

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, क़त्ब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 05th June 2018

To,

- 1. महाप्रबंधक, पू.क्षे.भा.प्रे.के.,14 , गोल्फ क्लब रोड , कोलकाता 700033 General Manager, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 General Manager, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi - 110016
- 3. महाप्रबंधक, प.क्षे.भा.प्रे.के., एफ 3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई –400093 General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006
 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong 793006, Meghalaya
- 5. अपर महाप्रबंधक , द .क्षे .भा .प्रे .के ,,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009 Additional General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 04.06.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 04-जून 2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिंड 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 04th June 2018, 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 5-Jun-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs: from RLDCs)	53496	47099	40476	20568	2506	164145
Peak Shortage (MW)	913	56	0	0	113	1082
Energy Met (MU)	1263	1134	838	456	47	3738
Hydro Gen (MU)	302	19	43	73	17	454
Wind Gen (MU)	47	90	100			237
Solar Gen (MU)*	16.22	19.46	54.56	0.81	0.02	91
Energy Shortage (MU)	9.2	0.0	0.0	0.0	1.3	10.5
Maximum Demand Met during the day	57489	52518	41264	21792	2592	167364
(MW) & time (from NLDC SCADA)	22:55	15:30	19:55	21:02	19:00	22:43

B. Frequency Profile (%) <49.7 0.27 49.9-50.05 77.87 <49.9 18.02 FVI 49.7-49.8 49.8-49.9 > 50.05

		Max. Demand	Shortage during		Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the	maximum Demand	Energy Met (MU)	Schedule (MU)	(MU)	(MW)	Shortage (MU
		day (MW)	(MW)					Shortage (MC
	Punjab	8564	0	190.8	103.9	-0.3	123	0.0
	Haryana	8095	0	171.6	120.2	1.7	291	0.2
	Rajasthan	11338	0	257.7	68.9	0.2	309	0.0
	Delhi	6325	0	127.8	103.1	-1.2	149	0.0
NR	UP	18544	0	400.2	182.7	-0.3	209	0.0
	Uttarakhand	2064	0	44.3	19.8	1.9	288	0.0
	HP	1376	0	26.2	3.2	0.4	140	0.0
	J&K	2052	513	37.9	18.1	-4.4	89	8.9
	Chandigarh	331	0	6.4	6.7	-0.3	11	0.0
	Chhattisgarh	3474	0	76.1	18.3	-0.8	184	0.0
	Gujarat	16553	0	360.3	157.2	4.2	488	0.0
	MP	8627	0	189.8	90.9	-2.4	435	0.0
WR	Maharashtra	22204	0	465.0	133.7	1.4	736	0.0
VVIN	Goa	465	0	9.8	9.8	-0.6	61	0.0
	DD	344	0	7.5	6.7	0.8	77	0.0
	DNH	789	0	18.1	17.9	0.2	42	0.0
	Essar steel	377	0	7.2	6.9	0.3	208	0.0
	Andhra Pradesh	8191	0	165.9	44.2	-0.1	555	0.0
	Telangana	6947	0	142.8	60.8	-0.8	588	0.0
SR	Karnataka	7967	0	156.0	46.5	0.1	424	0.0
310	Kerala	3402	0	65.7	51.8	0.7	185	0.0
	Tamil Nadu	13890	0	299.6	111.7	2.9	1256	0.0
	Pondy	382	0	7.8	8.2	-0.4	84	0.0
	Bihar	4809	0	94.1	89.6	1.6	403	0.0
	DVC	3057	0	72.4	-52.6	0.5	375	0.0
ER	Jharkhand	1125	0	24.0	17.4	1.7	135	0.0
LIN	Odisha	4556	0	92.2	42.6	1.0	389	0.0
	West Bengal	8547	0	171.9	41.4	2.5	445	0.0
	Sikkim	90	0	1.2	1.3	-0.1	20	0.0
	Arunachal Pradesh	105	5	2.2	2.3	0.0	52	0.0
	Assam	1623	35	30.0	25.0	-0.2	204	1.1
	Manipur	139	6	2.2	2.3	-0.1	29	0.0
NER	Meghalaya	277	1	4.9	2.3	-0.2	43	0.0
	Mizoram	79	1	1.5	1.3	0.0	19	0.0
	Nagaland	110	1	2.0	1.9	0.0	21	0.0
	Tripura	269	1	4.5	3.9	0.6	37	0.0

