0.0 85.5	0.0 -76.5
port/E	Export of	ER (With WR)	1		ER-IX	7.0	65.5	-/0.5
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	947	0	13.8	0.0	13.8
19	, 03 K V	NEW RANCHI-DHARAMJAIGARH	D/C	991	0	11.5	0.0	11.5
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	943	0	12.3	0.0	12.3
21	.00 R V	RANCHI-SIPAT	D/C	564	0	8.3	0.0	8.3
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	2	0.0	0.0	0.0
23		BUDHIPADAR-KORBA	D/C	259	4 ER-WR	2.8 48.6	0.0	2.8 48.6
iport/E	Export of	ER (With SR)				40.0	0.0	40.0
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1413.0	0.0	18.9	-18.9
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	490.0	0.0	11.3	-11.3
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	903.0	0.0	13.9	-13.9
27	400 kV	TALCHER-I/C	D/C	0.0	341.0	15.7	0.0	15.7
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0	0.0 44.1	0.0 -44.1
iport/F	Export of	ER (With NER)			ZII SII	0.0	44.1	-44.1
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	857	0.0	15.1	-15
30	400 K V	ALIPURDUAR-BONGAIGAON	D/C	155	317	0.0	0.5	0
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	165	0.0	2.4	-2
		NER (With NR)			ER-NER	0.0	18.0	-18.0
		MER (William)						
		BISWANATH CHARIAI I-AGRA	_	0	702	0.0	17.1	-17 1
32		BISWANATH CHARIALI-AGRA	-	0	702 NER-NR	0.0	17.1 17.1	-17.1 -17.1
32	HVDC	BISWANATH CHARIALI-AGRA WR (With NR)	-	0				1
32	HVDC		D/C	0				1
32	HVDC	WR (With NR)	D/C D/C		NER-NR	0.0	17.1	-17.1
32 nport/F 33 34 35	HVDC Export of	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG	D/C D/C	0 243 0	NER-NR 1012 0 1548	0.0 0.0 5.9 0.0	23.9 0.0 35.5	-17.1 -23.9 5.9 -35.5
32 nport/F 33 34 35 36	HVDC Export of	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	0 243 0 0	NER-NR 1012 0 1548 1240	0.0 5.9 0.0 0.0	23.9 0.0 35.5 42.2	-17.1 -23.9 5.9 -35.5 -42.2
32 mport/F 33 34 35 36 37	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 243 0 0	NER-NR 1012 0 1548 1240 1479	0.0 5.9 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1	-17.1 -23.9 5.9 -35.5 -42.2 -28.1
32 aport/F 33 34 35 36 37 38	HVDC Export of	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C	0 243 0 0 0	NER-NR 1012 0 1548 1240 1479 653	0.0 5.9 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9
32 mport/F 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 JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 243 0 0 0 0 0 390	NER-NR 1012 0 1548 1240 1479 653 0	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3	23.9 0.0 35.5 42.2 28.1 19.9 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3
32 aport/F 33 34 35 36 37 38	Export of HVDC	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	0 243 0 0 0	NER-NR 1012 0 1548 1240 1479 653	0.0 5.9 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9
32 mport/F 33 34 35 36 37 38 39 40	HVDC Export of HVDC 765 kV	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 S/C S/C	0 243 0 0 0 0 0 0 390	NER-NR 1012 0 1548 1240 1479 653 0 1845	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4
32 mport/F 33 34 35 36 37 38 39 40 41	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C	0 243 0 0 0 0 0 390 0 419	NER-NR 1012 0 1548 1240 1479 653 0 1845	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3
32 32 33 34 35 36 37 38 39 40 41 42	HVDC Export of HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C D/C S/C S/C S/C S/C	0 243 0 0 0 0 0 390 0 419 262	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5
32 mport/F 33 34 35 36 37 38 39 40 41 42 43	HVDC Export of HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI 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	0 243 0 0 0 0 0 390 0 419 262 986	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1
32 mport/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC Export of HVDC 765 kV 400 kV	WR (With NR) 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 BADOD-KOTA BADOD-MORAK	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	0 243 0 0 0 0 0 390 0 419 262 986	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5
32 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46 47	HVDC Export of HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	HVDC Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-KANLOR BADOD-KOTA BADOD-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 S/C S/C S/C S/C S/C S	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30	0.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2
32 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46 47	HVDC Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75	0.0 5.9 0.0 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1 0.8 0.3 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 0.0
