

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)

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 09th July 2018

Τо

- 1. महाप्रबंधक, पू .क्षे .भा .प्रे .के., 14 , गोल्फ क्लब रोड , कोलकाता 700033 General Manager, 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. महाप्रबंधक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई -400093 General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग 793006 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. अपर महाप्रबंधक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Additional General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 08.06.2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 8 जुलाई 2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिंड निष्पादन रिपोर्ट रा०भा०प्रे०के० 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 8th July 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** 9-Jul-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	55492	41337	36097	18973	2581	154480
Peak Shortage (MW)	1004	0	0	0	107	1111
Energy Met (MU)	1365	990	812	427	50	3644
Hydro Gen (MU)	317	11	46	89	26	488
Wind Gen (MU)	35	110	209			354
Solar Gen (MU)*	19.14	16.54	32.32	0.92	0.02	69
Energy Shortage (MU)	14.6	0.0	0.0	0.0	1.2	15.7
Maximum Demand Met during the day	60706	43322	37092	21038	2552	161638
(MW) & time (from NLDC SCADA)	22:57	11:39	19:36	21:39	19:01	21:18

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	0.034	0.00	0.03	7.26	7.29	83.76	8.95

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	11442	0	261.7	141.5	-0.7	96	0.0
	Harvana	9534	0	204.2	145.7	1.8	296	0.0
	Rajasthan	10497	305	233.1	74.5	1.1	352	0.4
	Delhi	6373	0	123.3	97.2	0.0	191	0.2
NR	UP	19237	180	424.5	202.2	2.0	541	2.1
	Uttarakhand	2039	0	44.2	17.5	1.4	211	0.0
	HP	1195	47	23.7	-0.2	0.8	196	1.2
	J&K	2175	544	45.2	21.1	-1.1	183	10.7
	Chandigarh	278	0	5.6	6.3	-0.7	0	0.0
	Chhattisgarh	3515	0	80.7	27.5	-2.8	198	0.0
	Gujarat	13667	0	312.4	94.3	5.9	887	0.0
	MP	7502	0	168.8	76.7	0.4	378	0.0
14/15	Maharashtra	17209	0	383.1	102.8	-1.3	529	0.0
WR	Goa	351	0	8.2	7.5	0.0	33	0.0
	DD	304	0	6.9	5.8	1.1	93	0.0
	DNH	729	0	17.1	16.3	0.9	106	0.0
	Essar steel	606	0	12.5	12.5	0.1	256	0.0
	Andhra Pradesh	6593	0	152.2	14.1	1.0	441	0.0
	Telangana	6348	0	135.8	69.4	0.3	452	0.0
SR	Karnataka	7947	0	163.5	46.3	-4.2	357	0.0
3K	Kerala	2992	0	58.5	42.0	0.5	239	0.0
	Tamil Nadu	12991	0	294.9	90.6	0.6	520	0.0
	Pondy	346	0	7.3	7.5	-0.3	21	0.0
	Bihar	4888	0	94.0	89.3	2.1	280	0.0
	DVC	3273	0	69.5	-41.9	-0.2	311	0.0
ER	Jharkhand	1135	0	23.3	17.9	-0.1	140	0.0
EK	Odisha	3898	0	74.7	32.0	1.5	220	0.0
	West Bengal	8147	0	164.9	46.6	4.0	310	0.0
	Sikkim	70	0	0.9	1.3	-0.4	7	0.0
	Arunachal Pradesh	124	4	2.1	2.4	-0.3	13	0.0
	Assam	1642	69	31.4	24.3	1.3	168	1.0
	Manipur	160	5	2.3	2.6	-0.3	2	0.0
NER	Meghalaya	304	1	5.5	0.4	-0.1	34	0.0
	Mizoram	83	5	1.5	0.8	0.2	0	0.0
	Nagaland	111	4	2.3	2.2	-0.1	0	0.0
	Tripura	264	2	5.0	4.2	-0.4	42	0.0

 $D.\ T\underline{ransnational}\ Exchanges\ \ (MU) - Import(+ve)/Export(-ve)$

	Bhutan	Nepal	Bangladesh
Actual(MU)	26.9	-7.1	-14.1
Day peak (MW)	1455.7	-370.3	-684.3

