

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: 21th Nov 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 20.11.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 20-नवंबर-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 20th November 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** 21-Nov-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	42236	49243	40835	18142	2419	152875
Peak Shortage (MW)	770	0	0	0	35	805
Energy Met (MU)	903	1169	911	352	42	3377
Hydro Gen (MU)	129	23	63	36	9	260
Wind Gen (MU)	21	20	34			75
Solar Gen (MU)*	19.66	16.89	59.56	0.82	0.05	97
Energy Shortage (MU)	11.5	0.0	0.0	0.0	0.5	12.0
Maximum Demand Met during the day	43690	54127	40845	18661	2403	156199
(MW) & time (from NLDC SCADA)	18:31	10:23	18:40	19:17	17:44	18:27

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	0.032	0.00	0.00	3.83	3.83	80.79	15.38

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	5222	0	116.8	28.6	0.5	111	0.0
	Harvana	5959	225	116.0	70.3	0.8	161	0.3
	Rajasthan	11145	0	226.8	57.8	2.3	608	0.0
	Delhi	3207	0	61.7	45.5	0.0	209	0.1
NR	UP	13057	0	269.4	108.4	0.8	307	0.4
	Uttarakhand	1851	0	36.0	23.6	0.4	190	0.0
	HP	1568	0	27.8	19.2	0.0	135	0.0
	J&K	2374	594	45.7	37.2	-0.8	297	10.7
	Chandigarh	181	0	3.2	3.2	0.0	22	0.0
	Chhattisgarh	3474	0	76.2	9.1	-1.4	149	0.0
Gujarat	14998	0	327.1	133.1	0.7	582	0.0	
	MP	13235	0	271.2	158.5	-1.0	216	0.0
14/15	Maharashtra	21335	0	449.6	135.8	-3.1	448	0.0
WR	Goa	480	0	10.6	10.1	0.2	52	0.0
	DD	322	0	7.1	6.3	0.8	84	0.0
	DNH	664	0	15.2	14.6	0.5	72	0.0
	Essar steel	586	0	12.0	11.1	0.9	360	0.0
	Andhra Pradesh	8199	0	182.4	67.9	-0.5	600	0.0
	Telangana	8286	0	179.1	86.1	2.9	625	0.0
SR	Karnataka	10140	0	204.3	71.5	0.1	646	0.0
SK	Kerala	3523	0	69.2	50.2	1.4	253	0.0
	Tamil Nadu	12826	0	268.9	143.9	0.3	502	0.0
	Pondy	324	0	6.8	7.0	-0.3	36	0.0
	Bihar	4014	0	70.0	68.2	-0.9	460	0.0
	DVC	2978	0	63.5	-29.5	1.3	396	0.0
ER	Jharkhand	1145	0	23.7	15.7	-0.9	169	0.0
EK	Odisha	4430	0	86.3	33.8	1.6	267	0.0
	West Bengal	6206	0	107.3	25.2	1.9	309	0.0
	Sikkim	100	0	1.5	1.4	0.1	18	0.0
	Arunachal Pradesh	121	2	2.2	1.9	0.3	40	0.0
	Assam	1436	23	24.0	18.4	1.1	139	0.4
	Manipur	165	1	2.6	2.6	0.0	71	0.0
NER	Meghalaya	337	0	6.1	3.7	0.1	48	0.0
	Mizoram	86	2	1.7	1.0	0.0	12	0.0
	Nagaland	111	3	2.2	1.8	0.2	20	0.0
	Tripura	218	0	3.6	1.6	0.0	28	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	7.2	-2.4	-18.1
Day peak (MW)	306.3	-152.0	-843.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	124.3	-160.6	119.6	-81.1	-1.9	0.3
Actual(MU)	120.3	-183.9	124.0	-70.8	-2.1	-12.5
O/D/U/D(MU)	-4.0	-23.2	4.4	10.2	-0.2	-12.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5433	13555	7752	600	157	27496
State Sector	11435	12814	8110	5365	50	37774
Total	16868	26369	15862	5965	206	65270

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	539	1227	534	419	10	2728
Hydro	129	23	63	36	9	260
Nuclear	24	18	39	0	0	81
Gas, Naptha & Diesel	29	41	23	0	30	123
RES (Wind, Solar, Biomass & Others)	72	38	130	1	0	241
Total	793	1346	789	456	48	3432

Share of RES in total generation (%)	9.03	2.80	16.52	0.18	0.10	7.01
Share of Non-fossil fuel (Hydro, Nuclear and	28.43	5 92	29.43	8.08	17.99	16.94
RES) in total generation (%)	26.43	5.62	29.43	0.00	17.99	10.94