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-KANLOR BADOD-KOTA BADOD-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 S/C S/C S/C S/C S/C S	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0	0.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2
32 33 34 35 36 37 38 39 40 41 42 44 45 46 47 48 49	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of	WR (With NR) 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 BADOD-KOTA BADOD-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 S/C S/C S/C S/C S/C S	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0	0.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 0.0
32 apport/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72 41	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1 0.0 192.5	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 0.0 -147.5
32 apport/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 apport/F 50	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JGWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANIOR-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 S	0 243 0 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1 192.5	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 0.0 -147.5
32 32 34 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 49	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JGWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 192.5	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 0.0 -147.5
32 ***mport/F** 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 **mport/F** 50 51 52 53 54	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C 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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 2 0.3 0.6 0.0 0.1 0.0 192.5	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 147.5 -10.7 0.0 18.6 -13.1 22.2
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-KOTA BADOD-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 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 D/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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 0.0 0.0 0.0 2 0.3 0.6 0.0 0.1 0.0 192.5	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.1 -0.5 0.8 0.2 147.5 -10.7 0.0 18.6 -13.1 22.2 0.0
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 40 41 50 50 51 51 52 53 54	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABAL-PUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-HINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 243 0 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR 989 0 0 1117 0 0 0	0.0 0.0 5.9 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1 0.8 0.3 0.0 45.0 0.0 18.6 0.0 22.2 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 0.0 192.5 10.7 0.0 0.0 13.1 0.0 0.0 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.0 -147.5 -10.7 0.0 18.6 -13.1 22.2 0.0 0.0
32 ***port/F** 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 ***port/F** 50 51 52 53 54 555	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-KOTA BADOD-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 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 D/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	0 243 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR 989 0 0 1117 0 0 0 107	0.0 0.0 5.9 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1 0.8 0.3 0.0 45.0 0.0 18.6 0.0 22.2 0.0 0.0 1.7	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 0.0 192.5 10.7 0.0 0.0 13.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.0 -147.5 -10.7 0.0 18.6 -13.1 22.2 0.0 0.0 1.7
32 sport/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 sport/F 50 51 51 52 53 54	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C D/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	0 243 0 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR 989 0 0 1117 0 0 0 107 WR-SR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1 0.8 0.3 0.0 45.0 0.0 18.6 0.0 22.2 0.0 0.0	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 0.0 192.5 10.7 0.0 0.0 13.1 0.0 0.0 0.0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.0 -147.5 -10.7 0.0 18.6 -13.1 22.2 0.0 0.0
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/E 50 51 55 55 56	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C D/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	0 243 0 0 0 0 0 390 0 419 262 986 15 68 38 72 41 0	NER-NR 1012 0 1548 1240 1479 653 0 1845 0 27 0 346 17 75 10 30 0 WR-NR 989 0 0 1117 0 0 0 107 WR-SR	0.0 0.0 5.9 0.0 0.0 0.0 0.0 8.3 0.0 5.3 2.5 21.5 0 0.3 0.1 0.8 0.3 0.0 45.0 0.0 18.6 0.0 22.2 0.0 0.0 1.7	23.9 0.0 35.5 42.2 28.1 19.9 0.0 40.4 0.0 0.0 0.0 0.0 192.5 10.7 0.0 0.0 13.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-17.1 -23.9 5.9 -35.5 -42.2 -28.1 -19.9 8.3 -40.4 5.3 2.5 21.5 -2 0.0 -147.5 -10.7 0.0 18.6 -13.1 22.2 0.0 0.0 1.7