

# 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: 27<sup>th</sup> Oct 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.,२९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

## Sub: Daily PSP Report for the date 26.10.2019.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 26-अक्टूबर-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 26<sup>th</sup> Oct 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 27-Oct-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)	43142	40066	33691	18285	2275	137459
Peak Shortage (MW)	529	0	0	0	173	702
Energy Met (MU)	900	911	750	345	38	2944
Hydro Gen (MU)	143	39	154	84	16	435
Wind Gen (MU)	16	106	37			159
Solar Gen (MU)*	28.64	16.2	50.89	1.40	0.02	97
Energy Shortage (MU)	10.9	0.0	0.0	0.0	2.3	13.2
Maximum Demand Met during the day	43870	41805	34664	18412	2316	140248
(MW) & time (from NLDC SCADA)	18:36	09:44	18:34	18:38	18:27	18:36

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 0.033

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	5523	0	117.0	62.8	-1.4	15	0.0
	Haryana	5945	0	124.8	106.9	0.4	182	0.0
	Rajasthan	10305	0	197.0	53.9	-1.8	274	0.0
	Delhi	3410	0	69.1	54.0	-0.6	88	0.0
NR	UP	15481	0	287.8	118.8	5.4	729	0.8
	Uttarakhand	1592	0	32.7	20.1	0.1	174	0.0
	HP	1383	0	25.2	15.0	-0.6	381	0.0
	J&K	2240	560	42.6	37.7	-0.5	108	10.1
	Chandigarh	183	0	3.4	3.6	-0.2	17	0.0
	Chhattisgarh	3357	0	73.5	22.1	-1.0	376	0.0
	Gujarat	12617	0	279.0	65.8	0.7	593	0.0
	MP	8269	0	170.3	110.0	-2.7	195	0.0
WR	Maharashtra	16023	0	347.4	111.5	-2.1	468	0.0
WIN	Goa	541	0	10.5	10.0	-0.1	52	0.0
	DD	300	0	6.6	6.2	0.4	41	0.0
	DNH	747	0	17.2	17.4	-0.2	40	0.0
	Essar steel	394	0	6.8	6.7	0.1	288	0.0
	Andhra Pradesh	7212	0	149.8	56.7	0.6	496	0.0
	Telangana	7102	0	149.4	46.8	-2,2	383	0.0
SR	Karnataka	7240	0	140.1	18.1	-4.0	499	0.0
3N	Kerala	3076	0	62.4	47.3	0.9	180	0.0
	Tamil Nadu	11492	0	241.5	138.1	-0.5	495	0.0
	Pondy	331	0	7.0	7.8	-0.8	58	0.0
	Bihar	4274	0	71.1	71.1	-2.1	200	0.0
	DVC	2924	0	59.7	-13.1	0.1	180	0.0
ER	Jharkhand	1072	0	22.9	12.8	-0.6	20	0.0
LIN	Odisha	3732	0	73.9	8.8	0.6	270	0.0
	West Bengal	6663	0	116.3	39.7	2.5	390	0.0
	Sikkim	91	0	1.0	1.2	-0.2	15	0.0
	Arunachal Pradesh	109	5	2.1	2.1	-0.2	13	0.0
	Assam	1351	118	20.3	15.3	-0.4	144	2.3
	Manipur	151	6	2.5	2.5	0.0	27	0.0
NER	Meghalaya	342	11	5.5	2.0	-0.6	37	0.0
	Mizoram	91	7	1.8	1.0	0.2	24	0.0
	Nagaland	104	5	2.1	1.7	0.1	9	0.0
	Tripura	269	18	3.7	3.0	-0.7	20	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	20.3	-1.3	-16.5
Day peak (MW)	884.1	-123.7	-1092.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	222.9	-215.7	61.2	-67.8	-0.7	-0.1
Actual(MU)	212.1	-219.0	56.6	-50.3	-3.2	-3.8
O/D/U/D(MU)	-10.8	-3.3	-4.6	17.5	-2.5	-3.7

### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	2587	15836	8052	2530	660	29665
State Sector	11486	24378	12573	6180	11	54628
Total	14073	40214	20625	8710	672	84293

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	444	895	306	328	10	1983
Lignite	16	11	47	0	0	74
Hydro	143	39	154	84	16	435
Nuclear	24	29	60	0	0	112
Gas, Naptha & Diesel	23	38	15	0	20	96
RES (Wind, Solar, Biomass & Others)	53	134	117	1	0	305
Total	703	1146	698	413	46	3005

Share of RES in total generation (%)	7.51	11.67	16.71	0.34	0.04	10.13
Share of Non-fossil fuel (Hydro, Nuclear and	21.25	17.58	47.34	20.64	34.19	28.36
RES) in total generation (%)	31.25	17.56	47.34	20.04	34.19	20.30

