

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: 07th August 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. 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 ७९३००६ Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. महाप्रबंधक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 06.08.2018.

महोदय/Dear Sir.

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 06-अगस्त-2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिंड 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 06th August 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** 7-Aug-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	51622	47621	41632	20762	2692	164329
Peak Shortage (MW)	976	0	30	100	145	1251
Energy Met (MU)	1195	1120	956	426	52	3748
Hydro Gen (MU)	330	17	104	104	27	582
Wind Gen (MU)	35	178	232			444
Solar Gen (MU)*	14.80	13.51	47.18	0.24	0.02	76
Energy Shortage (MU)	9.9	0.9	0.1	0.3	1.3	12.5
Maximum Demand Met during the day	52828	50224	41894	21275	2775	167547
(MW) & time (from NLDC SCADA)	00:19	11:39	19:24	20:28	19:01	19:55

B. Frequency Profile (%) Region All India FVI <49.7 49.7-49.8 49.8-49.9 <49.9 49.9-50.05 > 50.05 0.029 0.08 88.37

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	10898	0	254.8	148.3	-1.3	72	0.0
	Haryana	8103	0	170.8	135.6	0.0	168	0.0
	Rajasthan	10861	0	235.1	62.3	1.1	389	0.0
	Delhi	5044	0	105.7	87.6	-1.8	84	0.0
NR	UP	15953	170	324.2	182.5	-0.1	254	0.0
NR	Uttarakhand	1675	0	34.5	16.0	-0.4	136	0.0
	HP	1207	0	24.9	-3.7	1.6	173	0.1
	J&K	2146	536	40.7	15.3	-0.1	232	9.8
	Chandigarh	241	0	4.9	6.3	-1.4	0	0.0
	Chhattisgarh	4124	0	96.1	27.0	-2.9	570	0.0
	Gujarat	15483	0	344.1	57.9	2.0	598	0.0
WR	MP	8354	0	185.4	85.4	-3.6	494	0.0
	Maharashtra	20294	0	446.0	109.1	6.3	786	0.9
	Goa	444	0	11.6	8.5	2.5	36	0.0
	DD	336	0	7.4	6.4	1.0	109	0.0
	DNH	770	0	17.9	16.6	1.3	102	0.0
	Essar steel	554	0	11.1	11.1	0.0	353	0.0
	Andhra Pradesh	7943	0	181.6	12.2	1.3	450	0.0
	Telangana	9727	0	209.1	101.5	1.7	467	0.0
CD.	Karnataka	9258	0	183.2	48.7	0.9	424	0.0
SR	Kerala	3177	0	64.9	26.6	1.0	319	0.0
	Tamil Nadu	14587	0	309.6	86.0	-2.6	438	0.0
	Pondy	350	30	7.5	7.5	0.0	48	0.1
	Bihar	4548	0	80.9	80.5	0.1	0	0.0
	DVC	2992	0	66.8	-25.1	0.2	0	0.0
ER	Jharkhand	1075	0	22.0	19.0	0.0	0	0.0
	Odisha	4992	0	98.2	49.9	2.9	0	0.3
	West Bengal	8102	0	156.9	57.1	1.1	0	0.0
	Sikkim	83	0	1.0	1.2	-0.2	0	0.0
	Arunachal Pradesh	114	2	2.2	2.5	-0.3	0	0.0
	Assam	1777	76	33.3	25.6	2.4	222	1.2
	Manipur	163	2	2.2	2.3	-0.1	15	0.0
NER	Meghalaya	301	0	5.6	0.7	0.0	64	0.0
	Mizoram	82	3	1.4	1.0	0.1	6	0.0
	Nagaland	116	2	2.2	1.9	-0.1	9	0.0
	Tripura	264	2	4.7	5.3	0.8	43	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	32.4	-4.4	-15.4
Day peak (MW)	1784.6	-271.8	-676.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	259.6	-227.5	22.6	-50.7	-3.4	0.6
Actual(MU)	248.0	-228.1	25.2	-46.2	-1.8	-3.0
O/D/U/D(MU)	-11.6	-0.6	2.5	4.5	1.6	-3.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	6222	17005	9972	1320	429	34948
State Sector	9315	13501	9760	6155	50	38781
Total	15537	30506	19732	7475	479	73728

