

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 Apr 2020

To,

- 1. कार्यकारी निदेशक, पू.क्षे.भा .प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता ७०००३३ 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., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 01.04.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 01-अप्रैल-2020 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर उप्लब्ध है ।

As per article 5.5.1 of the Indian Electricity Grid Code, the daily report pertaining power supply position of All India Power System for the date 01st Apr 2020, 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: 02-Apr-2020

	NR	WR	SR	ER	NER	TOTAL
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	32699	32386	34817	16596	2180	118678
Peak Shortage (MW)	1026	0	0	0	40	1066
Energy Met (MU)	638	822	903	333	35	2731
Hydro Gen (MU)	150	44	87	48	4	332
Wind Gen (MU)	12	46	31		-	89
Solar Gen (MU)*	45.80	29.30	90.17	4.68	0.04	170
Energy Shortage (MU)	10.2	0.0	0.0	0.0	0.8	11.0
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	33463	37418	42349	16707	2260	123307
Time Of Maximum Demand Met (From NLDC SCADA)	19:41	07:15	10:44	20:52	18:21	09:22

		Max.Demand	Shortage during	Energy Met	Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the	maximum	(MU)	Schedule	(MU)	(MW)	Shortag
		dav(MW)	Demand(MW)	(1710)	(MU)	(1410)	(141 44.)	(MU)
	Punjab	3228	0	63.5	48.1	-0.7	238	0.0
	Haryana	3635	0	66.8	63.8	0.5	207	0.0
	Rajasthan	7996	0	145.1	50.3	-2.3	139	0.0
	Delhi	2413	0	44.9	33.6	-0.6	84	0.0
NR	UP	13959	425	241.2	110.0	0.4	1306	0.0
	Uttarakhand	1140	0	18.2	3.9	0.2	182	0.0
	HP	871	0	12.6	0.1	-0.6	132	0.0
	J&K(UT) & Ladakh(UT)	2165	541	43.5	33.2	0.8	499	10.2
	Chandigarh	154	0	2.2	2.2	0.0	53	0.0
	Chhattisgarh	3273	0	73.4	26.6	-2.5	280	0.0
	Gujarat	10148	0	221.5	63.6	2.5	587	0.0
	MP	8495	0	162.7	96.9	-0.9	466	0.0
WR	Maharashtra	16238	0	353.3	143.1	-1.4	556	0.0
	Goa	357	0	7.2	7.2	0.0	31	0.0
	DD	65	0	1.4	1.4	0.0	26	0.0
	DNH	77	0	1.7	1.7	0.0	35	0.0
	AMNSIL	179	0	0.7	0.5	0.2	133	0.0
	Andhra Pradesh	8321	0	163.7	91.0	-0.7	473	0.0
	Telangana	9662	0	200.5	108.3	0.7	1247	0.0
SR	Karnataka	11227	0	220.7	78.8	0.8	677	0.0
	Kerala	3727	0	70.3	52.5	0.5	225	0.0
	Tamil Nadu	11498	0	243.9	175.4	-2.2	479	0.0
	Puducherry	216	0	4.2	4.4	-0.3	72	0.0
	Bihar	4125	0	77.4	73.3	2.8	618	0.0
	DVC	1569	0	30.3	-19.5	-1.7	321	0.0
	Jharkhand	1284	0	23.0	15.2	-1.0	107	0.0
ER	Odisha	3535	0	73.2	7.7	-0.1	289	0.0
	West Bengal	6761	0	127.6	35.5	0.4	359	0.0
	Sikkim	90	0	1.1	1.4	-0.3	27	0.0
	Arunachal Pradesh	112	1	1.5	0.9	0.5	23	0.0
	Assam	1307	30	20.9	17.9	-0.1	86	0.6
	Manipur	191	1	2.4	2.2	0.2	30	0.0
NER	Meghalaya	233	0	3.4	2.9	-0.3	41	0.1
	Mizoram	94	2	1.6	1.3	0.0	24	0.0
	Nagaland	123	2	2.0	1.9	0.0	34	0.0
	Tripura	242	1	3.8	3.0	-0.1	48	0.0

D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve)			
	Bhutan	Nepal	Bangladesh
Actual (MU)	5.3	-1.9	-14.4
Doy Pook (MW)	196.2	202.7	1079.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	85.6	-181.9	161.2	-70.5	4.3	-1.4
Actual(MU)	60.9	-194.3	181.5	-61.8	6.8	-7.0
O/D/U/D(MU)	-24.8	-12.4	20.3	8.7	2.5	-5.6

