

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: 5th Oct 2018

Τо

- 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 ७९३००६ 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 04.10.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 04-अक्टूबर-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 04th October 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** 5-Oct-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	48161	51209	41514	22004	2700	165588
Peak Shortage (MW)	1333	0	10	855	89	2287
Energy Met (MU)	1113	1247	931	475	47	3813
Hydro Gen (MU)	231	36	107	106	22	502
Wind Gen (MU)	8	142	29			179
Solar Gen (MU)*	22.82	19.35	52.32	0.53	0.02	95
Energy Shortage (MU)	17.3	0.0	0.0	2.6	0.9	20.8
Maximum Demand Met during the day	51193	55032	41412	22006	2711	169250
(MW) & time (from NLDC SCADA)	19:24	11:28	18:55	19:01	18:52	18:58

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	0.035	0.00	0.00	9.16	9.16	83.98	6.86

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	7354	0	174.7	41.4	-0.6	89	0.0
	Haryana	7723	50	154.4	93.0	1.8	331	0.6
	Rajasthan	9782	0	217.7	39.1	2.1	627	0.0
	Delhi	4612	0	98.7	66.5	-0.4	212	0.2
NR	UP	15764	1090	359.6	126.2	2.3	295	6.1
	Uttarakhand	1926	0	38.4	11.7	0.5	117	0.2
	HP	1399	0	26.1	4.8	1.5	171	1.0
	J&K	2205	551	39.3	30.7	-4.5	206	9.3
	Chandigarh	217	0	4.2	4.3	-0.1	26	0.0
	Chhattisgarh	4382	0	103.7	32.3	1.1	329	0.0
	Gujarat	17822	0	401.6	140.1	1.0	611	0.0
WR	MP	9661	0	213.7	108.6	-2.1	520	0.0
	Maharashtra	22236	0	485.8	177.0	1.8	589	0.0
	Goa	485	0	13.2	9.9	-0.1	84	0.0
	DD	318	0	6.9	5.7	1.1	81	0.0
	DNH	727	0	16.4	15.6	0.8	153	0.0
	Essar steel	361	0	5.9	5.8	0.1	255	0.0
	Andhra Pradesh	8277	0	188.6	58.9	2.9	1010	0.0
	Telangana	10342	0	218.0	102.4	1.4	922	0.0
SR	Karnataka	8794	0	183.1	19.2	0.9	491	0.0
3N	Kerala	3366	0	66.9	36.9	0.6	248	0.0
	Tamil Nadu	13175	0	268.2	156.4	2.1	600	0.0
	Pondy	317	10	6.6	6.6	0.0	50	0.0
	Bihar	4837	0	98.4	96.6	-0.8	30	0.0
	DVC	2680	1	55.5	-24.5	6.2	440	0.8
ER	Jharkhand	1000	0	22.4	16.4	-0.3	100	0.0
EN	Odisha	5464	2	115.8	42.4	8.7	752	1.8
	West Bengal	8906	0	181.9	65.2	4.7	266	0.0
	Sikkim	90	0	1.2	1.2	0.0	15	0.0
	Arunachal Pradesh	122	3	2.3	2.2	0.0	136	0.0
	Assam	1750	52	29.3	23.3	1.6	193	0.8
	Manipur	165	7	2.2	2.3	-0.1	24	0.0
NER	Meghalaya	297	0	5.0	2.1	0.0	36	0.0
	Mizoram	88	3	1.6	0.7	0.6	4	0.0
	Nagaland	111	1	2.3	1.8	0.1	10	0.0
	Tripura	263	5	4.2	4.3	-0.4	74	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	18.0	-3.9	-21.9
Day peak (MW)	794.7	-186.0	-971.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	84.7	-141.6	72.5	-13.3	-1.2	1.2
Actual(MU)	64.4	-159.6	81.8	13.6	-0.3	-0.1
O/D/U/D(MU)	-20.3	-18.0	9.3	26.9	0.9	-1.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	2838	13723	6562	2760	335	26217
State Sector	5565	12482	7560	6575	50	32232
Total	8403	26205	14122	9335	384	58449

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	697	1115	570	366	5	2753
Hydro	231	36	107	106	22	502
Nuclear	23	20	32	0	0	75
Gas, Naptha & Diesel	67	91	25	0	24	207
RES (Wind, Solar, Biomass & Others)	50	162	123	1	0	336
Total	1068	1425	857	472	52	3873

