

## National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

## POWER SYSTEM OPËRATION 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, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

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दिनांक: 30<sup>th</sup> Mar 2021

Ref: POSOCO/NLDC/SO/Daily PSP Report

To,

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

- 2. कार्यकारी निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
- 3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई –400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 29.03.2021.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 29-मार्च-2021 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 29<sup>th</sup> March 2021, is available at the NLDC website.

धन्यवाद.

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



Report for previous day **Date of Reporting:** 30-Mar-2021 A. Power Supply Position at All India and Regional level NR WR SR ER NER TOTAL Demand Met during Evening Peak hrs(MW) (at 19:00 hrs; from RLDCs) 35779 45151 45870 20937 2267 150004 Peak Shortage (MW) 400 274 674 0 0 0 **Energy Met (MU)** 851 1165 1181 444 42 3683 Hydro Gen (MU) 108 36 63 32 243 4 Wind Gen (MU) 38 81 27 147 Solar Gen (MU)\* 49.54 38.75 101.73 5.09 195 0.16 Energy Shortage (MU) 7.62 0.00 0.00 0.00 1.94 9.56 Maximum Demand Met During the Day (MW) (From NLDC SCADA) 39349 52594 56076 21290 2524 159810 Time Of Maximum Demand Met (From NLDC SCADA) 19:27 06:51 11:44 20:20 18:15 11:45 **B.** Frequency Profile (%) FVI < 49.7 49.7 - 49.8 49.8 - 49.9 < 49.9 49.9 - 50.05 > 50.05 Region 0.039 0.00 0.00 5.31 5.31 72.97 21.72 All India

	pply Position in States	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)
	Punjab	5477	0	109.7	59.3	-1.5	110	0.00
	Haryana	4587	0	91.9	55.1	0.9	226	0.00
	Rajasthan	8824	0	178.2	-2.5	-0.7	580	0.00
	Delhi	2728	0	56.3	42.0	-1.3	U) (MW)  5 110 9 226 7 580 3 226 5 698 4 177 3 179 8 149 2 18 8 206 8 1834 1 543 0 727 3 38 2 25 2 64 6 285 1 542 9 793 1 549 1 290 1 446 6 19 8 528 8 482 6 140 2 431 2 290 2 31 4 2	0.01
NR	UP	15473	0	318.7	154.4	-2.5		0.00
	Uttarakhand	1250	0	26.4	19.8	0.4		0.00
	HP	1031	0	21.3	13.8	0.3		0.01
	J&K(UT) & Ladakh(UT)	2418	400	45.7	37.1	-1.8		7.60
	Chandigarh	157	0	2.8	3.0	-0.2		0.00
	Chhattisgarh	4327	0	98.4	38.9	-0.8	179 149 18 206 1834 543 727 38 25 64 285 542 793	0.00
	Gujarat	14197	0	306.2	95.2	-3.8	1834	0.00
	MP	10265	0	208.7	113.9	-3.1	110 226 580 226 698 177 179 149 18 206 1834 543 727 38 25 64 285 542 793 549 290 446 19 528 482 140 431 290	0.00
WR	Maharashtra	22303	0	504.2	162.3	0.0		0.00
	Goa	495	0	11.0	10.8	-0.3	38	0.00
	DD	274	0	4.1	3.9	0.2	25	0.00
	DNH	786	0	13.7	13.5	0.2	64	0.00
	AMNSIL	838	0	18.2	1.2	0.6	(MW)  110 226 580 226 698 177 179 149 18 206 1834 543 727 38 25 64 285 542 793 549 290 446 19 528 482 140 431 290 31 2 100 40 43	0.00
	Andhra Pradesh	11068	0	219.6	117.9	0.1	542	0.00
	Telangana	12926	0	270.9	138.4	0.9	793	0.00
SR	Karnataka	13635	0	261.0	104.1	-0.1	(MW)  110 226 580 226 698 177 179 149 18 206 1834 543 727 38 25 64 285 542 793 549 290 446 19 528 482 140 431 290 31 2	0.00
	Kerala	3637	0	80.0	60.6	-0.1		0.00
	Tamil Nadu	15702	0	341.7	230.7	-5.1	446	0.00
	Puducherry	354	0	7.6	8.2	-0.6	19	0.00
	Bihar	4989	0	93.2	85.8	-1.8	543 727 38 25 64 285 542 793 549 290 446 19 528 482 140	0.00
	DVC	3018	0	62.8	-48.3	-0.8	482	0.00
	Jharkhand	1455	0	28.2	23.4	-2.6	140	0.00
ER	Odisha	4491	0	92.6	34.6	0.2	431	0.00
	West Bengal	8141	0	166.8	39.9	-1.2	(MW)  110 226 580 226 698 177 179 149 18 206 1834 543 727 38 25 64 285 542 793 549 290 446 19 528 482 140 431 290 31 2 100	0.00
	Sikkim	58	0	0.8	1.0	-0.2		0.00
	Arunachal Pradesh	121	3	2.2	2.5	-0.4		0.01
	Assam	1243	240	23.7	19.3	-0.2		1.90
	Manipur	185	3	2.7	2.7	0.0		0.01
NER	Meghalaya	341	0	5.7	4.8	0.0	43	0.00
	Mizoram	111	4	1.6	1.5	-0.1	27	0.01
	Nagaland	138	8	2.1	2.1	0.0	24	0.01
	Tripura	285	5	4.5	3.8	0.0	72	0.00