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL
Central Sector	6807	22972	5882	2975	1012	39648
State Sector	21403	26446	14888	8270	11	71018
Total	28210	49417	20770	11245	1023	110665

G. Sourcewise generation (MU)

0100m10m20 generation (110)						
	NR	WR	SR	ER	NER	All India
Coal	281	754	384	373	8	1799
Lignite	19	15	51	0	0	85
Hydro	150	44	87	48	4	332
Nuclear	23	37	55	0	0	115
Gas, Naptha & Diesel	23	84	18	0	22	148
RES (Wind, Solar, Biomass & Others)	87	87	128	5	0	306
Total	583	1020	722	426	34	2785
Share of RES in total generation (%)	14.96	8.50	17.69	1.12	0.12	11.00
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total	44.64	16.43	37.28	12.38	11.81	27.07

	H. Al	l India	Demand	Diversity	Factor
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Based on Regional Max Demands	1.072
Based on State Max Demands	1.125

Diversity factor = Sum of regional or state maximum demands / All India maximum demand
*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: 02-Apr-2020

							Date of Reporting:	02-Apr-2020
SI	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
Impo	rt/Export of ER (1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				,
1		ALIPURDUAR-AGRA		0	0	0.0	0.0	0.0
2		PUSAULI B/B	S/C	0	249	0.0	6.1	-6.1
3	765 kV	GAYA-VARANASI	D/C	259	274	0.0	0.4	-0.4
5	765 kV 765 kV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	194 29	123 289	1.4 0.0	0.0 3.4	1.4
6		PUSAULI-VARANASI	S/C	0	231	0.0	3.4 4.6	-3.4 -4.6
7		PUSAULI -ALLAHABAD	S/C	0	121	0.0	1.3	-1.3
8		MUZAFFARPUR-GORAKHPUR	D/C	222	496	0.0	2.5	-2.5
9	400 kV	PATNA-BALIA	Q/C	55	573	0.0	6.5	-6.5
10		BIHARSHARIFF-BALIA	D/C	73	220	0.0	1.7	-1.7
11		MOTIHARI-GORAKHPUR	D/C	268	233	0.0	3.2	-3.2
12		BIHARSHARIFF-VARANASI PUSAULI-SAHUPURI	D/C S/C	268	128 139	2.3 0.0	0.0 2.5	2.3 -2.5
14	132 kV	SONE NAGAR-RIHAND	S/C	Ů	0	0.0	0.0	0.0
15		GARWAH-RIHAND	S/C	30	0	0,5	0.0	0.5
16		KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17	132 kV	KARMANASA-CHANDAULI	S/C	0	0 ED ND	0.0	0.0	0.0
Impo	rt/Export of ER (With WR)			ER-NR	4.2	32.2	-28.0
1	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	1782	0	28.3	0.0	28.3
2	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	574	627	2.2	0.0	2.2
3	765 kV	JHARSUGUDA-DURG	D/C	101	211	0.0	0.9	-0.9
4	400 kV	JHARSUGUDA-RAIGARH	Q/C	108	312	0.0	2.1	-2.1
5		RANCHI-SIPAT	D/C	241	200	1.9	0.0	1.9
6		BUDHIPADAR-RAIGARH	S/C	0	142	0.0	1.8	-1.8
7	220 kV	BUDHIPADAR-KORBA	D/C	160	0	2.1	0.0	2.1
L					ER-WR	34.4	4.8	29.6
	rt/Export of ER (P/G			0.0	0	e -
1		JEYPORE-GAZUWAKA B/B TALCHER-KOLAR BIPOLE	D/C	0	645	0.0	8.5 47.0	-8.5 47.0
3		ANGUL-SRIKAKULAM	D/C D/C	0	1984 2935	0.0	47.9 55.3	-47.9 -55.3
4		TALCHER-I/C	D/C D/C	0	2935 1247	0.0	10.1	-55.5 -10.1
5		BALIMELA-UPPER-SILERRU	S/C	1	0	0.0	0.0	0.0
					ER-SR	0.0	111.8	-111.8
	rt/Export of ER (
1		BINAGURI-BONGAIGAON	D/C	207	96	1.7	0.0	1.7
3		ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C D/C	224 52	82 24	1.9 0.4	0.0 0.0	1.9 0.4
3	220 K V	ALIFURDUAK-SALAKATI	D/C	32	ER-NER	4.1	0.0	4.1
Impo	rt/Export of NER	(With NR)			DR HER	711	0.0	71.1
1	HVDC	BISWANATH CHARIALI-AGRA	-	467	0	11.5	0.0	11.5
					NER-NR	11.5	0.0	11.5
	rt/Export of WR (, , , , , , , , , , , , , , , , , , , ,	
1		CHAMPA-KURUKSHETRA	D/C	0	0	0.0	3.6	-3.6
3		V'CHAL B/B APL -MHG	D/C D/C	451 0	0 691	12.1 0.0	0.0	12.1 -13.6
4		GWALIOR-AGRA	D/C	0	1855	0.0	13.6 30.6	-30.6
5		PHAGI-GWALIOR	D/C	Ŏ	1220	0.0	16.8	-16.8
6		JABALPUR-ORAI	D/C	0	602	0.0	17.5	-17.5
7		GWALIOR-ORAI	S/C	625	0	9.3	0.0	9.3
8		SATNA-ORAI	S/C	0	1188	0.0	24.2	-24.2
			D/C	386	200	3.0	0.0	
9		CHITORGARH-BANASKANTHA						3.0
10	400 kV	ZERDA-KANKROLI	S/C	178	0	2.7	0.0	2.7
10 11	400 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL	S/C S/C	178 276	0 43	2.7 3.3	0.0	2.7 3.3
10 11 12	400 kV 400 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	S/C S/C S/C	178 276 972	0 43 0	2.7 3.3 22.6	0.0 0.0 0.0	2.7 3.3 22.6
10 11 12 13	400 kV 400 kV 400 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	S/C S/C S/C D/C	178 276 972 251	0 43 0 167	2.7 3.3	0.0 0.0 0.0 0.0	2.7 3.3 22.6 0.5
10 11 12	400 kV 400 kV 400 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	S/C S/C S/C	178 276 972 251 55 0	0 43 0	2.7 3.3 22.6 0.5 0.0	0.0 0.0 0.0	2.7 3.3 22.6
10 11 12 13 14 15 16	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	S/C S/C S/C D/C S/C S/C S/C S/C	178 276 972 251 55 0 80	0 43 0 167 38 98	2.7 3.3 22.6 0.5 0.0 0.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2
10 11 12 13 14 15 16 17	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-WALAYIYA	S/C S/C S/C D/C S/C S/C S/C S/C	178 276 972 251 55 0 80 138	0 43 0 167 38 98 1	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4	0.0 0.0 0.0 0.0 0.0 1.4 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4
