

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 02nd May 2018

To,

- 1. कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033 Executive Director, 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. 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. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 01.05.2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 01-मई-2018 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 01st May 2018, is available at the NLDC website.

धन्यवाद,

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Report for previous day 2-May-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	47325	44039	38300	18358	2206	150228
Peak Shortage (MW)	765	0	0	0	124	889
Energy Met (MU)	1056	1096	891	350	36	3428
Hydro Gen(MU)	194	15	34	43	8	294
Wind Gen(MU)	35	107	71			212
Solar Gen (MU)*	19.64	21.70	58.89	0.84	0.01	101
Energy Shortage (MU)	10.5	0.0	0.0	0.0	1.3	11.8
Maximum Demand Met during the day (MW) (from NLDC SCADA)	50414	47669	40110	18793	2237	154869

B. Frequency Profile (%)

Region	FVI	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
All India	0.025	0.00	0.00	1.98	1.98	78.74	19.28

C. Power Supply Position in States

RegionRegion	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	7144	0	147.8	74.4	-1.2	98	0.0
ND	Haryana	7482	0	150.6	79.2	1.9	273	0.1
	Rajasthan	9788	0	208.8	60.2	2.5	478	0.0
	Delhi	5090	0	104.3	83.1	-2.6	51	0.0
NR	UP	16737	0	333.3	135.6	6.9	1173	0.0
	Uttarakhand	1878	0	38.0	18.4	-0.3	183	0.0
	HP	1262	0	24.0	10.6	0.1	106	0.0
	J&K	2229	557	44.1	27.4	-1.9	216	10.4
	Chandigarh	255	0	5.0	5.2	-0.2	18	0.0
	Chhattisgarh	3444	0	78.4	12.5	-3.3	401	0.0
	Gujarat	15466	0	346.4	158.9	4.0	798	0.0
	MP	8366	0	178.0	71.7	-3.0	586	0.0
MD	Maharashtra	20429	0	458.6	136.4	2.6	583	0.0
WR	Goa	500	0	10.8	9.3	0.8	-10	0.0
	DD	298	0	5.2	4.7	0.5	38	0.0
	DNH	732	0	16.1	16.1	-0.1	40	0.0
	Essar steel	100	0	2.5	2.3	0.2	171	0.0
	Andhra Pradesh	7780	0	162.9	45.8	-0.4	465	0.0
	Telangana	6869	0	150.6	54.0	-2.0	371	0.0
CD	Karnataka	9085	0	202.2	75.2	0.1	493	0.0
SR	Kerala	3721	0	71.8	53.7	1.2	200	0.0
	Tamil Nadu	13005	0	296.2	140.1	2.3	584	0.0
	Pondy	346	0	7.2	7.5	-0.4	51	0.0
	Bihar	4419	0	71.4	69.6	-0.6	200	0.0
	DVC	3033	0	68.1	-48.1	1.4	220	0.0
ER	Jharkhand	1112	0	20.6	16.3	-0.9	85	0.0
EN	Odisha	3569	0	64.1	22.4	1.2	220	0.0
	West Bengal	6990	0	124.5	22.0	1.8	225	0.0
	Sikkim	77	0	1.0	1.6	-0.6	12	0.0
	Arunachal Pradesh	114	2	2.1	1.8	0.4	26	0.0
	Assam	1315	95	20.6	17.2	1.7	106	1.1
	Manipur	132	3	2.0	2.4	-0.4	27	0.0
NER	Meghalaya	286	0	4.9	3.0	-0.3	36	0.0
	Mizoram	79	4	1.3	1.2	-0.2	1	0.0
	Nagaland	130	3	2.0	2.0	-0.1	27	0.0
	Tripura	208	32	2.8	2.6	-0.9	74	0.1

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

Di Transmational Exchanges (1110)) Import(ve)/Export(ve)		
	Bhutan	Nepal	Bangladesh
Actual(MU)	4.5	-8.3	-10.3
Day peak (MW)	507.4	-276.3	-612.1

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	210.9	-205.6	82.1	-90.5	2.7	-0.4
Actual(MU)	216.3	-200.8	67.1	-85.9	2.4	-0.9
O/D/U/D(MU)	5.4	4.8	-15.0	4.6	-0.3	-0.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5752	12718	4412	700	406	23988
State Sector	7110	16752	4440	4915	50	33267
Total	12862	29470	8852	5615	456	57255

