

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: 02nd June 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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग ७९३००६ Chief General Manager, 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 01.06.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 01-जून-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 01st June 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 2-Jun-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)	55018	51120	44145	21380	2482	174145
Peak Shortage (MW)	999	0	0	0	250	1249
Energy Met (MU)	1333	1164	994	465	46	4002
Hydro Gen (MU)	325	19	56	68	16	484
Wind Gen (MU)	22	97	109			228
Solar Gen (MU)*	29.13	23.90	75.77	2.28	0.03	131
Energy Shortage (MU)	14.6	0.0	0.0	0.0	1.1	15.7
Maximum Demand Met during the day	60036	56113	44420	22707	2526	181053
(MW) & time (from NLDC SCADA)	23:27	15:49	21:29	23:22	19:25	23:23

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

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	8866	0	186.4	100.2	-1.6	4	0.0
	Haryana	8972	0	188.4	124.0	0.1	275	0.0
NR	Rajasthan	11755	0	261.6	76.5	1.4	293	0.0
	Delhi	6386	0	132.2	110.2	1.4	284	0.1
NR	UP	21142	180	438.9	197.2	0.7	434	3.9
	Uttarakhand	2113	0	47.7	21.4	-0.5	139	0.0
	HP	1452	0	28.8	3.6	0.6	130	0.6
	J&K	2062	516	42.3	28.1	-6.4	58	9.9
	Chandigarh	332	0	6.4	7.0	-0.6	3	0.0
	Chhattisgarh	3868	0	3.8	38.9	-1.7	205	0.0
	Gujarat	17913	0	393.0	99.0	3.3	456	0.0
	MP	9777	0	223.9	112.2	-0.1	388	0.0
WR	Maharashtra	22758	0	500.6	125.2	-1.6	349	0.0
WK	Goa	541	0	12.3	11.0	0.7	49	0.0
	DD	321	0	7.2	6.9	0.3	31	0.0
	DNH	738	0	17.2	17.4	-0.3	66	0.0
	Essar steel	291	0	5.6	5.7	-0.1	290	0.0
	Andhra Pradesh	9394	0	197.3	59.1	0.5	559	0.0
	Telangana	7758	0	170.9	67.0	0.7	670	0.0
SR	Karnataka	9986	0	198.9	63.0	1.0	906	0.0
JK.	Kerala	4084	0	81.7	60.7	1.1	183	0.0
	Tamil Nadu	15100	0	336.8	143.2	0.0	550	0.0
	Pondy	430	0	8.6	9.4	-0.8	42	0.0
	Bihar	5098	0	99.7	96.0	1.5	200	0.0
	DVC	3168	0	65.9	-40.8	0.0	400	0.0
ER	Jharkhand	1179	0	25.3	17.0	-1.0	90	0.0
	Odisha	4837	0	96.8	44.1	1.1	300	0.0
	West Bengal	8906	0	176.0	51.0	0.6	500	0.0
	Sikkim	89	0	1.2	1.3	-0.1	30	0.0
	Arunachal Pradesh	134	2	2,2	2.3	-0.1	27	0.0
	Assam	1595	153	28.8	23.5	0.9	157	0.7
	Manipur	157	2	2,2	2.1	0.1	17	0.0
NER	Meghalaya	315	0	5.5	2.7	0.2	59	0.3
	Mizoram	92	1	1.8	1.3	0.3	23	0.0
	Nagaland	112	2	2.2	2.2	0.0	11	0.0
	Tripura	273	6	3.3	3.7	-0.4	62	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	9.6	-8.9	-26.3
Day peak (MW)	627.4	391.6	776.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	244.6	-262.4	68.6	-51.5	0.7	0.1
Actual(MU)	249.8	-261.9	64.0	-46.2	-1.5	4.2
O/D/U/D(MU)	5.2	0.5	-4.6	5.3	-2,2	4.1

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4303	13159	6762	950	306	25480
State Sector	7210	11040	6290	4090	50	28680
Total	11513	24199	13052	5040	356	54160

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	631	1220	540	477	10	2879
Lignite	25	16	51	0	0	92
Hydro	325	19	56	68	16	484
Nuclear	27	18	58	0	0	104
Gas, Naptha & Diesel	43	48	14	0	28	132
RES (Wind, Solar, Biomass & Others)	66	129	218	2	0	415
Total	1117	1450	938	548	53	4106

Share of RES in total generation (%)	5.93	8.89	23.24	0.43	0.06	10.12
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	37.46	11.46	35.46	12.88	29.61	24.44

H. Diversity Factor All India Demand Diversity Factor

All India Demand Diversity Factor 1.026
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.$

