

## 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) 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: 22<sup>nd</sup> Feb 2020

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. 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 21.02.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-फरवरी-2020 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 21<sup>st</sup> Feb 2020, is available at the NLDC website.

धन्यवाद,

Report for previous day

A. Power Supply Position at All India and Regional level

Date of Reporting 22-Feb-20

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	43079	48202	48365	18259	2317	160222
Peak Shortage (MW)	600	0	0	0	55	655
Energy Met (MU)	873	1225	1089	370	41	3599
Hydro Gen (MU)	133	43	88	27	4	294
Wind Gen (MU)	21	59	69			148
Solar Gen (MU)*	34.88	26.00	95.69	1.35	0.02	158
Energy Shortage (MU)	11.9	0.0	0.0	0.0	1.0	12.8
Maximum Demand Met during the day (MW) & time	45658	59385	51878	18588	2377	174553
(from NLDC SCADA)	09:55	11:10	10:21	18:45	19:12	10:15

C. Power Supply Position in States

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	5310	0	105.7	66.2	-1.6	163	0.0
	Haryana	6032	0	107.8	74.7	0.7	429	0.0
NR	Rajasthan	13730	0	248.9	63.2	-0.9	353	0.0
	Delhi	4141	0	64.3	49.1	-1.4	162	0.0
	UP	13034	0	234.2	92.1	-2.0	612	0.0
	Uttarakhand	1738	0	32.8	14.6	-1.0	214	0.0
	HP	1544	0	26.2	19.3	-0.5	192	0.0
	J&K(UT) and Ladakh(UT)	2499	625	50.2	43.9	0.2	229	11.9
	Chandigarh	224	0	3.4	3.2	0.1	39	0.0
	Chhattisgarh	4026	0	88.7	43.0	0.2	277	0.0
	Gujarat	15652	0	334.7	92.6	3.7	552	0.0
	MP	14184	0	264.2	138.4	-3.8	668	0.0
WR	Maharashtra	23511	0	491.7	149.8	-1.5	433	0.0
VVIN	Goa	477	0	10.6	10.4	-0.3	29	0.0
	DD	309	0	5.9	5.6	0.3	55	0.0
	DNH	785	0	18.4	18.3	0.1	56	0.0
	Essar steel	773	0	10.8	10.2	0.6	259	0.0
	Andhra Pradesh	9936	0	194.6	66.6	-0.3	349	0.0
	Telangana	12743	0	254.3	141.2	0.4	576	0.0
SR	Karnataka	13001	0	243.4	82.9	-1.6	509	0.0
311	Kerala	3609	0	74.7	56.3	1.5	224	0.0
	Tamil Nadu	14508	0	314.8	163.1	-0.1	531	0.0
	Pondy	375	0	7.7	7.9	-0.3	34	0.0
	Bihar	4042	0	76.2	74.6	-0.1	380	0.0
	DVC	3121	0	66.2	-33.4	-0.4	235	0.0
ER	Jharkhand	1243	0	24.5	20.0	-1.0	103	0.0
	Odisha	3636	0	71.5	2.5	-1.2	223	0.0
	West Bengal	6754	0	130.0	28.9	-0.9	337	0.0
	Sikkim	129	0	1.8	1.8	0.0	36	0.0
	Arunachal Pradesh	119	1	2.1	2.0	-0.1	92	0.0
	Assam	1359	35	22.9	19.9	0.1	93	0.7
	Manipur	199	1	2.8	2.8	0.0	24	0.0
NER	Meghalaya	361	0	6.1	5.0	0.1	54	0.2
	Mizoram	91	1	1.6	1.5	0.0	14	0.0
	Nagaland	129	1	2.1	2.0	0.0	52	0.0
	Tripura	223	0	3.4	1.8	-0.2	40	0.0

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

	,		
	Bhutan	Nepal	Bangladesh
Actual(MU)	1.7	-10.3	-8.0
Day peak (MW)	368.6	-487.0	-585.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	176.9	-248.1	146.5	-88.7	13.3	-0.2
Actual(MU)	155.4	-256.5	166.2	-90.0	16.1	-8.9
O/D/U/D(MU)	-21.6	-8.4	19.7	-1.3	2.8	-8.7

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5893	12593	5052	1160	1125	25823
State Sector	14020	14903	8285	4630	11	41849
Total	19913	27495	13337	5790	1136	67671

