

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: 09thSep 2019

To,

- 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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Chief General Manager, 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 08.09.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 08-सितंबर-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 08th Sep 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 9-Sep-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 2000 hrs; from RLDCs)	55761	41076	38239	20611	2704	158391
Peak Shortage (MW)	504	0	33	0	186	723
Energy Met (MU)	1293	954	886	444	52	3629
Hydro Gen (MU)	368	119	152	134	20	794
Wind Gen (MU)	4	66	176			246
Solar Gen (MU)*	29.08	13.87	60.01	2.12	0.02	105
Energy Shortage (MU)	9.4	0.0	0.0	0.0	1.1	10.4
Maximum Demand Met during the day	58691	42641	38935	21205	2659	161622
(MW) & time (from NLDC SCADA)	22:53	19:31	19:22	20:46	18:44	20:23

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 0.027 0.01

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	9914	0	224.1	138.4	-1.2	31	0.0
	Haryana	9132	0	198.2	143.8	0.4	245	0.0
	Rajasthan	9735	0	219.8	73.5	-1.5	340	0.0
	Delhi	6018	0	116.7	93.9	0.0	144	0.0
NR	UP	20254	0	423.8	229.8	2.0	1208	0.0
	Uttarakhand	1783	0	38.0	14.6	-0.3	191	0.0
	HP	1299	15	28.2	0.5	-3.5	14	0.0
	J&K	1974	493	39.3	17.9	-1.6	125	9.4
	Chandigarh	278	0	5.5	6.2	-0.7	1	0.0
	Chhattisgarh	3386	0	74.4	21.1	-1.4	689	0.0
	Gujarat	12368	0	276.3	80.1	5.7	529	0.0
	MP	8141	0	180.0	76.8	-3.8	332	0.0
WR	Maharashtra	17237	0	381.2	111.0	0.1	336	0.0
WK	Goa	541	0	10.2	9.8	-0.2	24	0.0
	DD	302	0	6.9	6.5	0.4	35	0.0
	DNH	780	0	18.2	18.4	-0.1	32	0.0
	Essar steel	385	0	6.6	6.2	0.3	345	0.0
	Andhra Pradesh	7386	0	169.7	30.5	0.2	462	0.0
	Telangana	8835	0	188.1	44.8	-0.9	495	0.0
SR	Karnataka	8473	0	167.9	29.5	-7.5	389	0.0
JI.	Kerala	3140	0	62.6	44.7	1.6	166	0.0
	Tamil Nadu	13017	0	290.2	118.1	-0.8	394	0.0
	Pondy	355	0	7.7	7.8	-0.2	24	0.0
	Bihar	5605	0	112.6	107.8	0.6	0	0.0
	DVC	2818	0	62.6	-28.4	1.0	180	0.0
ER	Jharkhand	1285	0	23.2	15.4	-1.0	100	0.0
LIN	Odisha	4309	0	91.4	19.2	7.4	520	0.0
	West Bengal	7659	0	153.1	59.0	0.6	210	0.0
	Sikkim	77	0	0.8	1.1	-0.3	5	0.0
	Arunachal Pradesh	126	5	2.1	2.5	-0.4	48	0.0
	Assam	1756	59	33.3	27.8	0.5	196	1.0
	Manipur	172	4	2.5	2.6	-0.1	18	0.0
NER	Meghalaya	295	2	5.3	1.4	-0.3	38	0.0
	Mizoram	78	3	1.8	1.2	0.3	21	0.0
	Nagaland	139	5	2.2	2.3	-0.4	33	0.0
	Tripura	296	12	4.8	3.8	0.1	53	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	40.0	-5.4	-25.4
Day peak (MW)	1793.6	-381.4	-1094.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	293.0	-237.5	24.3	-81.2	8.5	7.1
Actual(MU)	285.7	-252.9	7.8	-52,4	8.6	-3.2
O/D/U/D(MU)	-7.4	-15.5	-16.4	28.8	0.2	-10.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4357	14440	8812	2010	736	30354
State Sector	9950	20509	10840	6030	50	47378
Total	14307	34948	19652	8040	786	77732
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G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	523	937	330	384	7	2182
Lignite	20	8	43	0	0	71
Hydro	368	119	152	134	20	794
Nuclear	27	31	58	0	0	116
Gas, Naptha & Diesel	33	39	16	0	21	110
RES (Wind, Solar, Biomass & Others)	50	85	284	2	0	421
Total	1021	1219	883	521	49	3693