		<u>IN</u> ′	FER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	2-Jun-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)
	Export of	ER (With NR)			1			
1	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	149	202 164	0.0	1.1	-1.1 -1.0
3	/03KV	GAYA-BALIA	S/C	0	405	0.0	7.1	-1.0 -7.1
4	HVDC	ALIPURDUAR-AGRA	-	0	500	0.0	12.1	-12.1
5	HVDC	PUSAULI B/B	S/C	0	49	0.0	1.2	-1.2
6		PUSAULI-VARANASI	S/C	0	116	0.0	1.9	-1.9
7	4	PUSAULI -ALLAHABAD	S/C	58	1	0.8	0.0	0.8
9	400 1-37	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C	0	577	0.0	8.3	-8.3
10	400 KV	BIHARSHARIFF-BALIA	Q/C D/C	0	1037 556	0.0	19.3	-19.3 -10.3
11	1	MOTIHARI-GORAKHPUR	D/C	0	349	0.0	7.0	-7.0
12	1	BIHARSHARIFF-VARANASI	D/C	116	164	0.0	1.1	-1.1
13	220 kV	PUSAULI-SAHUPURI	S/C	0	167	0.0	3.1	-3.1
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.5	0.0	0.5
16	132 K	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	Twnowt -P	ED (With WD)			ER-NR	1.3	73.4	-72.1
	Export of	ER (With WR)	1		1			T
18	765 1.37	JHARSUGUDA-DHARAMJAIGARH	Q/C	1869	0	30.9	0.0	30.9
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	869	0	15.3	0.0	15.3
20	1	JHARSUGUDA DAIGABH	D/C Q/C	230 478	0	3.4 7.7	0.0	3.4 7.7
21	400 kV	JHARSUGUDA-RAIGARH RANCHI-SIPAT	D/C	301	0	5.3	0.0	5.3
23		BUDHIPADAR-RAIGARH	S/C	2	74	0.0	0.9	-0.9
24	220 kV	BUDHIPADAR-KORBA	D/C	163	0	2.5	0.0	2.5
					ER-WR	65.1	0.9	64.2
Import/F	Export of	ER (With SR)						
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1770.0	0.0	30.7	-30.7
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	675.0	0.0	11.1	-11.1
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1390.0	0.0	31.6	-31.6
28	400 kV	TALCHER-I/C	D/C	782.0	0.0	10.6	0.0	10.6
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0	73.4	0.0 -73.4
Import/E	Export of	ER (With NER)				0.0	7011	7511
30	T	BINAGURI-BONGAIGAON	D/C	0	432	0.0	6.5	-7
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	194	169	0.0	0.3	0
32	220 kV	ALIPURDUAR-SALAKATI	D/C	13	71	0.0	0.9	-1
		AND AND AND			ER-NER	0.0	7.7	-7.7
33		NER (With NR) BISWANATH CHARIALI-AGRA	1 1	0	502	0.0	9.9	-9.9
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	NER-NR	0.0	9.9	-9.9 - 9.9
Import/F	Export of	WR (With NR)				0.0		,,,,
34	T	CHAMPA-KURUKSHETRA	D/C	0	1752	0.0	36.4	-36.4
35	HVDC	V'CHAL B/B	D/C	452	0	12.2	0.0	12.2
36		APL -MHG					0.0	12.2
37			D/C	0	1728	0.0	37.8	-37.8
	-	GWALIOR-AGRA	D/C	0	2344	0.0	37.8 46.7	-37.8 -46.7
38		PHAGI-GWALIOR	D/C D/C	0	2344 1121	0.0 0.0 0.0	37.8 46.7 22.8	-37.8 -46.7 -22.8
38 39	765 kV	PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C	0 0 0	2344 1121 879	0.0 0.0 0.0 0.0	37.8 46.7 22.8 34.4	-37.8 -46.7 -22.8 -34.4
38 39 40	765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C S/C	0 0 0 432	2344 1121 879 0	0.0 0.0 0.0 0.0 8.8	37.8 46.7 22.8 34.4 0.0	-37.8 -46.7 -22.8 -34.4 8.8
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 0 432 0	2344 1121 879 0 1357	0.0 0.0 0.0 0.0 8.8 0.0	37.8 46.7 22.8 34.4 0.0 29.8	-37.8 -46.7 -22.8 -34.4 8.8 -29.8
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 0 432 0	2344 1121 879 0 1357 698	0.0 0.0 0.0 0.0 8.8 0.0	37.8 46.7 22.8 34.4 0.0 29.8 4.6	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6
38 39 40 41		PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C S/C S/C	0 0 0 432 0 0	2344 1121 879 0 1357 698 70	0.0 0.0 0.0 0.0 8.8 0.0	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6 1.0
38 39 40 41 42 43	765 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 C D/C	0 0 0 432 0	2344 1121 879 0 1357 698	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1	37.8 46.7 22.8 34.4 0.0 29.8 4.6	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6
38 39 40 41 42 43 44		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	0 0 0 432 0 0 105 205	2344 1121 879 0 1357 698 70 59	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6 1.0 2.1
38 39 40 41 42 43 44 45		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 S/C	0 0 0 432 0 0 105 205 972	2344 1121 879 0 1357 698 70 59	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6 1.0 2.1 22.5
38 39 40 41 42 43 44 45 46	400 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 432 0 0 105 205 972 0	2344 1121 879 0 1357 698 70 59 0	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0	-37.8 -46.7 -22.8 -34.4 8.8 -29.8 4.6 1.0 2.1 22.5 -2 0.0 -2.4
38 39 40 41 42 43 44 45 46 47 48		PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-KOTA 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 0 432 0 0 105 205 972 0 44	2344 1121 879 0 1357 698 70 59 0 252 39 180	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4
38 39 40 41 42 43 44 45 46 47 48 49 50	400 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL V'CHAL - RIHAND RAPP-SHUJALPUR BHANPURA-KOTA BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-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 0 432 0 0 105 205 972 0 44 0 67 28	2344 1121 879 0 1357 698 70 59 0 252 39 180 18	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4
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 V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-KOTA 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 0 432 0 0 105 205 972 0 44 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0