10 11 12 13 14 15 16	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	S/C S/C S/C D/C S/C S/C S/C S/C	178 276 972 251 55 0 80	0 43 0 167 38 98 1 0	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0
10 11 12 13 14 15 16 17 18	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C S/C S/C D/C S/C S/C S/C S/C	178 276 972 251 55 0 80 138	0 43 0 167 38 98 1	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4	0.0 0.0 0.0 0.0 0.0 1.4 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4
10 11 12 13 14 15 16 17 18	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C S/C S/C D/C S/C S/C S/C S/C	178 276 972 251 55 0 80 138	0 43 0 167 38 98 1 0	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0
10 11 12 13 14 15 16 17 18 Import	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-BHIND RAPP-SHUJALPUR BHANPUR-RAPPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BHADRAWATI B/B BARSUR-L-SILERU	S/C S/C	178 276 972 251 55 0 80 138 0	0 43 0 167 38 98 1 0 WR-NR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7
10 11 12 13 14 15 16 17 18 Import	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC 765 kV	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIth SR) BHADRAWATI B/B BARNUR-LSILERU SOLAPUR-RAICHUR	S/C S/C S/C S/C D/C S/C S/C	178 276 972 251 555 0 80 138 0	0 43 0 167 38 98 1 0 0 WR-NR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0
10 11 12 13 14 15 16 17 18 Import	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC TOS kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-BHAND RAPP-SHUJALPUR BHANPUR-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	S/C S/C	178 276 972 251 55 0 80 138 0	0 43 0 167 38 98 1 0 0 WR-NR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 53.6	2.7 3.3 22.6 0.5 0.0 -1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6
10 11 12 13 14 15 16 17 18 Import 1 2 3 4	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC 765 kV 400 kV	ZERDA-KANKROLI ZERDA-BHINMAL Y'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIR SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 630	0 43 0 167 38 98 1 0 0 WR-NR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 53.6 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 -2.7
10 11 12 13 14 15 16 17 18 Import	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 143 kV 140 kV 150 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-BHAND RAPP-SHUJALPUR BHANPUR-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 53.6 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7
10 11 12 13 14 15 16 17 18 Import	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 630	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 53.6 0.8 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 -2.7
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SRI BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BARSUR-LSULERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 3.4 0.0	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 53.6 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -37.9 -53.6 2.7 0.0
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SRI BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BARSUR-LSULERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 0.0 37.9 53.6 0.8 0.0 1.1	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 1.1
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	S/C S/C	178 276 972 251 55 0 80 138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3916 235 0 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 0.0 37.9 3.6 0.8 0.8 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 1.1
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SRI BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BARSUR-LSULERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	S/C S/C	178 276 972 251 55 0 138 0 138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 0.0 37.9 53.6 0.8 0.0 1.1	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPUR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHASURI-SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	S/C S/C	178 276 2776 2776 2776 2776 2776 2776 277	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 0.0 37.9 0.0 115.2 Avg (MW)	2.7 3.3 22.6 0.5 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU)
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	S/C S/C	178 276 2776 2776 2776 2776 2776 2776 277	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3916 235 0 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 0.0 37.9 3.6 0.8 0.8 0.8	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 37.9 -53.6 2.7 0.0 -1.1 -110.7 Energy Exchange
