

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, कुत्ब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

दिनांक: 26th July 2018

Ref: POSOCO/NLDC/SO/Daily PSP Report

To,

1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14 , गोल्फ क्लब रोड , कोलकाता - 700033 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 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 25.07.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 25-जुलाई-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 25th 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**

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	49075	41660	42301	19795	2688	155519
Peak Shortage (MW)	693	0	0	0	116	809
Energy Met (MU)	1168	955	957	425	50	3553
Hydro Gen (MU)	326	21	115	103	26	591
Wind Gen (MU)	50	148	205			403
Solar Gen (MU)*	16.28	9.08	49.43	0.43	0.02	75
Energy Shortage (MU)	9.0	0.0	0.9	0.0	1.3	11.1
Maximum Demand Met during the day	54690	43157	43454	20708	2635	158977
(MW) & time (from NLDC SCADA)	00:25	09:52	19:30	19:50	18:55	19:55

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 0.29 0.56 5.73 0.041 69.85 23.58

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	10500	0	231.7	137.9	-1.4	91	0.0
	Haryana	8611	0	183.0	149.6	0.1	256	0.0
ND	Rajasthan	8033	0	176.9	41.4	-0.9	249	0.0
	Delhi	5734	0	118.1	92.6	-2.3	186	0.0
NR	UP	18065	0	344.3	165.3	-0.4	459	0.0
	Uttarakhand	1932	0	43.3	29.0	-1.0	106	0.0
	HP	1305	0	27.0	-1.9	2.2	261	0.1
	J&K	2006	501	37.3	18.0	-6.3	0	8.9
	Chandigarh	301	0	5.9	6.4	-0.5	14	0.0
	Chhattisgarh	3499	0	79.1	10.3	-1.2	147	0.0
Gujarat MP	12229	0	277.6	48.9	0.9	596	0.0	
		7000	0	153.5	69.3	-1.2	430	0.0
14/0	Maharashtra	18172	0	396.1	110.7	4.8	702	0.0
WR	Goa	440	0	10.1	9.3	0.1	97	0.0
	DD	329	0	7.3	6.3	1.0	79	0.0
	DNH	730	0	17.1	16.6	0.5	56	0.0
	Essar steel	667	0	13.8	14.1	-0.3	272	0.0
	Andhra Pradesh	8000	0	181.7	21.6	3.6	431	0.0
	Telangana	9162	0	195.7	91.7	0.6	574	0.0
SR	Karnataka	8683	0	180.3	52.4	2.4	445	0.0
SK	Kerala	3197	0	62.8	23.1	1.7	295	0.8
	Tamil Nadu	14632	0	328.2	99.6	0.0	349	0.0
	Pondy	360	0	7.9	8.0	-0.1	61	0.2
	Bihar	4532	0	79.2	81.8	-2.9	100	0.0
	DVC	2999	0	69.0	-39.0	2.5	300	0.0
ER	Jharkhand	1072	0	21.6	18.9	-2.2	0	0.0
EK	Odisha	4367	0	86.0	41.6	4.5	470	0.0
	West Bengal	8169	0	167.7	52.3	2.6	300	0.0
	Sikkim	97	0	1.2	1.3	-0.1	0	0.0
	Arunachal Pradesh	103	2	2.1	2.2	-0.1	55	0.0
	Assam	1756	65	32.5	26.5	1.5	178	1.1
	Manipur	160	3	2.2	2.3	-0.1	20	0.0
NER	Meghalaya	297	0	5.8	0.8	-0.2	24	0.0
	Mizoram	83	2	1.5	0.8	0.0	8	0.0
	Nagaland	116	2	2.1	1.9	-0.2	9	0.0
	Tripura	258	1	3.8	6.0	-0.8	40	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	33.5	-6.4	-14.6
Day peak (MW)	1555.9	-424.8	-648.8

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	272.7	-245.4	60.7	-54.1	-2,2	31.7
Actual(MU)	265.0	-240.3	48.5	-45.2	-2.4	25.6
O/D/U/D(MU)	-7.7	5.2	-12.2	8.9	-0.2	-6.1

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4614	17727	9792	1535	179	33847
State Sector	9575	19276	9790	5625	50	44316
Total	14189	37003	19582	7160	229	78162

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	482	962	447	395	8	2293
Hydro	326	21	116	103	26	592
Nuclear	27	30	53	0	0	110
Gas, Naptha & Diesel	27	37	25	0	25	113
RES (Wind, Solar, Biomass & Others)	79	157	289	1	0	526
Total	940	1208	929	499	59	3635
•						_

