

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: 06th June 2019

To,

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

Sub: Daily PSP Report for the date 06.06.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 05-जून-2019 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर उप्लब्ध है ।

As per article 5.5.1 of the Indian Electricity Grid Code, the daily report pertaining power supply position of All India Power System for the date 05th June 2019, is available at the NLDC website.

धन्यवाद,

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

Date of Reporting Report for previous day 6-Jun-19

A. Power Supply Position at All India and Regional level

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	55779	50642	39873	19291	2659	168244
Peak Shortage (MW)	1078	0	0	0	50	1128
Energy Met (MU)	1382	1243	970	449	50	4093
Hydro Gen (MU)	340	16	57	74	18	505
Wind Gen (MU)	22	101	67			190
Solar Gen (MU)*	29.34	0.00	85.29	2.20	0.04	117
Energy Shortage (MU)	11.3	0.0	0.0	0.0	0.4	11.6
Maximum Demand Met during the day	61342	55480	43436	21398	2657	179386
(MW) & time (from NLDC SCADA)	23:08	15:17	15:01	00:09	19:27	14:55

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 0.095

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	8516	0	186.4	103.4	-1.7	23	0.0
NR	Haryana	8758	0	189.4	130.5	-0.7	178	0.0
	Rajasthan	12297	0	271.3	80.0	0.7	419	0.0
	Delhi	6401	0	131.2	110.5	-0.2	213	0.0
	UP	21247	0	471.8	207.7	3.4	656	0.0
	Uttarakhand	2139	0	47.5	17.9	0.7	107	0.0
	HP	1454	0	30.4	0.6	2.9	299	0.0
	J&K	2143	536	47.6	28.0	-0.9	250	11.3
	Chandigarh	293	0	5.9	7.0	-1.1	-5	0.0
	Chhattisgarh	3942	0	92.1	41.0	2.5	452	0.0
	Gujarat	17543	0	387.9	99.0	3.5	563	0.0
	MP	10032	0	227.5	114.8	-0.1	364	0.0
WR	Maharashtra	22114	0	492.8	124.6	-1.9	819	0.0
WK	Goa	541	0	12.0	11.1	0.3	71	0.0
	DD	332	0	7.5	7.2	0.3	37	0.0
	DNH	748	0	17.5	16.9	0.6	201	0.0
	Essar steel	305	0	5.5	5.7	-0.2	293	0.0
	Andhra Pradesh	9350	0	193.4	49.8	-1.8	407	0.0
	Telangana	7589	0	168.2	49.9	-0.7	374	0.0
SR	Karnataka	10200	0	199.3	59.3	-1.1	702	0.0
JI.	Kerala	3505	0	75.9	58.3	0.6	213	0.0
	Tamil Nadu	14227	0	324.2	144.2	2.5	762	0.0
	Pondy	418	0	8.8	8.8	0.0	78	0.0
	Bihar	5513	0	109.2	101.3	3.3	100	0.0
	DVC	3112	0	67.4	-43.7	0.5	210	0.0
ER	Jharkhand	1202	0	26.7	17.6	-0.4	147	0.0
Lit	Odisha	4529	0	89.1	36.9	-1.8	230	0.0
	West Bengal	8102	0	155.0	40.4	-1.2	250	0.0
	Sikkim	98	0	1.1	1.4	-0.3	25	0.0
	Arunachal Pradesh	120	2	2.1	2.2	-0.1	20	0.0
	Assam	1671	43	29.9	23.9	0.0	211	0.3
	Manipur	161	3	2.8	2.3	0.5	27	0.0
NER	Meghalaya	321	0	6.0	1.9	-0.1	80	0.0
	Mizoram	82	1	1.7	1.4	0.2	20	0.0
	Nagaland	119	2	2.1	2.2	-0.1	50	0.0
	Tripura	255	0	5.3	3.9	0.5	44	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	7.4	-8.9	-17.1
Day peak (MW)	479.0	-507.0	-856.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	240.2	-233.1	79.2	-86.3	0.1	0.1
Actual(MU)	244.5	-237.3	83.0	-90.2	-3.2	-3.2
O/D/U/D(MU)	4.3	-4.2	3.8	-4.0	-3.3	-3.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4400	16109	9742	350	285	30886
State Sector	6335	10499	3770	2640	50	23294
Total	10735	26608	13512	2990	335	54180

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	659	1253	565	499	11	2986
Lignite	20	14	39	0	0	73
Hydro	340	16	57	74	18	505
Nuclear	27	19	37	0	0	82
Gas, Naptha & Diesel	43	55	16	0	29	143
RES (Wind, Solar, Biomass & Others)	68	133	185	2	0	389
Total	1158	1488	898	574	58	4177