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	440	1239	523	459	12	2672
Lignite	27	17	51	0	0	94
Hydro	133	43	88	27	4	294
Nuclear	19	37	45	0	0	100
Gas, Naptha & Diesel	37	46	16	0	14	114
RES (Wind, Solar, Biomass & Others)	81	100	205	1	0	388
Total	737	1481	928	487	30	3663

Share of RES in total generation (%)	11.03	6.75	22.13	0.29	0.07	10.59
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	31.59	12.11	36.41	5.80	13.71	21.36

H. All India Demand Diversity Factor

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Based on Regional Max Demands	1.019
Based on State Max Demands	1.052

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

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

		IN	TER-REGI	ONAL EXCH	ANGES	Date of l	Reporting :	22-Feb-20
						Date of I	acporting .	ļ-
								Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export	NET
Import/E	Level Export of	ER (With NR)					(MU)	(MU)
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5		PUSAULI B/B	S/C	0	251	0.0	5.9	-5.9
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	262 213	862 222	0.0	8.4 1.0	-8.4 -1.0
3	1	GAYA-BALIA	S/C	0	405	0.0	2.4	-2.4
6		PUSAULI-VARANASI	S/C	0	231	0.0	4.3	-4.3
7		PUSAULI -ALLAHABAD	S/C	0	107	0.0	1.6	-1.6
8		MUZAFFARPUR-GORAKHPUR	D/C	290	227	1.0	0.0	1.0
9	400 kV	PATNA-BALIA	Q/C	99	688	0.0	7.2	-7.2
10	-	BIHARSHARIFF-BALIA	D/C D/C	108	334 483	0.0	7.2	-2.9 -7.2
12	1	MOTIHARI-GORAKHPUR BIHARSHARIFF-VARANASI	D/C D/C	276	199	1.0	0.0	1.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	152	0.0	2.9	-2.9
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15		GARWAH-RIHAND	S/C	30	0	0.4	0.0	0.4
16	132 kV	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
					ER-NR	2.3	43.6	-41.3
Import/E	Export of	ER (With WR)						
18		JHARSUGUDA-DHARAMJAIGARH	Q/C	2127	0	32.8	0.0	32.8
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	1016	0	14.4	0.0	14.4
20		JHARSUGUDA-DURG	D/C	142	52	1.1	0.0	1.1
21	400 kV	JHARSUGUDA-RAIGARH	Q/C	94	356	0.0	4.5	-4.5
22		RANCHI-SIPAT	D/C S/C	324 0	0	5.6 0.0	0.0	5.6 0.0
24	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	D/C	96	0	1.2	0.0	1.2
24	1	BUDIII ADAR-KUKBA	D/C	70	ER-WR	55.1	4.5	50.6
Import/E	Export of	ER (With SR)				5512	- 110	2010
26		JEYPORE-GAZUWAKA B/B	D/C	0.0	668.0	0.0	16.2	-16.2
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	2462.0	0.0	50.2	-50.2
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	2836.0	0.0	54.4	-54.4
28	400 kV	TALCHER-I/C	D/C	150.0	1070.0	0.0	7.5	-7.5
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
·		ED (WILL NED)			ER-SR	0.0	120.8	-120.8
	Export of	ER (With NER)	D/G	0	546	0.0	0.0	10
30	400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON	D/C D/C	0	546 821	0.0	9.9 15.0	-10 -15
32	220 kV	ALIPURDUAR-SALAKATI	D/C	0	160	0.0	2.5	-13
- 52	220 K	1121 010 0111 0112 112 11	D/C		ER-NER	0.0	27.3	-27.3
Import/E	Export of	NER (With NR)						
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	504	0.0	10.7	-10.7
					NER-NR	0.0	10.7	-10.7
Import/E	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0				
35	HVDC				0	0.0	0.0	0.0
	-	V'CHAL B/B	D/C	449	0	12.1	0.0	12.1
36		APL -MHG	D/C D/C	0	0 1640	12.1 0.0	0.0 31.2	12.1 -31.2
37		APL -MHG GWALIOR-AGRA	D/C D/C D/C	0	0 1640 2575	12.1 0.0 0.0	0.0 31.2 41.8	12.1 -31.2 -41.8
37 38		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 0 0	0 1640 2575 1404	12.1 0.0 0.0 0.0	0.0 31.2 41.8 18.5	12.1 -31.2 -41.8 -18.5
37	- 765 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C	0	0 1640 2575	12.1 0.0 0.0	0.0 31.2 41.8	12.1 -31.2 -41.8
37 38 39		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C	0 0 0	0 1640 2575 1404 961	12.1 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8	12.1 -31.2 -41.8 -18.5 -26.8
37 38 39 40		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 0 0 0 610	0 1640 2575 1404 961	12.1 0.0 0.0 0.0 0.0 0.0 10.2	0.0 31.2 41.8 18.5 26.8 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2
37 38 39 40 41		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C D/C S/C S/C	0 0 0 0 610	0 1640 2575 1404 961 0	12.1 0.0 0.0 0.0 0.0 0.0 10.2 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8	12.1 -31.2 -41.8 -18.5 -26.8 10.2
37 38 39 40 41 42	765 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C D/C S/C S/C D/C	0 0 0 0 610 0 322	0 1640 2575 1404 961 0 1386	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0
37 38 39 40 41 42 43 44 45		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	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	0 0 0 0 610 0 322 212 338 987	0 1640 2575 1404 961 0 1386 1158 212 353 0	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 22.7	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7
37 38 39 40 41 42 43 44 45	765 kV	APL -MHG 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294	0 1640 2575 1404 961 0 1386 1158 212 353 0 301	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 22.7	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0
37 38 39 40 41 42 43 44 45 46 47	765 kV	APL -MHG 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 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 0 610 0 322 212 338 987 294	0 1640 2575 1404 961 0 1386 1158 212 353 0 301	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8