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	324.0	-248.9	19.8	-92.2	-2.7	0.0
Actual(MU)	328.6	-262,2	7.0	-81.1	-5.1	-12.9
O/D/U/D(MU)	4.6	-13.3	-12.8	11.1	-2.4	-12.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5308	15457	8772	1365	146	31048
State Sector	6890	17696	10020	6055	50	40711
Total	12198	33153	18792	7420	196	71759

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	613	1041	422	440	8	2523
Hydro	317	11	47	89	26	490
Nuclear	27	29	46	0	0	102
Gas, Naptha & Diesel	38	49	24	0	24	135
RES (Wind, Solar, Biomass & Others)	64	127	276	1	0	469
Total	1060	1257	814	530	58	3719

Share of RES in total generation (%)	6.08	10.08	33.92	0.23	0.05	12.60
Share of Non-fossil fuel (Hydro, Nuclear and	38.55	13.30	45.27	17.04	44.84	28.52
RES) in total generation (%)	36.33	15.50	45.27	17.04	44.04	20.52

H. Diversity Factor
All India Demand Diversity Factor
1.019
Diversity factor = Sum of regional maximum demands / All India maximum demand

						Date of 1	Reporting	9-Jul
								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	0	607	0.0	10.0	10.0
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0 261	607	0.0 2.6	0.0	-10.8 2.6
3	70011	GAYA-BALIA	S/C	0	463	0.0	8.7	-8.7
4	HVDC	ALIPURDUAR-AGRA	-	0	686	0.0	16.4	-16.4
5	IIVDC	PUSAULI B/B	S/C	0	378	0.0	9.2	-9.2
6		PUSAULI-VARANASI	S/C	0	256	0.0	0.0	0.0
7 8	1	PUSAULI -ALLAHABAD	S/C D/C	0	178 796	0.0	0.0	0.0 -14.0
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	O/C	0	959	0.0	19.9	-14.0
10	100 K	BIHARSHARIFF-BALIA	D/C	0	362	0.0	6.0	-6.0
11	1	MOTIHARI-GORAKHPUR	D/C	316	1	4.8	0.0	4.8
12	Ī	BIHARSHARIFF-VARANASI	D/C	717	0	0.0	1.8	-1.8
13	220 kV	PUSAULI-SAHUPURI	S/C	0	201	0.0	4.1	-4.1
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	35	0	0.4	0.0	0.4
16		KARMANASA-SAHUPURI	S/C	0	45	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
iport/I	Export of	ER (With WR)			ER-NR	7.8	91.0	-83.2
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	553	0	6.8	0.0	6.8
19	ļ	NEW RANCHI-DHARAMJAIGARH	D/C	763	0	10.2	0.0	10.2
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	816	0	10.1	0.0	10.1
22		RANCHI-SIPAT	D/C S/C	374 51	0 80	4.4 0.0	0.0	-0.7
23	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	D/C	119	0	1.9	0.7	1.9
23		BUDHIFADAK-KUKBA	D/C	119	ER-WR	33.5	0.7	32.8
		ER (With SR)	D/G	101.0	002.0	0.0	0.0	0.0
24	765 kV	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	101.0 0.0	902.9 414.1	0.0	9.8	-9.8 -9.9
26	HVDC LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1955.7	0.0	26.3	-26.3
27	400 kV	TALCHER-I/C	D/C	862.2	0.8	0.0	12.2	-12.2
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
	S	ED (MATAL MED)			ER-SR	0.0	46.0	-46.0
29	T .	ER (With NER) BINAGURI-BONGAIGAON	D/C	0	521	0.0	7.8	-8
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	183	239	0.0	0.4	0
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	126	0.0	1.8	-2
. /5		NED (Wild ND)			ER-NER	0.0	9.9	-9.9
32		NER (With NR) BISWANATH CHARIALI-AGRA	_	0	701	0.0	17.1	-17.1
	11,20	DID WITH CITE MAINED FROM			NER-NR	0.0	17.1	-17.1
iport/I	Export of	WR (With NR)						•
				62	1212	0.0	11.6	-11.6
33		CHAMPA-KURUKSHETRA	D/C		+			F 1
34	HVDC	V'CHAL B/B	D/C	241	53	5.2	0.2	5.1
34 35	HVDC	V'CHAL B/B APL -MHG	D/C D/C	241 0	53 1916	0.0	48.4	-48.4
34 35 36	HVDC	V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	241 0 0	53 1916 1468	0.0	48.4 55.4	-48.4 -55.4
34 35 36 37		V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	241 0 0 0	53 1916 1468 1539	0.0 0.0 0.0	48.4 55.4 30.9	-48.4 -55.4 -30.9
34 35 36 37 38	HVDC 765 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C	241 0 0 0 0	53 1916 1468 1539 0	0.0 0.0 0.0 0.0	48.4 55.4 30.9 0.0	-48.4 -55.4 -30.9 0.0
34 35 36 37 38 39		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	241 0 0 0 0 0 474	53 1916 1468 1539 0	0.0 0.0 0.0 0.0 10.0	48.4 55.4 30.9 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0
34 35 36 37 38 39 40		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 S/C S/C	241 0 0 0 0 0 474 0	53 1916 1468 1539 0 0	0.0 0.0 0.0 0.0 10.0	48.4 55.4 30.9 0.0 0.0 38.4	-48.4 -55.4 -30.9 0.0 10.0 -38.4
34 35 36 37 38 39	765 kV	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	241 0 0 0 0 0 474	53 1916 1468 1539 0	0.0 0.0 0.0 0.0 10.0	48.4 55.4 30.9 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0