Share of RES in total generation (%)	4.87	6.97	32.12	0.41	0.04	11.39
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	43.61	19.26	55.94	26.20	41.41	36.04

H. Diversity Factor All India Demand Diversity Factor

1.016 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.$

1		<u>IN</u> ′	TER-REGIO	ONAL EXCHA	ANGES	Date of I	Reporting :	9-Sep-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/E		ER (With NR)						
1	765kV	GAYA-VARANASI	D/C	0	441	0.0	5.7	-5.7
3	/05KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	0	31 428	2.6 0.0	7.3	2.6 -7.3
4	HVDC	ALIPURDUAR-AGRA	-	0	1100	0.0	22.1	-22.1
5	HVDC	PUSAULI B/B	S/C	0	196	0.0	5.0	-5.0
6		PUSAULI-VARANASI	S/C	0	167	0.0	3.6	-3.6
7	_	PUSAULI -ALLAHABAD	S/C	0	83	0.0	1.2	-1.2
8	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C Q/C	0	803 890	0.0	12.4 15.3	-12.4 -15.3
10	400 K	BIHARSHARIFF-BALIA	D/C	0	298	0.0	5.1	-5.1
11	-	MOTIHARI-GORAKHPUR	D/C	0	14	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	86	149	0.0	0.1	-0.1
13	220 kV	PUSAULI-SAHUPURI	S/C	0	186	0.0	3.6	-3.6
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		KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0 ED ND	0.0	0.0	0.0
Import/E	Export of	ER (With WR)			ER-NR	2.9	81.2	-78.3
_	Aport Ol	1		1011		10.2		10.5
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1211	0	18.2	0.0	18.2
19 20		NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	1096 276	0	19.5 4.5	0.0	19.5 4.5
21		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	Q/C	386	0	6.4	0.0	6.4
22	400 kV	RANCHI-SIPAT	D/C	382	0	6.9	0.0	6.9
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	107	0.0	1.8	-1.8
24	220 KV	BUDHIPADAR-KORBA	D/C	112	0	2.0	0.0	2.0
					ER-WR	57.4	1.8	55.6
	_	ER (With SR)						
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1395.0	0.0	23.1	-23.1
26 27	HVDC LINK	JEYPORE-GAZUWAKA B/B	D/C D/C	0.0	0.0 888.0	7.4 0.0	0.0 17.7	7.4 -17.7
28	400 kV	TALCHER-KOLAR BIPOLE TALCHER-I/C	D/C D/C	270.0	87.0	2.7	0.0	2.7
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	22011			1.0	ER-SR	7.4	40.8	-33.4
Import/E	Export of	ER (With NER)						•
30	400 kV	BINAGURI-BONGAIGAON	D/C	0	690	0.0	11.2	-11
31		ALIPURDUAR-BONGAIGAON	D/C	0	473	0.0	6.0	-6
32	220 kV	ALIPURDUAR-SALAKATI	D/C	0	148	0.0	2.5	-3
Import/E	Evnort of	NER (With NR)			ER-NER	0.0	19.8	-19.8
33	HVDC	BISWANATH CHARIALI-AGRA	Т. Т	0	503	0.0	12.2	-12.2
	11.20	Daywin with China and Tiola		-	NER-NR	0.0	12.2	-12.2
Import/E	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0	2505	0.0	47.3	-47.3
35	HVDC	V'CHAL B/B	D/C	0	397	0.0	8.0	-8.0
36		APL -MHG	D/C	0				
37	İ				1454	0.0	26.6	-26.6
38		GWALIOR-AGRA	D/C	0	2388	0.0	45.3	-45.3
		PHAGI-GWALIOR	D/C D/C	0	2388 1172	0.0	45.3 20.1	-45.3 -20.1
39	765 kV	PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C	0 0 0	2388 1172 968	0.0 0.0 0.0	45.3 20.1 34.9	-45.3 -20.1 -34.9
39 40	765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C S/C	0 0 0 270	2388 1172 968 0	0.0 0.0 0.0 5.7	45.3 20.1 34.9 0.0	-45.3 -20.1 -34.9 5.7
39	765 kV	PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C	0 0 0	2388 1172 968	0.0 0.0 0.0	45.3 20.1 34.9	-45.3 -20.1 -34.9
39 40 41	765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C S/C S/C	0 0 0 270 0	2388 1172 968 0 1437	0.0 0.0 0.0 5.7 0.0	45.3 20.1 34.9 0.0 29.2	-45.3 -20.1 -34.9 5.7 -29.2
39 40 41 42	-	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C S/C S/C D/C	0 0 0 270 0	2388 1172 968 0 1437 965	0.0 0.0 0.0 5.7 0.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0
39 40 41 42 43	765 kV 400 kV	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 D/C	0 0 0 270 0 0 56 61	2388 1172 968 0 1437 965 165 249 0	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3
39 40 41 42 43 44 45 46	-	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-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 D/C	0 0 0 270 0 0 56 61 967	2388 1172 968 0 1437 965 165 249 0 408	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3
39 40 41 42 43 44 45 46 47	-	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 0 270 0 0 56 61 967 0 36	2388 1172 968 0 1437 965 165 249 0 408	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2
39 40 41 42 43 44 45 46 47 48	-	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 270 0 0 56 61 967 0 36	2388 1172 968 0 1437 965 165 249 0 408 41	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0
