

## 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, क़तुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

\_\_\_\_\_

दिनांक: 26<sup>th</sup> Nov 2020

Ref: POSOCO/NLDC/SO/Daily PSP Report

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 25.11.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 25-नवंबर-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 25<sup>th</sup> November 2020, is available at the NLDC website.

धन्यवाद.

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



Date of Reporting: Report for previous day A. Power Supply Position at All India and Regional level 26-Nov-2020 NR 44682 WR 50355 SR ER NER TOTAL Demand Met during Evening Peak hrs(MW) (at 19:00 hrs; from RLDCs) 35800 150248 Peak Shortage (MW) 75 0 Energy Met (MU) Hydro Gen (MU) 898 1198 813 343 43 3294 108 39 83 43 14 286 19 14.39 3.96 40 75.77 0.00 141 123 3.99 157561 Wind Gen (MU) Solar Gen (MU)\* 4.38 0.13 28.61 Souar Gen (MU)<sup>2</sup>
Energy Shortage (MU)
Maximum Demand Met During the Day (MW) (From NLDC SCADA)
Time Of Maximum Demand Met (From NLDC SCADA) 0.00 56941 0.00 0.03 46155 39984 17888 2580 09:27 10:42 18:01 B. Frequency Profile (%)

Region All India FVI < 49.7 49.7 - 49.8 49.8 - 49.9 < 49.9 49.9 - 50.05 > 50.05 0.028

	Gr. 4	Max.Demand	Shortage during	Energy Met	Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the day(MW)	maximum Demand(MW)	(MU)	Schedule (MU)	(MU)	(MW)	Shortag (MU)
NR	Punjab	5227	175	105.4	62.8	-0.3	197	2.65
	Haryana	6034	0	121.1	109.6	0.7	154	0.00
	Rajasthan	12718	282	236.1	65.6	1.6	435	0.83
	Delhi	3657	0	64.3	45.3	1.3	271	0.00
	UP	13870	0	247.5	98.5	-1.9	382	0.00
	Uttarakhand	1988	0	37.6	28.7	1.1	167	0.29
	HP	1693	0	30.8	24.4	-1.1	46	0.19
	J&K(UT) & Ladakh(UT)	2593	0	52.1	45.4	1.1	340	0.00
	Chandigarh	205	0	3.4	3.3	0.1	23	0.00
	Chhattisgarh	3430	0	74.5	18.3	0.0	237	0.00
	Gujarat	15702	0	333.0	45.0	0.5	755	0.00
	MP	14013	0	279.1	180.9	-2.0	693	0.00
WR	Maharashtra	22361	0	458.3	152.9	-1.6	750	0.00
	Goa	504	0	10.1	10.1	-0.4	25	0.00
	DD	346	0	7.6	7.1	0.5	39	0.00
	DNH	795	0	18.4	18.2	0.2	62	0.00
	AMNSIL	798	0	16.9	1.1	0.4	260	0.00
	Andhra Pradesh	7522	0	155.1	72.1	0.6	562	0.00
	Telangana	7290	0	146.6	49.2	-0.4	380	0.00
SR	Karnataka	10708	0	198.6	67.5	0.4	784	0.00
	Kerala	3572	0	72.5	53.6	0.9	282	0.00
	Tamil Nadu	11704	0	236.6	163.4	-3.5	218	0.00
	Puducherry	218	0	3.1	4.2	-1.1	84	0.00
	Bihar	4386	0	75.3	73.0	1.1	371	0.00
	DVC	3076	0	65.0	-47.7	0.8	330	0.00
	Jharkhand	1372	0	25.0	18.8	-2.3	67	0.00
ER	Odisha	3700	0	67.5	4.9	-0.7	260	0.00
	West Bengal	6161	0	109.0	30.3	-0.1	290	0.00
	Sikkim	102	0	1.5	1.6	-0.1	38	0.00
	Arunachal Pradesh	124	2	2.2	2.3	-0.1	41	0.01
	Assam	1477	12	24.4	20.3	0.8	124	0.00
	Manipur	221	1	2.9	3.0	-0.1	39	0.01
NER	Meghalaya	350	0	6.2	3.1	0.1	76	0.00
	Mizoram	108	0	1.6	1.2	-0.1	35	0.00
	Nagaland	128	1	2.3	1.9	0.2	40	0.01
	Tripura	233	5	3.4	2.4	-0.4	41	0.00

