

## 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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 17<sup>th</sup> Mar 2020

To,

- 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 16.03.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 16-मार्च-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 16<sup>th</sup> Mar 2020, is available at the NLDC website.

धन्यवाद,

Report for previous day Date of Reporting

A. Power Supply Position at All India and Regional level

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	38399	49175	45255	19367	2415	154611
Peak Shortage (MW)	515	0	0	0	5	520
Energy Met (MU)	802	1156	1127	369	41	3494
Hydro Gen (MU)	141	61	91	36	4	332
Wind Gen (MU)	11	80	41	-	-	132
Solar Gen (MU)*	42.30	27.10	92.85	1.75	0.04	164
Energy Shortage (MU)	10.0	0.0	0.0	0.0	0.5	11
Maximum Demand Met during the day (MW) & time	40619	54336	52332	19080	2384	162783
(from NLDC SCADA)	19:16	11:16	10:25	18:56	19:02	09:31

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	0.044	0.00	0.00	9.28	9.28	70.06	20.66

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	4904	0	95.3	66.9	-0.3	167	0.0
	Haryana	5652	0	105.7	88.1	0.7	249	0.0
	Rajasthan	11777	0	205.6	58.9	-0.6	209	0.0
	Delhi	3433	0	59.2	47.7	-1.1	137	0.0
NR	UP	12791	0	232.8	112.2	0.4	1169	0.0
	Uttarakhand	1758	0	33.2	11.3	0.0	156	0.0
	HP	1558	0	24.6	18.1	-0.7	192	0.0
	J&K(UT) and Ladakh(UT)	2061	515	42.6	39.8	-5.2	88	10.0
	Chandigarh	202	0	3.3	3.3	-0.1	29	0.0
	Chhattisgarh	3821	0	85.1	31.7	-0.5	306	0.0
	Gujarat	15714	0	338.0	77.2	4.3	670	0.0
	MP	10359	0	202.7	103.6	-1.9	408	0.0
WR	Maharashtra	23607	0	490.5	155.4	0.2	626	0.0
WK	Goa	495	0	10.4	10.0	-0.1	48	0.0
	DD	318	0	7.1	6.9	0.2	35	0.0
	DNH	809	0	18.7	18.8	-0.1	45	0.0
	Essar steel	723	0	3.7	3.8	-0.1	257	0.0
	Andhra Pradesh	9967	0	201.2	99.2	1.2	715	0.0
	Telangana	11929	0	241.2	132.4	0.1	572	0.0
SR	Karnataka	13258	0	255.6	85.6	0.3	530	0.0
311	Kerala	4087	0	83.0	62.3	1.4	225	0.0
	Tamil Nadu	15565	0	337.6	188.5	-1.0	481	0.0
	Puducherry	392	0	8.0	8.3	-0.3	28	0.0
	Bihar	3870	0	71.7	66.2	1.4	315	0.0
	DVC	3068	0	63.6	-42.6	0.1	258	0.0
ER	Jharkhand	1303	0	23.7	16.1	-1.4	183	0.0
EN	Odisha	4044	0	79.4	0.6	-0.6	256	0.0
	West Bengal	7250	0	129.0	35.5	0.8	859	0.0
	Sikkim	128	0	1.4	1.7	-0.3	58	0.0
	Arunachal Pradesh	120	1	2.1	2.1	-0.2	20	0.0
	Assam	1460	10	23.4	19.9	0.0	96	0.4
	Manipur	166	2	2.3	2.3	0.0	19	0.0
NER	Meghalaya	321	0	5.4	3.9	0.3	232	0.1
	Mizoram	100	1	1.6	1.4	0.1	22	0.0
	Nagaland	136	1	2.1	2.0	0.0	26	0.0
	Tripura	251	0	3.9	2.5	0.0	28	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	2.5	-11.7	-17.0
Day peak (MW)	356.3	-495.4	-1079.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	193.4	-259.0	183.6	-123.6	5.5	-0.2
Actual(MU)	179.8	-257.1	202.3	-134.1	7.5	-1.7
O/D/U/D(MU)	-13.6	1.9	18.7	-10.5	1.9	-1.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5730	15427	4302	1585	727	27772
State Sector	19530	17427	9035	4850	11	50853
Total	25260	32854	13337	6435	738	78624

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	347	1113	534	495	12	2501
Lignite	21	14	50	0	0	86
Hydro	141	61	91	36	4	332
Nuclear	24	37	60	0	0	121
Gas, Naptha & Diesel	31	75	18	0	23	146
RES (Wind, Solar, Biomass & Others)	81	122	173	2	0	377
Total	644	1422	925	533	39	3563

Share of RES in total generation (%)	12.51	8.59	18.66	0.35	0.10	10.59
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	38.08	15.44	35.00	7.08	11.29	23.31

H. All India Demand Diversity Factor

III III III III Deliuliu Deliuliu Diversity I uctor	
Based on Regional Max Demands	1.037
Based on State Max Demands	1.090