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

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

		IN	TER-REGIO	ONAL EXCHA	ANGES .	Date of I	Reporting :	27-Oct-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/Ex		ER (With NR)						
1	765kV	GAYA-VARANASI	D/C	60	375	0.0	5.7	-5.7
3	/05KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	67 0	186 329	0.0	1.0 6.4	-1.0 -6.4
4	HVDC	ALIPURDUAR-AGRA	-	0	400	0.0	9.5	-9.5
5	HVDC	PUSAULI B/B	S/C	0	196	0.0	4.5	-4.5
6		PUSAULI-VARANASI	S/C	0	175	0.0	3.1	-3.1
7		PUSAULI -ALLAHABAD	S/C	0	85	0.0	1.2	-1.2
9	400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C O/C	0	604 765	0.0	8.0 16.5	-8.0 -16.5
10	400 K V	BIHARSHARIFF-BALIA	D/C	22	274	0.0	3.6	-3.6
11		MOTIHARI-GORAKHPUR	D/C	1	4	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	190	91	0.6	0.0	0.6
13	220 kV	PUSAULI-SAHUPURI	S/C	0	123	0.0	2.2	-2.2
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
Import/F-	vnort of	ER (With WR)			ER-NR	1.0	61.6	-60.7
	арогі 01	· · · · · · · · · · · · · · · · · · ·	6.5	1550		22.0	0.0	
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1552	0	22.9	0.0	22.9
19 20	, J. A 1	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	863 157	0	14.5 2.3	0.0	14.5 2.3
20		JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	Q/C	275	0	3.2	0.0	3.2
22	400 kV	RANCHI-SIPAT	D/C	305	0	5.5	0.0	5.5
23	220 1 17	BUDHIPADAR-RAIGARH	S/C	3	55	0.0	0.6	-0.6
24	220 kV	BUDHIPADAR-KORBA	D/C	100	0	1.7	0.0	1.7
					ER-WR	50.1	0.6	49.5
	_	ER (With SR)						
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1778.0	0.0	24.2	-24.2
26	HVDC LINK	JEYPORE-GAZUWAKA B/B	D/C	0.0	424.0	0.0	9.9	-9.9
27 28	400 kV	TALCHER-KOLAR BIPOLE TALCHER-I/C	D/C D/C	430.0	1189.0 212.0	0.0	28.9	-28.9 -1.5
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
	220 K V	BALLALLY-CITER-SILLARC	5/0	1.0	ER-SR	0.0	63.0	-63.0
Import/Ex	xport of	ER (With NER)						· I
30	400 kV	BINAGURI-BONGAIGAON	D/C	26	374	0.0	3.6	-4
31	400 K 1	ALIPURDUAR-BONGAIGAON	D/C	131	297	0.0	2.6	-3
32	220 kV	ALIPURDUAR-SALAKATI	D/C	2	92	0.0	0.9	-1
T 4/F	4 6	NED ANA ND			ER-NER	0.0	7.1	-7.1
33	•	NER (With NR) BISWANATH CHARIALI-AGRA		0	503	0.0	11.0	-11.0
33	HVDC	BISWANATH CHARIALI-AGRA			NER-NR		11.0	-11.0
Import/Es	xport of	WR (With NR)				0.0	1110	1110
34	•	CHAMPA-KURUKSHETRA	D/C	0	750	0.0	16.0	-16.0
35	HVDC	V'CHAL B/B	D/C	452	0	8.2		8.2
2.5		APL -MHG			O .	0.2	0.0	0.2
36			D/C	0	1270	0.0	0.0 25.1	-25.1
37		GWALIOR-AGRA	D/C	0	1270 2294	0.0	25.1 44.9	-25.1 -44.9
37 38		PHAGI-GWALIOR	D/C D/C	0	1270 2294 1140	0.0 0.0 0.0	25.1 44.9 21.9	-25.1 -44.9 -21.9
37 38 39	765 kV	PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C	0 0 0	1270 2294 1140 814	0.0 0.0 0.0 0.0	25.1 44.9 21.9 32.7	-25.1 -44.9 -21.9 -32.7
37 38 39 40	765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C S/C	0 0 0 402	1270 2294 1140 814 0	0.0 0.0 0.0 0.0 0.0 7.7	25.1 44.9 21.9 32.7 0.0	-25.1 -44.9 -21.9 -32.7 7.7
37 38 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 0 402 0	1270 2294 1140 814 0 1322	0.0 0.0 0.0 0.0 7.7 0.0	25.1 44.9 21.9 32.7 0.0 28.0	-25.1 -44.9 -21.9 -32.7 7.7 -28.0
37 38 39 40 41 42	765 kV	PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  CHITTORGARH-BANASKANTHA	D/C D/C D/C S/C S/C D/C	0 0 0 402 0	1270 2294 1140 814 0 1322 812	0.0 0.0 0.0 0.0 7.7 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1
37 38 39 40 41		PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C S/C S/C	0 0 0 402 0	1270 2294 1140 814 0 1322	0.0 0.0 0.0 0.0 7.7 0.0	25.1 44.9 21.9 32.7 0.0 28.0	-25.1 -44.9 -21.9 -32.7 7.7 -28.0
37 38 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 0 402 0 0 39	1270 2294 1140 814 0 1322 812 106	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8
37 38 39 40 41 42 43		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 0 402 0 0 0 39	1270 2294 1140 814 0 1322 812 106 240	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7
37 38 39 40 41 42 43 44 45		PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  CHITTORGARH-BANASKANTHA  ZERDA-KANKROLI  ZERDA -BHINMAL  VCHAL -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 0 402 0 0 39 0	1270 2294 1140 814 0 1322 812 106 240	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8
37 38 39 40 41 42 43 44 45 46 47 48	400 kV	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 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	0 0 0 402 0 0 39 0 969 81 21	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1
37 38 39 40 41 42 43 44 45 46 47 48 49		PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATINA-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 0 402 0 0 39 0 969 81 21 4	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4
37 38 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 0 402 0 0 0 39 0 969 81 21 4 52	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37	0.0 0.0 0.0 0.0 7.7 0.0 0.1 0.0 21.8 0 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3