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

r a sa a sa a sa gas (z) produce	Bhutan	Nepal	Bangladesh
Actual(MU)	9.9	-9.7	-15.1
Day peak (MW)	549.7	-484.4	-672.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	229.1	-196.9	41.1	-76.3	3.7	0.7
Actual(MU)	231.6	-201.8	37.5	-64.8	1.9	4.4
O/D/U/D(MU)	2.5	-4.9	-3.6	11.5	-1.8	3.7

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3923	11279	7962	2045	146	25355
State Sector	8020	16063	6800	5005	50	35938
Total	11943	27342	14762	7050	196	61292

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	619	1147	523	470	9	2769
Hydro	302	19	44	73	17	455
Nuclear	31	29	46	0	0	107
Gas, Naptha & Diesel	28	49	19	0	23	119
RES (Wind, Solar, Biomass & Others)	77	109	185	1	0	372
Total	1058	1353	817	544	50	3822
Share of RES in total generation (%)	7.24	8.07	22.65	0.25	0.08	9.74
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	38.77	11.64	33.64	13.63	34.97	24.44

H. Diversity Factor All India Demand Diversity Factor 1.050

Diversity factor = Sum of regional maximum demands / All India maximum demand

Ī		INTE	R-REGIO	ONAL EX	CHANGES	Date of I	Reporting :	5-Jun-18
								Import=(+ve) /Export =(-ve)
Sl No	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	for NET (MU) NET (MU)
Import/F		ER (With NR)	1	(NI W)	I.	<u> </u>	(MU)	(MC)
1	5651 X	GAYA-VARANASI	D/C	0	343	0.0	6.5	-6.5
3	765kV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	145 0	97 513	0.2	9.8	-9.8
4	HVDC	ALIPURDUAR-AGRA	-	0	286	0.0	12.1	-12.1
5	nvbc	PUSAULI B/B	S/C	0	49	0.0	1.3	-1.3
7		PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	38	97	0.0	0.0	0.0
8		MUZAFFARPUR-GORAKHPUR	D/C	0	16 415	0.0	6.6	-6.6
9	400 kV	PATNA-BALIA	Q/C	0	669	0.0	12.2	-12.2
10		BIHARSHARIFF-BALIA	D/C	0	291	0.0	5.5	-5.5
11		MOTIHARI-GORAKHPUR	D/C	6	253	0.0	4.2	-4.2
12		BIHARSHARIFF-VARANASI	D/C	211	119	0.0	1.0	-1.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	215	0.0	4.4	-4.4
14 15		SONE NAGAR-RIHAND GARWAH-RIHAND	S/C S/C	35	0	0.0	0.0	0.0
16	132 kV	KARMANASA-SAHUPURI	S/C	0	42	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
					ER-NR	0.6	63.5	-63.0
Import/I	Export of	ER (With WR)		· <u></u> -				
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	1011	0	14.2	0.0	14.2
19	LUC RY	NEW RANCHI-DHARAMJAIGARH	D/C	509	174	5.6	0.0	5.6
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	991	0	18.9	0.0	18.9
21		RANCHI-SIPAT	D/C S/C	445	34	5.4 0.2	0.0	5.4 0.2
23	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	D/C	58	0	1.5	0.0	1.5
23		BODIII ADAK-KOKBA	D/C	33	ER-WR	45.7	0.0	45.7
Import/F	Export of	ER (With SR)						
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1604.8	0.0	23.7	-23.7
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	666.4	0.0	13.5	-13.5
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1972.5	0.0	42.0	-42.0
27	400 kV 220 kV	TALCHER-I/C BALIMELA-UPPER-SILERRU	D/C S/C	911.4	0.8	0.0	0.0	-12.6 0.0
26	220 K V	BALIMELA-UFFER-SILERRU	3/C	0.0	ER-SR	0.0	79.3	-79.3
Import/F	Export of	ER (With NER)						
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	496	0.0	8.1	-8
30		ALIPURDUAR-BONGAIGAON	D/C	36	243	0.0	1.8	-2
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	176	0.0	2.5	-2
Import/E	Export of	NER (With NR)			ER-NER	0.0	12.3	-12.3
			1	0	1	0.0		-11.6
		BISWANATH CHARIALI-AGRA	-		502		11.6	
	HVDC	BISWANATH CHARIALI-AGRA	=		502 NER-NR	0.0	11.6 11.6	-11.6
		BISWANATH CHARIALI-AGRA WR (With NR)	-					+
Import/F	Export of	WR (With NR) CHAMPA-KURUKSHETRA	D/C	0	NER-NR 1612	0.0	11.6 36.1	-11.6 -36.1
33 34	Export of	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	250	NER-NR 1612 0	0.0	36.1 6.0	-36.1 -6.0
33 34 35	Export of	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C	250 0	NER-NR 1612 0 1715	0.0 0.0 0.0 0.0	36.1 6.0 41.1	-11.6 -36.1 -6.0 -41.1
33 34	Export of	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	250	NER-NR 1612 0 1715 1502	0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0	-11.6 -36.1 -6.0 -41.1 -28.0
33 34 35 36	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	250 0 0	NER-NR 1612 0 1715	0.0 0.0 0.0 0.0	36.1 6.0 41.1	-11.6 -36.1 -6.0 -41.1
33 34 35 36 37	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C D/C S/C	250 0 0 0	NER-NR 1612 0 1715 1502 1514	0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3
Import/E 33 34 35 36 37 38 39 40	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B 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	250 0 0 0 0 0 425 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2
Import/E 33 34 35 36 37 38 39 40 41	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C	250 0 0 0 0 0 425 0 459	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2 8.7
