

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

दिनांक: 16th Mar 2021

Ref: POSOCO/NLDC/SO/Daily PSP Report

To,

1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14 , गोल्फ क्लब रोड , कोलकाता - 700033 Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033

2. कार्यकारी निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली – 110016 Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016

3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई –400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093

4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग – 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya

5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 15.03.2021.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 15-मार्च-2021 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 15th March 2021, is available at the NLDC website.

धन्यवाद.

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



Report for previous day A. Power Supply Position at All India and Regional level Date of Reporting: 16-Mar-2021 NR WR SR ER NER TOTAL Demand Met during Evening Peak hrs(MW) (at 19:00 hrs; from RLDCs) 54813 46972 Peak Shortage (MW) 925 296 114 132 1467 Energy Met (MU) 1031 1309 1168 426 45 3979 109 40 92 40 9 291 Wind Gen (MU) 42.29 5.09 0.21 Solar Gen (MU)* 115.56 36.95 200 Energy Shortage (MU) 11.18 0.79 0.00 0.34 0.94 13.25 Maximum Demand Met During the Day (MW) (From NLDC SCADA) 49464 58399 55897 21863 2818 181262 Time Of Maximum Demand Met (From NLDC SCADA) 19:28 11:50 10:56 19:05 10:54 B. Frequency Profile (%) < 49.7 49.7 - 49.8 49.8 - 49.9 49.9 - 50.05 < 49.9 > 50.05 Region All India 0.040 0.00 1.19 C. Power Supply Position in States Energy Met)D(+)/UD(-Max.Demand Drawal Max OD Shortage during Energy Region States Met during the maximu Schedule (MU) (MU) (MW) (MU) dav(MW) Demand(MW) (MU) 139.3 Punjab -0.6 Haryana 6302 134.4 82.8 0.1 150 0.00 12495 243.1 77.8 537 Rajasthan 1.8 0.00 3498 17324 Delhi 55.9 110 NR 321.6 114.1 -0.5 UP 0 430 0.23 Uttarakhand 1918 21.3 нР 1696 0 30.8 23.6 1.5 253 0.00 J&K(UT) & Ladakh(UT) 44.0 542 500 53.3 10.00 2864 Chandigarh 180 -0.1 0.00 54.2 Chhattisgarh 4477 0 104.9 -0.4 275 0.79 Gujarat 17980 388.1 144.4 0.00 MP 11560 230.9 131.7 -0.4 706 0.00 wr Maharashtra 24594 528.4 617 -3.0 0.00 161.0 Goa 559 0 11.8 11.5 -0.2 0.00 342 DD 0 7.6 7.2 0.3 31 0.00DNH 881 20.0 0.00 AMNSIL 814 17.2 1.2 0.1 262 0.00 Andhra Pradesl 10920 213.1 85.2 0.00 Telangana 13259 270.4 143.6 612 0.00 SR 13395 0 262.5 104.9 1.7 874 Karnataka 0.00 Kerala Tamil Nadu 15428 330.0 206.9 -1.4 508 0.00 Puducherry 413 Bihar 4950 0 88.2 76.0 1.0 424 0.00 DVC 3208 67.9 -60.8 -1.3 294 0.00Jharkhand 1437 25.9 19.6 -0.9 104 0.34 ER Odisha 4465 90.9 18.2 0.6 450 0.00 West Bengal 8196 151.4 21.7 -1.3 Sikkim 89 1.6 -0.3 0.00 Arunachal Pradesh 129 2.2 2.3 -0.2 68 0.01 1 Assam 1519 100 25.2 20.9 0.0 0.90 Manipur 196 2.6 -0.1 26 0.01 NER Meghalaya Mizoram 110 1.7 1.5 0.0 0.01 141 0.0 0.01 **Nagaland** 2.1 D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve) Bhutan Nepal -15.1 Bangladesh -20.2 -869.0 $E.\ Import/Export\ by\ Regions\ (in\ MU)\ -\ Import(+ve)/Export(-ve);\ OD(+)/UD(-)$ TOTAL WR SR ER NER NR Schedule(MU) Actual(MU) O/D/U/D(MU) 203.1 -256.2 219.2 -163.9 0.0 F. Generation Outage(MW) NR 5790 TOTAL % Share Central Sector State Sector 16548 948 439 30857 13132 13597 8457 3001 38198 Total G. Sourcewise generation (MU) All India 3140 NER % Share Coal Lignite Hydro 291 Nuclear

Share of RES in total generation (%)	Ī
Share of Non-fossil fuel (Hydro, Nuclear	a
H. All India Demand Diversity Factor	r

Gas, Naptha & Diesel RES (Wind, Solar, Biomass & Others)

Based on Regional Max Demands 1 040 Based on State Max Demands 1.085

Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation(%)

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

73 845

8.59

24.64

116

358 4070

8.79

18.14

191

968

19.76

34.04

0.82 7.28

0.40

17.93

89 1578

5.62

9.21

^{*}Source: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data.