39 40 41 42 43 44 45 46 47 48 49	400 kV	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	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 0 270 0 0 56 61 967 0 36 0	2388 1172 968 0 1437 965 165 249 0 408 41 71	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2
39 40 41 42 43 44 45 46 47 48 49 50	400 kV - 220 kV	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 0 270 0 0 56 61 967 0 36 0 41	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59	0.0 0.0 0.0 5.7 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7
39 40 41 42 43 44 45 46 47 48 49	400 kV	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	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 0 270 0 0 56 61 967 0 36 0	2388 1172 968 0 1437 965 165 249 0 408 41 71	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2
39 40 41 42 43 44 45 46 47 48 49 50 51	- 400 kV - 220 kV	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 0 270 0 0 56 61 967 0 36 0 41	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0	0.0 0.0 0.0 5.7 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0
39 40 41 42 43 44 45 46 47 48 49 50 51	- 400 kV - 220 kV	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	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 0 270 0 0 56 61 967 0 36 0 41	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0	0.0 0.0 0.0 5.7 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0
39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV 132kV	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)	D/C D/C D/C S/C S/C D/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 0 270 0 0 56 61 967 0 36 0 41	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.0 0.2 28.6	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 7 0.0 226.8	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.0 0.2 28.6	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	400 kV 220 kV 132kV Export of HVDC LINK 765 kV	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 28.6	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.8 20.2	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	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 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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 0.0 0.0 0.0 0.0 28.6	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.7 0.0 226.8 0.5 0.0 0.8 20.2	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 S/C S/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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 0.0 28.6	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.7 0.0 226.8 0.5 0.0 0.8 20.2	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	400 kV 220 kV 132kV Export of HVDC LINK 765 kV	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 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 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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.0 28.6 6.3 0.0 6.9 0.0 12.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.8 20.2 0.0 0.0 0.0 0.0 0.0 0.0 0.	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0 -1.0
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 S/C S/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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0 -1.0 0.5
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.0 28.6 6.3 0.0 6.9 0.0 12.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.8 20.2 0.0 0.0 0.0 0.0 0.0 0.0 0.	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0 -1.0
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0 -1.0 0.5 3.3
39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 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 0 270 0 0 56 61 967 0 36 0 41 3 0	2388 1172 968 0 1437 965 165 249 0 408 41 71 19 59 0 WR-NR	0.0 0.0 0.0 0.0 0.0 5.7 0.0 0.0 0.2 0.1 22.3 0 0.1 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0	45.3 20.1 34.9 0.0 29.2 7.0 1.2 2.3 0.0 3 0.3 1.0 0.0 0.7 0.0 226.8 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-45.3 -20.1 -34.9 5.7 -29.2 7.0 -1.1 -2.2 22.3 -3 -0.2 -1.0 0.2 -0.7 0.0 -184.2 5.8 0.0 6.1 -20.2 12.0 0.0 -1.0 0.5