

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)
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बी-9, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 28th Nov 2019

To,

- 1. 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. 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. 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 27.11.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 27-नवम्बर-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 27th Nov 2019, 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 28-Nov-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 1900 hrs; from RLDCs)	42224	48291	38299	17805	2373	148992
Peak Shortage (MW)	433	0	0	0	33	466
Energy Met (MU)	853	1146	888	343	41	3270
Hydro Gen (MU)	131	41	91	38	9	310
Wind Gen (MU)	13	72	53			138
Solar Gen (MU)*	24.61	19.3	71.59	1.81	0.05	117
Energy Shortage (MU)	9.5	0.0	0.0	0.0	0.4	9.9
Maximum Demand Met during the day	42672	52661	40809	18550	2427	152665
(MW) & time (from NLDC SCADA)	18:49	10:55	07:36	18:13	17:51	18:22

C. Power Sup	ply Posit	tion in	States
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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	5017	0	98.0	43.2	-1.5	45	0.0
	Haryana	5494	0	108.2	92.6	0.4	286	0.0
	Rajasthan	11474	0	218.6	64.3	0.2	464	0.0
	Delhi	3457	0	62.6	53.0	-0.9	219	0.1
NR	UP	14023	0	258.4	111.7	-0.2	818	0.1
	Uttarakhand	1792	0	34.6	22.6	0.4	144	0.0
	HP	1567	0	28.6	20.9	-0.2	125	0.0
	J&K	2043	511	40.1	34.5	-2.0	201	9.4
	Chandigarh	205	0	3.5	3.2	0.2	29	0.0
	Chhattisgarh	3381	0	71.5	20.8	-0.4	222	0.0
	Gujarat	15683	0	336.5	77.8	-1.7	626	0.0
	MP	13101	0	253.4	153.4	-2.3	419	0.0
WR	Maharashtra	21100	0	441.0	134.1	-1.6	428	0.0
WK	Goa	541	0	12.3	12.3	-0.6	40	0.0
	DD	328	0	7.4	6.8	0.6	48	0.0
	DNH	800	0	18.6	18.6	0.0	57	0.0
	Essar steel	288	0	5.6	5.3	0.3	295	0.0
	Andhra Pradesh	8178	0	169.9	73.4	1.2	416	0.0
	Telangana	8082	0	170.8	65.4	1.3	447	0.0
SR	Karnataka	9843	0	185.8	39.3	1.6	715	0.0
311	Kerala	3687	0	73.5	51.5	1.9	223	0.0
	Tamil Nadu	13341	0	280.3	167.4	0.8	731	0.0
	Pondy	373	0	7.2	7.6	-0.3	30	0.0
	Bihar	4115	0	68.7	68.8	-1.1	80	0.0
	DVC	3040	0	61.3	-33.3	-0.3	270	0.0
ER	Jharkhand	1235	0	24.2	17.7	-1.6	31	0.0
	Odisha	3903	0	73.8	7.4	0.7	300	0.0
	West Bengal	6461	0	113.4	31.0	2.3	220	0.0
	Sikkim	100	0	1.6	1.5	0.2	22	0.0
	Arunachal Pradesh	118	2	2.0	2.0	-0.1	39	0.0
	Assam	1385	28	23.3	17.7	0.4	119	0.4
	Manipur	158	1	2.6	2.6	0.0	31	0.0
NER	Meghalaya	321	0	5.8	2.9	0.2	49	0.0
	Mizoram	98	2	1.8	0.6	0.8	13	0.0
	Nagaland	117	3	2.2	2.0	-0.1	22	0.0
	Tripura	254	8	3.6	1.9	-0.1	28	0.0

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

	1 - 7 - 1		
	Bhutan	Nepal	Bangladesh
Actual(MU)	8.5	-2.9	-14.4
Day peak (MW)	631.8	-289.0	-783.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	200.1	-196.8	95.3	-97.7	-1.8	-0.9
Actual(MU)	191.8	-192.9	112.3	-116.4	-0.2	-5.5
O/D/U/D(MU)	-8.3	3.9	17.0	-18.8	1.6	-4.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5864	17716	6372	1740	584	32277
State Sector	13471	15481	10770	5670	11	45403
Total	19335	33197	17142	7410	596	77679

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	431	1119	421	431	12	2413
Lignite	22	12	36	0	0	70
Hydro	131	41	91	38	9	310
Nuclear	28	28	56	0	0	112
Gas, Naptha & Diesel	15	47	15	0	25	102
RES (Wind, Solar, Biomass & Others)	58	108	167	2	0	335
Total	685	1354	785	471	46	3341
Share of RES in total generation (%)	8.46	7.98	21.24	0.39	0.11	10.02
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	31.74	13.03	39.91	8.46	20.68	22.65

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.029
Based on State Max Demands	1.081