D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve) Bangladesh -15.3 -818.0 Bhutan 12.2 Actual (MU) Day Peak (MW)

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	277.9	-319.2	142.2	-100.4	-0.5	0.0
Actual(MU)	276.9	-313.5	141.9	-112.7	0.2	-7.2
O/D/U/D(MU)	-1.0	5.6	-0.3	-12.3	0.7	-7.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL
Central Sector	6810	13955	12282	3100	659	36805
State Sector	15551	14488	14207	5842	11	50098
Total	22361	28442	26489	8942	670	86904
	22001	20112	20102	07.2	0,0	00701

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	413	1288	344	421	7	2472
Lignite	19	7	26	0	0	51
Hydro	108	39	83	43	14	286
Nuclear	28	33	65	0	0	125
Gas, Naptha & Diesel	22	54	14	0	26	115
RES (Wind, Solar, Biomass & Others)	54	111	151	4	0	320
Total	643	1530	681	468	47	3370
GI EDEC: 4.4.1 (8/)						
Share of RES in total generation (%)	8.46	7.24	22.12	0.93	0.27	9.51
Share of Non-fossil fuel (Hydro Nuclear and RES) in total generation(%)	20.54	11 01	43.78	10.15	20 10	21.72

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.038
Based on State Max Demands	1.069