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

17-Mar-2020

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

## **INTER-REGIONAL EXCHANGES**

Max Import (MW) Max Export (MW)

Circuit

SI Voltage Level

Line Details

Import=(+ve) /Export =(-ve) for NET (MU)
Date of Reporting: 17-Mar-2020

NET (MU)

Export (MU)

Import (MU)

		rt/Export of ER	(With NP)						
2	1 4 T				0	0	0.0	0.0	0.0
1									
1	_								
1									
	-								
1									
1	_								
10   10   10   10   10   10   10   10	8	400 kV	MUZAFFARPUR-GORAKHPUR	D/C	0	677	0.0	10.1	-10.1
1	9	400 kV	PATNA-BALIA	Q/C	0	1001	0.0	17.0	-17.0
1	10	400 kV	BIHARSHARIFF-BALIA	D/C	0	356	0.0	5.0	-5.0
12   10   10   10   10   10   10   10	-								
10   20.000   10.0000   10.0000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.00000   10.000000   10.000000   10.000000   10.00000000   10.00000000   10.0000000000									
18   1373   1370   13	_								
15 1 123	_								
10   13   12   12   12   12   12   12   12	_								
The	15	132 kV	GARWAH-RIHAND	S/C	30	0	0.5	0.0	0.5
Service   Ser	16	132 kV	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
	17	132 kV	KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
						ER-NR	0.5	79.7	-79.3
1	Impo	rt/Export of ER	(With WR)						
2   76 9 kV   NOW NAMOGRAMALAGANN   DC   391   194   4.4   2.4   2.4   2.4     4   76 9 kV   AMASSIQUIDA-RAGAM   DC   192   261   1.9   0.2   2.2     5   66 9 kV   RACCISSINAT   DC   173   71   1.1   0.0   1.1     6   229 kV   BOMOGRAMA AGAM   DC   173   71   1.1   0.0   1.1     7   2   2   2   2   2   2   2   2   2				oıc	1206	•	22.2	0.0	22.2
1	$\vdash$				1				
March   Mar	2	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	531	148	4.8	0.0	4.8
March   Mar	3	765 kV	JHARSUGUDA-DURG	D/C	19	194	0.0	2.4	-2.4
	$\vdash$								
1	4	400 kV	JHARSUGUDA-RAIGARH	Q/C	92	261	0.0	2.7	-2.7
1	5	400 kV	RANCHI-SIPAT	D/C	178	71	1.1	0.0	1.1
2	$\vdash$								
DEPART   1987   1987   1988	6	220 kV	BUDHIPADAR-RAIGARH	S/C	13	88	0.0	1.1	-1.1
DEPART   1987   1987   1988	7	220 kV	BUDHIPADAR-KORBA	D/C	113	0	1.3	0.0	1.3
	$\vdash$		-						
MINOC   STYPONE CAZUWAKA BIG   DIC   0   688   0.0   15.9   44.8   44.8	Imno	rt/Export of ED	(With SR)			EN-VVR	43.4	0.2	23.2
MINUCE   ALCHER-YOLAR BPOLE   D.C.   0.   3469   0.0.   4.8.8   4.4.8	_					1			
9									
Marche	-						0.0	48.8	
S	3	765 kV	ANGUL-SRIKAKULAM	D/C	0	3116	0.0	64.7	-64.7
S	4	400 kV	TALCHER-I/C	D/C	0	908	0.0	7.1	-7.1
	۲	220 NV	ILI-OLERRO	J 0/0		_			
1	lm = -	rt/Evno+ of FD	(Mith NED)			EK-9K	0.0	129.4	-129.4
2	_				1				
3   20 8V   ALPHEROLAR-SALAKATI	1	400 kV	BINAGURI-BONGAIGAON	D/C	157	110	0.9	0.0	0.9
BANGLADESH   NEW   1.00   1.	2	400 kV	ALIPURDUAR-BONGAIGAON	D/C	253	118	1.8	0.0	1.8
	3	220 kV	ALIPURDUAR-SALAKATI	D/C	46	31	0.4	0.0	0.4
				L	l .	ER-NER	3.2	0.0	3.2
NYOC   BISWANTH CHARIALFAGRA   .   .   .   .   .   .   .   .   .	Imno	rt/Export of NEI	R (With NR)			Į.			
NER-NR   11.6   0.0   11.6	_				400	•	44.0		44.0
	1	HVDC	BISWANATH CHARIALI-AGRA	-	469				
NYOC   CHAMPAGURUKSHETRA   DIC   0   459   0.0   8.7   4.7						NEK-NK	11.6	0.0	11.6
NYUCC   VCHAL BIB	Impo	rt/Export of WR	(With NR)						
No.   APL-MHG	1	HVDC	CHAMPA-KURUKSHETRA	D/C	0	459	0.0	8.7	-8.7
4   755 kV   GWALIOR-GARA   DIC   0   2117   0.0   39.9   39.9   39.9     755 kV   PANGGWALIOR   DIC   0   1465   0.0   2217   2217     7   755 kV   JABALPUR-ORAI   DIC   0   791   0.0   2217   2217     7   755 kV   JABALPUR-ORAI   DIC   0   791   0.0   22.5   2-25.9     7   755 kV   GWALIOR-ORAI   SIC   582   0   110.6   0.0   10.6     7   7   755 kV   GWALIOR-ORAI   SIC   522   0   110.6   0.0   10.6     7   7   755 kV   GWALIOR-ORAI   SIC   0   1222   0.0   22.5   2-25.9     7   755 kV   CHITORGARI-BANASKANTHA   DIC   2211   958   0.0   4.0   4.0     10   400 kV   ZERDA-KANKOLI   SIC   127   128   0.8   0.0   4.0   4.0     11   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     12   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     12   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     13   400 kV   ZERDA-BHIMMAL   SIC   374   0   