Share of RES in total generation (%)	8.41	12.98	31.12	0.14	0.06	14.46
Share of Non-fossil fuel (Hydro, Nuclear and	45.97	17.21	49.28	20.84	44.39	33.79
RES) in total generation (%)	45.97	17.21	49.20	20.04	44.39	33.19

H. Diversity Factor
All India Demand Diversity Factor
1.036
Diversity factor = Sum of regional maximum demands / All India maximum demand

26-Jul-18

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

						Date of I	Reporting :	26-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	511	0.0	0.7	0.7
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0 156	511 137	0.0	8.7 0.0	-8.7 0.3
3	70011	GAYA-BALIA	S/C	0	365	0.0	10.6	-10.6
4	HVDC	ALIPURDUAR-AGRA	-	0	589	0.0	11.9	-11.9
5	11,50	PUSAULI B/B	S/C	2	147	0.0	3.6	-3.6
6		PUSAULI-VARANASI	S/C	0	133	0.0	0.0	0.0
7 8		PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	S/C D/C	0	88 881	0.0	0.0	0.0 -16.0
9	400 kV	PATNA-BALIA	O/C	0	888	0.0	16.6	-16.6
10	100 111	BIHARSHARIFF-BALIA	D/C	0	434	0.0	8.1	-8.1
11	_	MOTIHARI-GORAKHPUR	D/C	252	0	3.5	0.0	3.5
12		BIHARSHARIFF-VARANASI	D/C	912	0	0.0	4.2	-4.2
13	220 kV	PUSAULI-SAHUPURI	S/C	0	162	0.0	3.2	-3.2
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	4	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17	<u> </u>	KARMANASA-CHANDAULI	S/C	0	0 EB NB	0.0	0.0	0.0
port/I	Export of	ER (With WR)			ER-NR	4.2	82.7	-78.5
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	837	0	22.2	0.0	22.2
19]	NEW RANCHI-DHARAMJAIGARH	D/C	689	0	10.5	0.0	10.5
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	829	0	15.6	0.0	15.6
21	·	RANCHI-SIPAT	D/C S/C	343 149	0	6.4 2.4	0.0	6.4 2.4
23	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	D/C	189	0	3.9	0.0	3.9
23		BUDHIFADAR-KUKBA	D/C	109	ER-WR	61.0	0.0	61.0
	· •	ER (With SR)	D/C	0.0	1170.0	0.0	14.1	14.1
24	765 kV	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	0.0 1.6	1178.8 375.9	0.0	7.3	-14.1 -7.3
26	HVDC LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1485.2	0.0	28.4	-7.3
27	400 kV	TALCHER-I/C	D/C	616.5	0.8	0.3	9.9	-9.6
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
	3	ED (MALAIED)			ER-SR	0.0	49.8	-49.8
29	1	ER (With NER) BINAGURI-BONGAIGAON	D/C	0	374	0.0	5.0	-5
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	212	139	0.3	0.0	0
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	100	0.0	2.7	-3
. 75		NED (Wild ND)	•		ER-NER	0.3	7.7	-7.4
32 32		NER (With NR) BISWANATH CHARIALI-AGRA	T .	0	602	0.0	12.1	-12.1
32	пурс	DISWANATTI CHARIALI-AGRA		0	NER-NR	0.0	12.1	-12.1
ıport/I	Export of	WR (With NR)						1
33		CHAMPA-KURUKSHETRA	D/C	0	2002	0.0	37.8	-37.8
34	TITE	CHAMPA-KUKUKSHETKA	D/C		2002			0.8
	HVDC	V'CHAL B/B	D/C	144	53	1.1	0.4	
35	HVDC	V'CHAL B/B APL -MHG	D/C D/C	0	53 1537	0.0	31.6	-31.6
35 36	HVDC	V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	0	53 1537 1127	0.0	31.6 45.3	-31.6 -45.3
35 36 37		V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 0 0	53 1537 1127 1259	0.0 0.0 0.0	31.6 45.3 23.3	-31.6 -45.3 -23.3
35 36 37 38	765 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C	0 0 0	53 1537 1127 1259 675	0.0 0.0 0.0 0.0	31.6 45.3 23.3 21.4	-31.6 -45.3 -23.3 -21.4
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	0 0 0 0 338	53 1537 1127 1259 675 0	0.0 0.0 0.0 0.0 6.3	31.6 45.3 23.3 21.4 0.0	-31.6 -45.3 -23.3 -21.4 6.3
35 36 37 38		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 D/C	0 0 0	53 1537 1127 1259 675	0.0 0.0 0.0 0.0	31.6 45.3 23.3 21.4	-31.6 -45.3 -23.3 -21.4
35 36 37 38 39 40	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 S/C	0 0 0 0 338 0	53 1537 1127 1259 675 0 1666	0.0 0.0 0.0 0.0 6.3 0.0	31.6 45.3 23.3 21.4 0.0 32.6	-31.6 -45.3 -23.3 -21.4 6.3 -32.6
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	0 0 0 0 338 0	53 1537 1127 1259 675 0 1666 109	0.0 0.0 0.0 0.0 6.3 0.0 0.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0	-31.6 -45.3 -23.3 -21.4 6.3 -32.6 0.7
35 36 37 38 39 40 41 42	765 kV	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 0 0 0 338 0 156	53 1537 1127 1259 675 0 1666 109 83	0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6	31.6 45.3 23.3 21.4 0.0 32.6 0.0	-31.6 -45.3 -23.3 -21.4 6.3 -32.6 0.7 1.6
35 36 37 38 39 40 41 42 43	765 kV	VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 0 0 338 0 156 186 970	53 1537 1127 1259 675 0 1666 109 83	0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0	-31.6 -45.3 -23.3 -21.4 6.3 -32.6 0.7 1.6 18.8