INTER-REGIONAL EXCHANGES

Import=(+ve) /Export =(-ve) for NET (MU)

							Date of Reporting	16-Mar-2021				
SI	Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)				
No	ort/Export of ER (10. or circuit	Max Import (MVV)	Max Export (MW)	Import (MC)	Export (MC)	TET (MC)				
1		ALIPURDUAR-AGRA	2	1 0	0	0.0	0.0	0.0				
2		PUSAULI B/B	-	0	249	0.0	6.0	-6.0				
3		GAYA-VARANASI	2	0	820	0.0	14.8	-14.8				
4		SASARAM-FATEHPUR	1	0	396	0.0	7.0	-7.0				
5		GAYA-BALIA	1	0	463	0.0	7.8	-7.8				
7		PUSAULI-VARANASI PUSAULI -ALLAHABAD	1	0	192 108	0.0	4.0 2.0	-4.0 -2.0				
8		MUZAFFARPUR-GORAKHPUR	2	0	863	0.0	12.9	-12.9				
9	400 kV	PATNA-BALIA	4	0	1052	0.0	19.9	-19.9				
10		BIHARSHARIFF-BALIA	2	0	448	0.0	7.0	-7.0				
11	400 kV	MOTIHARI-GORAKHPUR	2	0	323	0.0	6.7	-6.7				
12		BIHARSHARIFF-VARANASI	2	0	324	0.0	4.5	-4.5				
13		PUSAULI-SAHUPURI	1 1	36	92	0.0	1.0	-1.0				
14		SONE NAGAR-RIHAND GARWAH-RIHAND	1	20	0	0.0	0.0	0.0 0.3				
16		KARMANASA-SAHUPURI	1	0	0	0.0	0.0	0.0				
17		KARMANASA-CHANDAULI	i	Ŏ	0	0.0	0.0	0.0				
					ER-NR	0.3	93.7	-93.4				
Import/Export of ER (With WR)												
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	4	623	137	7.9	0.0	7.9				
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	590	836	0.0	4.0	-4.0				
3	765 kV	JHARSUGUDA-DURG	2	0	308	0.0	4.9	-4.9				
4	400 kV	JHARSUGUDA-RAIGARH	4	0	477	0.0	7.5	-7.5				
5		RANCHI-SIPAT	2	106	289	0.0	2.6	-2.6				
6		BUDHIPADAR-RAIGARH	1	0	148	0.0	2.7	-2.7				
7		BUDHIPADAR-KORBA	2	36	41	0.0	0.1	-0.1				
Ľ			·	. 50	ER-WR	7.9	21.9	-14.0				
Impo	ort/Export of ER (With SR)			2K-11K	1.2	. 41.7	-17.0				
1	HVDC	JEYPORE-GAZUWAKA B/B	2	0	375	0.0	8.5	-8.5				
2	HVDC	TALCHER-KOLAR BIPOLE	2	0	2473	0.0	49.6	-49.6				
3	765 kV	ANGUL-SRIKAKULAM	2	0	3111	0.0	62.0	-62.0				
4		TALCHER-I/C	2	275	666	0.0	4.5	-4.5				
_ 5	220 kV	BALIMELA-UPPER-SILERRU	1	1	0 ER-SR	0.0	120.0	0.0				
Impo	ort/Export of ER (With NER)			ER-SK	0.0	120.0	-120.0				
1		BINAGURI-BONGAIGAON	2	325	0	4.8	0.0	4.8				
2		ALIPURDUAR-BONGAIGAON	2	561	0	7.5	0.0	7.5				
3		ALIPURDUAR-SALAKATI	2	85	0	1.3	0.0	1.3				
					ER-NER	13.5	0.0	13.5				
	rt/Export of NER		1 1	166		11.7	0.0	11.6				
1	HVDC	BISWANATH CHARIALI-AGRA	2	466	0 NER-NR	11.6	0.0	11.6				
Impo	rt/Export of WR (With NR)			TIER-TIK	11.6	0.0	11.6				
1		CHAMPA-KURUKSHETRA	2	0	1501	0.0	32.1	-32.1				
2	HVDC	VINDHYACHAL B/B		240	0	6.0	0.0	6.0				
3		MUNDRA-MOHINDERGARH	2	0	983	0.0	24.2	-24.2				
4		GWALIOR-AGRA	2	0	2241	0.0	34.5	-34.5				
_ 5		PHAGI-GWALIOR	2	0	1426	0.0	27.0	-27.0				
6		JABALPUR-ORAI	2	904	744	0.0	26.9	-26.9				
8		GWALIOR-ORAI SATNA-ORAI	1	665 0	0 1344	6.2 0.0	0.0 26.5	6.2 -26.5				
9		CHITORGARH-BANASKANTHA	2	834	101	7.9	0.0	7.9				
_	705 K 1	ZERDA-KANKROLI	1	230	0	3.1	0.0	3.1				
10	400 kV			286								
10 11		ZERDA -BHINMAL	1		57	2.3	0.0	2.3				
10 11 12	400 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND	1	986	57 0	2.3 22.5	0.0	2.3 22.5				
11 12 13	400 kV 400 kV 400 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR	1 2		0 447	22.5 0.0	0.0 5.0	22.5 -5.0				
11 12 13 14	400 kV 400 kV 400 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	1 2 1	986 0 16	0 447 72	22.5 0.0 0.0	0.0 5.0 0.5	22.5 -5.0 -0.5				
11 12 13 14 15	400 kV 400 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	1 2 1	986 0 16 0	0 447 72 30	22.5 0.0 0.0 0.0	0.0 5.0 0.5 1.2	22.5 -5.0 -0.5 -1.2				
11 12 13 14 15 16	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	1 2 1 1 1	986 0 16 0 134	0 447 72 30 0	22.5 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0	22.5 -5.0 -0.5 -1.2 0.7				
11 12 13 14 15 16	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 2 1 1 1 1	986 0 16 0 134 87	0 447 72 30 0	22.5 0.0 0.0 0.0 0.7 1.7	0.0 5.0 0.5 1.2 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7				
11 12 13 14 15 16 17	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHCAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	1 2 1 1 1	986 0 16 0 134 87	0 447 72 30 0	22.5 0.0 0.0 0.0 0.7 1.7 0.0	0.0 5.0 0.5 1.2 0.0 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0				
11 12 13 14 15 16	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 2 1 1 1 1 1	986 0 16 0 134 87	0 447 72 30 0 9	22.5 0.0 0.0 0.0 0.7 1.7	0.0 5.0 0.5 1.2 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7				
11 12 13 14 15 16 17 18	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALJOR-SAWAI MADHOPUR RAJGHAT-LALITPUR	1 2 1 1 1 1 1	986 0 16 0 134 87	0 447 72 30 0 9	22.5 0.0 0.0 0.0 0.7 1.7 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0				