22.5   0.0   22.5     13   400 kV   ZERDA-BHIMMAL   SIC   374   0   22.5   0.0   22.5     14   220 kV   BHANPUR-ANDRUR   SIC   374   0   22.5   0.0   22.5     15   220 kV   BHANPUR-ANDRUR   SIC   33   80   0.1   0.8   0.9     15   220 kV   BHANPUR-ANDRAK   SIC   0   183   0.0   1.7   4.7     16   220 kV   BHANPUR-ANDRAK   SIC   51   16   0.4   0.0   0.4     18   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    19   10   MURLANPUR-ANDRAM   SIC   51   16   0.4   0.0   0.4    10   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    10   MURLANPUR-ANDRAM   SIC   51   16   0.4   0.0   0.4    10   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    10   MURLANPUR-RADRAM   SIC   51   16   0.0   0.0   0.0   0.0    11   HYDC   BARDAWATAIB   I   0   0   0   0.0   0.0   0.0    12   WHOC   BARDAWATAIB   I   0   0   0   0.0   0.0   0.0    13   765 kV   WARDHA-ARIZHAMBAD   DIC   0   0   0   0   0.0   0.0   0.0    14   755 kV   WARDHA-ARIZHAMBAD   DIC   0   0   0   0   0   0.0   0.0    15   400 kV   KOLHAPUR-RADRAMBWA   DIC   0   0   0   0   0   0   0   0.0    16   ER   MANGGECHUR   K 180   M	2	HVDC	V'CHAL B/B	D/C	449	101	5.4	0.0	5.4
4   755 kV   GWALIOR-GARA   DIC   0   2117   0.0   39.9   39.9   39.9     755 kV   PANGGWALIOR   DIC   0   1465   0.0   2217   2217     7   755 kV   JABALPUR-ORAI   DIC   0   791   0.0   2217   2217     7   755 kV   JABALPUR-ORAI   DIC   0   791   0.0   22.5   2-25.9     7   755 kV   GWALIOR-ORAI   SIC   582   0   110.6   0.0   10.6     7   7   755 kV   GWALIOR-ORAI   SIC   522   0   110.6   0.0   10.6     7   7   755 kV   GWALIOR-ORAI   SIC   0   1222   0.0   22.5   2-25.9     7   755 kV   CHITORGARI-BANASKANTHA   DIC   2211   958   0.0   4.0   4.0     10   400 kV   ZERDA-KANKOLI   SIC   127   128   0.8   0.0   4.0   4.0     11   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     12   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     12   400 kV   ZERDA-BHIMMAL   SIC   224   285   0.0   0.0   0.0     13   400 kV   ZERDA-BHIMMAL   SIC   374   0   22.5   0.0   22.5     13   400 kV   ZERDA-BHIMMAL   SIC   374   0   22.5   0.0   22.5     14   220 kV   BHANPUR-ANDRUR   SIC   374   0   22.5   0.0   22.5     15   220 kV   BHANPUR-ANDRUR   SIC   33   80   0.1   0.8   0.9     15   220 kV   BHANPUR-ANDRAK   SIC   0   183   0.0   1.7   4.7     16   220 kV   BHANPUR-ANDRAK   SIC   51   16   0.4   0.0   0.4     18   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    19   10   MURLANPUR-ANDRAM   SIC   51   16   0.4   0.0   0.4    10   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    10   MURLANPUR-ANDRAM   SIC   51   16   0.4   0.0   0.4    10   132 kV   GWALIOR-SAWAI MADHOPUR   SIC   0   0   0.0   0.0   0.0   0.0    10   MURLANPUR-RADRAM   SIC   51   16   0.0   0.0   0.0   0.0    11   HYDC   BARDAWATAIB   I   0   0   0   0.0   0.0   0.0    12   WHOC   BARDAWATAIB   I   0   0   0   0.0   0.0   0.0    13   765 kV   WARDHA-ARIZHAMBAD   DIC   0   0   0   0   0.0   0.0   0.0    14   755 kV   WARDHA-ARIZHAMBAD   DIC   0   0   0   0   0   0.0   0.0    15   400 kV   KOLHAPUR-RADRAMBWA   DIC   0   0   0   0   0   0   0   0.0    16   ER   MANGGECHUR   K 180   M	3	HVDC	APL -MHG	D/C	0	1081	0.0	26.7	-26.7
5									
F									
7   755 kV   GWALQIG-CRAN   SIC   SS2   0   10.6   0.0   10.6   0.0   10.6   0.0   10.6   0.0   10.6   0.0   10.6   0.0   10.5   0.0   10.5   0.0   10.5   0.0   10.5   0.0   10.5   0.0   0.0   10.5   0.0   0.	5	765 kV	PHAGI-GWALIOR	D/C	0	1485	0.0	21.7	-21.7
8   785 kV   SATNA-CRAI	6	765 kV	JABALPUR-ORAI	D/C	0	791	0.0	27.1	-27.1