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: 26-Nov-2020

		Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
1	1 HVDC		2	0	351			-8.6
1			- :					
2			1					
1		GAYA-BALIA	1					
			1					
		MUZAFFARPUR-GORAKHPUR	2					
11	9 400 kV	PATNA-BALIA		0	932	0.0	11.4	
13			2					
13   2011			2					
15   1912   CARVALARIANDO   1   20   0   0.4   0.0			1					
10   12   12   12   12   12   12   12	14 132 kV		1					
12   12   12   12   12   12   12   12			1					
1			î		0			
1	T 4/E 4 6ED 4				ER-NR	1.6	64.9	-63.3
1					0.7			
1								
1								
S								
1								
2 NOW   ILTHIT MARK NORTH   2   150								
Depart   TR   Win No.								
	, 220 K	Debin ibin nonbi		150				
1   VIVE   MACHES ROLAR RIPOLE   2   0   2,882   0,0   40,0   40,0   40,0	Import/Export of ER (	With SR)						
1								
1								
S.   2014   BALBELA-LIPPERSILERE    1   1   0   0.0	4 400 kV	TALCHER-I/C	2		1145	0.0	9.1	-9.1
	5 220 kV	BALIMELA-UPPER-SILERRU	1		0	0.0	0.0	0.0
1   0.00   BINACUEREDINGARGANN   2   0   337   0.0   4.4   -4.4   -4.4   -4.5	Import/Export of ED (	With NER)			ER-SR	0.0	96.3	-96.3
3   2600		BINAGURI-BONGAIGAON	2	0	337	0.0	4.4	-4.4
INDUSTRICT OF NEW (WIN NO)	2 400 kV	ALIPURDUAR-BONGAIGAON	2	0	342	0.0	4.0	-4.0
Impert   I	3 220 kV	ALIPURDUAR-SALAKATI	2	0				
	Import/Export of NER	(With NR)			EK-NER	0.0	9.4	-9.4
Import   State   With   With	1 HVDC	BISWANATH CHARIALI-AGRA	2	0	504	0.0	9.4	-9.4
HUNC   CHAMPA-KURUNHETRA   2   0   1754   0.0   440   340   341   351   31   31   31   31   31   31					NER-NR	0.0	9.4	-9.4
HVDC   NINDRACHALRER   -   0   1   0.0   0.0   0.0	Import/Export of WR (	(With NR)		1 0	1754	0.0	14.0	44.0
A   HVDC   MINDRAMOHINDERGARH   2   0   1739   0.0   40.9   40.9   40.9								
S   PRACI-CWALIOR   2   0   1430   0.0   19.1   1-19.1			2	0				
0			2					
78   W   GWALDERORAL								
3								
10   400 kV   ZERDA-KANRROLL	8 765 kV	SATNA-ORAI	1	0		0.0	31.9	-31.9
1			2					
12   440 kV   VINDITYACHIA-BRIDAD   1   969   0   22.4   0.0   22.4   0.0   22.4   1.1   1   1   400   0.6   2.7   2.1   1.1			•					
13   400 kV   RAPP-SHUJALPUR   2   167   416   0.6   2.7   -2.1     14   229 kV   BHANPURA-RANVER   1   1   174   0.0   1.9   1.9     15   229 kV   MERICANS-AMERICAN   1   11   0   0.2   0.8   0.2     16   220 kV   MERICANS-AMERICAN   1   11   0   0.2   0.8   0.2     17   220 kV   MERICANS-AMERICAN   1   11   0   0   0.2   0.8   0.0     18   132 kV   GWALIOR-SANVAI MADHOPUR   1   0   0   0   0.0   0.0   0.0     19   132 kV   RAGIGIA-LAITPUR   2   0   0   0   0   0.0   0.0     19   132 kV   RAGIGIA-LAITPUR   2   0   0   0   0   0.0   0.0     10   132 kV   RAGIGIA-LAITPUR   2   0   0   0   0   0.0   0.0     10   132 kV   RAGIGIA-LAITPUR   2   0   0   0   0   0.0   0.0     10   10   10   10   10   10   10								
15   220 KV   BHANFURA-MORAK								
16   220 kV   MEHICAON-AURANYA	13 400 kV		2	167	416	0.6	2.7	
17   2.20 kV   MALANPURAURANY   1   5.8   3.4   0.6   0.0   0.0   0.0     18   132 kV   RAJGHAT-JALITPUR   2   0   0   0   0.0   0.0   0.0   0.0     19   132 kV   RAJGHAT-JALITPUR   2   0   0   0   0   0.0   0.0   0.0   0.0     10   102   WR.WR   WIRES   WR.WR   WIRES   WR.WR   WIRES   WR.WR   WR.WR	13 400 kV 14 220 kV	BHANPURA-RANPUR	1	167 1	416 174	0.6 0.0	2.7 1.9	-1.9
9   132 kV   RAIGHAT-LALITPUR   2   0   0   0.0   0.0   0.0	13 400 kV 14 220 kV 15 220 kV	BHANPURA-RANPUR BHANPURA-MORAK	1	167 1 11	416 174 0	0.6 0.0 0.2	2.7 1.9 0.5	-1.9 -0.2
Near   1924   1925	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 1 1 1	167 1 11 100 58	416 174 0 12 34	0.6 0.0 0.2 0.2 0.6	2.7 1.9 0.5 0.2 0.0	-1.9 -0.2 0.0 0.6
Imagent/Export of WR (With SR)	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	1 1 1 1	167 1 11 100 58	416 174 0 12 34	0.6 0.0 0.2 0.2 0.6 0.0	2.7 1.9 0.5 0.2 0.0	-1.9 -0.2 0.0 0.6 0.0
2	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	1 1 1 1	167 1 11 100 58	416 174 0 12 34 0	0.6 0.0 0.2 0.2 0.6 0.0	2.7 1.9 0.5 0.2 0.0 0.0	-1.9 -0.2 0.0 0.6 0.0