37 38 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 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 0 402 0 0 39 0 969 81 21 4	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0	0.0 0.0 0.0 0.0 7.7 0.0 0.1 0.0 21.8 0 0.0 0.0 0.0 0.1	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3 0.0
37 38 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 V'CHAL-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 0 402 0 0 0 39 0 969 81 21 4 52	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37	0.0 0.0 0.0 0.0 7.7 0.0 0.1 0.0 21.8 0 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 kV 220 kV 132kV xport of	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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex	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 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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 1.1 0.0 184.1	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex	400 kV  220 kV  132kV  xport 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	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 0 402 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 1.1 0.0 0.3 1.1 0.0 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex	400 kV  220 kV  132kV  xport of  HVDC	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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.4 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 1.1 0.0 184.1	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex	400 kV  220 kV  132kV  xport 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	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 0 402 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.4 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1	-25.1 -44.9 -21.9 -32.7 7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3 0.0 -145.9
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex 52 53 54 55	400 kV  220 kV  132kV  xport 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 0 402 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 31.8 0 0.0 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 0.0 5.8 23.6	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3 0.0 -145.9 -10.0 0.0 -2.0 -23.6
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex 52 53 54 55 56	400 kV  220 kV  132kV  xport 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	D/C D/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 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 0 402 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 5.8 23.6 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 21.8 -2 -0.3 -1.1 0.4 -0.3 0.0 -145.9 -10.0 0.0 -2.0 -23.6 13.2
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex 52 53 54 55 56 57	400 kV  220 kV  132kV  xport of  HVDC LINK  765 kV  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 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 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 0.0 5.8 23.6 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 -21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9 -10.0 -2.0 -2.3.6 -13.2 -0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 S2 53 54 55 56 57 58	400 kV  220 kV  132kV  xport of  HVDC LINK  765 kV  400 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 D/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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.1 0.0 21.8 0 0.0 0.0 0.1 0.0 38.3	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 0.0 5.8 23.6 0.0 0.0 1.3	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 -21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9 -10.0 -2.0 -23.6 -13.2 -0.0 -1.3
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex 52 53 54 55 56 57 58	400 kV  220 kV  132kV  xport of  HVDC LINK  765 kV  400 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-NICAHABAD KOLHAPUR-KUDGI 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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 0.0 5.8 23.6 0.0 0.0 1.3 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 -21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9 -10.0 -2.0 -23.6 -13.2 -0.0 -1.3 -0.7
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/Ex 52 53 54 55 56 57 58	400 kV  220 kV  132kV  xport of  HVDC LINK  765 kV  400 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-RAIGHABAD KOLHAPUR-VUDGI 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 0 402 0 0 0 39 0 969 81 21 4 52 21 0	1270 2294 1140 814 0 1322 812 106 240 0 232 42 89 13 37 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0	25.1 44.9 21.9 32.7 0.0 28.0 8.1 0.9 2.7 0.0 2 0.3 1.1 0.0 0.3 0.0 184.1 10.0 0.0 5.8 23.6 0.0 0.0 1.3 0.0	-25.1 -44.9 -21.9 -32.7 -7.7 -28.0 -8.1 -0.8 -2.7 -21.8 -2 -0.3 -1.1 -0.4 -0.3 -0.0 -145.9 -10.0 -2.0 -23.6 -13.2 -0.0 -1.3 -0.7