9   765 KV   CHTORGARH-BANASKANTHA   DIC   261   958   0.0   4.0   4.0   4.8     10   400 kV   ZEDA-ANNKOLI   SCC   1277   126   0.8   0.0   0.0   0.8     11   400 kV   ZEDA-ANNKOLI   SCC   224   285   0.0   0.0   0.0   0.0     12   400 kV   VCHAL-RIHAND   SCC   274   285   0.0   0.0   0.0     13   400 kV   VCHAL-RIHAND   SCC   974   0   22.5   0.0   1.2     14   220 kV   BRAPP-SHUALPUR   DIC   61   338   0.0   0.1   0.9   4.9     15   220 kV   BHANPURA-RANFUR   SCC   23   80   0.1   0.9   4.9     15   220 kV   BHANPURA-RANFUR   SCC   33   0.0   1.7   1.7     16   220 kV   BHANPURA-RANFUR   SCC   33   0.0   1.2   0.0   1.2     17   220 kV   MHALAPUR-AURAIYA   SCC   33   0.0   1.2   0.0   0.0     18   132 kV   GWALIOR-SAWAI MOHOPUR   SCC   0   0.0   0.0   0.0   0.0   0.0     18   132 kV   GWALIOR-SAWAI MOHOPUR   SCC   0   0.0   0.0   0.0   0.0   0.0     18   HVDC   BHADRAWATI B/B   - 0   0   0.0   0.0   0.0   0.0     17   HVDC   BARSUR-LISILERU   - 0   0   0.0   0.0   0.0   0.0     17   FS kV   WARDHA-NIZAMBAD   DIC   0   2579   0.0   43.5   43.5     17   5 kV   SCLAPUR-RACHUR   DIC   0   3326   0.0   60.5   46.5     18   220 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   8.6     19   220 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   8.6     19   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.3     12 20 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   0.0   0.0     19   220 kV   KOLHAPUR-KINDOI   SCC   0   95   0.0   1.3   1.13   1.13     12   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.8     19   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.13   1.13     12   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.8     220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.13	7	765 kV	GWALIOR-ORAI	S/C	582	0	10.6	0.0	10.6
9   765 KV   CHTORGARH-BANASKANTHA   DIC   261   958   0.0   4.0   4.0   4.8     10   400 kV   ZEDA-ANNKOLI   SCC   1277   126   0.8   0.0   0.0   0.8     11   400 kV   ZEDA-ANNKOLI   SCC   224   285   0.0   0.0   0.0   0.0     12   400 kV   VCHAL-RIHAND   SCC   274   285   0.0   0.0   0.0     13   400 kV   VCHAL-RIHAND   SCC   974   0   22.5   0.0   1.2     14   220 kV   BRAPP-SHUALPUR   DIC   61   338   0.0   0.1   0.9   4.9     15   220 kV   BHANPURA-RANFUR   SCC   23   80   0.1   0.9   4.9     15   220 kV   BHANPURA-RANFUR   SCC   33   0.0   1.7   1.7     16   220 kV   BHANPURA-RANFUR   SCC   33   0.0   1.2   0.0   1.2     17   220 kV   MHALAPUR-AURAIYA   SCC   33   0.0   1.2   0.0   0.0     18   132 kV   GWALIOR-SAWAI MOHOPUR   SCC   0   0.0   0.0   0.0   0.0   0.0     18   132 kV   GWALIOR-SAWAI MOHOPUR   SCC   0   0.0   0.0   0.0   0.0   0.0     18   HVDC   BHADRAWATI B/B   - 0   0   0.0   0.0   0.0   0.0     17   HVDC   BARSUR-LISILERU   - 0   0   0.0   0.0   0.0   0.0     17   FS kV   WARDHA-NIZAMBAD   DIC   0   2579   0.0   43.5   43.5     17   5 kV   SCLAPUR-RACHUR   DIC   0   3326   0.0   60.5   46.5     18   220 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   8.6     19   220 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   8.6     19   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.3     12 20 kV   KOLHAPUR-KINDOI   DIC   774   49   8.6   0.0   0.0   0.0     19   220 kV   KOLHAPUR-KINDOI   SCC   0   95   0.0   1.3   1.13   1.13     12   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.8     19   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.13   1.13     12   220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.8     220 kV   KOLHAPUR-KINDOI   SCC   0   94   1.8   0.0   1.3   1.13	8	765 kV	SATNA-ORAI	S/C	n	1222	0.0	25.9	-25 9
10									
11   400 kV   ZEROA -BHINIMAL   S/C   224   285   0.0   0.0   0.0   0.0     12   400 kV   VCHAL-RIHAND   S/C   974   0   22.5   0.0   22.5     13   400 kV   RAPP-SHUJALPUR   D/C   61   388   0.0   1.2   1.2     14   220 kV   BHAMPUR-RANPUR   S/C   23   80   0.1   0.9   0.9     15   220 kV   BHAMPUR-RANPUR   S/C   23   80   0.1   0.9   0.9     16   220 kV   BHAMPUR-RANPUR   S/C   0   0   183   0.0   1.7   1.17     16   220 kV   MEHGAON-AURAIYA   S/C   93   0   1.2   0.0   1.2     17   220 kV   MALANPUR-AURAIYA   S/C   51   16   0.4   0.0   0.4     18   132 kV   GWALLIOR-SAWAI MADHOPUR   S/C   0   0   0   0.0   0.0   0.0     18   132 kV   GWALLIOR-SAWAI MADHOPUR   S/C   0   0   0   0.0   0.0   0.0     19   MPUPUT-Export of WR (With SR)      10   HVDC   BARSUR-L-SILERU   - 0   0   1002   0.0   24.0   -24.0     2   HVDC   BARSUR-L-SILERU   - 0   0   0.0   0.0   4.5   4.45.5     3   765 kV   SOLAPUR-RACHUR   D/C   0   2579   