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	515	1088	593	412	6	2615
Hydro	194	15	35	43	8	295
Nuclear	23	31	34	0	0	88
Gas, Naptha & Diesel	40	55	21	0	23	139
RES (Wind, Solar, Biomass & Others)	83	129	159	1	0	372
Total	856	1318	843	456	36	3509

		INTE	CR-REGIO	ONAL EX	<u>CHANGES</u>	Date of 1	Reporting :	2-May-18
	Voltage			Max			Export	Import=(+ve) /Export =(-ve) for NET (MU) NET
Sl No	Level	Line Details	Circuit	Import (MW)	Max Export (MW)	Import (MU)	(MU)	(MU)
	Export of	ER (With NR)	D/G	0	220	0.0	0.7	0.7
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	328 105	0.0	9.7	-9.7 0.5
3	, oca v	GAYA-BALIA	S/C	0	530	0.0	8.6	-8.6
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	0 147	0.0	0.6 3.6	-0.6 -3.6
6		PUSAULI-VARANASI	S/C	0	101	0.0	0.0	0.0
7	<u> </u>	PUSAULI -ALLAHABAD	S/C	0	104	0.0	0.0	0.0
8		MUZAFFARPUR-GORAKHPUR	D/C	0	499	0.0	6.9	-6.9
9	400 kV	PATNA-BALIA BIHARSHARIFF-BALIA	Q/C D/C	0	967 327	0.0	12.3 5.5	-12.3 -5.5
11	1	MOTIHARI-GORAKHPUR	D/C	0	295	0.0	4.7	-4.7
12		BIHARSHARIFF-VARANASI	D/C	0	159	0.0	2.7	-2.7
13	220 kV	PUSAULI-SAHUPURI	S/C	0	179	0.0	3.4	-3.4
14	-	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15 16	132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	S/C S/C	0	0 0	0.5	0.0	0.5
17	_	KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
			•		ER-NR	1.0	58.0	-57.0
Import/E	Export of	ER (With WR)						
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	393	0.0	5.7	-5.7
19		NEW RANCHI-DHARAMJAIGARH	D/C	0	171	1.0	0.0	1.0
20	400 kV	JHARSUGUDA-RAIGARH RANCHI-SIPAT	Q/C D/C	0	0	9.1 7.7	0.0	9.1 7.7
22		BUDHIPADAR-RAIGARH	S/C	0	160	0.0	1.7	-1.7
23	220 kV	BUDHIPADAR-KORBA	D/C	0	0	3.7	0.0	3.7
					ER-WR	21.4	7.3	14.0
Import/E	Export of 765 kV	ER (With SR) ANGUL-SRIKAKULAM	D/C	0.0	1942.8	0.0	23.0	-23.0
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	298.0	0.0	13.6	-13.6
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1757.1	0.0	35.3	-35.3
27	400 kV	TALCHER-I/C	D/C	0.0	888.6	0.0	14.7	-14.7
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
Import/F	Export of	ER (With NER)			ER-SR	0.0	71.9	-71.9
29	1	BINAGURI-BONGAIGAON	D/C	0	1124	0.0	4.1	-4
30	400 kV	ALIPURDUAR-BONGAIGAON	D/C	0	985	0.0	7.1	-7
	•	ALIFUNDUAR-BONGAIGAON	D/C			0.0		
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	171	0.0	2.6	-3
	· ·	ALIPURDUAR-SALAKATI		0	171 ER-NER	0.0		-3 -13.8
	· ·			0		0.0	2.6	
Import/E	Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA	D/C		ER-NER	0.0	2.6 13.8	-13.8
Import/E 32 Import/E	Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	D/C	0	701 NER-NR	0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9	-13.8 -13.9 -13.9
Import/E 32 Import/E 33	Export of HVDC Export of	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C - D/C	0	701 NER-NR	0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9	-13.8 -13.9 -13.9
Import/E 32 Import/E	Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	D/C	0	701 NER-NR	0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9	-13.8 -13.9 -13.9
Import/E 32 Import/E 33 34	Export of HVDC Export of	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B	D/C - D/C D/C	0 0 250	701 NER-NR 1150 250	0.0 0.0 0.0 0.0 2.2	2.6 13.8 13.9 13.9 39.6 1.9	-13.8 -13.9 -13.9 -39.6 0.3
Import/E 32 Import/E 33 34 35 36 37	Export of HVDC Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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 D/C D/C	0 250 0 0	701 NER-NR 1150 250 307 2286 1594	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3
Import/E 32 Import/E 33 34 35 36 37 38	Export of HVDC Export of	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C D/C D/C	0 250 0 0 0	701 NER-NR 1150 250 307 2286 1594 1089	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8
Import/E 32 Import/E 33 34 35 36 37 38 39	Export of HVDC Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C D/C D/C S/C	0 250 0 0 0 0 0 355	701 NER-NR 1150 250 307 2286 1594 1089 0	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2
Import/E 32 Import/E 33 34 35 36 37 38	Export of HVDC Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C D/C D/C	0 250 0 0 0	701 NER-NR 1150 250 307 2286 1594 1089	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8
Import/E 32 Import/E 33 34 35 36 37 38 39 40	Export of HVDC HVDC 765 kV	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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 D/C S/C S/C	0 250 0 0 0 0 355 1919	701 NER-NR 1150 250 307 2286 1594 1089 0 0	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43	Export of HVDC Export of HVDC	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44	Export of HVDC HVDC 765 kV	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 297	0.0 0.0 0.0 0.0 0.0 2.2 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45	Export of HVDC HVDC 765 kV	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 297 81	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44	Export of HVDC HVDC 765 kV	ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 297	0.0 0.0 0.0 0.0 0.0 2.2 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Export