Diversity factor = Sum of regional or state-wise maximum demands / All India maximum demand

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

		IN	TER-REGIO	ONAL EXCH	ANGES	Date of l	Reporting :	28-Nov-19
								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)			1			
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	864 525	0.0	11.8 6.9	-11.8 -6.9
3	70021	GAYA-BALIA	S/C	0	395	0.0	6.3	-6.3
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5		PUSAULI B/B	S/C	0	196	0.0	4.8	-4.8
6 7		PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	138 141	0.0	2.5	-2.5 -2.1
8	1	MUZAFFARPUR-GORAKHPUR	D/C	0	1001	0.0	13.6	-13.6
9	400 kV	PATNA-BALIA	Q/C	0	886	0.0	16.7	-16.7
10		BIHARSHARIFF-BALIA	D/C	0	371	0.0	5.3	-5.3
11		MOTIHARI-GORAKHPUR	D/C	0	4	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	0	387	0.0	4.1	-4.1
13	220 kV	PUSAULI-SAHUPURI	S/C	1	0	0.0	0.0	0.0
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.3	0.0	0.3
16 17		KARMANASA-SAHUPURI	S/C S/C	0	0	0.0	0.0	0.0
1 /		KARMANASA-CHANDAULI	S/C	U	ER-NR	0.0	0.0 74.0	0.0 -73.7
mport/F	Export of	ER (With WR)			2M-11K	0.0	77.0	-10.1
18	1	JHARSUGUDA-DHARAMJAIGARH	Q/C	909	335	4.1	0.0	4.1
	765 kV							i i
19 20	ł	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	314 0	421 370	0.0	0.3 5.2	-0.3 -5.2
21	400 1 77	JHARSUGUDA-RAIGARH	Q/C	160	276	0.0	0.9	-0.9
22	400 kV	RANCHI-SIPAT	D/C	115	130	0.3	0.0	0.3
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	112	0.0	1.7	-1.7
24	220 K 1	BUDHIPADAR-KORBA	D/C	96	22	1.0	0.0	1.0
					ER-WR	5.4	8.1	-2.7
	-	ER (With SR)			10120			
25	-	ANGUL-SRIKAKULAM	D/C	0.0	1842.0	0.0	34.6	-34.6
26	HVDC LINK	JEYPORE-GAZUWAKA B/B TALCHER-KOLAR BIPOLE	D/C D/C	0.0	687.0 2268.0	0.0	10.5 42.8	-10.5 -42.8
28	400 kV	TALCHER-I/C	D/C	62.0	896.0	0.0	9.3	-9.3
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
					ER-SR	0.0	88.0	-88.0
Import/E	Export of	ER (With NER)						
30	400 kV	BINAGURI-BONGAIGAON	D/C	274	111	4.3	0.0	4
31		ALIPURDUAR-BONGAIGAON	D/C	293	110	4.5	0.0	4
32	220 kV	ALIPURDUAR-SALAKATI	D/C	56	48	0.7	0.0	1
Import/E	vnort of	NER (With NR)			ER-NER	9.4	0.0	9.4
33	· -	BISWANATH CHARIALI-AGRA	Т. Т	376	0	9.4	0.0	9.4
33	пос	BIS WILL THE CHING HELL THOU		370	NER-NR	9.4	0.0	9.4
Import/E	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0	855	0.0	21.0	-21.0
35	HVDC	V'CHAL B/B	D/C	230	0			6.1
36		l			Ü	6.1	0.0	0.1
		APL -MHG	D/C	0	2110	0.0	32.1	-32.1
37		GWALIOR-AGRA	D/C D/C	0	2110 2076	0.0	32.1 37.2	-32.1 -37.2
38		GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C	0	2110 2076 1402	0.0 0.0 0.0	32.1 37.2 18.1	-32.1 -37.2 -18.1
38 39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C	0 0 570	2110 2076 1402 766	0.0 0.0 0.0 0.0	32.1 37.2 18.1 25.5	-32.1 -37.2 -18.1 -25.5
38 39 40	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C S/C	0 0 570 587	2110 2076 1402 766 0	0.0 0.0 0.0 0.0 9.6	32.1 37.2 18.1 25.5 0.0	-32.1 -37.2 -18.1 -25.5 9.6
38 39 40 41	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C S/C S/C	0 0 570 587 0	2110 2076 1402 766 0	0.0 0.0 0.0 0.0 9.6 0.0	32.1 37.2 18.1 25.5 0.0 27.6	-32.1 -37.2 -18.1 -25.5 9.6 -27.6
38 39 40	- 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C S/C	0 0 570 587	2110 2076 1402 766 0	0.0 0.0 0.0 0.0 9.6	32.1 37.2 18.1 25.5 0.0	-32.1 -37.2 -18.1 -25.5 9.6
38 39 40 41 42		GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C S/C S/C D/C	0 0 570 587 0	2110 2076 1402 766 0 1284 1043	0.0 0.0 0.0 0.0 9.6 0.0	32.1 37.2 18.1 25.5 0.0 27.6 7.0	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0
38 39 40 41 42 43	- 765 kV - 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 570 587 0 0	2110 2076 1402 766 0 1284 1043 167	0.0 0.0 0.0 0.0 9.6 0.0 0.0	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3
38 39 40 41 42 43 44		GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 570 587 0 0 66	2110 2076 1402 766 0 1284 1043 167 351	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6
38 39 40 41 42 43 44 45		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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95	2110 2076 1402 766 0 1284 1043 167 351	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6 22.2
38 39 40 41 42 43 44 45 46 47 48		GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-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 0 570 587 0 0 66 95 982 208 34 63	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6 22.2 -1 -0.3 -0.3
38 39 40 41 42 43 44 45 46 47 48	400 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6 22.2 -1 -0.3 -0.3 1.5
38 39 40 41 42 43 44 45 46 47 48 49 50	400 kV - 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-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 0 570 587 0 0 66 95 982 208 34 63 115 61	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6 22.2 -1 -0.3 -0.3 -0.3