0.0   43.5   4.45.5     40 RV   KOLHAPUR-KUGG   D/C   0   3326   0.0   60.5   60.5     40 RV   KOLHAPUR-KUGG   D/C   0   0   0   0.0   0.0     5   400 kV   KOLHAPUR-KUGG   D/C   0   0   0   0.0   0.0     6   220 kV   KOLHAPUR-CHIKOD   D/C   0   0   0   0.0   0.0     7   220 kV   PONDA-AMBEWAD   S/C   0   94   1.8   0.0   1.8     8   220 kV   KOLHAPUR-CHIKOD   S/C   0   94   1.8   0.0   1.8     8   220 kV   KOLHAPUR-CHIKOD   S/C   0   94   1.8   0.0   1.8     8   220 kV   KOLHAPUR-CHIKOD   S/C   0   94   1.8   0.0   1.3     8   220 kV   KOLHAPUR-CHIKOD   S/C   0   94   1.8   0.0   0.3     6   ER   DAGACHU (2*63)   0   94   1.8   0.0   1.3     6   ER   CHUK4 (4*84) BIRPARA RECEIPT   0   0   0   0   0.0     6   ER   CHUK4 (4*84) BIRPARA RECEIPT   139   23   70   1.7      FER   ALPURDUR RECEIPT   139   23   70   1.7      FER   BARSHARIA   GELEPHU   16   0   -15   -0.4      FER   BARSHARIA	_								
12									
13	11	400 kV		S/C	224	285	0.0	0.0	0.0
14   220 kV   BHANPURA-RANPUR	12	400 kV	V'CHAL -RIHAND	S/C	974	0	22.5	0.0	22.5
15	13	400 kV	RAPP-SHUJALPUR	D/C	61	388	0.0	1.2	-1.2
15	14	220 kV	BHANPURA-RANPUR	S/C	23	80	0.1	0.9	-0.9
16	_								
17	-				U				-17
18									
Import/Export of WR (With SR)   117.9   -116.9   117.9   -116.9   117.9   -116.9   117.9   116.9   116.9   117.9   116.9   1	17	220 kV				0	1.2	0.0	1.2
Import/Export of WR (With SR)   1			MALANPUR-AURAIYA	S/C	51	0 16	1.2 0.4	0.0 0.0	1.2 0.4
HVDC	18	132 kV	MALANPUR-AURAIYA	S/C	51	0 16 0	1.2 0.4	0.0 0.0	1.2 0.4
HVDC			MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C	51	0 16 0	1.2 0.4 0.0	0.0 0.0 0.0	1.2 0.4 0.0
A			MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C	51	0 16 0	1.2 0.4 0.0	0.0 0.0 0.0	1.2 0.4 0.0
3	Impo	ort/Export of WR	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR)	S/C S/C	51	0 16 0 WR-NR	1.2 0.4 0.0 40.9	0.0 0.0 0.0 157.9	1.2 0.4 0.0 -116.9
4	Impo 1	ort/Export of WR HVDC	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B	S/C S/C	0	0 16 0 WR-NR	1.2 0.4 0.0 40.9	0.0 0.0 0.0 157.9	1.2 0.4 0.0 -116.9
STATE   STAT	Impo 1 2	ort/Export of WR HVDC HVDC	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L-SILERU	S/C S/C	51 0	0 16 0 WR-NR	1.2 0.4 0.0 40.9	0.0 0.0 0.0 157.9 24.0	1.2 0.4 0.0 -116.9
Company   Com	Impo 1 2 3	HVDC HVDC 765 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR	S/C S/C - - D/C	0 0 0	0 16 0 WR-NR 1002 0 2579	1.2 0.4 0.0 40.9 0.0 0.0 0.0	0.0 0.0 0.0 157.9 24.0 0.0 43.5	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5
Total	Impo 1 2 3 4	PIT/Export of WR HVDC HVDC 765 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	S/C S/C	0 0 0 0 0	0 16 0 WR-NR 1002 0 2579 3326	1.2 0.4 0.0 40.9 0.0 0.0 0.0	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5
Size   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Exchange (MU)	Impo 1 2 3 4 5	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L. SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C D/C D/C	0 0 0 0 0 0 774	0 16 0 WR-NR 1002 0 2579 3326 49	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy   En	Impo 1 2 3 4 5	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-KUDGI	D/C D/C D/C D/C	0 0 0 0 0 0 0 774	0 16 0 WR-NR 1002 0 2579 3326 49	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy   En	Impo 1 2 3 4 5	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C D/C D/C D/C	0 0 0 0 0 0 0 774	0 16 0 WR-NR 1002 0 2579 3326 49	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy   Exchange (MU)	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI		0 0 0 0 0 0 774 0	0 16 0 WR-NR 1002 0 2579 3326 49 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6 0.0	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI		0 0 0 0 0 0 774 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	S/C S/C S/C S/C S/C  D/C D/C D/C D/C S/C S/C	51 0 0 0 0 0 0 774 0 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	S/C S/C S/C S/C S/C  D/C D/C D/C D/C S/C S/C	51 0 0 0 0 0 0 774 0 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SLERU SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	S/C S/C S/C S/C  D/C