of HVDC Export of HVDC 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 297 81 97	0.0 0.0 0.0 0.0 2.2 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Export of HVDC Export of HVDC 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 297 81 97 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Export of HVDC Export of HVDC 765 kV - 400 kV - 220 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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 GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 297 81 97 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Export of HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV	NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 297 81 97 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E	Export of HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV	NER (With NR) BISWANATH CHARIALI-AGRA 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 D/C S/C S/C	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 192.2	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1
Import/E 32 Import/E 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52	Export of HVDC Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C D/C S/C S	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 WR-NR 1000 0 964	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 192.2 17.2 0.0 8.6	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6
Import/E 32 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	Export of HVDC Export of HVDC 765 kV 220 kV 132kV Export of HVDC LINK 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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 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	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 WR-NR 1000 0 964 1312	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7
Import/E 32 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 Export of HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA 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	D/C D/C D/C D/C D/C D/C D/C S/C S	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0 0 231 0 550	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 WR-NR 1000 0 964 1312 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 0.0 0.0 192.2 17.2 0.0 8.6 23.7 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7 8.8
Import/E 32 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	Export of HVDC Export of HVDC 765 kV 220 kV 132kV Export of HVDC LINK 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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 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	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 WR-NR 1000 0 964 1312	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7
Import/E 32 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 Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA 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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	D/C D/C D/C D/C D/C D/C D/C S/C S	0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0 0 231 0 550 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 WR-NR 1000 0 964 1312 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7 8.8 0.0
Import/E 32 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	Export of HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR 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	D/C D/C D/C D/C D/C D/C S/C S/C	0 0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0 0 231 0 550 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 0 WR-NR 1000 0 964 1312 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7 8.8 0.0 0.0
Import/E 32 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	Export of HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-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-RICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C D/C S/C S/C	0 0 250 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0 0 231 0 550 0	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 0 WR-NR 1000 0 964 1312 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7 0.0 0.0 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7 8.8 0.0 0.0 2.2
Import/E 32 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	Export of HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK Total HVDC LINK	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-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-RICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C D/C S/C S/C	0 250 0 0 0 0 0 355 1919 416 398 958 0 60 12 179 0 0 0 231 0 550 0 100	701 NER-NR 1150 250 307 2286 1594 1089 0 0 0 0 0 0 0 WR-NR 1000 0 964 1312 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.6 13.8 13.9 13.9 39.6 1.9 7.4 45.1 33.3 19.8 0.0 41.9 0.0 0.0 0.0 2 0.5 0.9 0.0 0.0 192.2 17.2 0.0 8.6 23.7 0.0 0.0 0.0 0.0 0.0	-13.8 -13.9 -13.9 -39.6 0.3 -7.4 -45.1 -33.3 -19.8 7.2 -41.9 7.4 6.2 20.6 -2 -0.2 -0.9 0.3 0.0 0.0 -148.1 -17.2 0.0 -8.6 -23.7 8.8 0.0 0.0 2.2