

## National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र GRID CONTROLLER OF INDIA LIMITED ग्रिड कंट्रोलर ऑफ इंडिया 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

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Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 03<sup>rd</sup> January 2024

To,

- कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14, गोल्फ क्लब रोड, कोलकाता 700033
   Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
- 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 02.01.2024.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 02-जनवरी-2024 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  $02^{nd}$  January 2024, is available at the NLDC website.

धन्यवाद,

## ग्रिड कंट्रलर ऑफ इंडिया लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली



Report for previous day

A Power Supply Position at All India and Regional level

Date of Reporting: 03-Jan-2024

	NR	WR	SR	ER	NER	TOTAL
Demand Met during Evening Peak hrs(MW) (at 19:00 hrs; from RLDCs)	57519	58935	45256	19532	2564	183806
Peak Shortage (MW)	146	0	0	779	27	952
Energy Met (MU)	1186	1399	1121	409	46	4162
Hydro Gen (MU)	101	39	58	9	10	216
Wind Gen (MU)	16	42	59	-	-	116
Solar Gen (MU)*	89.64	47.66	100.15	2.46	1.07	241
Energy Shortage (MU)	0.68	0.00	0.00	3.24	0.43	4.35
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	60422	72624	57505	20947	2647	209524
Time Of Maximum Demand Met	11:29	10:27	10:57	17:48	17:25	10:58

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	0.045	0.00	1.55	7.39	8 95	78 51	12.54

C. Power Supply Position in States

Region	States	Max.Demand Met during the day (MW)	Shortage during maximum Demand (MW)	Energy Met (MU)	Drawal Schedule (MU)	OD(+)/UD(-) (MU)	Max OD (MW)	Energy Shortage (MU
	Punjab	7659	0	148.5	62.7	0.5	163	0.00
	Haryana	8346	0	150.7	91.5	-0.5	173	0.00
	Rajasthan	16318	0	309.1	126.3	-5.0	218	0.00
	Delhi	4881	0	80.1	72.3	-1.3	229	0.00
NR	UP	19742	0	347.8	113.6	-1.7	900	0.00
	Uttarakhand	2232	0	42.1	31.9	0.4	225	0.41
	HP	1977	0	35.6	29.8	-0.5	130	0.00
	J&K(UT) & Ladakh(UT)	2917	0	64.4	59.7	-0.5	171	0.27
	Chandigarh	274	0	4.7	4.3	0.4	77	0.00
	Railways_NR ISTS	173	0	3.4	3.5	-0.1	32	0.00
	Chhattisgarh	4734	0	96.3	37.6	-0.7	215	0.00
	Gujarat	19210	0	366.0	151.5	-1.4	522	0.00
	MP	17173	0	316.4	204.8	-3.7	579	0.00
WR	Maharashtra	26871	0	548.7	186.8	-6.0	1036	0.00
	Goa	688	0	13.5	13.4	-0.4	179	0.00
	DNHDDPDCL	1217	0	27.0	27.3	-0.3	45	0.00
	AMNSIL	839	0	19.1	10.0	-0.4	210	0.00
	BALCO	519	0	12.4	12.5	-0.1	516	0.00
	Andhra Pradesh	11078	0	199.6	73.6	-0.9	423	0.00
	Telangana	12698	0	231.2	103.3	0.4	552	0.00
SR	Karnataka	15005	0	271.1	113.5	1.0	1105	0.00
	Kerala	4263	0	85.2	70.7	0.7	364	0.00
	Tamil Nadu	15925	0	325.5	198.0	2.4	972	0.00
	Puducherry	397	0	8.7	8.1	-0.1	53	0.00
	Bihar	4801	0	86.9	78.8	-2.9	177	0.78
	DVC	3333	0	69.2	-47.4	0.0	506	0.00
	Jharkhand	1604	0	30.4	23.5	-2.4	229	2.46
ER	Odisha	4469	0	88.6	29.6	-1.4	233	0.00
	West Bengal	6664	0	132.0	20.5	-2.7	243	0.00
	Sikkim	115	0	1.8	2.0	-0.2	7	0.00
	Railways_ER ISTS	16	0	0.1	0.1	0.0	12	0.00
	Arunachal Pradesh	148	0	2.9	2.9	-0.1	44	0.00
	Assam	1524	0	25.8	20.3	0.4	172	0.00
	Manipur	224	0	3.1	3.0	0.1	42	0.24
NER	Meghalaya	326	0	6.2	5.2	-0.3	57	0.19
	Mizoram	118	0	1.9	1.7	-0.3	12	0.00
	Nagaland	144	0	2.3	2.3	0.0	28	0.00
	Tripura	230	0	3.9	2.8	-0.2	35	0.00