D/C D/C D/C S/C S/C S/C	51 0 0 0 0 0 0 774 0 0 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6 0.0 0.0 1.8	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SLERU SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	S/C S/C S/C S/C  D/C D/C D/C D/C S/C S/C S/C	51 0 0 0 0 0 0 774 0 0 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 8.6 0.0 0.0 1.8	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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	S/C S/C S/C S/C  D/C D/C D/C D/C S/C S/C S/C INTER	51 0 0 0 0 0 774 0 0 0 0	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3	1.2 0.4 0.0 -116.9 -24.0 -0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8 Energy Exchange (MU)
BHUTAN   ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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	S/C S/C S/C  - D/C D/C D/C D/C S/C S/C S/C INTER Line	51 0 0 0 0 0 774 0 0 0 0 0 NATIONAL EXCHAN	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0
ER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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	S/C S/C S/C  - D/C D/C D/C D/C S/C S/C S/C INTER Line	51 0 0 0 0 0 774 0 0 0 0 0 NATIONAL EXCHAN	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0
NER   132KV-SALAKATI - GELEPHU   16   0   -15   -0.4     NER   132KV-RANGIA - DEOTHANG   26   0   -15   -0.4     NER   132KV-Tanakpur(NH) -	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMBAD  KOLHAPUR-CHIKODI PONDA-AMBEWADI  XELDEM-AMBEWADI  Region  ER  ER	S/C S/C S/C  D/C D/C D/C D/C S/C S/C  INTER Line  DAGACHU (2 * 62 CHUKA (4 * 84) E  MANGDECHHU (4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5 Min (MW)	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7
NER   132KV-SALAKATI - GELEPHU   16   0   -15   -0.4     NER   132KV-RANGIA - DEOTHANG   26   0   -15   -0.4     NER   132KV-Tanakpur(NH) -	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMBAD  KOLHAPUR-CHIKODI PONDA-AMBEWADI  XELDEM-AMBEWADI  Region  ER  ER	S/C S/C S/C  D/C D/C D/C D/C S/C S/C  INTER Line  DAGACHU (2 * 62 CHUKA (4 * 84) E  MANGDECHHU (4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5 Min (MW)	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7
NER	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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 ER ER	S/C S/C S/C  D/C D/C D/C D/C S/C S/C S/C  INTER Line DAGACHU (2*63 CHUKA (4*84) E MANGDECHHU (4 ALIPURDUAR RE	51 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT 1x 180) CEIPT	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 129.3  Avg (MW) 0 -30	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8 Energy Exchange (MU) 0.0 -0.7
NR	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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 ER ER	S/C S/C S/C  D/C D/C D/C D/C D/C S/C S/C  INTER Line DAGACHU (2 * 63 CHUKA (4 * 84) E MANGDECHHU (4 ALIPURDUAR REI TALA (6 * 170) Bi	51 0 0 0 0 0 774 0 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT x 180) CEIPT INAGURI RECEIPT	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 129.3  Avg (MW) 0 -30	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8 Energy Exchange (MU) 0.0 -0.7
NR	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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 ER ER ER	S/C S/C S/C  D/C D/C D/C D/C D/C S/C S/C  INTER Line DAGACHU (2 * 63 CHUKA (4 * 84) E MANGDECHHU (4 ALIPURDUAR REI TALA (6 * 170) Bi	51 0 0 0 0 0 774 0 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT x 180) CEIPT INAGURI RECEIPT	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0 106 139	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30	1.2 0.4 0.0 -116.9  -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 2.3
NR   Mahendranagar(PG)	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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 ER ER ER ER ER	S/C S/C S/C  D/C D/C D/C D/C D/C S/C S/C S/C  INTER Line DAGACHU (2 * 63 CHUKA (4 * 84 ) E MANGDECHHU (4 ALIPURDUAR REI TALA (6 * 170 ) BI 132KV-SALAKATI	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0 106 139 16	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 129.3  Avg (MW) 0 95 70	1.2 0.4 0.0 -116.9  -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0  -0.7 2.3 1.7