Share of RES in total generation (%)	4.69	11.38	14.36	0.12	0.08	8.67
Share of Non-fossil fuel (Hydro, Nuclear and	28.47	15.34	30.57	22.52	42.11	23.56
RES) in total generation (%)	20.47	15.54	30.57	22.52	42.11	23.50

All Ilidia Dellialid Diversity Factor	1.018	
Diversity factor - Come of regional manimum deman	de / All India maximum	

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

						Date of I	Reporting :	5-Oct-
								Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
	Export of	ER (With NR)	7.00					T
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	656 595	0	9.6 9.6	0.0	9.6 9.6
3	703.6 7	GAYA-BALIA	S/C	96	47	0.2	0.0	0.2
4	HVDC	ALIPURDUAR-AGRA	-	0	801	0.0	8.6	-8.6
5	nvbc	PUSAULI B/B	S/C	0	398	0.0	9.7	-9.7
6	_	PUSAULI-VARANASI	S/C	0	356	0.0	7.6	-7.6
7		PUSAULI -ALLAHABAD	S/C	0	122	0.0	1.9	-1.9
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C O/C	455 316	349 542	0.9	3.7	-3.7
10	100 K	BIHARSHARIFF-BALIA	D/C	197	15	2.3	0.0	2.3
11		MOTIHARI-GORAKHPUR	D/C	214	149	0.0	0.1	-0.1
12		BIHARSHARIFF-VARANASI	D/C	524	0	8.0	0.0	8.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	207	0.0	4.0	-4.0
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	35	0	0.7	0.0	0.7
16	4	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17	1	KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0	0.0	0.0
port/E	Export of	ER (With WR)	1		EK-NK	31.3	35.7	-4.5
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	1569	0	30.9	0.0	30.9
19	1	NEW RANCHI-DHARAMJAIGARH	D/C	829	19	10.7	0.0	10.7
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	1056	0	19.5	0.0	19.5
21		RANCHI-SIPAT	D/C	509	0	8.1	0.0	8.1
22	220 kV	BUDHIPADAR-RAIGARH	S/C	293	0	0.0 5.5	0.0	0.0
23		BUDHIPADAR-KORBA	D/C	293	ER-WR	74.7	0.0	5.5 74.7
	· •	ER (With SR)						T
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1544.0	0.0	25.8	-25.8
25 26	HVDC LINK	JEYPORE-GAZUWAKA B/B TALCHER-KOLAR BIPOLE	D/C D/C	0.0	360.0 1461.0	0.0	8.5 32.6	-8.5 -32.6
27	400 kV	TALCHER-I/C	D/C	0.0	1036.0	0.0	15.3	-15.3
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	3	PED (WALNED)			ER-SR	0.0	66.9	-66.9
29	T	ER (With NER) BINAGURI-BONGAIGAON	D/C	877	416	0.0	8.5	-8
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	0	384	0.0	4.8	-5
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	125	0.0	1.8	-2
					ER-NER	0.0	15.0	-15.0
mont/L	Turnant of	NED (With ND)			ER-NER		1010	
		NER (With NR) BISWANATH CHARIALI-AGRA	-	0				-16.9
32		NER (With NR) BISWANATH CHARIALI-AGRA	-	0	700 NER-NR	0.0	16.9 16.9	-16.9 -16.9
32	HVDC	1	-	0	700	0.0	16.9	1
32 nport/F 33	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C	0	700 NER-NR	0.0 0.0	16.9 16.9 24.2	-16.9 -24.2
32 nport/F 33 34	HVDC	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B	D/C	0 240	700 NER-NR 1402 0	0.0 0.0 0.0 6.0	16.9 16.9 24.2 0.0	-16.9 -24.2 6.0
32 aport/F 33 34 35	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG	D/C D/C	0 240 0	700 NER-NR 1402 0 1454	0.0 0.0 0.0 6.0 0.0	16.9 16.9 24.2 0.0 19.4	-24.2 6.0 -19.4
32 aport/F 33 34 35 36	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA	D/C D/C D/C	0 240 0	700 NER-NR 1402 0 1454 715	0.0 0.0 0.0 6.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1	-16.9 -24.2 6.0 -19.4 -14.1
32 aport/F 33 34 35	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG	D/C D/C	0 240 0	700 NER-NR 1402 0 1454	0.0 0.0 0.0 6.0 0.0	16.9 16.9 24.2 0.0 19.4	-24.2 6.0 -19.4
32 aport/F 33 34 35 36 37	Export of HVDC	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 240 0 0	700 NER-NR 1402 0 1454 715 895	0.0 0.0 0.0 6.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3	-16.9 -24.2 6.0 -19.4 -14.1 -8.3
32 aport/F 33 34 35 36 37 38	Export of HVDC	BISWANATH CHARIALI-AGRA WR (With NR) 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	0 240 0 0 0 0 305	700 NER-NR 1402 0 1454 715 895 113	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3
32 aport/F 33 34 35 36 37 38 39	Export of HVDC	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 240 0 0 0 0 305 365	700 NER-NR 1402 0 1454 715 895 113 0	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6
32 32 33 34 35 36 37 38 39 40 41 42	Export of HVDC	BISWANATH CHARIALI-AGRA 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	0 240 0 0 0 305 365 0 539 398	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6
32 32 33 34 35 36 37 38 39 40 41 42 43	HVDC Export of HVDC 765 kV	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-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 S/C	0 240 0 0 0 305 365 0 539 398	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 0.0 32.1 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5
32 32 33 34 35 36 37 38 39 40 41 42 43 44	HVDC Export of HVDC 765 kV	BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C D/C	0 240 0 0 0 305 365 0 539 398 481 398	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 -6.6 -32.1 10.8 7.6 9.5
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45	HVDC Export of HVDC 765 kV	BISWANATH CHARIALI-AGRA 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	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	0 240 0 0 0 305 365 0 539 398 481 398	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1