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	-10.0	-5.7	-19.6	-15.6
Day Peak (MW)	-656.9	-372.0	-907.0	-763.0

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

E. Import Export by Regions (in 1170) - Import (110)	L. import Export by Regions (in 1972) - import (1976) Export (1976)											
	NR	WR	SR	ER	NER	TOTAL						
Schedule(MU)	264.2	-272.6	162.3	-154.7	0.8	0.0						
Actual(MU)	256.0	-278.5	177.6	-163.8	-0.1	-8.8						
O/D/IJ/D(MIJ)	8.2	5.0	15.3	-0.1	-1.0	Q Q						

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	6454	8384	5088	4331	205	24461	45
State Sector	8456	11132	6695	3354	281	29917	55
Total	14910	19515	11783	7685	486	54378	100

G. Sourcewise generation (Gross) (MU)

G. Sourcewise generation (Gross) (MO)							
	NR	WR	SR	ER	NER	All India	% Share
Coal	721	1608	638	637	16	3620	79
Lignite	26	18	55	0	0	99	2
Hydro	101	39	58	9	10	216	5
Nuclear	26	53	76	0	0	155	3
Gas, Naptha & Diesel	15	21	7	0	26	68	1
RES (Wind, Solar, Biomass & Others)	129	93	187	4	1	414	9
Total	1017	1834	1020	650	52	4573	100
Share of RES in total generation (%)	12.64	5.09	18.35	0.57	2.05	9.05	
Share of Non-fossil fuel (Hydro,Nuclear and RES) in total generation(%)	25.11	10.12	31.45	2.00	20.47	17.18	

H.	All	India	De	mand D	ivers	ity Factor	
_	-	_	•	117	7		

Based on Regional Max Demands	1.022
Based on State Max Demands	1.044

I. All India Peak Demand and shortage at Solar and Non-Solar Hour

	Max Demand Met(MW)	Time	Shortage(MW)
Solar hr	209524	10:58	591
Non-Solar hr	193012	17:48	0

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

<sup>\*\*</sup>Note: All generation MU figures are gross
\*\*\*Godda (Jharkhand) -> Bangladesh power exchange is through the radial connection (isolated from Indian Grid)

Solar Hours -> 06:00 to 18:00hrs and rest are Non-Solar Hours

 $<sup>*</sup>Source: RLDCs \ for \ solar \ connected \ to \ ISTS; SLDCs \ for \ embedded \ solar. \ Limited \ visibility \ of \ embedded \ solar \ data.$ 