NEPAL   ER   132KV-BIHAR - NEPAL   -223   6   -191   -4.6	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	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 ER ER ER ER ER	S/C S/C S/C  D/C D/C D/C D/C D/C S/C S/C S/C  INTER Line DAGACHU (2 * 63 CHUKA (4 * 84 ) E MANGDECHHU (4 ALIPURDUAR REI TALA (6 * 170 ) BI 132KV-SALAKATI	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0 106 139 16	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 129.3  Avg (MW) 0 95 70	1.2 0.4 0.0 -116.9  -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0  -0.7 2.3 1.7
BANGLADESH ER 220KV-MUZAFFARPUR272 -210 -243 -5.8  ER Bheramara HVDC(Bangladesh) -936 -242 -588 -14.1  132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 71 0 -60 -1.4  132KV-SURAJMANI NAGAR - 73 0 -60 -1.4	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RHIKODI PONDA-AMBEWADI  REGION ER ER ER ER ER ER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT × 180) CEIPT INAGURI RECEIPT - GELEPHU DEOTHANG	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 106 139 16 26	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23 0	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -0.4 -0.4
BANGLADESH ER 220KV-MUZAFFARPUR272 -210 -243 -5.8  ER Bheramara HVDC(Bangladesh) -936 -242 -588 -14.1  132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 71 0 -60 -1.4  132KV-SURAJMANI NAGAR - 73 0 -60 -1.4	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC HVDC 765 kV 765 kV 400 kV 220 kV 220 kV	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RHIKODI PONDA-AMBEWADI  REGION ER ER ER ER ER ER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT × 180) CEIPT INAGURI RECEIPT - GELEPHU DEOTHANG	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 106 139 16 26	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23 0	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -0.4 -0.4
BANGLADESH  BANGLA	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC 765 kV 765 kV 400 kV 220 kV 220 kV State	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RHIKODI PONDA-AMBEWADI  REGION ER ER ER ER ER ER NER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3) BIRPARA RECEIPT IX 180) CEIPT INAGURI RECEIPT I- GELEPHU DECOTHANG NH) - G)	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 106 139 16 26 0 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 -0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -0.4 -0.4 -1.3
BANGLADESH  ER Bheramara HVDC(Bangladesh) -936 -242 -588 -14.1  BANGLADESH  NER 132KV-SURAJMANI NAGAR - 71 0 -60 -1.4  NED 132KV-SURAJMANI NAGAR - 73 0 0 0 0 1.4	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC 765 kV 765 kV 400 kV 220 kV 220 kV State	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RHIKODI PONDA-AMBEWADI  REGION ER ER ER ER ER ER NER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	SIRPARA RECEIPT  I X 180) CEIPT  INAGURI RECEIPT  CELEPHU  DEOTHANG  NH) - G G G EPAL	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 106 139 16 26 0 0	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 -0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -0.4 -0.4 -1.3
BANGLADESH NER 132KV-SURAJMANI NAGAR - 71 0 -60 -1.4  COMILLA (BANGLADESH) - 71 0 -60 -1.4  132KV-SURAJMANI NAGAR - 70 0 0 0 0 1.4	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC 765 kV 765 kV 400 kV 220 kV 220 kV State	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI  REGION ER ER ER ER ER ER NER NER NER NER	S/C S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C INTER Line DAGACHU ( 2 * 63 CHUKA ( 4 * 84 ) E MANGDECHHU ( 4 LIPURDUAR RE' TALA ( 6 * 170 ) Bi 132KV-SALAKATI 132KV-RANGIA - I 132KV-Tanakpur( Mahendranagar (Pi 132KV-BIHAR - Ni 220KV-MUZAFFAI	SIRPARA RECEIPT  I X 180) CEIPT  INAGURI RECEIPT  CELEPHU  DEOTHANG  NH) - G G G EPAL	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 106 139 16 26 0 0 -223	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23 0 0 6	0.0 0.0 0.0 157.9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0	1.2 0.4 0.0 -116.9  -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 2.3 1.7 -0.4 -1.3 -4.6
