

## 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, कृत्व इन्स्टीट्यशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 10<sup>th</sup> Nov 2019

To,

- 1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ 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.,२९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

## Sub: Daily PSP Report for the date 09.11.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-२०१० की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक ०९-नवम्बर-२०१९ 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 09<sup>th</sup> Nov 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 10-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)	43137	44864	37406	16734	2335	144476
Peak Shortage (MW)	294	0	0	0	74	368
Energy Met (MU)	853	998	848	323	43	3064
Hydro Gen (MU)	139	38	153	54	12	397
Wind Gen (MU)	30	66	7			103
Solar Gen (MU)*	31.31	20.7	72.21	0.93	0.02	125
Energy Shortage (MU)	6.1	0.0	0.0	0.0	0.9	7.0
Maximum Demand Met during the day	43506	45906	39184	16744	2438	147529
(MW) & time (from NLDC SCADA)	18:32	18:34	18:36	17:58	17:35	18:32

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 0.021 18.97

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	5136	0	101.7	50.5	-1.6	29	0.0
	Harvana	5819	0	114.3	112.6	0.1	167	0.0
	Rajasthan	10957	0	215.6	56.4	-1.0	282	0.0
	Delhi	3142	0	61.4	45.7	-0.9	228	0.0
NR	UP	15271	0	270.7	127.2	0.6	743	0.3
	Uttarakhand	1694	0	34.5	18.4	0.7	169	0.0
	HP	1494	0	27.4	18.2	-0.6	149	0.0
	J&K	1571	393	24.5	19.5	-2.6	201	5.8
	Chandigarh	179	0	3.3	3.3	0.0	17	0.0
	Chhattisgarh	3296	0	70.9	25.6	-1.5	208	0.0
	Gujarat	13664	0	292.8	56.1	-1.7	381	0.0
	MP	9756	0	202.3	132.1	-3.0	388	0.0
14/15	Maharashtra	18251	0	389.0	128.2	-1.7	401	0.0
WR	Goa	541	0	12.2	11.9	-0.3	78	0.0
	DD	327	0	7.3	6.5	0.8	55	0.0
	DNH	764	0	17.9	18.0	-0.1	25	0.0
	Essar steel	336	0	5.7	5.8	-0.1	269	0.0
	Andhra Pradesh	7740	0	164.9	63.2	0.6	618	0.0
	Telangana	7423	0	157.3	43.4	-0.3	407	0.0
SR	Karnataka	8506	0	166.9	34.5	0.7	754	0.0
3K	Kerala	3362	0	69.6	51.6	1.2	215	0.0
	Tamil Nadu	13299	0	281.2	146.1	0.3	333	0.0
	Pondy	367	0	7.6	7.8	-0.3	40	0.0
	Bihar	4451	0	75.7	72.4	0.2	400	0.0
	DVC	2928	0	62.3	-27.0	0.5	200	0.0
ER	Jharkhand	1106	0	23.4	15.3	-0.8	100	0.0
	Odisha	3269	0	60.4	2.2	-0.7	200	0.0
	West Bengal	5244	0	99.6	25.1	1.7	350	0.0
	Sikkim	100	0	1.3	1.5	-0.2	35	0.0
	Arunachal Pradesh	114	2	2.0	1.7	0.2	35	0.0
	Assam	1430	41	24,2	18.9	-0.2	99	0.9
	Manipur	161	3	2.3	2.3	0.0	16	0.0
NER	Meghalaya	353	0	6.4	3.0	0.2	43	0.0
	Mizoram	98	1	2.1	1.3	0.0	17	0.0
	Nagaland	122	2	2,2	1.8	0.1	31	0.0
	Tripura	220	4	3.4	3.1	-1.0	40	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	12.9	-0.2	-13.8
Day peak (MW)	655.4	-101.0	-587.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	199.1	-190.0	90.6	-99.1	-0.2	0.3
Actual(MU)	186.1	-199.2	107.9	-96.5	0.8	-0.8
O/D/U/D(MU)	-13.0	-9.2	17.4	2.6	1.0	-1.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4550	18351	9352	965	563	33781
State Sector	14461	20116	9263	6240	11	50091
Total	19011	38467	18615	7205	575	83872
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G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	406	995	379	385	10	2175
Lignite	14	16	40	0	0	70
Hydro	139	38	153	54	12	397
Nuclear	28	24	55	0	0	107
Gas, Naptha & Diesel	28	38	16	0	24	106
RES (Wind, Solar, Biomass & Others)	69	103	105	1	0	278
Total	685	1214	747	440	46	3132