## INTER-REGIONAL EXCHANGES

Import=(+ve) /Export =(-ve) for NET (MU)
Date of Reporting: 03-Jan-2024

Sl No	Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
Impor	t/Export of ER (							
2	HVDC HVDC	ALIPURDUAR-AGRA PUSAULI B/B	2	0	0 49	0.0	0.0 1.3	0.0 -1.3
3 4	765 kV 765 kV	GAYA-VARANASI	2	0	1560 591	0.0	21.3 9.7	-21.3 -9.7
5	765 kV	SASARAM-FATEHPUR GAYA-BALIA	1	0	766	0.0	7.7	-7.7
7	400 kV 400 kV	PUSAULI-VARANASI PUSAULI -ALLAHABAD	1 1	54	24 103	0.3	0.0 1.6	0.3 -1.6
8	400 kV 400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	2 2	0	740 679	0.0	10.9 11.4	-10.9 -11.4
10	400 kV	NAUBATPUR-BALIA	2	0	722	0.0	12.0	-12.0
11 12	400 kV 400 kV	BIHARSHARIFF-BALIA MOTIHARI-GORAKHPUR	2 2	0	356 524	0.0	3.8 9.6	-3.8 -9.6
13 14	400 kV 220 kV	BIHARSHARIFF-VARANASI SAHUPURI-KARAMNASA	2	0	559 124	0.0	8.8 1.7	-8.8 -1.7
15	132 kV	NAGAR UNTARI-RIHAND	1	0	0	0.0	0.0	0.0
16 17	132 kV 132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	1	30	0	0.4	0.0	0.4
18	132 kV	KARMANASA-CHANDAULI	1	0	0 ER-NR	0.0	0.0 99.8	0.0 -99.1
Impor	t/Export of ER (			_	•			
2	765 kV 765 kV	JHARSUGUDA-DHARAMJAIGARH NEW RANCHI-DHARAMJAIGARH	4 2	991 647	422 791	3.3	0.0 2.7	3.3 -2.7
3	765 kV 400 kV	JHARSUGUDA-DURG JHARSUGUDA-RAIGARH	2 4	0	1137 661	0.0	21.9 10.6	-21.9 -10.6
5	400 kV	RANCHI-SIPAT	2	161	278	0.0	1.7	-1.7
7	220 kV 220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	1 2	16 112	104 87	0.0	1.1 0.0	-1.1 0.2
T	4/E 4 . 6 ED (	ava. on			ER-WR	3.5	38.0	-34.5
1mpor	t/Export of ER (V	JEYPORE-GAZUWAKA B/B	2	0	19	0.0	0.0	0.0
3	HVDC 765 kV	TALCHER-KOLAR BIPOLE ANGUL-SRIKAKULAM	2 2	0	1983 2949	0.0	32.8 53.3	-32.8 -53.3
4	400 kV	TALCHER-I/C	2	627	291	10.4	0.0	10.4
5	220 kV	BALIMELA-UPPER-SILERRU	1	0	0 ER-SR	0.0	0.0 86.1	0.0 -86.1
_	t/Export of ER (		T -					
2	400 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON	2 2	202 665	94 49	1.8 7.6	0.1 0.0	1.7 7.6
3	220 kV	ALIPURDUAR-SALAKATI	2	115	6 ER-NER	1.5 10.9	0.0 0.1	1.5 10.8
Impor	t/Export of NER	(With NR)			EK-NEK	10.9	υ.1	10.8
1		BISWANATH CHARIALI-AGRA	2	648	0	11.4	0.0	11.4
Impor	t/Export of WR (	With NR)			NER-NR	11.4	0.0	11.4
1	HVDC	CHAMPA-KURUKSHETRA	2	1	0	0.0	0.0	0.0
3	HVDC HVDC	VINDHYACHAL B/B MUNDRA-MOHINDERGARH	2	179 0	0 1452	0.0	28.1	0.0 -28.1
5	765 kV 765 kV	GWALIOR-AGRA GWALIOR-PHAGI	2 2	0	2787 2384	0.0	41.0 40.6	-41.0 -40.6
7	765 kV 765 kV	JABALPUR-ORAI GWALIOR-ORAI	2	0 1173	1359	0.0 18.6	39.0 0.0	-39.0 18.6
8	765 kV	SATNA-ORAI	1	0	1279	0.0	24.5	-24.5
9 10	765 kV 765 kV	BANASKANTHA-CHITORGARH VINDHYACHAL-VARANASI	2 2	1270 0	643 3147	8.9 0.0	0.0 47.5	8.9 -47.5
11	400 kV	ZERDA-KANKROLI						
			1	146	131	1.2	0.2	1.0
12 13	400 kV 400 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND	1 1 1	477 972	330	2.4 22.4	1.0 0.0	1.4 22.4
12 13 14	400 kV 400 kV 400 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND RAPP-SHUJALPUR		477	330 0 717	2.4	1.0	1.4
12 13 14 15 16	400 kV 400 kV 400 kV 220 kV 220 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	1	477 972 146 0	330 0 717 138 30	2.4 22.4 0.3 0.0	1.0 0.0 5.1 2.3 1.2	1.4 22.4 -4.8 -2.3 -1.2
12 13 14 15 16 17 18	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 2 1	477 972 146 0 0 96 74	330 0 717 138 30 20 40	2.4 22.4 0.3 0.0 0.0 0.9 0.4	1.0 0.0 5.1 2.3 1.2 0.0	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3
12 13 14 15 16 17	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	1 2 1 1 1	477 972 146 0 0	330 0 717 138 30 20	2.4 22.4 0.3 0.0 0.0	1.0 0.0 5.1 2.3 1.2 0.0	1.4 22.4 -4.8 -2.3 -1.2 0.9
12 13 14 15 16 17 18 19 20	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AUKAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR	1 2 1 1 1 1 1	477 972 146 0 0 96 74	330 0 717 138 30 20 40	2.4 22.4 0.3 0.0 0.0 0.9 0.4	1.0 0.0 5.1 2.3 1.2 0.0 0.1	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3
12 13 14 15 16 17 18 19 20	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 220 kV 132 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AUKAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR	1 2 1 1 1 1 1	477 972 146 0 0 96 74	330 0 717 138 30 20 40 0	2.4 22.4 0.3 0.0 0.0 0.9 0.4 0.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0
12 13 14 15 16 17 18 19 20 Impor 1 2	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14/Export of WR ( HVDC HVDC	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR	1 2 1 1 1 1 1 1 2	477 972 146 0 0 96 74 0	330 0 717 138 30 20 40 0 WR-NR	2.4 22.4 0.3 0.0 0.0 0.9 0.4 0.0 0.0 55.2	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 230.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 17Export of WR ( HVDC HVDC HVDC HVDC HVDC HVDC	ZERDA -BHINMAL 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 WARDHA-NIZAMABAD	1 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2	477 972 146 0 0 96 74 0 0 0 0 683	330 0 717 138 30 20 40 0 WR-NR 1013 4009 1764 2546	2.4 22.4 0.3 0.0 0.0 0.9 0.4 0.0 0.0 55.2	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 230.6 21.3 60.3 6.9 34.1	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 -175.4  -21.3 -60.3 -6.9 -34.1
12 13 14 15 16 17 18 19 20 Impor 1 2 3	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14/Export of WR ( HVDC HVDC T65 kV	ZERDA - BHINMAL 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 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2	477 972 146 0 0 96 74 0 0 0	330 0 717 138 30 20 40 0 WR-NR	2.4 22.4 0.3 0.0 0.0 0.9 0.4 0.0 0.0 55.2	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.0 230.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 -175.4 -21.3 -60.3 -6.9