H. Diversity Factor
All India Demand Diversity Factor
1.023
Diversity factor = Sum of regional maximum demands / All India maximum demand

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

				01,112,111	<u>CHANGES</u>	Date of I	Reporting :		
	T		1	Max	T			Import=(+ve) /Export =(-ve) for NET (MU)	
Sl No	Voltage Level	Line Details	Circuit	Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)	
mport/E	export of	ER (With NR) GAYA-VARANASI	D/C	67	333	0.0	3.1	-3.1	
2	765kV	SASARAM-FATEHPUR	S/C	151	220	1.0	0.0	1.0	
3		GAYA-BALIA	S/C	0	190	0.0	3.1	-3.1	
4	HVDC	ALIPURDUAR-AGRA	-	0	300	0.0	7.0	-7.0	
5		PUSAULI B/B	S/C	2	348	0.0	8.2	-8.2	
6 7	-	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	6	244 161	0.0	2.9	-5.0 -2.9	
8		MUZAFFARPUR-GORAKHPUR	D/C	116	353	0.0	1.9	-1.9	
9	400 kV	PATNA-BALIA	Q/C	0	771	0.0	14.2	-14.2	
10		BIHARSHARIFF-BALIA	D/C	16	120	0.0	0.9	-0.9	
11		MOTIHARI-GORAKHPUR	D/C	0	348	0.0	6.6	-6.6	
12	1	BIHARSHARIFF-VARANASI	D/C	171	115	1.6	0.0	1.6	
13	220 kV	PUSAULI-SAHUPURI	S/C	0	123	0.0	2.1	-2.1	
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0	
15	132 kV	GARWAH-RIHAND	S/C	25	0	0.6	0.0	0.6	
16	1	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0	
17		KARMANASA-CHANDAULI	S/C	0	0 ED MD	0.0	0.0	0.0	
nport/E	Export of	ER (With WR)			ER-NR	3.2	54.9	-51.7	
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	1747	0	26.0	0.0	26.0	
19		NEW RANCHI-DHARAMJAIGARH	D/C	311	279	0.0	0.8	-0.8	
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	314	0	4.1	0.0	4.1	
21		RANCHI-SIPAT	D/C	218	101	2.8 0.0	0.0	2.8	
22	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	S/C D/C	194	0	3.4	0.0	3.4	
23	1	BUDHIFADAK-KUKBA	D/C	194	ER-WR	36.2	2.4	33.9	
nport/E	Export of 765 kV	ER (With SR) ANGUL-SRIKAKULAM	D/C	0.0	1883.0	0.0	34.0	-34.0	
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	623.0	0.0	14.6	-14.6	
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2462.0	0.0	47.0	-47.0	
27	400 kV	TALCHER-I/C	D/C	0.0	830.0	0.0	2.1	-2.1	
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0	
nport/E	Export of	ER (With NER)			ER-SR	0.0	95.6	-95.6	
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	392	0.0	6.5	-7	
30	400 K 1	ALIPURDUAR-BONGAIGAON	D/C	5	180	0.0	1.9	-2	
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	109	0.0	1.6	-2	
nport/E	Export of	NER (With NR)			ER-NER	0.0	10.0	-10.0	
32		BISWANATH CHARIALI-AGRA	-	0	504	0.0	11.8	-11.8	
nnort/E	Export of	WR (With NR)			NER-NR	0.0	11.8	-11.8	
33	Aport or	CHAMPA-KURUKSHETRA	D/C	0	901	0.0	21.2	-21.2	
34						6.1		6.1	
	HVDC	V'CHAL B/B	D/C	241	0		0.0		
35	HVDC	V'CHAL B/B APL -MHG	D/C D/C	241 0	790	0.0	0.0 19.4	-19.4	
	HVDC								
35	HVDC	APL -MHG	D/C	0	790	0.0	19.4	-19.4	
35 36		APL -MHG GWALIOR-AGRA	D/C D/C	0	790 754	0.0	19.4 26.6	-19.4 -26.6	
35 36 37 38 39		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C S/C	0 0 0 72 530	790 754 1109 149	0.0 0.0 0.0 0.0 9.8	19.4 26.6 19.2 4.1 0.0	-19.4 -26.6 -19.2 -4.1 9.8	
35 36 37 38 39 40		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C S/C S/C	0 0 0 72 530 0	790 754 1109 149 0 1628	0.0 0.0 0.0 0.0 9.8 0.0	19.4 26.6 19.2 4.1 0.0 35.5	-19.4 -26.6 -19.2 -4.1 9.8 -35.5	
35 36 37 38 39 40 41		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C D/C D/C D/C S/C S/C S/C	0 0 0 72 530 0 363	790 754 1109 149 0 1628	0.0 0.0 0.0 0.0 9.8 0.0 6.7	19.4 26.6 19.2 4.1 0.0 35.5 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7	
35 36 37 38 39 40 41 42		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C S/C S/C S/C S/C	0 0 0 72 530 0 363 259	790 754 1109 149 0 1628 0	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3	19.4 26.6 19.2 4.1 0.0 35.5 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3	
35 36 37 38 39 40 41 42 43	765 kV	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 S/C S/C S/C S/C S/C S/C	0 0 0 72 530 0 363 259 990	790 754 1109 149 0 1628 0 31	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2	
35 36 37 38 39 40 41 42 43 44	765 kV	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 S/C S/C S/C S/C S/C S/C D/C	0 0 0 72 530 0 363 259 990 401	790 754 1109 149 0 1628 0 31 0	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2	
35 36 37 38 39 40 41 42 43 44 45	765 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C	0 0 0 72 530 0 363 259 990 401 67	790 754 1109 149 0 1628 0 31 0 0	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3	
35 36 37 38 39 40 41 42 43 44 45 46	765 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK	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 72 530 0 363 259 990 401 67	790 754 1109 149 0 1628 0 31 0 0 36	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8	