D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve)			
	Bhutan	Nepal	Bangladesh
Actual (MU)	2.9	-10.4	-23.9
Day Peak (MW)	218.0	-569.6	-1010 0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	103.1	-300.7	271.8	-84.4	10.1	0.0
Actual(MU)	75.2	-292.3	271.7	-71.1	10.3	-6.2
O/D/U/D(MU)	-28.0	8.4	0.0	13.3	0.2	-6.2

F. Generation Outage(MW)							
	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	5099	13633	6342	1168	1222	27463	40
State Sector	14502	14983	7536	3500	11	40532	60
Total	19601	28615	13878	4668	1233	67995	100

G. Sourcewise generation (MU)							
	NR	WR	SR	ER	NER	All India	% Share
Coal	492	1251	604	504	10	2861	76
Lignite	22	10	43	0	0	75	2
Hydro	108	36	63	32	4	243	6
Nuclear	27	41	42	0	0	109	3
Gas, Naptha & Diesel	27	28	15	0	24	93	2
RES (Wind, Solar, Biomass & Others)	115	121	163	5	0	404	11
Total	791	1487	929	541	38	3785	100
Share of RES in total generation (%)	14.51	8.13	17.56	0.95	0.42	10.67	
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation(%)	31.59	13.29	28.76	6.89	10.25	19.96	*