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	537	1081	473	386	5	2481
Hydro	330	18	104	104	27	583
Nuclear	27	27	24	0	0	79
Gas, Naptha & Diesel	18	41	23	0	26	108
RES (Wind, Solar, Biomass & Others)	62	191	319	0	0	572
Total	975	1358	942	491	57	3823

Share of RES in total generation (%)	6.36	14.08	33.82	0.10	0.08	14.97
Share of Non-fossil fuel (Hydro, Nuclear and	43.06	17.39	47.36	21.27	47.08	22.28
RES) in total generation (%)	45.00	17.39	47.30	21.57	47.00	32.20

H. Diversity Factor
All India Demand Diversity Factor
1.009
Diversity factor = Sum of regional maximum demands / All India maximum demand

 $[\]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 :	7-Aug
								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)	D/C	(7	447	0.0	(7	(7
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	67 236	447 90	0.0 1.0	0.0	-6.7 1.0
3	70011	GAYA-BALIA	S/C	0	421	0.0	6.7	-6.7
4	HVDC	ALIPURDUAR-AGRA	-	0	688	0.0	16.8	-16.8
5	пове	PUSAULI B/B	S/C	0	144	0.0	3.6	-3.6
6	_	PUSAULI-VARANASI	S/C	0	68	0.0	0.0	0.0
7		PUSAULI -ALLAHABAD	S/C	0	87	0.0	0.0	0.0
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C O/C	0	793 1009	0.0	13.8	-13.8 -17.6
10	400 K	BIHARSHARIFF-BALIA	D/C	0	292	0.0	6.2	-6.2
11	_	MOTIHARI-GORAKHPUR	D/C	119	0	4.9	0.0	4.9
12		BIHARSHARIFF-VARANASI	D/C	767	0	0.0	2.5	-2.5
13	220 kV	PUSAULI-SAHUPURI	S/C	0	95	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	0.6	0.0	0.6
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
nport/E	Export of	ER (With WR)			ER-NR	6.5	77.0	-70.5
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	1	1	0.0	0.0	0.0
19	ļ	NEW RANCHI-DHARAMJAIGARH	D/C	958	0	14.7	0.0	14.7
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	1491	0	22.9	0.0	22.9
21		RANCHI-SIPAT	D/C S/C	438 145	0	6.4 1.9	0.0	6.4 1.9
23	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	D/C	198	0	3.6	0.0	3.6
23		DUDNIF ADAK-KUKBA	D/C	198	ER-WR	49.5	0.0	49.5
	· •	ER (With SR)	D/C	0.0	1507.0	0.0	10.6	10.6
24	765 kV	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	0.0	1507.8 465.9	0.0	19.6	-19.6 -10.0
26	HVDC LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1583.1	0.0	21.0	-10.0
27	400 kV	TALCHER-I/C	D/C	1060.2	0.8	0.0	15.3	-15.3
28	220 kV		S/C	0.0	0.0	0.0	0.0	0.0
nnort/L	Evnort of	ER (With NER)			ER-SR	0.0	50.6	-50.6
29	T .	BINAGURI-BONGAIGAON	D/C	0	583	0.0	8.9	-9
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	117	279	0.0	1.8	-2
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	133	0.0	3.4	-3
					ER-NER	0.0	14.1	-14.1
. /1		NED (HZI ND)						
		NER (With NR)		0		0.0	16.9	-16.9
nport/F		NER (With NR) BISWANATH CHARIALI-AGRA	-	0	701 NER-NR	0.0	16.9 16.9	-16.9 -16.9
32	HVDC	1	-	0	701			
32	HVDC	BISWANATH CHARIALI-AGRA	- D/C	0	701			
32 nport/F 33 34	HVDC	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B	D/C	0 241	701 NER-NR 1502 0	0.0	25.3 0.0	-16.9 -25.3 5.0
32 nport/F 33 34 35	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG	D/C D/C	0 241 0	701 NER-NR 1502 0 1458	0.0 0.0 5.0 0.0	25.3 0.0 33.1	-25.3 5.0 -33.1
32 nport/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	0 241 0 0	701 NER-NR 1502 0 1458 1217	0.0 0.0 5.0 0.0 0.0	25.3 0.0 33.1 47.1	-16.9 -25.3 5.0 -33.1 -47.1
32 mport/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	0 241 0 0	701 NER-NR 1502 0 1458 1217 1336	0.0 5.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7	-16.9 -25.3 5.0 -33.1 -47.1 -24.7
32 mport/F 33 34 35 36 37 38	HVDC Export of	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	0 241 0 0 0	701 NER-NR 1502 0 1458 1217 1336 611	0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2
32 mport/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 JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 241 0 0 0 0 0 402	701 NER-NR 1502 0 1458 1217 1336 611 0	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7	25.3 0.0 33.1 47.1 24.7 23.2 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7
32 mport/F 33 34 35 36 37 38 39 40	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	D/C D/C D/C D/C D/C S/C S/C	0 241 0 0 0 0 0 402	701 NER-NR 1502 0 1458 1217 1336 611 0 1717	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6
32 mport/F 33 34 35 36 37 38 39	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	D/C D/C D/C D/C D/C S/C	0 241 0 0 0 0 0 402 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8
32 mport/F 33 34 35 36 37 38 39 40 41	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	D/C D/C D/C D/C D/C S/C S/C S/C	0 241 0 0 0 0 0 402	701 NER-NR 1502 0 1458 1217 1336 611 0 1717	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6
32 mport/F 33 34 35 36 37 38 39 40 41 42	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	D/C D/C D/C D/C D/C S/C S/C S/C S/C	0 241 0 0 0 0 0 402 0 172 130	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137	0.0 5.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6
32 mport/F 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	0 241 0 0 0 0 402 0 172 130 957	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6