11 12 13 14 15 16 17 18 19 Impo	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV rt/Export of WR (VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR With SR) BHADRAWATI B/B	1 2 1 1 1 1 1 1 1 2	986 0 16 0 134 87 0 0	0 447 72 30 0 9 0 WR-NR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0 -127.5				
11 12 13 14 15 16 17 18 19 Impo	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 142 kV 152 kV 153 kV 154 kV 155 kV 156 kV 157 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR	1 2 1 1 1 1 1 1 1 2	986 0 16 0 134 87 0 0	0 447 72 30 0 9 0 WR-NR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV 132 kV rt/Export of WR (HVDC HVDC 765 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR	1 2 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0	0 447 72 30 0 9 0 WR-NR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3	22.5 -5.0 -0.5 -1.2 -0.7 1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV 132 kV rt/Export of WR (HVDC HVDC HVDC 765 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD	1 2 1 1 1 1 1 1 2 2	986 0 16 0 134 87 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3 -32.3 -55.4				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 140 kV 150 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	1 2 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0 0	0 447 72 30 0 9 0 0 WR-NR 1019 1516 2214 3395 0	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0	22.5 -5.0 -0.5 -1.2 -0.7 1.7 -0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV 132 kV 140 kV 400 kV 400 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	1 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0	22.5 -5.0 -0.5 -1.2 -1.7 -0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3 -32.3 -55.4 16.7 0.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 143 kV 144 kV 155 kV 400 kV 220 kV	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALJOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHANIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 2 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0 0	0 447 72 30 0 9 0 0 WR-NR 1019 1516 2214 3395 0 0	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -55.4 16.7 0.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 143 kV 144 kV 155 kV 400 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	1 2 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0 0 0 0 1032 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0	22.5 -5.0 -0.5 -1.2 -1.7 -0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3 -32.3 -55.4 16.7 0.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 143 kV 144 kV 155 kV 400 kV 220 kV	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALJOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHANIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 2 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0	22.5 -5.0 -0.5 -1.2 -0.7 1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7 -0.0 -0.0 -1.7				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	1 2 2 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0	22.5 -5.0 -0.5 -1.2 0.7 1.7 0.0 0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7 0.0 0.0 1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 143 kV 144 kV 155 kV 400 kV 220 kV	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALJOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHANIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 2 2 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -16.7 -0.0 -1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAAGHAT-LALITPUR With SR) BHADRAWATI B/B BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	1 2 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 NATIONAL EXCHA	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 16.7 0.0 11.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7 -0.0 -1.7 -145.0 Energy Exchange				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	1 2 2 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 NATIONAL EXCHA Name Unalipuraduar 1&2 CCEIPT (from	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -16.7 -0.0 -1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAAGHAT-LALITPUR With SR) BHADRAWATI B/B BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	1 2 2 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 NATIONAL EXCHA Name U-ALIPURDUAR 1&2 CCEIPT (from \$\frac{1}{2}\$180MW)	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 16.7 0.0 11.