35 36 37 38 39 40 41 42 43 44 45 46 47	765 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-BHINMAL VCHAL-RHIHAND 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 0 0 72 530 0 363 259 990 401 67 76	790 754 1109 149 0 1628 0 31 0 0 0 36	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8 1.6	
35 36 37 38 39 40 41 42 43 44 45 46	765 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MORAK	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 72 530 0 363 259 990 401 67	790 754 1109 149 0 1628 0 31 0 0 36	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	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-AGRA	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 72 530 0 363 259 990 401 67 76 113	790 754 1109 149 0 1628 0 31 0 0 0 36	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV - 132kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67	790 754 1109 149 0 1628 0 31 0 0 36 0 11 0 WR-NR	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 -68.9	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113	790 754 1109 149 0 1628 0 31 0 0 36 0 11	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 9.8 -35.5 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 -68.9	
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	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 BASUR-L.SILERU	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 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 36 0 11 0 WR-NR	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 126.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -68.9 -23.3 -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	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 BASUR-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 WR-NR	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 126.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -6.8 -6.9 -23.3 -2.3 -2.3 -2.3 -2.5 -2.5 -2.5 -2.5 -2.5 -2.5 -2.5 -2.5	
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	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 1 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -0.8 -6.9 -23.3 -2.7 -68.9	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 **Propert/F** 50 51 52 53	765 kV 400 kV 220 kV 132kV Export of HVDC LINK	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 BASUR-L.SILERU SOLAPUR-RAICHUR	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 WR-NR	0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 126.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -6.6 -0.7 -0.0 -68.9 -23.3 -25.4	
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	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-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 WARDHA-NIZAMABAD KOLHAPUR-KUDGI	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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 1 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -1.6 -0.7 -0.0 -68.9 -23.3 -25.4 -34.0 -0.0	
35 36 37 38 39 40 41 42 44 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 400 kV	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 WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 0 36 0 1 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -1.6 -0.7 -0.0 -68.9 -23.3 -23.3 -23.4 -34.0 -0.0 -0.0	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/E 53 54 55 56	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 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	0 0 0 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 0 31 0 0 0 0 WR-NR 1002 0 2086 2445 0 0 0	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -1.6 -0.7 -0.0 -68.9 -23.3 -23.4 -34.0 -0.0 -0.0 -0.0	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/E 53 54 55 56	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 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 72 530 0 363 259 990 401 67 76 113 67 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 1 1 0 WR-NR 1002 0 2086 2445 0 0 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 -3.3 -22.2 -3 -2.7 -0.8 -1.6 -0.7 -0.0 -68.9 -23.3 -23.3 -23.4 -34.0 -0.0 -0.0 -0.0 -1.3	
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 port/E 55 51 55 55 56	765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	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 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 72 530 0 363 259 990 401 67 76 113 67 0 0 0 0 0 0	790 754 1109 149 0 1628 0 31 0 0 0 36 0 1 1 0 WR-NR 1002 0 2086 2445 0 0 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 9.8 0.0 6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 57.1	19.4 26.6 19.2 4.1 0.0 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-19.4 -26.6 -19.2 -4.1 -9.8 -35.5 -6.7 3.3 22.2 3 2.7 0.8 1.6 0.7 0.0 -68.9 -23.3 0.0 -25.4 -34.0 0.0 0.0 1.3	