Share of Non-fossil fuel (Hydro, Nuclear and							
Share of Non-fossil fuel (Hydro, Nuclear and	Share of RES in total generation (%)	10.13	8.49	14.01	0.21	0.04	8.88
RES) in total generation (%) 34.58 13.62 41.83 12.48 26.06 24.90		34.58	13.62	41.83	12.48	26.06	24.96

H. Diversity Factor All India Demand Diversity Factor 1.002 Diversity factor = Sum of regional maximum demands / All India maximum demand

 $<sup>\</sup>textbf{*\underline{Source}:} \ RLDCs \ for \ solar \ connected \ to \ ISTS; \ SLDCs \ for \ embedded \ solar. \ Limited \ visibility \ of \ embedded \ solar \ data.$ 

		IN	TER-REGIO	ONAL EXCHA	ANGES	Date of l	Reporting :	10-Nov-1
								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)						
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	39	569 333	0.0	7.7 2.5	-7.7 -2.5
3	70387	GAYA-BALIA	S/C	0	382	0.0	6.9	-6.9
4	HVDC	ALIPURDUAR-AGRA	-	0	450	0.0	7.7	-7.7
5	HVDC	PUSAULI B/B	S/C	0	199	0.0	4.7	-4.7
6		PUSAULI-VARANASI	S/C	0	170	0.0	3.2	-3.2
7		PUSAULI -ALLAHABAD	S/C	0	119	0.0	1.4	-1.4
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C Q/C	0	593 892	0.0	6.7 15.3	-6.7 -15.3
10	400 K V	BIHARSHARIFF-BALIA	D/C	0	320	0.0	4.1	-4.1
11		MOTIHARI-GORAKHPUR	D/C	0	4	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	81	207	0.0	0.5	-0.5
13	220 kV	PUSAULI-SAHUPURI	S/C	9	56	0.0	0.5	-0.5
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.4	0.0	0.4
16		KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
[mport/F	vnest -	ED (With WP)			ER-NR	0.4	61.2	-60.8
	export of	ER (With WR)	<del></del>					
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	960	0	18.1	0.0	18.1
19	765 KV	NEW RANCHI-DHARAMJAIGARH	D/C	574	110	7.2	0.0	7.2
20		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	D/C Q/C	78 102	182 267	0.0	0.7 1.3	-0.7 -1.3
22	400 kV	RANCHI-SIPAT	Q/C D/C	102	0	2.3	0.0	2.3
23		BUDHIPADAR-RAIGARH	S/C	13	67	0.0	0.5	-0.5
24	220 kV	BUDHIPADAR-KORBA	D/C	92	0	1.5	0.0	1.5
					ER-WR	29.0	2.4	26.6
Import/E	Export of	ER (With SR)						-
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	2099.0	0.0	35.4	-35.4
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	679.0	0.0	12.8	-12.8
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2473.0	0.0	39.6	-39.6
28	400 kV	TALCHER-I/C	D/C	226.0	1349.0	0.0	10.8	-10.8
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
Import/F	export of	ER (With NER)			ER-SR	0.0	87.8	-87.8
30	Aport or	BINAGURI-BONGAIGAON	D/C	0	341	0.0	3.9	-4
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	7	295	0.0	2.5	-3
32	220 kV	ALIPURDUAR-SALAKATI	D/C	0	88	0.0	1.1	-1
	•				ER-NER	0.0	7.5	-7.5
Import/E	Export of	NER (With NR)						
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	305	0.0	6.8	-6.8
		AND AND			NER-NR	0.0	6.8	-6.8
	export of	WR (With NR)			511	0.0	12.5	10.5
34 35	HWDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C D/C	0 452	511	0.0	12.6	-12.6 12.1
36	HVDC			432		12.1	0.0	
	1	IAPL-MHG		0	1459	12.1	34.9	
37		APL -MHG	D/C	0	1459	0.0	34.9	-34.9
37		GWALIOR-AGRA	D/C D/C	0	1459 2235	0.0	34.9 38.8	-34.9 -38.8
37 38 39			D/C		1459 2235 1187	0.0 0.0 0.0	34.9 38.8 17.5	-34.9 -38.8 -17.5
38	765 kV	GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C	0	1459 2235	0.0	34.9 38.8	-34.9 -38.8
38 39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C	0 0 0	1459 2235 1187 767	0.0 0.0 0.0 0.0	34.9 38.8 17.5 27.6	-34.9 -38.8 -17.5 -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 0 533	1459 2235 1187 767 0	0.0 0.0 0.0 0.0 8.8	34.9 38.8 17.5 27.6 0.0	-34.9 -38.8 -17.5 -27.6 8.8
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 0 533 0	1459 2235 1187 767 0 1327	0.0 0.0 0.0 0.0 8.8 0.0	34.9 38.8 17.5 27.6 0.0 27.8	-34.9 -38.8 -17.5 -27.6 8.8 -27.8
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 0 533 0 253 55	1459 2235 1187 767 0 1327 483 54	0.0 0.0 0.0 0.0 8.8 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4	-34.9 -38.8 -17.5 -27.6 8.8 -27.8 -6.1 0.2 0.1
38 39 40 41 42 43 44 45	- 765 kV - 400 kV	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 0 533 0 253 55 153 986	1459 2235 1187 767 0 1327 483 54 176 0	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6
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 RAPP-SHUJALPUR	D/C D/C D/C D/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	0 0 0 533 0 253 55 153 986 234	1459 2235 1187 767 0 1327 483 54 176 0	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6 -1
38 39 40 41 42 43 44 45 46 47		GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	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 0 533 0 253 55 153 986 234	1459 2235 1187 767 0 1327 483 54 176 0 81	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -0.5