37 38 39 40 41 42 43 44 45 46 47 48	765 kV	APL -MHG 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 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 0 610 0 322 212 338 987 294 16	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106	12.1 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7
37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV	APL -MHG 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	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 0 0 610 0 322 212 338 987 294 16 16	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3
37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	APL -MHG 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6
37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV	APL -MHG 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	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 0 0 610 0 322 212 338 987 294 16 16	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7
37 38 39 40 41 42 43 44 45 46 47 48 49 50	765 kV 400 kV 220 kV	APL -MHG 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50	765 kV 400 kV 220 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	765 kV 400 kV 220 kV	APL -MHG 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)	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 0 0 610 0 322 212 338 987 294 16 16 96 55	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 22.7 0 0.3 0.0 1.3 0.0 47.3	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	- 765 kV - 400 kV - 220 kV - 132kV Export of - HVDC	APL -MHG 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 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 0 610 0 322 212 338 987 294 16 16 96 55	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 0.0 155.2	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53	765 kV 400 kV 220 kV	APL -MHG 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 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 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.6 0.0 47.3	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/F 52 53 54	- 765 kV - 400 kV - 220 kV - 132kV Export of - HVDC	APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-WORAK 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 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 S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.6 0.0 47.3	0.0 31.2 41.8 18.5 26.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 0.0 155.2	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-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-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 31.2 41.8 18.5 26.8 0.0 0.3 0.6 0.0 0.0 1.1 1.7 0.0 0.0 1.55.2 23.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/F 52 53 54 55 56 57 58	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WANDAK 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2 23.6 0.0 30.5 50.0 0.0 1.2	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0 -1.2
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-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-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 22 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.6 0.0 47.3	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2 23.6 0.0 30.5 50.0 0.0 1.2 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0 -1.2
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/F 52 53 54 55 56 57 58	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIORAIYA 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 D/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 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 222 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2 23.6 0.0 30.5 50.0 0.0 1.2	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0 -1.2
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/E 52 53 54 55 56 57 58 59	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIORAI 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 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 222 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.6 0.0 47.3	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2 23.6 0.0 30.5 50.0 0.0 1.2 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0 -1.2 1.9 -89.5
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51  Import/F 52 53 54 55 56 57 58	- 765 kV - 400 kV - 220 kV - 132kV - 2xport of - HVDC - 765 kV - 400 kV	APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI GWALIOR-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIORAIYA 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 D/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 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 0 610 0 322 212 338 987 294 16 16 96 55 0	0 1640 2575 1404 961 0 1386 1158 212 353 0 301 106 149 0 222 0 WR-NR	12.1 0.0 0.0 0.0 0.0 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.6 0.0 47.3	0.0 31.2 41.8 18.5 26.8 0.0 25.8 7.0 0.3 0.6 0.0 0 1.1 1.7 0.0 0.0 155.2 23.6 0.0 30.5 50.0 0.0 1.2 0.0	12.1 -31.2 -41.8 -18.5 -26.8 10.2 -25.8 -7.0 -0.3 -0.6 -22.7 0 -0.8 -1.7 1.3 0.6 0.0 -108.0 -23.6 0.0 -30.5 -50.0 13.9 0.0 -1.2 1.9