3	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR	1 1 1 1	167 1 11 100 58	416 174 0 12 34 0	0.6 0.0 0.2 0.2 0.6 0.0 32.2	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7	-1.9 -0.2 0.0 0.6 0.0 0.0 -215.5
4   765 kV   WARDHA-NIZAMABAD   2   187   2173   0.0   22.5   -22.5	13	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR With SR) BHADRAWATI B/B	1 1 1 1 1 1 2	167 1 11 100 58 0	416 174 0 12 34 0 0 WR-NR	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7	-1.9 -0.2 0.0 0.6 0.0 -215.5
S	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   1   140 kV   15   15 kV   15   15 kV   16 kV   16 kV   17   17 kV   17 kV   18   17 kV   18 kV   1	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAJGABH-PUGALUR	1 1 1 1 1 1 2	167 1 11 100 58 0 0	416 174 0 12 34 0 0 WR-NR 1012 1500	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7	-1.9 -0.2 -0.0 -0.6 -0.0 -215.5
7   220 KV   PONDA-AMBEWADH   1   0   0.0   0.0   0.0   0.0   0.0	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   17   220 kV   18   132 kV   19   132 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR BHADRAWATI B/B RAJGAHP-UGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD	1 1 1 1 1 1 2	167 111 110 100 58 0 0	416 174 0 12 34 0 0 WR-NR	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9	-1.9 -0.2 0.0 0.6 0.0 -215.5 -19.4 -20.4 -24.9
S   220 kV   XELDEM-AMBEWADI   1	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV Import/Export of WR (1 HVDC 2 HVDC 3 765 kV 4 765 kV 5 400 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WAGHAT-LALITPUR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	167 11 110 100 58 0 0 0 0 0 278 187 604	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	1 1 1 1 1 1 2 2	167 11 110 100 58 0 0 0 0 0 278 187 604	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   4   765 kV   5   400 kV   6   220 kV   7   220 kV   220	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHI SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 1 1 1 1 1 2 2	167 1 1 1 1 100 58 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0 0.0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   M(MU)	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   4   765 kV   5   400 kV   6   220 kV   7   220 kV   220	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHI SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 1 1 1 1 1 2 2	167 1 1 1 1 100 58 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0 0 44	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 220.4 24.9 22.5 0.0 0.0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -0.15.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8
BHUTAN   ER	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   4   765 kV   5   400 kV   6   220 kV   7   220 kV   220	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHI SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 1 1 1 1	167 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 0 44 WR-SR	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 220.4 24.9 22.5 0.0 0.0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -0.1 -15.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8 -79.4
ER	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPURA-URAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHIO SRO BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARPHA-NIZAMABAD KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	167 1 1 1 1 100 58 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8 -79.4  Energy Exchange
MANGDECHU HEP 4*180MW    400k YTAL-BINAGURI 1.24 (4*00kV     A00k YTAL-BINAGURI 1.25 (4*20kV     A10k YTAL-BINAGURI 1.25 (4*20kV     A10	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPURA-URAIYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHIO SRO BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARPHA-NIZAMABAD KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	167 1 100 58 0 0 0 0 278 187 604 0 1 0 0 NATIONAL EXCHAIName	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR	0.6 0.0 0.2 0.2 0.6 0.0 0.0 32.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8 -79.4  Energy Exchange
