

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: 30th 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 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 29.11.2019.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 29-नवम्बर-2019 की अखिल भारतीय प्रणाली की दैनिक ग्रिड 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 29th 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 30-Nov-19

A. Power Supply Position at All India and Regional level

** *	U					
	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	42431	48284	37410	18552	2348	149025
Peak Shortage (MW)	520	0	0	0	28	548
Energy Met (MU)	836	1147	878	344	41	3246
Hydro Gen (MU)	137	47	92	40	9	325
Wind Gen (MU)	30	61	48			139
Solar Gen (MU)*	27.51	19.89	64.29	2.43	0.05	114
Energy Shortage (MU)	12.1	0.0	0.0	0.0	0.4	12.5
Maximum Demand Met during the day	43048	52763	40614	18632	2449	152109
(MW) & time (from NLDC SCADA)	18:54	10:34	07:40	18:31	17:31	18:28

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	5198	0	102.8	44.0	-0.1	162	0.0
	Haryana	5780	0	109.9	98.5	0.7	209	0.0
	Rajasthan	11148	0	212.3	51.1	-1.7	678	0.0
	Delhi	3508	0	63.5	52.8	-0.5	136	0.0
NR	UP	13394	0	236.2	94.8	0.6	879	1.6
	Uttarakhand	1804	0	34.2	21.5	0.9	218	0.0
	HP	1599	0	29.2	21.1	0.0	113	0.0
	J&K	2283	571	44.3	37.5	-0.8	201	10.5
	Chandigarh	211	0	3.5	3.3	0.2	46	0.0
	Chhattisgarh	3420	0	71.9	19.9	-0.8	379	0.0
	Gujarat	15805	0	336.7	78.1	-1.5	514	0.0
	MP	13003	0	250.3	151.0	-4.4	419	0.0
14/0	Maharashtra	21176	0	443.7	139.5	-2.3	451	0.0
WR	Goa	541	0	12.9	12.4	0.0	24	0.0
	DD	332	0	7.4	6.8	0.6	54	0.0
	DNH	783	0	18.4	18.4	0.0	35	0.0
	Essar steel	333	0	5.9	5.7	0.2	295	0.0
	Andhra Pradesh	7880	0	167.7	79.5	-0.9	454	0.0
	Telangana	8339	0	168.6	71.9	1.5	480	0.0
SR	Karnataka	10520	0	195.3	47.9	0.8	821	0.0
JI.	Kerala	3627	0	74.2	55.1	1.5	209	0.0
	Tamil Nadu	12919	0	264.7	158.5	0.5	562	0.0
	Pondy	368	0	7.3	7.6	-0.2	28	0.0
	Bihar	4066	0	69.0	68.4	-0.6	230	0.0
	DVC	2964	0	60.2	-28.9	-1.5	210	0.0
ER	Jharkhand	1251	0	24.3	17.2	-1.1	31	0.0
	Odisha	4089	0	74.9	9.6	1.4	320	0.0
	West Bengal	6474	0	114.1	32.2	2.9	270	0.0
	Sikkim	100	0	1.5	1.5	0.0	20	0.0
	Arunachal Pradesh	116	1	2.1	2.0	0.0	66	0.0
	Assam	1380	30	22.9	18.2	-0.2	122	0.4
	Manipur	165	1	2.4	2.6	-0.2	34	0.0
NER	Meghalaya	332	0	5.5	2.7	0.3	33	0.0
	Mizoram	101	2	1.8	0.6	0.8	12	0.0
	Nagaland	118	1	2.2	2.0	-0.1	3	0.0
	Tripura	223	1	3.9	1.9	0.0	12	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	7.8	-3.2	-7.1
Day peak (MW)	654.0	-307.6	-548.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	198.2	-191.0	91.2	-96.7	-1.7	0.0
Actual(MU)	171.4	-187.4	109.0	-95.3	-0.4	-2.6
O/D/U/D(MU)	-26.8	3.6	17.8	1.4	1.3	-2.7

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	6313	18136	6162	1990	563	33165
State Sector	13330	15172	10820	6270	11	45603
Total	19643	33308	16982	8260	575	78767

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	401	1112	414	408	12	2347
Lignite	20	13	41	0	0	73
Hydro	137	47	92	40	9	325
Nuclear	29	28	60	0	0	117
Gas, Naptha & Diesel	15	54	16	0	25	110
RES (Wind, Solar, Biomass & Others)	83	98	154	2	0	337
Total	684	1352	777	450	45	3309
Share of RES in total generation (%)	12.14	7.23	19.83	0.55	0.11	10.19
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	36.33	12.77	39.43	9.43	20.20	23.55

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.035
Based on State Max Demands	1.087