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPURA-WARAWA MALANPUR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHASURI-SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	S/C D/C D/C S/C S/C	178 276 2776 2776 2776 2776 2776 2776 277	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 0 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 107.7 21.9 0.0 37.9 0.0 37.9 0.0 115.2 Avg (MW)	2.7 3.3 22.6 0.5 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU)
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHADRAWATI B/B BHADRAWATI B/B BARNUR-I.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	S/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C C/C S/C S/C C/C C/C	178	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 4445 3016 2346 0 53 58 WR-SR NGES Max (MW) 0 29	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 1.1 0.0 115.2 Avg (MW) 0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 -110.7 Energy Exchange (MU) 0.0 -0.3
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER	S/C S/C	178 276 276 276 276 276 276 275 251	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 24445 30116 236 0 53 58 WR-SR	2.7 3.3 22.6 0.5 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 -0.0 -1.1 -110.7 Energy Exchange (MU) 0.0
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIth SR) BHADRAWAIT B/B BARNEL-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAI KOLHAPUR-CHIKODI PONDA-MBEWADI XELDEM-AMBEWADI Region ER ER ER	S/C S/C	178 276	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 24445 3016 2346 0 53 S8 WR-SR NGES Max (MW) 0 29	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHADRAWATI B/B BHADRAWATI B/B BARNUR-I.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	S/C S/C	178 276 276 276 276 276 276 275 251	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 4445 3016 2346 0 53 58 WR-SR NGES Max (MW) 0 29	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 1.1 0.0 115.2 Avg (MW) 0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 -110.7 Energy Exchange (MU) 0.0 -0.3
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL Y'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SR BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER ER	S/C S/C	178 276 276 276 276 276 276 276 275 251 251 251 255 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 1 0 WR-NR 1006 0 2445 3016 2346 0 53 53 58 WR-SR NGES Max (MW) 0 29 159	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIth SR) BHADRAWAIT B/B BARNEL-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAI KOLHAPUR-CHIKODI PONDA-MBEWADI XELDEM-AMBEWADI Region ER ER ER	S/C S/C	178 276 276 276 276 276 276 276 275 251 251 251 255 0 0 0 0 0 0 0 0 0	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 24445 3016 2346 0 53 S8 WR-SR NGES Max (MW) 0 29	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL Y'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SR BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER ER	S/C S/C	178	0 43 0 167 38 98 1 1 0 WR-NR 1006 0 2445 3016 2346 0 53 53 58 WR-SR NGES Max (MW) 0 29 159	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B COLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RUGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER ER ER ER ER ER ER	S/C S/C	178	0 43 0 167 38 98 1 0 WR-NR 1006 0 2445 3016 2346 0 53 58 WR-SR NGES Max (MW) 0 29 159 149	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 107.7 21.9 21.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0 1135	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B COLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RUGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER ER ER ER ER ER ER	S/C S/C	178	0 43 0 167 38 98 1 0 WR-NR 1006 0 2445 3016 2346 0 53 58 WR-SR NGES Max (MW) 0 29 159 149	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 107.7 21.9 21.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0 1135	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARMAN MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BRSUR-LSSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REGION ER ER ER ER ER ER NER NER NER	S/C	178	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 53 S8 WR-SR WGES Max (MW) 0 29 159 149 18 16 0	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0 132 61 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 107.7 21.9 0.0 37.9 0.0 37.9 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -21.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC HVDC HVDC T65 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHANPUR-AURAIYA WITH SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER ER ER ER NER	S/C S/C	178	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 2346 0 53 58 WR-SR NGES Max (MW) 0 29 159 149	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.3