FR	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	167 1 11 100 58 0 0 0 0 0 278 187 604 0 1 0 0 NATIONAL EXCHA Name UU-ALIPURDUAR 1&2 CEIPT (from	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW)	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 247.7 20.4 24.9 22.5 0.0 0.0 0.0 0.0 0.0 247.7	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8 -79.4
RECEIPT (from TALA HEP (6*170MW)   2004 CHUM-AHEP (APA 126) (2 2004)   13   0.3   13   0.3   14   15   15   15   15   15   15   15	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR With SR) BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region		167 1 1 100 58 0 0 0 0 0 0 278 187 604 0 1 0 0 NATIONAL EXCHAI Name UU-ALIPURDUAR 1&2 CEIPT (from ±180MW)	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW)	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 247.7 20.4 24.9 22.5 0.0 0.0 0.0 0.0 0.0 247.7	-1.9 -0.2 -0.0 -0.6 -0.0 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.0 -0.8 -79.4  Energy Exchange (MU)
BHUTAN   ER   MALBASE - BIRPARA   53   0   13   0.3     RECEIPT (from CHUKHA HEP 4*84MW)   10   0   -6   -0.2     NER   132kV-GEYLEGPHU - SALAKATI   10   0   -6   -0.2     NER   132kV Motanga-Rangia   20   0   -13   -0.3     NR   132kV-TANAKPUR(NI) -   0   0   0   0   -0.3     NR   MAHENDRANAGAR(PG)   0   0   0   0   -0.3     ER   406kV-MUZAFFARPUR - DHALKEBAR   -128   0   -72   -1.7     NEPAL   ER   132kV-BIHAR - NEPAL   -176   -1   -68   -1.6     ER   BHERAMARA HVDC(BANGLADESH)   -714   -398   -552   -13.2     BANGLADESH   NER   132kV-SURAJMANI NAGAR -   52   0   -43   -1.0     NED   132kV-SURAJMANI NAGAR -   52   0   -43   -1.0     NED   132kV-SURAJMANI NAGAR -   53   0   -10   -10     NED   132kV-SURAJMANI NAGAR -   50   0   -10     NER   132kV-SURAJMANI N	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WINDERSAWAI MADHOPUR RAJGHAT-LALITPUR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLIAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region  ER	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	167 1 1 100 100 58 0 0 0 0 0 278 187 604 0 1 1 0 ENATIONAL EXCHA Name II-ALIPURDUAR 182 CZEIPT (from 181 181 184 184 185 185 185 187 187 187 188 187 188 187 188 187 188 188	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW)	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 224.9 22.5 0.0 0.0 0.0 247.7	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.1 -1.9.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -4.0
NER	13   400 kV   14   220 kV   15   220 kV   16   220 kV   17   220 kV   18   132 kV   19   132 kV   18   132 kV   19   132 kV   1   HVDC   2   HVDC   3   765 kV   5   400 kV   6   220 kV   8   220 kV   8   220 kV	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WINDERSAWAI MADHOPUR RAJGHAT-LALITPUR BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLIAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region  ER		167 11 110 100 58 0 0 0 0 0 0 278 187 604 0 1 0 0 NATIONAL EXCHA Name II-ALIPURDUAR 182 CZEIPT (from 181 181 181 184 184 184 184 184 184 184	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW)	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 247.7 19.4 224.9 22.5 0.0 0.0 0.0 247.7	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.1 -1.9.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -4.0
NER	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIN SRI BHANRAWATI R/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHANIZAMIABAD KOHAPUR-CHIKODI PONDA-AMBEWADI  Region  ER  ER	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	167 1 1 100 158 58 0 0 0 0 0 0 0 0 278 187 604 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0 0.0 0.0 0.0 19.4 24.9 10.0	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
NER	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIN SRI BHANRAWATI R/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHANIZAMIABAD KOHAPUR-CHIKODI PONDA-AMBEWADI  Region  ER  ER		167 11 110 100 58 0 0 0 0 0 0 278 187 609 1 10 0 0 NATIONAL EXCHA Name III-ALIPURDUAR 182 CZEIPT (from William 182) MIL 12,4 (8 400kV) MIL 16, 8 INAGURI A HEP (6+170MW) PARA 182 (8 220kV) A 16 BIRPARA	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7 19.4 20.4 24.9 22.5 0.0 0.0 0.0 0.0 19.4 24.9 10.0	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