34 35 36 37 38 39 40 41		V'CHAL 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	241 0 0 0 0 0 474 0 220	53 1916 1468 1539 0 0 1790	0.0 0.0 0.0 0.0 10.0 0.0 1.3	48.4 55.4 30.9 0.0 0.0 38.4 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3
34 35 36 37 38 39 40 41 42	765 kV	V'CHAL 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	241 0 0 0 0 474 0 220 180	53 1916 1468 1539 0 0 1790 116	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6	48.4 55.4 30.9 0.0 0.0 38.4 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6
34 35 36 37 38 39 40 41 42 43	765 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C	241 0 0 0 0 474 0 220 180 960	53 1916 1468 1539 0 0 1790 116 117 0	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3
34 35 36 37 38 39 40 41 42 43 44 45	765 kV	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	241 0 0 0 0 474 0 220 180 960 0	53 1916 1468 1539 0 0 1790 116 117 0 851	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29
34 35 36 37 38 39 40 41 42 43 44 45	765 kV	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 0.0 29 1.4	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	765 kV 400 kV - 220 kV	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	241 0 0 0 0 474 0 220 180 960 0 13 0 24	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.8	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47	765 kV	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	241 0 0 0 0 474 0 220 180 960 0 13 0 24	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV 400 kV 220 kV 132kV Export of HVDC	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0	0.0 0.0 0.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV 400 kV 220 kV 132kV	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/I 50 51 52	765 kV 400 kV 220 kV 132kV Export of HVDC	VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.0 0.0 0.0 1.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.8 0.0 218.5 4.8	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 **Papert/F** 50 51 52 53	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 10.0 0.0 1.3 0.6 22.3 0 0.0 0.0 0.1 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54	765 kV 400 kV 220 kV 132kV Export of HVDC LINK	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	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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 11.7 0.0 11.7	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 55 51 52 53 54 55	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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-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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0 0.0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0 -4.8 0.0 11.7 -54.3 14.1 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 D/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 S/C S/C S/C S/C S/C S/C S/C S	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 11.7 0.0 11.7 0.0 14.1 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0 -4.8 0.0 11.7 -54.3 14.1 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Au 55 51 52 53 54 55	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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-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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0 0 1218 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0 -4.8 0.0 11.7 -54.3 14.1 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 PPOT/I 52 53 54 55 56	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0 0 1218 0 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 0.0 11.7 0.0 11.7 0.0 14.1 0.0 0.0	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0 -4.8 0.0 11.7 -54.3 14.1 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 PPOT/I 52 53 54 55 56	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 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	241 0 0 0 0 474 0 220 180 960 0 13 0 24 0 0 0 1218 0 0	53 1916 1468 1539 0 0 1790 116 117 0 851 58 126 19 51 0 WR-NR	0.0 0.0 0.0 0.0 10.0 0.0 11.3 0.6 22.3 0 0.0 0.0 0.1 0.0 39.5	48.4 55.4 30.9 0.0 0.0 38.4 0.0 0.0 29 1.4 2.1 0.1 0.8 0.0 218.5 4.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-48.4 -55.4 -30.9 0.0 10.0 -38.4 1.3 0.6 22.3 -29 -1.4 -2.1 -0.1 -0.8 0.0 -179.0 -4.8 0.0 11.7 -54.3 14.1 0.0 0.0