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.$

		<u>IN</u>	TER-REGIO	ONAL EXCHA	ANGES	Date of 1	Reporting :	30-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)
Import/I	Export of	ER (With NR)						
2	765kV	GAYA-VARANASI	D/C S/C	0	928 501	0.0	12.8 5.7	-12.8 -5.7
3	703KV	SASARAM-FATEHPUR GAYA-BALIA	S/C	0	370	0.0	5.7	-5.7
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5	пуве	PUSAULI B/B	S/C	3	198	0.0	4.1	-4.1
6	4	PUSAULI-VARANASI	S/C	39	147	0.0	2.2	-2.2
7 8	-	PUSAULI -ALLAHABAD	S/C D/C	0	138 995	0.0	2.1	-2.1 -14.4
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	Q/C	0	852	0.0	14.4	-14.4
10		BIHARSHARIFF-BALIA	D/C	0	348	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	392	0.0	4.0	-4.0
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	0.4	0.0	0.4
16	4	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17	1	KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 0.4	0.0	0.0 -70.5
Import/I	Export of	ER (With WR)			rk-NK	0.4	70.9	-/0.5
	ZAPOL UI		0/0	1002405	0	15.4	0.0	15.4
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1003486	0	15.4	0.0	15.4
19 20		NEW RANCHI-DHARAMJAIGARH	D/C	333	524	0.0	1.1	-1.1
20	1	JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	D/C Q/C	225	284 244	0.0	0.0	-3.4 0.1
22	400 kV	RANCHI-SIPAT	D/C	150	153	0.4	0.0	0.4
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	111	0.0	1.7	-1.7
24	220 KV	BUDHIPADAR-KORBA	D/C	129	2	1.4	0.0	1.4
					ER-WR	17.3	6.2	11.1
	· •	ER (With SR)						
25		ANGUL-SRIKAKULAM	D/C	0.0	1846.0	0.0	33.5	-33.5
26	HVDC LINK	JEYPORE-GAZUWAKA B/B	D/C	0.0	531.0	0.0	12.4	-12.4
27	400 kV	TALCHER-KOLAR BIPOLE TALCHER-I/C	D/C D/C	0.0 458.0	1981.0 983.0	0.0	41.6 5.6	-41.6 -5.6
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	220 K V	B. ILLINELLI C. I. EX. SILLING	5, 0	1.0	ER-SR	0.0	87.4	-87.4
Import/I	Export of	ER (With NER)				l .		
30	400 kV	BINAGURI-BONGAIGAON	D/C	335	23	5.3	0.0	5
31	400 KV	ALIPURDUAR-BONGAIGAON	D/C	369	0	5.6	0.0	6
32	220 kV	ALIPURDUAR-SALAKATI	D/C	66	16	0.9	0.0	1
T	F4 6	NED (WALNE)			ER-NER	11.7	0.0	11.7
33 33	HVDC	NER (With NR) BISWANATH CHARIALI-AGRA	1 - 1	470	0	11.6	0.0	11.6
33	HVDC	BISWANATH CHARLALFAGRA		470	NER-NR	11.6	0.0	11.6
Import/I	Export of	WR (With NR)				1110	010	1110
34	T	CHAMPA-KURUKSHETRA	D/C	0	469	0.0	12.1	-12.1
35	HVDC	V'CHAL B/B	D/C	243				
36		APL -MHG			0	6.0	0.0	6.0
		THE MITO	D/C	0	1460	0.0	0.0 29.7	-29.7
37	_	GWALIOR-AGRA	D/C	0	1460 2022	0.0	29.7 34.4	-29.7 -34.4
38		GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C	0	1460 2022 1623	0.0 0.0 0.0	29.7 34.4 22.1	-29.7 -34.4 -22.1
38 39	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C	0 0 674	1460 2022 1623 758	0.0 0.0 0.0 0.0	29.7 34.4 22.1 25.2	-29.7 -34.4 -22.1 -25.2
38 39 40	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C S/C	0 0 674 576	1460 2022 1623 758 0	0.0 0.0 0.0 0.0 9.6	29.7 34.4 22.1 25.2 0.0	-29.7 -34.4 -22.1 -25.2 9.6
38 39 40 41	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C S/C S/C	0 0 674 576 0	1460 2022 1623 758 0 1264	0.0 0.0 0.0 0.0 9.6 0.0	29.7 34.4 22.1 25.2 0.0 26.3	-29.7 -34.4 -22.1 -25.2 9.6 -26.3
38 39 40 41 42	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C S/C S/C D/C	0 0 674 576	1460 2022 1623 758 0 1264 1006	0.0 0.0 0.0 0.0 9.6 0.0	29.7 34.4 22.1 25.2 0.0 26.3 9.2	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2
38 39 40 41		GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 674 576 0 0	1460 2022 1623 758 0 1264	0.0 0.0 0.0 0.0 9.6 0.0	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3
38 39 40 41 42 43	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C S/C S/C D/C	0 0 674 576 0	1460 2022 1623 758 0 1264 1006 163	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.0	29.7 34.4 22.1 25.2 0.0 26.3 9.2	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1
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 S/C S/C S/C S/C S/C S/C S/C S/C	0 0 674 576 0 0 99	1460 2022 1623 758 0 1264 1006 163 293	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.1 0.2	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2
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 S/C S/C S/C S/C S/C S/C S/C S/C	0 0 674 576 0 0 99 158	1460 2022 1623 758 0 1264 1006 163 293	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.1 0.2 22.5	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5
38 39 40 41 42 43 44 45 46	400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	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 0 674 576 0 0 99 158 986 272	1460 2022 1623 758 0 1264 1006 163 293 0	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.1 0.2 22.5 2	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2
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 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 0 674 576 0 0 99 158 986 272 31 49	1460 2022 1623 758 0 1264 1006 163 293 0 146 56	0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4