NR	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WANGARAH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REG	I I I I I I I I I I I I I I I I I I I	167 11 1100 58 0 0 0 0 0 0 278 187 604 0 11 0 0 NATIONAL EXCHA Name H-ALIPURDUAR 182 CZEIPT (from 181 181 181 181 181 181 181 181 181 181	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 0 WR-SR NGES Max (MW) 179 290	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7  19.4 24.4 24.9 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3
NR	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WANGARAH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI REG	I I I I I I I I I I I I I I I I I I I	167 11 1100 58 0 0 0 0 0 0 278 187 604 0 11 0 0 NATIONAL EXCHA Name H-ALIPURDUAR 182 CZEIPT (from 181 181 181 181 181 181 181 181 181 181	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 0 WR-SR NGES Max (MW) 179 290	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7  19.4 24.4 24.9 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3
NR	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIS SIN BHADRAWATI E/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOHAPUR-CHIKODI PONDA-MBEWADI  REGION  ER  ER  ER  ER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 58 58 0 0 0 0 0 0 0 278 187 604 0 1 0 0 10 0 NATIONAL EXCHA Name U-ALIPURDUAR 1&2 CEIPT (from p=180MW) URI 12,4 (& 400KV RR) RR) 16-170MW, PARA 1&2 (& 220KV A) 1c. BIRPARA KICH HEP 4*84MW) - SALAKATI	416 174 0 174 0 182 34 0 WR-NR 1001 1500 2579 2173 39 0 0 44 WR-SR Max (MW) 179 290	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
NR	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIS SIN BHADRAWATI E/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOHAPUR-CHIKODI PONDA-MBEWADI  REGION  ER  ER  ER  ER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 58 58 0 0 0 0 0 0 0 278 187 604 0 1 0 0 10 0 NATIONAL EXCHA Name U-ALIPURDUAR 1&2 CEIPT (from p=180MW) URI 12,4 (& 400KV RR) RR) 16-170MW, PARA 1&2 (& 220KV A) 1c. BIRPARA KICH HEP 4*84MW) - SALAKATI	416 174 0 174 0 182 34 0 WR-NR 1001 1500 2579 2173 39 0 0 44 WR-SR Max (MW) 179 290	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
ER	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIS SIN BHADRAWATI E/B RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOHAPUR-CHIKODI PONDA-MBEWADI  REGION  ER  ER  ER  ER	1	167 1 1 100 1 58 58 0 0 0 0 278 187 604 1 1 0 0 278 187 6004 1 0 0 0 NATIONAL EXCHA Name UL-ALIPURDUAR 1&2 CEIPT (from by 180MW) URI 1,2,4 (& 400KV WIR) Le, BINAGURI A HEP (6+170MW) PARA 1&2 (& 220KV A) Le, BIRPARA KIKHA HEP 4*84MW) 1- SALAKATI in	416 174 0 174 0 182 34 0 WR-NR 1001 1500 2579 2173 39 0 0 44 WR-SR Max (MW) 179 290	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
ER   DC   -128   0   -72   -1.7	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI  REGION ER ER ER ER NER NER	I I I I I I I I I I I I I I I I I I I	167 11 110 100 58 0 0 0 0 0 0 10 10 187 604 187 604 0 0 NATIONAL EXCHA Name (IU-ALIPURDUAR 182 CEIPT (from Will) 18 ILSA (8 400KV (RI) i.e. BINAGURI MIE (14 EVANA HE) 18 INAGURI MIE (15 EVANA HE) 18 INAGURI MIE (15 EVANA HE) 18 INAGURI MIE (15 EVANA HE) 18 INAGURI MIE (16 EVAN	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  224.4 22.4 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.6 -0.0 -0.1 -1.9.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -7.3 -0.2 -0.3
NEPAL ER 132KV-BIHAR - NEPAL -176 -1 -68 -1.6  ER BHERAMARA HVDC(BANGLADESH) -714 -398 -552 -13.2  BANGLADESH NER 132KV-SURAJMANI NAGAR - 52 0 -43 -1.0  NEB 132KV-SURAJMANI NAGAR - 50 0 12 1.0	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI  REGION ER ER ER ER NER NER	I I I I I I I I I I I I I I I I I I I	167   1   11   100   58   0   0   0   0   0   0   0   0   0   0	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  224.4 22.4 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.6 -0.0 -0.1 -1.9.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -7.3 -0.2 -0.3