Share of RES in total generation (%)	5.88	8.94	20.64	0.39	0.07	9.31
Share of Non-fossil fuel (Hydro, Nuclear and	37.56	11.24	31.05	12 21	31.58	23,35
RES) in total generation (%)	37.30	11.24	31.03	13,21	31.30	23.33

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

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

						Date of 1	Reporting :	
								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)
iport/E	Export of	ER (With NR)	D/C	ć	212	0.0	2.7	-3.7
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	S/C	6	313 280	0.0	2.4	-2.4
3	1	GAYA-BALIA	S/C	0	398	0.0	6.5	-6.5
4	HVDC	ALIPURDUAR-AGRA	-	0	501	0.0	12.1	-12.1
6		PUSAULI B/B	S/C S/C	0	49	0.0	1.3	-1.3 -1.6
7	1	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C	26	85 24	0.0	0.0	0.5
8	1	MUZAFFARPUR-GORAKHPUR	D/C	0	814	0.0	11.2	-11.2
9	400 kV	PATNA-BALIA	Q/C	0	1170	0.0	21.5	-21.5
10		BIHARSHARIFF-BALIA	D/C	0	518	0.0	10.4	-10.4
11		MOTIHARI-GORAKHPUR	D/C	0	361	0.0	7.5	-7.5
12		BIHARSHARIFF-VARANASI	D/C	0	297	0.0	3.2	-3.2
13	220 kV	PUSAULI-SAHUPURI	S/C	0	181	0.0	3.6	-3.6
14	1	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15 16	132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	S/C S/C	30 0	0	0.5	0.0	0.5
17	1	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C S/C	0	0	0.0	0.0	0.0
1/	1		5/-C	V	ER-NR	1.0	85.0	-84.1
port/F	Export of	ER (With WR)				·		
18		JHARSUGUDA-DHARAMJAIGARH	Q/C	797	0	12.9	0.0	12.9
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	595	14	7.9	0.0	7.9
20	<u>L</u>	JHARSUGUDA-DURG	D/C	61	87	0.0	0.7	-0.7
21	400 kV	JHARSUGUDA-RAIGARH	Q/C	677	0	11.3	0.0	11.3
22	.00 K	RANCHI-SIPAT	D/C	187	13	2.7	0.0	2.7
23	220 kV	BUDHIPADAR-RAIGARH	S/C	28	49	0.0	0.3	-0.3
24	<u> </u>	BUDHIPADAR-KORBA	D/C	102	0 ER-WR	1.5 36.3	0.0 1.0	1.5 35.3
nort/E	Export of	ER (With SR)			EK-WK	36.3	1.0	35.3
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1964.0	0.0	29.2	-29.2
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	659.0	0.0	16.2	-16.2
27	LINK	TALCHER-KOLAR BIPOLE	D/C	13.0	1783.0	0.0	35.1	-35.1
28	400 kV	TALCHER-I/C	D/C	1782.0	11.0	5.2	0.0	5.2
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
port/E	T	ER (With NER) BINAGURI-BONGAIGAON	D/C	0	468	0.0	6.7	-7
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	206	201	0.0	0.5	-1
32	220 kV	ALIPURDUAR-SALAKATI	D/C	9	75	0.0	0.9	-1
					ER-NER	0.0	8.1	-8.1
		NER (With NR)	1					
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	504 NER-NR	0.0	12.1 12.1	-12.1
nort/F	Export of	WR (With NR)			NER-NR	0.0	12.1	-12.1
34	Ť.		D/C	0	2308	0.0		-26.3
•	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C D/C	0 451	2308	0.0 12.1	26.3	-26.3 12.1
34	HVDC	CHAMPA-KURUKSHETRA					26.3	
34 35	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	451	0	12.1	26.3 0.0	12.1
34 35 36 37 38	HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	451 0 0 0	0 1451 2267 1155	12.1 0.0 0.0 0.0	26.3 0.0 36.3 42.2 21.8	12.1 -36.3 -42.2 -21.8
34 35 36 37 38 39	HVDC - 765 kV	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	451 0 0 0 0	0 1451 2267 1155 840	12.1 0.0 0.0 0.0 0.0	26.3 0.0 36.3 42.2 21.8 31.9	12.1 -36.3 -42.2 -21.8 -31.9
34 35 36 37 38 39 40		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 D/C S/C	451 0 0 0 0 0	0 1451 2267 1155 840 0	12.1 0.0 0.0 0.0 0.0 0.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0	12.1 -36.3 -42.2 -21.8 -31.9 0.0
34 35 36 37 38 39 40 41		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	451 0 0 0 0 0 0 0 0 454	0 1451 2267 1155 840 0	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.1	26.3 0.0 36.3 42.2 21.8 31.9 0.0	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1
34 35 36 37 38 39 40 41 42		CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C D/C S/C S/C D/C	451 0 0 0 0 0 0 0 0 454 98	0 1451 2267 1155 840 0 0 525	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7
34 35 36 37 38 39 40 41 42 43	765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C	451 0 0 0 0 0 0 0 454 98 132	0 1451 2267 1155 840 0 0 525 57	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4
34 35 36 37 38 39 40 41 42		CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	451 0 0 0 0 0 0 454 98 132 197	0 1451 2267 1155 840 0 0 525	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4
34 35 36 37 38 39 40 41 42 43 44	765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C	451 0 0 0 0 0 0 0 454 98 132	0 1451 2267 1155 840 0 0 525 57	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4
34 35 36 37 38 39 40 41 42 43 44 45	765 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	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	451 0 0 0 0 0 0 454 98 132 197 966	0 1451 2267 1155 840 0 0 525 57 146	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1
34 35 36 37 38 39 40 41 42 43 44 45 46	- 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR	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	451 0 0 0 0 0 0 454 98 132 197 966 0	0 1451 2267 1155 840 0 0 525 57 146 0 361	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47	765 kV	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 BHANPURA-RANPUR	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	451 0 0 0 0 0 454 98 132 197 966 0 18	0 1451 2267 1155 840 0 0 525 57 146 0 361 56	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1 -2