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7 -0.0 -1.7 -145.0 Energy Exchange				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER	1 2 1 1 1 1 1 1 1 1 2 2 1 1 1 1 1 1 1 2 2 1	986 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR KGES Max (MW)	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW)	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0 0.0 0.0 163.4	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -16.7 -0.0 -0.0 -1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAAGHAT-LALITPUR With SR) BHADRAWATI B/B BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 134 87 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 0 0 1032 0 0 0 0 0 0 104 0 0 0 0 105 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 0.0 16.7 0.0 11.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -55.4 -16.7 -0.0 -1.7 -145.0 Energy Exchange				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAM	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	986 0 0 16 0 134 87 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR MWR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 11.7 18.4 Min (MW)	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW)	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -416.7 -0.0 -1.7 -145.0 Energy Exchange (MU) -4.1 -3.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 200 kV 220 kV 220 kV 220 kV 132 kV 132 kV 135 kV 140 kV 155 kV 400 kV 220 kV 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER	1 2 1 1 1 1 1 1 1 1	986 0 16 0 134 87 0 0 134 87 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 1032 0 0 0 104 0 0 105 0 0 107 0 0 108 108 108 108 108 108 108 108 108	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR KGES Max (MW)	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW)	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0 0.0 0.0 163.4	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -16.7 -0.0 -0.0 -1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAM	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	986 0 16 0 134 87 0 0 134 87 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 1032 0 0 0 104 0 0 105 0 0 107 0 0 108 108 108 108 108 108 108 108 108	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR MWR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 11.7 18.4 Min (MW)	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW)	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -416.7 -0.0 -1.7 -145.0 Energy Exchange (MU) -4.1 -3.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAM	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 134 87 0 0 0 134 87 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 1032 0 0 0 1032 0 0 104 0 1052 0 107 107 108 108 108 108 108 108 108 108 108 108	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR MWR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 11.7 18.4 Min (MW)	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW)	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -32.3 -416.7 -0.0 -1.7 -145.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUNGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 134 87 0 0 0 134 87 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 0 1032 0 0 0 1032 0 0 104 0 1052 0 107 107 108 108 108 108 108 108 108 108 108 108	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR WR-SR NGES Max (MW) 272 157	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.7 18.4 Min (MW)	0.0 5.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171	22.5 -5.0 -0.5 -1.2 -1.2 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -35.4 -16.7 -0.0 -0.0 -1.7 -145.0 Energy Exchange (MII) 4.1 3.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-AURAHYA SULAPUR-BURAHYAMABAD REGION ER ER ER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 15 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 1.7 18.4 Min (MW) 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136	22.5 -5.0 -0.5 -1.2 -1.2 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -35.5 -145.0 -0.0 -1.7 -145.0 Energy Exchange (MII) -3.3 -3.3 -3.3 -3.3 -3.3 -3.3 -3.3 -3.				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUNGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 15 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 WR-SR WR-SR NGES Max (MW) 272 157	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.7 18.4 Min (MW)	0.0 5.