ER   BHERAMARA HVDC(BANGLADESH)   .714   .398   .552   .13.2	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIGH SIN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARPHA-NIZAMABAD KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  REGION ER  ER  ER  NER  NER		167   1   11   100   58   0   0   0   0   0   0   0   0   0   0	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW) 179 290 53	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168 290 13 -6	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -24.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
ER   BHERAMARA HVDC(BANGLADESH)   .714   .398   .552   .13.2	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 18 132 kV 19 132 kV 1 HVDC 2 HVDC 3 765 kV 5 400 kV 6 220 kV 8 220 kV State	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR-SAWAH MADHOPUR RAIGHAT-LALITPUR WHIGH SIN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARPHA-NIZAMABAD KOHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  REGION ER  ER  ER  NER  NER		167   1   11   100   58   0   0   0   0   0   0   0   0   0   0	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW) 179 290 53	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168 290 13 -6	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -24.9 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4
BANGLADESH NER 132KV-SURAJMANI NAGAR - 52 0 -43 -1.0	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 17 220 kV 18 132 kV 19 132 kV 19 132 kV 1	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH ST BHADRAWATI B/B RAIGABH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI REJEM-AMBEWADI  REGION ER ER  ER  ER  NER  NER  NER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 100 58 58 0 0 0 0 278 187 604 0 1 10 0 ENATIONAL EXCHA Name UL-ALIPURDUAR 18-2 CELIPT (from LESMACK & 400kV RI) Le, BINAGURI A HEP (6+120MW) FARA 18-2 (& 220kV A LE, BIRPARA KHA HEP 4*84MW) I- SALAKATI ia	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53 10 0 -128	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7  19.4 224.7  22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13  -6  -13	-1.9 -0.2 -0.2 -0.0 -0.6 -0.0 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -0.2 -0.3 -0.3 -0.3 -0.3
BANGLADESH NER 132KV-SURAJMANI NAGAR - 52 0 -43 -1.0	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 17 220 kV 18 132 kV 19 132 kV 19 132 kV 1	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH ST BHADRAWATI B/B RAIGABH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI REJEM-AMBEWADI  REGION ER ER  ER  ER  NER  NER  NER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 100 58 58 0 0 0 0 278 187 604 0 1 10 0 ENATIONAL EXCHA Name UL-ALIPURDUAR 18-2 CELIPT (from LESMACK & 400kV RI) Le, BINAGURI A HEP (6+120MW) FARA 18-2 (& 220kV A LE, BIRPARA KHA HEP 4*84MW) I- SALAKATI ia	416 174 0 12 34 0 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53 10 0 -128	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 247.7  19.4 224.7  22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13  -6  -13	-1.9 -0.2 -0.2 -0.0 -0.6 -0.0 -0.6 -0.0 -0.0 -215.5 -19.4 -20.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -0.2 -0.3 -0.3 -0.3 -0.3
NEK   COMILLA(BANGLADESH)-1   52   0   -43   -1.0	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 17 220 kV 18 132 kV 19 132 kV 19 132 kV 1	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR SAWAI MADHOPUR RAIGHAT-LALITPUR WHIS SN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLBAPUR-RUDGI KOLBAPUR-KUDGI KOLBAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  RER  ER  ER  NER  NER  NER  NER  ER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 158 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR Max (MW) 179 290 53 10 20 0 -128	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168 290 13 -6 -13	-1.9 -0.2 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4 -24.9 -79.4 -24.9 -22.5 -6.9 -79.4 -24.9 -79.4