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 152 kV 164 kV 175 kV 1765 kV 1765 kV 1765 kV 1765 kV 1765 kV 1765 kV 1765 kV	ZERDA -BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	1 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2	477 972 146 0 0 96 74 0 0 0 0 0 1201	330 0 717 138 30 20 40 0 WR-NR	2.4 22.4 0.3 0.0 0.0 0.9 0.4 0.0 55.2 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 230.6 21.3 60.3 6.9 34.1 35.1 0.0	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 17/Export of WR (HVDC HVDC 1765 kV 1765 kV 1765 kV 1765 kV 1700 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA WHINDHAMADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI	1 1 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2	477 972 146 0 0 96 74 0 0 0 0 0 683 0 0 1201	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 0 0 0 0 115	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 17.8 0.0 0.0 0.0 2.2	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 0.0	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 0.0
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14/Export of WR ( HVDC HVDC 765 kV 400 kV 220 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI	1 1 2 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1	477 972 146 0 0 0 96 74 0 0 0 0 0 1201 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 55.2  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 0.0 157.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 0.0 2.2 -137.6
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 142 kV 152 kV 152 kV 155 kV 165 kV 1765 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN'	1	477 972 1446 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 0 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 55.2  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 0.0
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14/Export of WR ( HVDC HVDC 765 kV 400 kV 220 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI	1	477 972 146 0 0 0 96 74 0 0 0 0 0 10 0 10 0 0 CHANGES	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 0 0 0 0 115	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 17.8 0.0 0.0 0.0 2.2	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 0.0 157.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve)
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 142 kV 152 kV 152 kV 155 kV 165 kV 1765 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WARIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN'	1	477 972 146 0 0 0 976 74 0 0 0 0 0 0 10 0 0 CHANGES  Name	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 0 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 55.2  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 142 kV 152 kV 152 kV 155 kV 165 kV 1765 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARNGALINEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region	1	477 972 146 0 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU)
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 142 kV 152 kV 152 kV 155 kV 165 kV 1765 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARNGALINEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region	1	477 972 146 0 0 0 976 74 0 0 0 0 0 683 0 1201 0 0 1201 0 0 CHANGES Name ALIPURDUAR 1,2&3 i.e. F (from MANGDECHU	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU)
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARNGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region  ER	1	477 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 142 kV 152 kV 152 kV 155 kV 165 kV 1765 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARNGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region  ER	1	477 972 146 0 0 0 976 74 0 0 0 0 0 683 0 1201 0 0 1201 0 0 1201 0 1201 0 1201 0 1201 0 1201 0 1201 0 1201 0 0 1201 0 0 0 1201 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  IN  Region  ER  ER	1	477 972 146 0 0 0 972 146 0 0 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  IN Region  ER  ER	1	477 972 146 0 0 0 972 146 0 0 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 0 115 WR-SR	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region  ER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  IN  Region  ER  ER	1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)	1.