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJAIPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAYA MALANPURA-WARAYA MALANPURA-WARAYA MALANPURA-WARAYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER ER NER NER NER	S/C	178	0 43 0 143 0 167 38 98 1 0 WR-NR 1006 0 2445 3016 236 0 53 S8 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128	2.7 3.3 22.6 0.5 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0 132 61 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -21.9 0.0 -37.9 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARMAN MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BHADRAWATI B/B BRSUR-LSSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REGION ER ER ER ER ER ER NER NER NER	S/C	178	0 43 0 167 38 98 1 0 0 WR-NR 1006 0 2445 3016 236 0 53 S8 WR-SR WGES Max (MW) 0 29 159 149 18 16 0	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0 132 61 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 107.7 21.9 0.0 37.9 0.0 37.9 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 -21.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIth SR) BHADRAWAIT B/B BARNIR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAI KOLHAPUR-CHIKODI PONDA-MBEWADI XELDEM-AMBEWADI Region ER ER ER ER NER NER NER NER N	S/C	178	0 43 0 167 38 98 1 1 0 WR-NR 1006 0 2445 3016 2346 0 53 S8 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128 -136	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1 0 -19 -43	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5 -1.0
10 11 12 13 14 15 16 17 18 Import 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJAIPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARAYA MALANPURA-WARAYA MALANPURA-WARAYA MALANPURA-WARAYA GWALIOR-SAWAI MADHOPUR With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER ER NER NER NER	S/C	178	0 43 0 143 0 167 38 98 1 0 WR-NR 1006 0 2445 3016 236 0 53 S8 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128	2.7 3.3 22.6 0.5 0.5 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4.5 Min (MW) 0 0 132 61 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 3.3 2.2.6 0.5 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 0.0 -37.9 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5
10 11 12 13 14 15 16 17 18 11 2 3 4 5 6 7 8	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR (HVDC 765 kV 400 kV 220 kV 220 kV 220 kV 322 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 220 kV 240 kV 250 kV 2	ZERDA-KANKROLI ZERDA-BHINMAL Y'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SR BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER	S/C	178	0 43 0 167 38 98 1 1 0 WR-NR 1006 0 2445 3016 2346 0 53 S8 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128 -136	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1 0 -19 -43	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5 -1.0
10 11 12 13 14 15 16 17 18 11 2 3 4 5 6 7 8	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL YCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WIth SR) BHADRAWAIT B/B BARNIR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAI KOLHAPUR-CHIKODI PONDA-MBEWADI XELDEM-AMBEWADI Region ER ER ER ER NER NER NER NER N	S/C	178	0 43 0 167 38 98 1 1 0 0 WR-NR 1006 0 0 2445 3016 2346 0 0 53 58 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128 -136	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.8 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1 0 -19 -43	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5 -1.0 -1.17
10 11 12 13 14 15 16 17 18 18 19 2 3 4 5 6 7 8	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 220 kV 132 kV rt/Export of WR HVDC HVDC 765 kV 400 kV 220 kV 220 kV State	ZERDA-KANKROLI ZERDA-BHINMAL Y'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WITH SR BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI REGION ER	S/C	178	0 43 0 167 38 98 1 1 0 0 WR-NR 1006 0 0 2445 3016 2346 0 0 53 58 WR-SR NGES Max (MW) 0 29 159 149 18 16 0 -128 -136	2.7 3.3 22.6 0.5 0.0 0.0 0.0 0.2 1.4 0.0 555.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.7 107.7 21.9 0.0 37.9 53.6 0.0 1.1 0.0 115.2 Avg (MW) 0 -14 135 110 -11 -1 0 -19 -43	2.7 3.3 22.6 0.5 0.0 -1.4 0.2 1.4 0.0 -52.7 -21.9 0.0 -37.9 -53.6 2.7 0.0 -1.1 -110.7 Energy Exchange (MU) 0.0 -0.3 3.2 2.7 -0.3 0.0 -0.4 -0.5 -1.0 -1.17