NEK   COMILLA(BANGLADESH)-1   52   0   -43   -1.0	13 400 kV 14 220 kV 15 220 kV 16 220 kV 17 220 kV 17 220 kV 18 132 kV 19 132 kV 19 132 kV 1	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPURA-URAHYA GWALIOR SAWAI MADHOPUR RAIGHAT-LALITPUR WHIS SN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLBAPUR-RUDGI KOLBAPUR-KUDGI KOLBAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  RER  ER  ER  NER  NER  NER  NER  ER	I I I I I I I I I I I I I I I I I I I	167 1 1 100 158 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR Max (MW) 179 290 53 10 20 0 -128	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7 19.4 20.4 22.5 0.0 0.0 0.0 87.1  Avg (MW) 168 290 13 -6 -13	-1.9 -0.2 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -24.9 -22.5 -6.9 -0.0 -0.8 -79.4 -24.9 -79.4 -24.9 -22.5 -6.9 -79.4 -24.9 -79.4
	13	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH ST BHADRAWATI B/B RAIGABH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI  REGION ER  ER  ER  NER  ER  NER  NER  NER  N	I I I I I I I I I I I I I I I I I I I	167 11 100 100 58 0 0 0 0 0 0 278 187 609 187 609 1 0 0 0 NATIONAL EXCHA Name III-ALIPURDUAR 182 CZEIPT (from IVIL 12,4 & 400kV IVIL 12,4	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53 10 0 -128 -176	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  19.4 22.4 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13  -6  -13  0  -72  -68	-1.9 -0.2 -0.2 -0.0 -0.6 -0.6 -0.0 -0.6 -0.0 -0.1 -1.9.4 -2.0.4 -2.0.4 -2.2.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -0.3 -0.3 -0.3 -1.7 -1.6 -13.2
	13	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIORSAWAI MADHOPUR RAJGHAT-LALITPUR WISH ST BHADRAWATI B/B RAIGABH-PUGALUR SOLAPUR-RAJGHUR WARDHA-NIZAMABAD KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-KUDGI KOLIAPUR-CHIKODI PONDA-AMBEWADI  REGION ER  ER  ER  NER  ER  NER  NER  NER  N	I I I I I I I I I I I I I I I I I I I	167 11 100 100 58 0 0 0 0 0 0 278 187 609 187 609 1 0 0 0 NATIONAL EXCHA Name III-ALIPURDUAR 182 CZEIPT (from IVIL 12,4 & 400kV IVIL 12,4	416 174 0 12 34 0 WR-NR 1012 1500 2579 2173 39 0 44 WR-SR NGES Max (MW) 179 290 53 10 0 -128 -176	0.6 0.0 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  19.4 22.4 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  13  -6  -13  0  -72  -68	-1.9 -0.2 -0.2 -0.0 -0.6 -0.6 -0.0 -0.6 -0.0 -0.1 -1.9.4 -2.0.4 -2.0.4 -2.2.5 -6.9 -0.0 -0.8 -79.4  Energy Exchange (MU) -7.3 -0.3 -0.3 -0.3 -1.7 -1.6 -13.2
	13	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHIS HAN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  RER  ER  NER  NER  NER  ER  ER  ER  ER	I I I I I I I I I I I I I I I I I I I	167 11 100 100 58 0 0 0 0 0 0 278 187 609 187 609 1 0 0 0 NATIONAL EXCHA Name III-ALIPURDUAR 182 CZEIPT (from III-BENAGURI BUR 12,4 (8 400K) WIRD 16. BINAGURI BUR 12,4 (8 400K) WIRD 16. BINAGURI JAH 182 (8 220K) JAH 184 JAH 185 JA	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW) 179 290 53 10 20 -128 -714	0.6 0.0 0.2 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  19.4 20.4 24.9 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  -6 -13 -6 -68 -552 -43	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -22.5 -6.9 -0.0 -0.8 -79.4 -215.5 -10.0 -0.0 -0.8 -79.4 -10.0 -1.0 -1.1 -1.1 -1.6 -1.3.2
	13	BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAHYA MALANPUR-AURAHYA GWALIOR-SAWAI MADHOPUR RAIGHAT-LALITPUR WHIS HAN BHADRAWATI B/B RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  RER  ER  NER  NER  NER  ER  ER  ER  ER	I I I I I I I I I I I I I I I I I I I	167	416 174 0 174 0 0 182 34 0 0 WR-NR 10012 1500 2579 2173 39 0 0 44 WR-SR NGES Max (MW) 179 290 53 10 20 -128 -714	0.6 0.0 0.2 0.2 0.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.7 1.9 0.5 0.2 0.0 0.0 0.0 0.0 0.0 247.7  19.4 20.4 24.9 22.5 0.0 0.0 0.0 87.1  Avg (MW)  168  290  -6 -13 -6 -68 -552 -43	-1.9 -0.2 -0.0 -0.6 -0.6 -0.0 -0.0 -0.0 -215.5 -19.4 -20.4 -22.5 -6.9 -0.0 -0.8 -79.4 -215.5 -10.0 -0.0 -0.8 -79.4 -10.0 -1.0 -1.1 -1.1 -1.6 -1.3.2