32 33 34 35 36 37 38 39 40 41 42 43 44	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	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C D/C	0 241 0 0 0 0 0 402 0 172 130 957	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1
32 mport/F 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 D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 241 0 0 0 0 0 402 0 172 130 957 120 39	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0
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	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	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	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3
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	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	0 241 0 0 0 0 402 0 172 130 957 120 39 6	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1.0 1.4 0.0 0.3 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0
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 132kV	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	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	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3
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 132kV Export of HVDC	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0	0.0 5.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 0.0 34.5	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1.0 1.4 0.0 0.3 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 0.3 -0.3 0.0 -160.9
32 33 34 35 36 37 38 39 40 41 42 43 44 45 66 47 47 48 49 **nport/F 50 51	HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV	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	0 241 0 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR	0.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3 3.6 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 0.3 0.0 -160.9
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	0 241 0 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460	0.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3 0.0 195.4	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9
32 32 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	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-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	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755	0.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3 0.0 195.4 8.1 0.0 0.0 23.9	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9
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	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 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 D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0	0.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3 0.0 195.4 8.1 0.0 0.0 23.9 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2
32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0 0	0.0 0.0 5.0 0.0 0.0 0.0 0.0 0.0	25.3 0.0 33.1 47.1 24.7 23.2 0.0 37.6 0.0 0.6 0.0 1 1.0 1.4 0.0 0.3 0.0 195.4 8.1 0.0 0.0 0.0 0.0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2 0.0
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 49 40 50 51 51 52 53 54 55 56 56 56 57 57 57 57 57 57 57 57 57 57	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 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	0 241 0 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0 0 0	0.0 0.0 5.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 34.5	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1.0 0.3 0.0 1.4 0.0 0.3 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2 0.0 0.0
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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0 0 0 0	0.0 0.0 5.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 34.5	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1.0 0.3 0.0 1.4 0.0 0.3 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2 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-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	0 241 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0 0 0 0 WR-SR	0.0 0.0 5.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 34.5	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1.0 0.3 0.0 1.4 0.0 0.3 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2 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 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 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	0 241 0 0 0 0 0 402 0 172 130 957 120 39 6 48 22 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	701 NER-NR 1502 0 1458 1217 1336 611 0 1717 122 137 0 267 38 105 16 35 0 WR-NR 708 0 460 1755 0 0 0 0 WR-SR	0.0 0.0 5.0 0.0 0.0 0.0 0.0 7.7 0.0 0.8 0.0 20.6 0 0.0 0.0 34.5	25.3 0.0 33.1 47.1 24.7 23.2 0.0 0.6 0.0 1.0 0.3 0.0 1.4 0.0 0.3 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-16.9 -25.3 5.0 -33.1 -47.1 -24.7 -23.2 7.7 -37.6 0.8 -0.6 20.6 -1 -1.0 -1.4 0.3 -0.3 0.0 -160.9 -8.1 0.0 8.2 -23.9 7.2 0.0 0.0