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171	22.5 -5.0 -0.5 -1.2 -1.2 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -35.4 -16.7 -0.0 -0.0 -1.7 -145.0 Energy Exchange (MII) 4.1 3.3				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-AURAHYA SULAPUR-BURAHYAMABAD REGION ER ER ER	1 2 2 1 1 1 1 1 1 1	986 0 16 0 134 87 0 0 1334 87 0 0 0 0 0 0 0 0 0 0 0 1032 0 0 0 0 1032 0 0 0 1032 0 0 104 0 104 105 105 105 105 105 105 105 105 105 105	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 1.7 18.4 Min (MW) 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136	22.5 -5.0 -0.5 -1.2 -1.2 -1.7 -0.0 -0.0 -1.27.5 -1.23.4 -52.3 -32.3 -32.3 -32.3 -35.5 -1.45.0 -0.0 -1.7 -1.45.0 Energy Exchange (MII) -1.45.0 Energy Exchange (MII) -1.45.0				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-AURAHYA SULAPUR-BURAHYAMABAD REGION ER ER ER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 15 0 16 0 0 1334 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 50.4 0.0 0.0 0.0 16.7 0.0 1.7 18.4 Min (MW) 0	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136	22.5 -5.0 -0.5 -1.2 -1.2 -1.7 -0.0 -0.0 -1.27.5 -1.23.4 -52.3 -32.3 -32.3 -32.3 -35.5 -55.4 -16.7 -0.0 -1.45.0 Energy Exchange (MII) -4.1 -3.3 -0.2				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA MALANPUR-AURAHYA MALANPUR-AURAHYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER ER ER NER	1 2 2 1 1 1 1 1 1 1	986 0 0 16 0 15 0 16 0 0 1334 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 84 WR-SR NGES Max (MW) 272 157 31	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW) 0	0.0 5.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -32.3 -16.7 -0.0 -1.7 -145.0 Energy Exchange (MII) 4.1 -0.2 -0.5				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REGION ER ER NER NER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 15 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR NGES Max (MW) 272 157 31 40 9	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW) 0 8	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9 21	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -1.27.5 -1.23.4 -52.3 -32.3 -32.3 -35.5.4 -16.7 -0.0 -0.0 -1.7 -145.0 Energy Exchange (MII) 4.1 -3.3 -0.2 -0.5				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA MALANPUR-AURAHYA MALANPUR-AURAHYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER ER ER NER	1 2 1 1 1 1 1 1 1 1	986 0 0 16 0 15 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 84 WR-SR NGES Max (MW) 272 157 31	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW) 0	0.0 5.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9	22.5 -5.0 -0.5 -1.2 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -23.4 -52.3 -32.3 -32.3 -55.4 -16.7 -0.0 -1.7 -145.0 Energy Exchange (MU) 4.1 -0.2 -0.5				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REGION ER ER NER NER	1 2 2 1 1 1 1 1 1 1	986 0 0 16 0 15 134 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR NGES Max (MW) 272 157 31 40 9	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW) 0 8	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9 21	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -1.27.5 -1.23.4 -52.3 -32.3 -32.3 -35.5.4 -16.7 -0.0 -0.0 -1.7 -145.0 Energy Exchange (MII) 4.1 -3.3 -0.2 -0.5				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RIHAND RAPP-SHUJAL PUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REGION ER ER NER NER	1 2 2 1 1 1 1 1 1 1	986 0 0 16 0 15 0 15 0 15 0 0 1334 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 WR-NR 1019 1516 2214 3395 0 0 0 84 WR-SR NGES Max (MW) 272 157 31 40 9	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 1.7 18.4 Min (MW) 0 8	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9 21	22.5 -5.0 -0.5 -1.2 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -35.5.4 -16.7 -145.0 -1.7 -145.0 -1.7 -145.0 -1.7 -1.8				
11 12 13 14 15 16 17 18 19 Impo 1 2 3 4 5	400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV HVDC HVDC HVDC HVDC HVDC HVDC State	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALJOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER NER NER NER	1 2 2 1 1 1 1 1 1 1	986 0 0 16 0 15 0 15 0 15 0 0 1334 87 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 447 72 30 0 9 0 0 WR-NR 1019 1516 2214 3395 0 0 84 WR-SR NGES Max (MW) 272 157 31 40 9 -77	22.5 0.0 0.0 0.0 0.0 0.7 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 0.0 0.0 11.7 18.4 Min (MW) 0 8 8	0.0 5.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 177.9 23.4 52.3 32.3 55.4 0.0 0.0 0.0 163.4 Avg (MW) 171 136 -9 21 2 -75	22.5 -5.0 -0.5 -1.2 -0.7 -1.7 -0.0 -0.0 -127.5 -123.4 -52.3 -32.3 -32.3 -35.5 -16.7 -0.0 -1.45.0 Energy Exchange (MII) -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.				

	ER	BHERAMARA HVDC(BANGLADESH)	-742	-720	-734	-17.6
BANGLADESH		132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1	63	0	-54	-1.3
		132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-2	64	0	-54	-1.3