35 36 37 38 39 40 41 42 43 44 45 46	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 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 0 0 0 338 0 156 186 970	53 1537 1127 1259 675 0 1666 109 83 0 254	0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0	-31.6 -45.3 -23.3 -21.4 6.3 -32.6 0.7 1.6 18.8
35 36 37 38 39 40 41 42 43 44 45 46 47	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 RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	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 0 0 0 338 0 156 186 970 168 28 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30	0.0 0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8 0 0.1 0.0	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1
35 36 37 38 39 40 41 42 43 44 45 46 47 48	765 kV - 400 kV - 220 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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	0 0 0 0 338 0 156 186 970 168 28 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44	0.0 0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8 0 0.1 0.0	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1
35 36 37 38 39 40 41 42 43 44 45 46 47	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 RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	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 0 0 0 338 0 156 186 970 168 28 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30	0.0 0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8 0 0.1 0.0	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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	0 0 0 0 338 0 156 186 970 168 28 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44	0.0 0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 -7 -1.6 -1.8 -1 -0.6 -1.4 -0.1 -0.5 -0.0
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	0 0 0 0 338 0 156 186 970 168 28 0 38 11	53 1537 1127 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 6.3 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 -0.7 -1.6 -18.8 -1 -0.6 -1.4 -0.1 -0.5 -0.0 -167.2
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	0 0 0 0 338 0 156 186 970 168 28 0 38 11	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 -0.7 -1.6 -1.8.8 -1 -0.6 -1.4 -0.1 -0.5 -0.0 -167.2
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-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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/I 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	0 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 1.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 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 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 S/C S/C S	0 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Paport/K 50 51 52 53 54	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-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 S/C S/C S	0 0 0 0 338 0 156 186 970 168 28 0 38 111 0	53 1537 1127 11289 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2 -7.2 0.0 4.5 -23.3 9.3 0.0
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR IABALPUR-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 S/C S/C S	0 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 50 51 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 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-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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0 0.0 0.0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2 -7.2 -7.2 -7.3 9.3 0.0 0.0
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 49 49 50 51 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 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 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2 -7.2 -7.2 -7.2 -2.3 9.3 0.0 0.0 0.0
35 36 37 38 39 40 41 42 44 44 45 46 47 48 49 port/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 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 0 0 0 338 0 156 186 970 168 28 0 38 11 0	53 1537 1127 1259 675 0 1666 109 83 0 254 39 60 30 44 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.6 18.8 0 0.1 0.0 0.1 0.0 0.0 28.7	31.6 45.3 23.3 21.4 0.0 32.6 0.0 0.0 0.0 1 0.6 1.4 0.2 0.5 0.0 195.9 7.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-31.6 -45.3 -23.3 -21.4 -6.3 -32.6 0.7 1.6 18.8 -1 -0.6 -1.4 -0.1 -0.5 0.0 -167.2 -7.2 -7.2 -7.2 -2.3 9.3 0.0 0.0 0.0