H. All India Demand Diversity Factor	
Based on Regional Max Demands	1.075
Based on State Max Demands	1.110

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: 30-Mar-2021

	<u> </u>			1				Date of Reporting:	
The Content of PRINCIPLE   The Content of PRIN		Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
1	Import						0.0		0.0
1	_								
2   20.00   2.50   2.	3	765 kV	GAYA-VARANASI		118	489	0.0	3.7	-3.7
0				1 1					
0   001	6	400 kV	PUSAULI-VARANASI	1	0	230	0.0	4.6	-4.6
9				1 2					
10	9	400 kV	PATNA-BALIA	4	0	787	0.0	9.6	-9.6
13		400 kV	BIHARSHARIFF-BALIA	_		88	1.3	0.0	1.3
10   ADDREY   PASSALLA MARTENER   1	12	400 kV	BIHARSHARIFF-VARANASI		145	183	0.0	0.1	-0.1
15   123   12   12   12   12   12   12   1	13	220 kV	PUSAULI-SAHUPURI	1 1	16	70	0.0	1.0	-1.0
19   12-12   0.00   0	15	132 kV	GARWAH-RIHAND	1	20	0	0.5	0.0	0.5
DEFECT OF THE CONTROL   1	16	132 kV	KARMANASA-SAHUPURI	1	0	0	0.0	0.0	0.0
The content of Per Polic Note   The content of Per Polic Not	•			<u> </u>	<u> </u>				
2									
1									
MINESTER   MARSHEGER   1	-								
S	4					194			
1	5	400 kV	RANCHI-SIPAT	2	345	76	2.6	0.0	2.6
Industry   18   18   46.5   18   46.5   18   46.5   18   46.5   18   46.5   18   46.5   18   46.5   18   46.5   18   46.5   18   18   46.5   18   18   46.5   18   18   18   46.5   18   18   18   18   18   18   18   1	-								
	7	220 kV	BUDHIPADAR-KORBA	2	214				
1   MACHER SANCAR BEFORE   2   0   2477   0.0   51.9   51.5   5				1		•		•	
3					·				
1	3	765 kV	ANGUL-SRIKAKULAM	2	0	3127	0.0	67.6	-67.6
INDIPETITATION   1.00		400 kV	TALCHER-I/C		0			16.6	-16.6
	•	•							
2	Import			7	22	_ <del></del>			
2   19   8   0.1   0.0   0.1		400 kV	ALIPURDUAR-BONGAIGAON	2	147	92	0.6	0.0	0.6
INDIFFCRAPORT OF SET WHIN INC)						8	0.1	0.0	0.1
BINDER   B	<u>Imp</u> ort								
	1			2	471				
INDEC   CHAMPA-KERNSHEFRA   2   9   0   0,0   19,4   -194									
A   Five   MINDRA-MONINDERGARIA   2   0   884   0.0   17.2   17.2	1	HVDC	CHAMPA-KURUKSHETRA						
1	3	HVDC	MUNDRA-MOHINDERGARH	2	0	884	0.0	17.2	-17.2
0	4	765 kV	GWALIOR-AGRA		0	2484	0.0	38.6	-38.6
78   1	6	765 kV	JABALPUR-ORAI	2	669	699	0.0	19.1	-19.1
76   V   CHITOGGARFI-BAYASKANTHA   2   817   470   5.1   0.0   5.1     10   400   V   ZRRDA-KANNRO]   1   1   268   0   4.2   0.0   4.2     10   400   V   ZRRDA-KANNRO]   1   1   258   0   4.2   0.0   4.2     11   400   V   ZRRDA-KANNRO]   1   2.5   6.0   0   2.3     12   400   V   ZRRDA-KANNRO]   1   5.5   0   0   2.3     13   400   V   ZRRDA-KANNRO]   1   5.5   0   0   2.3     14   220   V   RAPA-MALAPIR   2   4.0   6   1.8     15   220   V   RAPA-MALAPIR   1   5.5   5.3   0.6   0.2   0.5     15   220   V   RAPA-MALAPIR   1   5.5   5.3   0.6   0.2   0.5     16   220   V   MERGAON-ARANDRA   1   96   0   0.5   0.0   0.5     17   220   V   MERGAON-ARANDRA   1   96   0   0.5   0.0   0.5     19   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0.5   0.0   0.5     19   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0.5   0.0   0.5     19   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0.5   0.0   0.5     19   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0   0   0.5     19   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0   0   0   0.5     10   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0   0   0   0   0     10   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0   0   0   0   0     10   19   19   K   MALAPIRE ARANDRA   1   96   0   0   0   0   0   0   0     10   19   19   K   MALAPIRE ARANDRA   1   0   0   0   0   0   0   0   0     10   19   19   K   MALAPIRE ARANDRA   1   0   0   0   0   0   0   0   0   0	7	765 kV	GWALIOR-ORAI		395	0	6.6	0.0	6.6