Import/F 33 34 35 36 37 38 39 40 41 42	Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL	D/C D/C D/C D/C D/C S/C S/C S/C S/C	250 0 0 0 0 0 425 0 459 439	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 -5.3
Import/F 33 34 35 36 37 38 39 40 41 42 43	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI 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	250 0 0 0 0 0 425 0 459 439 961	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2 8.7
Import/F 33 34 35 36 37 38 39 40 41 42	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL	D/C D/C D/C D/C D/C S/C S/C S/C S/C	250 0 0 0 0 0 425 0 459 439	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3
33 34 35 36 37 38 39 40 41 42 43	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C D/C	250 0 0 0 0 425 0 459 439 961 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2 8.7 5.3 22.3 -1
33 34 35 36 37 38 39 40 41 42 43 44 45	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BADOD-KOTA	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	250 0 0 0 0 425 0 459 439 961 0 71	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2
Import/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 0.0 1 0.2 0.8 0.2	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2 8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7
Import/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 226 32 12 27 50 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 -5.3 -22.3 -1 -0.2 -0.8 -0.1 -0.7 -0.0
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 0.0 1 0.2 0.8 0.2	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 8.6 -43.2 8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E Import/E 100	Temport of HVDC 765 kV 400 kV 220 kV 132kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 226 32 12 27 50 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 -5.3 -22.3 -1 -0.2 -0.8 -0.1 -0.7 -0.0
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/F 50	Temport of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.6 0.0 8.7 5.3 22.3 0 0.4 0.0 0.1 0.0 0.0 45.4	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51	Temport of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.1 6.0 41.1 28.0 29.3 18.5 0.0 43.2 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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 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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-KINGDI	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 D/C D/C D/C D/C D/C D/C D/C D/C D	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 5.6 -22.9 19.5 0.0
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55 56 56	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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 D/C D/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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0 1461 0 1087 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR 0 0 887 2005 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5 0.0 0.0
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-KINGDI	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 D/C D/C D/C D/C D/C D/C D/C D/C D	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR 0 0 887 2005 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5 0.0 0.0 1.5
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55 56 56	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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 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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0 1461 0 1087 0 0 73	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5 0.0 0.0
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55 56 57 57	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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 TRA	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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0 1461 0 1087 0	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5 0.0 0.0 1.5 3.7
Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55 56 56	Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-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 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	250 0 0 0 0 425 0 459 439 961 0 71 67 24 0 0 0 1461 0 1087 0 0 73	NER-NR 1612 0 1715 1502 1514 1103 0 1932 0 0 0 226 32 12 27 50 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	11.6 36.1 6.0 41.1 28.0 29.3 18.5 0.0 0.0 0.0 1 0.2 0.8 0.2 0.7 0.0 205.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-11.6 -36.1 -6.0 -41.1 -28.0 -29.3 -18.5 -8.6 -43.2 -8.7 5.3 22.3 -1 0.2 -0.8 -0.1 -0.7 0.0 -159.7 0.0 0.0 5.6 -22.9 19.5 0.0 0.0 1.5