38 39 40 41 42 43 44 45 46 47 48	400 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -0.3 -0.3 -0.3 -0.3
38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 570 587 0 0 66 95 982 208 34 63 115 61	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0	-32.1 -37.2 -18.1 -25.5 9.6 -27.6 -7.0 -0.3 -2.6 22.2 -1 -0.3 -0.3 -0.3
38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV 132kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - 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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115 61	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115 61	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -0.3 -0.4 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - 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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 173.3	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51 (mport/E 52 53	- 400 kV - 220 kV - 132kV Export of - HVDC	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	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	D/C D/C D/C D/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 D/C S/C S/C S/C D/C S/C D/C S/C S/C D/C D/C S/C D/C D/C S/C D/C D/C S/C D/C S/C D/C D/C S/C D/C D/C	0 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3	-32.1 -37.2 -18.1 -25.5 -26 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0 -22.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 (mport/E) 52 53 54 55	400 kV 220 kV 132kV Export of HVDC LINK 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI 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	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 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3 14.5 0.0 22.0 34.5	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0 -22.0 -34.5
38 39 40 41 42 43 44 45 46 47 48 49 50 51 (mport/E 52 53 54 55 56	- 400 kV - 220 kV - 132kV Export of HVDC LINK - 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-LSILERU 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 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 173.3 14.5 0.0 22.0 34.5	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0 -22.0 -34.5 -11.8
38 39 40 41 42 43 44 45 46 47 48 49 50 51 [Import/E] 52 53 54 55 56 57	- 400 kV - 220 kV - 132kV Export of HVDC LINK - 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIANA 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 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 D/C D/C D/C D/C D/C D/C D/C	0 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 10043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 173.3 14.5 0.0 22.0 34.5 0.0	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0 -22.0 -34.5 -11.8 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55 56 57 58	- 400 kV - 220 kV - 132kV Export of HVDC LINK - 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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 KOLHAPUR-CHIKODI PONDA-AMBEWADI	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 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 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3 14.5 0.0 22.0 34.5 0.0	-32.1 -37.2 -18.1 -25.5 -26 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -14.5 -22.0 -34.5 -11.8 -0.0 -1.4
38 39 40 41 42 43 44 45 46 47 48 49 50 51 mport/E 52 53 54 55 56 57 58	- 400 kV - 220 kV - 132kV Export of HVDC LINK - 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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 KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-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 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3 14.5 0.0 22.0 0.0 14.5 0.0 0.0 14.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-32.1 -37.2 -18.1 -25.5 -26 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5 -0.0 -34.5 -11.8 -0.0 -1.4 -1.5
38 39 40 41 42 43 44 45 46 47 48 49 50 51 mport/E 52 53 54 55 56 57 58	- 400 kV - 220 kV - 132kV Export of HVDC LINK - 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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 KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-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 0 570 587 0 0 66 95 982 208 34 63 115 61 0	2110 2076 1402 766 0 1284 1043 167 351 0 151 50 78 0 18 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.1 22.2 0 0.1 0.3 1.5 0.4 0.0 40.8	32.1 37.2 18.1 25.5 0.0 27.6 7.0 0.7 2.7 0.0 1 0.4 0.6 0.0 0.0 0.0 173.3 14.5 0.0 22.0 0.0 14.5 0.0 0.0 14.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-32.1 -37.2 -18.1 -25.5 -9.6 -27.6 -7.0 -0.3 -2.6 -22.2 -1 -0.3 -0.3 -1.5 -0.4 -0.0 -132.6 -14.5