10   409 kV   ZERDA-KANKPOLA   1   268   0   4.2   0.0   4.2	9	765 kV	CHITORGARH-BANASKANTHA	2	817	470	5.1	0.0	5.1
12   400 kV   VINDITYACHIA-BRIDAD    1   974   0   22.8   0.0   22.8	10	400 kV	ZERDA-KANKROLI	1	268	0	4.2	0.0	4.2
13   400 kV   RAPPSHUJATPIR   2   406   188   4,0   0,3   3,7     14   229 kV   BHANPIRARAYPIR   1   555   53   0,6   0,2   0,5     15   229 kV   BHANPIRAMORAK   1   0   30   1,1   0,1   1,0     16   220 kV   WHIRGONAURRIVAN   1   96   0   0   0,5   0,0   0,5     18   137 kV   (WALIORSANALMRIVAN   1   0   0   0   0   0,0   0,0     18   137 kV   (WALIORSANALMRIVAN   1   0   0   0   0   0,0   0,0     19   132 kV   RAZGIATIPUR   2   0   0   0   0   0,0   0,0   0,0     10   132 kV   RAZGIATIPUR   2   0   0   0   0,0   0,0   0,0     10   10   10   10   10   10   10	12	400 kV	VINDHYACHAL -RIHAND	1 1	974	0	22.8	0.0	22.8
15   220 kV   BHANFUR-MORK   1   0   30   1.1   0.1   1.0	13	400 kV	RAPP-SHUJALPUR	2	406	158	4.0	0.3	3.7
16   220 kV   MILKON-AURAINA				1 1	0		1.1		1.0
18	16	220 kV	MEHGAON-AURAIYA	1	96	0	0.5	0.0	0.5
19   132 kV   RAIGHAT-LALITPUR   2   0   0   0.0   0.0   0.0   0.0				1 1					
Import Export of WR (With SR)				2		0	0.0	0.0	0.0
1   IIVDC	Import					•			
3   765 kV   SOLAPUR-RAICHUR   2   0   2047   0.0   39.2   -39.2	1	HVDC	BHADRAWATI B/B						
4   765 kV   WARDHA-NIZAMBAD   2   0   3251   0.0   66.1   -66.1     5   400 kV   KOHA-PUR-KUEDE   2   826   0   13.2   0.0   13.2     6   220 kV   KOHA-PUR-KUEDE   2   0   0   0.0   0.0   0.0     7   220 kV   PONDA-AMBEWADH   1   0   0   0   0.0   0.0   0.0     8   220 kV   PONDA-AMBEWADH   1   0   84   1.6   0.0   1.6		765 kV	SOLAPUR-RAICHUR	2	0	2047	0.0		-39.2
Color   Colo	4	765 kV	WARDHA-NIZAMABAD	2	0	3251	0.0	66.1	-66.1
7   220 kV   PONDA-AMBEWADI									
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)	7	220 kV	PONDA-AMBEWADI	1	0	0	0.0	0.0	0.0
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)	8	220 kV	AELDEM-AMBEWADI	1	0				
State   Region   Line Name   Max (MW)   Min (MW)   Avg (MW)   Energy Exchange (MU)				INTER	NATIONAL EXCHA				
FR		State	Region				Min (MW)	Avg (MW)	0.
BHUTAN   ER				400kV MANGDECHH	U-ALIPURDUAR 1&2	( · · )	<b>√~11</b>		
BHUTAN   ER   MALBASE BINAGURI   1,24 (& 400kV   MALBASE BIRRARA   1,24 (& 220kV   MALBASE BIRRARA)   1,0			ER	i.e. ALIPURDUAR RE	CEIPT (from	153	0	122	2.9
BHUTAN   ER   MALBASE - BINAGURI   47   39   43   1.0		Ĺ		LIVI A NIC INTEGRATION	LOUIVLVV)				<del> </del>
BHUTAN  ER  MALBASE - BIRPARA) i.e. BIRPARA  RECEIPT (from CHUKHA HEP 4°84MW)  NER  132KV-GEYLEGPHU - SALAKATI  29  12  20  0.5  NER  132kV-Motanga-Rangia  12  1  -7  -0.2  NR  NR  132kV-TANAKPUR(NH) - MAHENDRANAGAR(PG)  0  0  0  0  0.0  NEPAL  ER  400KV-MUZAFFARPUR - DHALKEBAR  DC  132KV-BIHAR - NEPAL  ER  132KV-BIHAR - NEPAL  -208  -71  -104  -2.5  BANGLADESH  NER  132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)  -866  0  -861  -20.7  -1.6				400kV TALA-BINAGU	JRI 1,2,4 (& 400kV			1	1.0