38 39 40 41 42 43 44 45 46 47 48 49 50	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 MALANPUR-AURAIYA	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 0 674 576 0 0 99 158 986 272 31 49 67	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1	0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2
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 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 0 674 576 0 0 99 158 986 272 31 49	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26	0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 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-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 674 576 0 0 99 158 986 272 31 49 67	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1	0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2
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-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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 S	0 0 674 576 0 0 99 158 986 272 31 49 67 51	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 9.6 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 1.0 1	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I	- 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 WR (With SR) BHADRAWATI B/B	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 S	0 0 674 576 0 0 99 158 986 272 31 49 67	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 160.1	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0
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 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 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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.1 0.0 160.1	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54	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 SOLAPUR-RAICHUR	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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53	- 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	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 S	0 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 9.6 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.1 0.0 160.1	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 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-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 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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5	-29.7 -34.4 -22.1 -25.2 -9.6 -26.3 -9.2 -0.1 -0.2 -22.5 -2 -1.5 -0.8 -0.4 -0.2 -0.0 -117.0 -16.7 -0.0 -18.5 -34.5
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK - 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAK 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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0 -16.7 0.0 -18.5 -34.5
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57	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-WALIVA MALANPUR-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 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 S/C D/C S/C D/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C	0 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0 0.0	-29.7 -34.4 -22.1 -25.2 9.6 -26.3 -9.2 0.1 0.2 22.5 2 1.5 -0.8 0.4 0.2 0.0 -117.0 -16.7 0.0 -18.5 -34.5 10.4 0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	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-WALIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0 0.0 1.4	-29.7 -34.4 -22.1 -25.2 -9.6 -26.3 -9.2 -0.1 -0.2 -22.5 -0.8 -0.4 -0.2 -0.0 -117.0 -16.7 -0.0 -18.5 -34.5 -34.5 -10.4 -0.0 -1.4
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR 809 0 1780 2287 0 0 0 73 82 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0 0.0 1.4 0.0	-29.7 -34.4 -22.1 -25.2 -9.6 -26.3 -9.2 -0.1 -0.2 -22.5 -0.8 -0.8 -0.4 -0.2 -0.0 -117.0 -16.7 -0.0 -18.5 -34.5 -34.5 -34.5 -34.5 -10.4 -1.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58	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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR 809 0 1780 2287 0 0 0 73 82 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0 0.0 1.4 0.0	-29.7 -34.4 -22.1 -25.2 -9.6 -26.3 -9.2 -0.1 -0.2 -22.5 -0.8 -0.8 -0.4 -0.2 -0.0 -117.0 -16.7 -0.0 -18.5 -34.5 -34.5 -34.5 -34.5 -10.4 -1.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/I 52 53 54 55 56 57 58 59	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI SATNA-ORAI 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 KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 674 576 0 0 99 158 986 272 31 49 67 51 0	1460 2022 1623 758 0 1264 1006 163 293 0 146 56 108 1 26 0 WR-NR 809 0 1780 2287 0 0 0 73 82 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.2 22.5 2 1.5 0.2 0.4 0.3 0.0 43.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	29.7 34.4 22.1 25.2 0.0 26.3 9.2 0.0 0.0 0.0 0.0 1.0 0.0 160.1 16.7 0.0 18.5 34.5 0.0 0.0 1.4 0.0	-29.7 -34.4 -22.1 -25.2 -9.6 -26.3 -9.2 -0.1 -0.2 -22.5 -0.8 -0.8 -0.4 -0.2 -0.0 -117.0 -16.7 -0.0 -18.5 -34