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 0 533 0 253 55 153 986 234 12	1459 2235 1187 767 0 1327 483 54 176 0 81 40	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6 1 0.0 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0	-34.9 -38.8 -17.5 -27.6 -27.6 -27.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1
38 39 40 41 42 43 44 45 46 47 48 49	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 0 533 0 253 55 153 986 234 12 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6 1 0.0 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6 -1 -1.1 -1.1
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 0 533 0 253 55 153 986 234 12 0 99	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6 1 0.0 0.0 1.1	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 0.1	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -0.5 -1.1 -1.1 -0.1
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 0 533 0 253 55 153 986 234 12 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6 1 0.0 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0	-34.9 -38.8 -17.5 -27.6 -27.6 -27.8 -6.1 -0.2 -0.1 -0.5 -1.1 -1.1 -0.1 -0.0
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	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 0 533 0 253 55 153 986 234 12 0 99	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 0.1	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -0.5 -1.1 -1.1 -0.1
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 0 533 0 253 55 153 986 234 12 0 99	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -0.0
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 0 533 0 253 55 153 986 234 12 0 99	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -0.0 -121.3
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 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 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 WR-NR	0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 0.1 168.0	-34.9 -38.8 -17.5 -27.6 -8.8 -27.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -121.3
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/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 0 5333 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 0.1 0.0 168.0	-34.9 -38.8 -17.5 -27.6 -27.6 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.0 -121.3
38 39 40 41 42 43 44 45 46 47 48 49 50 51 **Emport/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 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0	-34.9 -38.8 -17.5 -27.6 -27.6 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4
38 39 40 41 42 43 44 45 46 47 48 49 50 51 (mport/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 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 0.1 168.0 13.2 0.0 16.1 31.7 0.0 0.0	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.0 -121.3 -13.2 -13.8 -31.7 -9.4 -0.0
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	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 0 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0 13.2 0.0 16.1 31.7 0.0 0.0 1.2	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4 -0.0 -1.2
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 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0 13.2 0.0 16.1 31.7 0.0 0.0 1.2 0.0	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4 -0.0 -1.2 -0.7
38 39 40 41 42 43 44 45 46 47 48 49 50 51 <b>mport/E</b> 52 53 54 55 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-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 0 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0 13.2 0.0 16.1 31.7 0.0 0.0 1.2	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4 -0.0 -1.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 <b>mport/E</b> 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 0 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0 13.2 0.0 16.1 31.7 0.0 0.0 1.2 0.0	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4 -0.0 -1.2 -0.7
38 39 40 41 42 43 44 45 46 47 48 49 50 51 <b>mport/E</b> 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 0 0 533 0 253 55 153 986 234 12 0 99 52 0	1459 2235 1187 767 0 1327 483 54 176 0 81 40 95 0 23 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.3 0.7 22.6 1 0.0 0.0 1.1 0.2 0.0 46.7	34.9 38.8 17.5 27.6 0.0 27.8 6.4 0.1 0.6 0.0 0 0.5 1.1 0.0 168.0 13.2 0.0 16.1 31.7 0.0 0.0 1.2 0.0	-34.9 -38.8 -17.5 -27.6 -8.8 -6.1 -0.2 -0.1 -22.6 -1 -0.5 -1.1 -1.1 -0.1 -13.2 -13.2 -13.8 -31.7 -9.4 -0.0 -1.2 -0.7