32 32 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC Export of HVDC 765 kV	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI 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	0 240 0 0 0 305 365 0 539 398 481 398 95	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0 0	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45	HVDC Export of HVDC 765 kV 400 kV	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL -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 S	0 240 0 0 0 305 365 0 539 398 481 398	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1
32 sport/F 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46 47	HVDC Export of HVDC 765 kV 400 kV	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI 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	0 240 0 0 0 305 365 0 539 398 481 398 95 102	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8
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	BISWANATH CHARIALI-AGRA 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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0
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	BISWANATH CHARIALI-AGRA 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 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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 0 0 0 0	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 99.4	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 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 220 kV 132kV Export of	BISWANATH CHARIALI-AGRA 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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160 121	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2
32 pport/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 HVDC LINK	BISWANATH CHARIALI-AGRA 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	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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 WR-NR	0.0 0.0 0.0 6.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 99.4	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2
32 32 34 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Approt/F 50 51	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-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	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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 99.4	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 50 50 51 52	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-ORAI GWALIOR-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	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	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 24.2 0.0 19.4 14.1 8.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 99.4	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 -6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2
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 220 kV 132kV Export of HVDC LINK 765 kV	BISWANATH CHARIALI-AGRA 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 0 WR-NR 999 0 781 2042 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 99.4 23.6 0.0 2.3 32.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2 -23.6 0.0 -2.3 -32.0 18.0 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 220 kV 132kV Export of HVDC LINK 765 kV	BISWANATH CHARIALI-AGRA 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 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 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	0 240 0 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0 0 1152 0 1071 0 1	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 0 0 WR-NR 999 0 781 2042 0 0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2 -23.6 0.0 -2.3 -32.0 18.0 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 220 kV 132kV Export of HVDC LINK 765 kV	BISWANATH CHARIALI-AGRA 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 240 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0 0 WR-NR 999 0 781 2042 0 0 0 84	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2 -23.6 0.0 -2.3 -32.0 18.0 0.0 0.0 1.1
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 220 kV 132kV Export of HVDC LINK 765 kV	BISWANATH CHARIALI-AGRA 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 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 S/C S/C S/C S	0 240 0 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0 0 1152 0 1071 0 1	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0 0 WR-NR 999 0 781 2042 0 0 0 84 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2 -23.6 0.0 -2.3 -32.0 18.0 0.0 0.0
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 220 kV 132kV Export of HVDC LINK 765 kV	BISWANATH CHARIALI-AGRA 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 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 S/C S/C S/C S	0 240 0 0 0 0 305 365 0 539 398 481 398 95 102 160 121 0 0 1152 0 1071 0 1	700 NER-NR 1402 0 1454 715 895 113 0 1406 0 0 31 0 0 0 WR-NR 999 0 781 2042 0 0 0 84 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	16.9 16.9 16.9 24.2 0.0 19.4 14.1 8.3 1.3 0.0 32.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 32.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-16.9 -24.2 6.0 -19.4 -14.1 -8.3 -1.3 6.6 -32.1 10.8 7.6 9.5 3 3.1 0.6 2.8 2.0 0.0 -47.2 -23.6 0.0 -2.3 -32.0 18.0 0.0 0.0 1.1