BHUTAN   ER   MALBASE - BIRPARA) i.e. BIRPARA   0   0   0   0   -1.1	J		ER	400kV TALA-BINAGU MALBASE - BINAGU	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI	47	39	43	1
NER   132KV-GEYLEGPHU - SALAKATI   29   12   20   0.5     NER   132kV Motanga-Rangia   12   1   .7   .0.2     NER   132kV-TANAKPUR(NH) -				400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV				
NER		BHUTAN		400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA				
NR		BHUTAN	ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPARA RECEIPT (from CHUI	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW)	0	0	0	-1.1
NR		BHUTAN	ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPARA RECEIPT (from CHUI	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW)	0	0	0	-1.1
NR MAHENDRANAGAR(PG) 0 0 0 0.0  ER 400KV-MUZAFFARPUR - DHALKEBAR DC -362 -260 -329 -7.9  NEPAL ER 132KV-BIHAR - NEPAL -208 -71 -104 -2.5  ER BHERAMARA HVDC(BANGLADESH) -866 0 -861 -20.7  BANGLADESH NER 132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 72 0 -67 -1.6  NEP 132KV-SURAJMANI NAGAR - 72 0 67 -1.6		BHUTAN	ER NER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPARA RECEIPT (from CHUI 132KV-GEYLEGPHU	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI	29	12	0 20	-1.1 0.5
NR MAHENDRANAGAR(PG) 0 0 0 0.0  ER 400KV-MUZAFFARPUR - DHALKEBAR DC -362 -260 -329 -7.9  NEPAL ER 132KV-BIHAR - NEPAL -208 -71 -104 -2.5  ER BHERAMARA HVDC(BANGLADESH) -866 0 -861 -20.7  BANGLADESH NER 132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 72 0 -67 -1.6  NEP 132KV-SURAJMANI NAGAR - 72 0 67 -1.6		BHUTAN	ER NER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPARA RECEIPT (from CHUI 132KV-GEYLEGPHU	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI	29	12	0 20	-1.1 0.5
NEPAL ER DC -362 -260 -329 -7.9  NEPAL ER 132KV-BIHAR - NEPAL -208 -71 -104 -2.5  ER BHERAMARA HVDC(BANGLADESH) -866 0 -861 -20.7  BANGLADESH NER 132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 72 0 -67 -1.6		BHUTAN	ER NER NER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132kV Motanga-Rangia	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A	0 29 12	0 12 1	0 20 -7	-1.1 0.5 -0.2
NEPAL ER 132KV-BIHAR - NEPAL -208 -71 -104 -2.5  ER BHERAMARA HVDC(BANGLADESH) -866 0 -861 -20.7  BANGLADESH NER 132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1 72 0 -67 -1.6		BHUTAN	ER NER NER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132kV Motanga-Rangia	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A	0 29 12	0 12 1	0 20 -7	-1.1 0.5 -0.2
ER         BHERAMARA HVDC(BANGLADESH)         -866         0         -861         -20.7           BANGLADESH         NER         132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1         72         0         -67         -1.6           NER         132KV-SURAJMANI NAGAR - TOWN -		BHUTAN	ER NER NER NR	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV Motanga-Rangia 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARP	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A	0 29 12 0	0 12 1 0	0 20 -7	-1.1 0.5 -0.2