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region  ER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.1 0.1 0.0 0.1 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA WITH SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI  IN' Region  ER  ER  NER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 100 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25  227  -75	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75  -177  -27	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 132 kV 17/Export of WR ( HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA WITH SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI  IN' Region  ER  ER  NER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25  227  -75	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.1 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75  -177  -27	1.4 22.4 -4.8 2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14 kV 15 kV 16 kV 17 kV 17 kV 18 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 10 kV 1	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KULDI KOLHAPUR-KULDI XELDEM-AMBEWADI  IN' Region  ER  ER  NER  NER	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW) -142 -75 -177 -27	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14 kV 15 kV 16 kV 17 kV 17 kV 18 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 10 kV 1	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KULDI KOLHAPUR-KULDI XELDEM-AMBEWADI  IN' Region  ER  ER  NER  NER	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	477 972 146 0 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38	2.4 22.4 0.3 0.0 0.0 0.0 0.9 0.4 0.0 0.0 555.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW) -142 -75 -177 -27	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14 kV 15 kV 16 kV 17 kV 17 kV 18 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 10 kV 1	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region ER ER  NER  NER  NER  NER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38 21 -68	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 55.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3	1.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW) -142 -75 -177 -27  3 -50	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19 0.00 -4.51
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14 kV 15 kV 16 kV 17 kV 17 kV 18 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 10 kV 1	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region ER ER  NER  NER  NER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 972 146 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38 21 -68	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 555.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW) -142 -75 -177 -27  3 -50	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6 7 8 9	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 140 kV 150 kV 165 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI IN' Region ER ER  NER  NER  NER  NER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38 21 -68	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 55.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75  -177  -27  3  -50  0  -188	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19 0.00 -4.51
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6 7 8 9	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 14 kV 15 kV 16 kV 17 kV 17 kV 18 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 19 kV 10 kV 1	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI  ER  ER  NER  NER  NER  NER  ER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38 21 -68	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 55.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3	1.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW) -142 -75 -177 -27  3 -50	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -1.75.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -1.37.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19 0.00 -4.51
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6 7 8 9	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 140 kV 150 kV 165 kV	ZERDA - BHINMAL VINDHYACHAL - RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA MALANPUR-AURAIYA WITH SR BHANBARWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARORA-WARANGAL(NEW) KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI  ER  ER  NER  ER  ER  ER  ER  ER	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 115 WR-SR  Max (MW) -236 -246 -240 -38 21 -68	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 55.2  0.0 0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75  -177  -27  3  -50  0  -188	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -1.75.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -1.37.6 +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19 0.00 -4.51
12 13 14 15 16 17 18 19 20 Impor 1 2 3 4 5 6 7 7 8 8 9	400 kV 400 kV 400 kV 220 kV 220 kV 220 kV 132 kV 132 kV 140 kV 150 kV 165 kV	ZERDA - BHINMAL 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 WARDHA-NIZAMABAD WARORA-WARANGAL(NEW) KOLHAPUR-KUDGI KOLHAPUR-KUDGI XELDEM-AMBEWADI  SER  ER  ER  NER  NER  NER  LER  ER  ER  LER  ER  LER  L	1   2   1   1   1   1   1   1   1   1	477 972 146 0 0 0 0 96 74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	330 0 717 138 30 20 40 0 WR-NR  1013 4009 1764 2546 2756 0 0 0 WR-SR  Max (MW) -236 -246 -240 -38 21 -68 0 -372 -799	2.4 22.4 0.3 0.0 0.0 0.0 0.0 0.9 0.4 0.0 0.0 0.0 55.2  0.0 0.0 0.0 0.0 17.8 0.0 0.0 2.2 20.0  Min (MW)  25 227 -75 16 -3 0 0 0 -599	1.0 0.0 0.0 5.1 2.3 1.2 0.0 0.0 0.1 0.0 0.1 0.0 230.6  21.3 60.3 6.9 34.1 35.1 0.0 0.0 0.0 157.6  Import( Avg (MW)  -142  -75  -177  -27  3  -50  0  -188	1.4 22.4 -4.8 -2.3 -1.2 0.9 0.3 0.0 0.0 -175.4  -21.3 -60.3 -6.9 -34.1 -35.1 17.8 0.0 0.0 2.2 -137.6  +ve)/Export(-ve) Energy Exchange (MU) -3.40 -1.81 -4.24 -0.64  0.06 -1.19 0.00 -4.51 -17.36 -15.63