334 335 336 337 338 339 440 441 442 443 444 445 446 447 448 449 550	- 765 kV - 400 kV - 220 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	- 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	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	451 0 0 0 0 0 454 98 132 197 966 0 18 0 56	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0	12.1 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	765 kV 400 kV 220 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	765 kV 400 kV 220 kV 132kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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	451 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -9.1 -6.7 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	765 kV 400 kV 220 kV 132kV Export of HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	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	451 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -9.1 -6.7 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51	765 kV 400 kV 220 kV 132kV Export of HVDC LINK	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -9.1 -6.7 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	765 kV 400 kV 220 kV 132kV Export of HVDC	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	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	451 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -9.1 -6.7 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54	765 kV 400 kV 220 kV 132kV Export of HVDC LINK	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L SILERU SOLAPUR-RAICHUR	D/C D/C D/C D/C D/C D/C S/C S/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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 1.5 22.1 0.1 0.0 0.6 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2 0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55	- 765 kV - 400 kV - 220 kV - 132kV Export of - HVDC - LINK - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	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 D/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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 9.1 -6.7 -1.4 -1.5 -22.1 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8 -15.9 -0.0 -8.3 -0.0
34 35 36 37 38 39 40 41 42 43 44 45 50 51 51 55 55 56	- 765 kV - 400 kV - 220 kV - 132kV Export of - HVDC - LINK - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C D/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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2 0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 44 45 50 51 51 55 55 55 55 57	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHASE BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 56 20 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.6 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 9.1 6.7 1.4 1.5 22.1 -2 -0.3 -2.2 0.6 -0.2 0.0 -109.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 55 55 55 55 55 55 55 55	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJAL-PUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WANDIA 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 S/C D/C S/C S/C D/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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 2 0.4 2.2 0.0 170.1 15.9 0.0 8.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 9.1 -6.7 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8 -15.9 -0.0 -15.9 -0.0 -0.0 -0.0 -0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 55 55 55 55 55 55 55 55	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WAURAIYA 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 D/C S/C S/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	451 0 0 0 0 0 0 454 98 132 197 966 0 18 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR 803 0 1495 0 397 0 0 0 555 WR-SR	12.1 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1 15.9 0.0 8.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8 -15.9 -0.0 -15.9 -0.0 -0.0 -1.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 55 55 55 55 55 55 55 55	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WAURAIYA 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 D/C S/C S/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	451 0 0 0 0 0 454 98 132 197 966 0 18 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1451 2267 1155 840 0 0 525 57 146 0 361 56 126 0 31 0 WR-NR 803 0 1495 0 397 0 0 0 555 WR-SR	12.1 0.0 0.0 0.0 0.0 0.0 9.1 0.0 1.5 1.5 22.1 0 0.1 0.0 0.0 47.0	26.3 0.0 36.3 42.2 21.8 31.9 0.0 0.0 6.7 0.1 0.0 0.0 2 0.4 2.2 0.0 0.3 0.0 170.1 15.9 0.0 8.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	12.1 -36.3 -42.2 -21.8 -31.9 -0.0 -1.4 -1.5 -22.1 -2 -0.3 -2.2 -0.6 -0.2 -0.0 -109.8 -15.9 -0.0 -15.9 -0.0 -0.0 -1.1