NER   COMILLA(BANGLADESH)-1   71   0   -50   -1.4	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC 765 kV 765 kV 400 kV 220 kV 220 kV State	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI  Region ER ER ER ER ER NER NER NER NER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT × 180) CEIPT INAGURI RECEIPT - GELEPHU DEOTHANG NH) - G) EPAL RPUR -	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR 1GES Max (MW) 0 106 139 16 26 0 -223272	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23 0 0 6 -210	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0 -191	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -2.3 1.7 -0.4 -1.3 -4.6 -5.8
COMILLA(BANGLADESH)-1 132KV-SURAJMANI NAGAR - 70	Impo 1 2 3 4 5 6 7	ort/Export of WR HVDC 765 kV 765 kV 400 kV 220 kV 220 kV State	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI  Region ER ER ER ER ER NER NER NER NER NER NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT × 180) CEIPT INAGURI RECEIPT - GELEPHU DEOTHANG NH) - G) EPAL RPUR -	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR 1GES Max (MW) 0 106 139 16 26 0 -223272	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 94 23 0 0 6 -210	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0 -191	1.2 0.4 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -2.3 1.7 -0.4 -1.3 -4.6 -5.8
NER   132KV-SURAJMANI NAGAR -   72   0   -60   -1.4	Impo 1 2 3 4 5 6 6 7 8 8	ort/Export of WR HVDC T65 kV T65 kV T65 kV 220 kV 220 kV 220 kV State  BHUTAN	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI  Region  ER  ER  ER  NER  NER  NER  NER  NER	S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3) BIRPARA RECEIPT I× 180) CEIPT INAGURI RECEIPT I- GELEPHU DECOTHANG NH) - G) EPAL RPUR - (Bangladesh)	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0 106 139 16 26 0 -223 -272	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5 Min (MW) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0 -191 -243	1.2 0.4 0.0 -0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8 -118.8  Energy Exchange (MU) 0.0 -0.7 -2.3 1.7 -0.4 -0.4 -1.3 -4.6 -5.8
COMILLA(BANGLADESH)-2	Impo 1 2 3 4 5 6 6 7 8 8	ort/Export of WR HVDC T65 kV T65 kV T65 kV 220 kV 220 kV 220 kV State  BHUTAN	MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI  Region  ER  ER  ER  NER  NER  NER  NER  NER	S/C S/C S/C S/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 0 774 0 0 0 0 NATIONAL EXCHAN Name 3 BIRPARA RECEIPT I× 180) CEIPT INAGURI RECEIPT I- GELEPHU DECOTHANG NH) - G) EPAL RPUR - (Bangladesh) NI NAGAR - ADESH)-1	0 16 0 WR-NR 1002 0 2579 3326 49 0 65 94 WR-SR IGES Max (MW) 0 0 106 139 16 26 0 -223 -272	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 1.8 10.5 Min (MW) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0 -191 -243	1.2 0.4 0.0 -116.9 -24.0 -24.0 -24.0 -3.5 -60.5 -60.5 -60.5 -60.5 -1.3 -1.8 -118.8 -118.8 -118.8 -118.8 -118.8 -118.8 -14.1 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3 -1.4 -1.3
	Impo 1 2 3 4 5 6 6 7 8 8	ort/Export of WR HVDC T65 kV T65 kV T65 kV 220 kV 220 kV 220 kV State  BHUTAN	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	S/C S/C S/C S/C S/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	51 0 0 0 0 0 0 774 0 0 0 0 0 NATIONAL EXCHAN Name 3) SIRPARA RECEIPT 1 x 180) CEIPT INAGURI RECEIPT 1- GELEPHU DEOTHANG NH) - G G G G G G G G G G G G G G G G G G G	0 16 0 WR-NR 1002 0 0 2579 3326 49 0 65 94 WR-SR 10GES Max (MW) 0 0 106 139 16 26 0 0 -223 -272 -936 71	1.2 0.4 0.0 40.9 0.0 0.0 0.0 0.0 0.0 0.0 1.8 10.5  Min (MW) 0 0 94 23 0 0 6 -210	0.0 0.0 0.0 157:9 24.0 0.0 43.5 60.5 0.0 1.3 0.0 129.3  Avg (MW) 0 -30 95 70 -15 -15 0 -191 -243 -588	1.2 0.4 0.0 -116.9 -24.0 0.0 -116.9 -24.0 0.0 -43.5 -60.5 8.6 0.0 -1.3 1.8 -118.8 -118.8  Energy Exchange (MU) 0.0 -0.7 2.3 1.7 -0.4 -0.4 -1.3 -4.6 -5.8 -14.1 -1.4