## CROSS BORDER EXCHANGE SCHEDULE

Date of Reporting: 03-Jan-2024

Export From India (in MU)

Export From In					T. CNIA				_				
			T-GNA										
	GNA		COLLECTIVE										
Country	(ISGS/PPA)	BILATERAL		IDAM			RTM						
		TOTAL	IEX	PXIL	HPX	IEX	PXIL	HPX					
Bhutan	0.00	0.00	10.77	0.00	0.00	0.00	0.00	0.00	10.77				
Nepal	0.18	0.00	3.79	0.00	0.00	0.99	0.00	0.00	4.96				
Bangladesh	17.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.29				
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Total Export	17.47	0.00	14.56	0.00	0.00	0.99	0.00	0.00	33.02				

Import by India(in MU)

**Total Net** 

-16.93

0.00

-14.56

		T-GNA							
	GNA (ISGA/PPA)	COLLECTIVE							
Country		BILATERAL TOTAL	IDAM			RTM			TOTAL
			IEX	PXIL	HPX	IEX	PXIL	HPX	
Bhutan	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
Nepal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Import	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54

Net from India(in MU) -ve : Export / +ve : Import T-GNA COLLECTIVE **GNA** IDAM (ISGS/PPA) BILATERAL RTM TOTAL Country TOTAL IEX PXIL HPX IEX PXIL HPX 0.54 0.00 -10.77 0.00 0.000.00 -10.23 Bhutan 0.000.00-0.18 0.00 -3.79 0.00 0.00 -0.99 0.00 0.00-4.96 Nepal Bangladesh -17.29 0.000.000.000.000.000.000.00-17.29 0.00 0.000.00 0.000.000.000.00 0.00 0.00Myanmar

0.00

0.00

-0.99

0.00

0.00

-32.48