ER         BHERAMARA HVDC(BANGLADESH)         -866         0         -861         -20.7           BANGLADESH         NER         132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1         72         0         -67         -1.6           NER         132KV-SURAJMANI NAGAR - TOWN -		BHUTAN	ER NER NER NR	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV Motanga-Rangia 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARP	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A	0 29 12 0	0 12 1 0	0 20 -7	-1.1 0.5 -0.2
BANGLADESH  NER  132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1  72  0 -67  -1.6  NER  132KV-SURAJMANI NAGAR - 72  0 67  146			ER NER NER NER ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR. RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A JH) - (PG) UR - DHALKEBAR	0 29 12 0 -362	0 12 1 0	0 20 -7 0 -329	-1.1 0.5 -0.2 0.0
BANGLADESH  NER  132KV-SURAJMANI NAGAR - COMILLA(BANGLADESH)-1  72  0 -67  -1.6  NER  132KV-SURAJMANI NAGAR - 72  0 67  146			ER NER NER NER ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR. RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A JH) - (PG) UR - DHALKEBAR	0 29 12 0 -362	0 12 1 0	0 20 -7 0 -329	-1.1 0.5 -0.2 0.0
BANGLADESH NER COMILLA(BANGLADESH)-1 72 0 -67 -1.6  132KV-SURAJMANI NAGAR - 72 0 67 1.6			ER NER NER NER ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR. RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC 132KV-BIHAR - NEPA	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A JH) - (PG) UR - DHALKEBAR	0 29 12 0 -362 -208	0 12 1 0 -260	0 20 -7 0 -329	-1.1 0.5 -0.2 0.0 -7.9
COMILLA(BANGLADESH)-1  132KV-SURAJMANI NAGAR - 72 0 67 1.6			ER NER NER NER ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC 132KV-BIHAR - NEPA BHERAMARA HVDC	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI  A JH) - (PG) UR - DHALKEBAR AL (BANGLADESH)	0 29 12 0 -362 -208	0 12 1 0 -260	0 20 -7 0 -329	-1.1 0.5 -0.2 0.0 -7.9
NFD		NEPAL	ER  NER  NER  NR  ER  ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC 132KV-BIHAR - NEPA BHERAMARA HVDC	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A JH) - JPG) UR - DHALKEBAR AL (BANGLADESH)	0 29 12 0 -362 -208 -866	0 12 1 0 -260 -71	0 20 -7 0 -329 -104	-1.1 0.5 -0.2 0.0 -7.9 -2.5
CONTEDER(DIE COLLEGE) &		NEPAL	ER  NER  NER  NR  ER  ER	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARP DC 132KV-BIHAR - NEPA BHERAMARA HVDC 132KV-SURAJMANI N COMILLA(BANGLAI	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI A JH) - JPG) UR - DHALKEBAR AL (BANGLADESH) NAGAR - DESH)-1	0 29 12 0 -362 -208 -866	0 12 1 0 -260 -71	0 20 -7 0 -329 -104	-1.1 0.5 -0.2 0.0 -7.9 -2.5
		NEPAL	ER  NER  NER  NR  ER  ER  ER  NR	400kV TALA-BINAGU MALBASE - BINAGU RECEIPT (from TALA 220kV CHUKHA-BIRI MALBASE - BIRPAR. RECEIPT (from CHUI 132KV-GEYLEGPHU 132KV-TANAKPUR(N MAHENDRANAGAR( 400KV-MUZAFFARPI DC 132KV-BIHAR - NEPA BHERAMARA HVDC 132KV-SURAJMANI N COMILLA(BANGLAI 132KV-SURAJMANI N	JRI 1,2,4 (& 400kV RI) i.e. BINAGURI A HEP (6*170MW) PARA 1&2 (& 220kV A) i.e. BIRPARA KHA HEP 4*84MW) - SALAKATI  A JH) - (PG) UR - DHALKEBAR  AL (BANGLADESH)  NAGAR - DESH)-1	0 29 12 0 -362 -208 -866 72	0 12 1 0 -260 -71 0	0 20 -7 0 -329 -104 -861	-1.1  0.5  -0.2  0.0  -7.9  -2.5  -20.7