38 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 V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-KOTA BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 432 0 0 105 205 972 0 44 0 67	2344 1121 879 0 1357 698 70 59 0 252 39 180 18	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4
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 VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-KOTA BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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 0 432 0 0 105 205 972 0 44 0 67 28	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 0.4	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F	- 400 kV - 220 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-KOTA 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 432 0 0 105 205 972 0 44 0 67	2344 1121 879 0 1357 698 70 59 0 252 39 180 18	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 2.4 0.0 0.4 2.7 2.4 0.0 217.5	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51	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-KOTA BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 0.4	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53	400 kV 220 kV 132kV Export of HVDC	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-KOTA 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 2.4 0.0 0.2 2.4 0.0 0.2 2.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-37.8 -46.7 -22.8 -34.4 -34.4 -34.4 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54	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-KOTA 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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 2.4 0.0 0.2 2.4 0.0 217.5	-37.8 -46.7 -22.8 -34.4 -34.4 -34.4 -34.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 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-KOTA 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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 5.4 29.2	-37.8 -46.7 -22.8 -34.4 -34.4 -34.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -0.0 -5.4 -29.2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 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-KOTA BHANPURA-MORAK MEHGAON-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 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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 2.4 0.0 0.2 2.4 0.0 0.2 2.4 0.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5	-37.8 -46.7 -22.8 -34.4 -34.4 -34.4 -34.6
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 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 V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-KOTA 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	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 S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 0.0 29.8 29.8 29.8 20.0 0.0 0.0 0.0 20.0 20.0 0.0 20.0 0.0	-37.8 -46.7 -22.8 -34.4 -8.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.0 -160.9 -23.6 -0.0 -5.4 -29.2 -0.0 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55 56 57 58	220 kV 132kV Export of HVDC LINK 765 kV	PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-KOTA BHANPURA-KOTA 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	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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 5.4 29.2 0.0 0.0 0.0	-37.8 -46.7 -22.8 -34.4 -34.4 -3.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -5.4 -29.2 -0.0 -0.0 -0.0 -0.0
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55 56 57 58	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-KOTA 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 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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 5.4 29.2 0.0 0.0 0.0 0.0 0.0	-37.8 -46.7 -22.8 -34.4 -34.4 -3.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -2.6 -2.9 -2.9 -2.9 -2.0 -2.1 -2.1 -2.1 -2.1 -2.5 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55 56 57 58 59	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-KOTA 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 T BHUTAN	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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 5.4 29.2 0.0 0.0 0.0 0.0 0.0	-37.8 -46.7 -22.8 -34.4 -34.4 -3.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -2.6 -2.9 -2.9 -2.9 -2.0 -2.1 -2.1 -2.1 -2.1 -2.5 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2
38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/F 52 53 54 55 56 57 58 59	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-KOTA 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 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 0 432 0 0 105 205 972 0 44 0 67 28 0	2344 1121 879 0 1357 698 70 59 0 252 39 180 18 39 0 WR-NR	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 1.1 2.1 22.5 0 0.2 0.0 0.4 0.0 0.0 47.3	37.8 46.7 22.8 34.4 0.0 29.8 4.6 0.1 0.0 0.0 2 0.2 2.4 0.0 0.4 0.0 217.5 23.6 0.0 5.4 29.2 0.0 0.0 0.0 0.0 0.0	-37.8 -46.7 -22.8 -34.4 -34.4 -3.8 -29.8 -4.6 -1.0 -2.1 -22.5 -2 -0.0 -2.4 -0.4 -0.4 -0.0 -160.9 -23.6 -29.2 -2.9 -29.2 -0.0 -0.0 -0.0 -1.1 -57.1