

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

(Government of India Enterprise/ भारत सरकार का उद्यम) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, कुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

\_\_\_\_\_\_

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 22<sup>th</sup> April 2023

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
- 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 21.04.2023.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-अप्रैल-2023 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 21<sup>th</sup> April 2023, is available at the NLDC website.

धन्यवाद.

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



Report	for	previous	day

A. Power Supply Position at All India and Regional level

Date of Reporting:

	NR	WR	SR	ER	NER	TOTAL
Demand Met during Evening Peak hrs(MW) (at 20:00 hrs; from RLDCs)	57209	60787	49031	24659	2313	193999
Peak Shortage (MW)	0	0	0	0	57	57
Energy Met (MU)	1229	1462	1274	570	43	4578
Hydro Gen (MU)	218	32	65	47	13	374
Wind Gen (MU)	11	102	62		-	175
Solar Gen (MU)*	146.71	67.03	117.48	4.78	0.83	337
Energy Shortage (MU)	0.00	0.00	0.00	0.54	1.10	1.64
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	58121	67085	61326	27535	2489	204777
Time Of Maximum Demand Met (From NLDC SCADA)	19:45	14:47	14:53	00:01	18:09	14:47

B. Frequency Profile (%) FVI 0.055 49.7 - 49.8 0.12 49.8 - 49.9 7.02 < 49.9 7.14 49.9 - 50.05 63.66 < 49.7

C	Down	Cumply	Docition	in St	otoc

	ny rosidon in States	Max.Demand	Shortage during	Energy Met	Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the	maximum	0.00	Schedule	(3.477)	(3.533)	Shortage
U		dav(MW)	Demand(MW)	(MU)	(MU)	(MU)	(MW)	(MU)
	Punjab	6632	0	138.6	33.4	-1.5	137	0.00
	Haryana	7974	0	157.3	95.2	-0.5	206	0.00
	Rajasthan	13479	0	274.2	79.0	-6.5	221	0.00
	Delhi	4680	0	98.8	92.5	-2.8	99	0.00
NR	UP	21619	0	420.3	174.5	-0.1	475	0.00
	Uttarakhand	2069	0	42.8	20.7	-1.4	129	0.00
	HP	1567	0	29.2	8.9	-0.1	49	0.00
	J&K(UT) & Ladakh(UT)	2853	0	59.3	39.7	-0.8	283	0.00
	Chandigarh	220	0	4.8	4.8	0.0	38	0.00
	Railways_NR ISTS	180	0	3.9	3.2	0.7	48	0.00
	Chhattisgarh	5154	0	110.7	55.0	-5.1	164	0.00
	Gujarat	20902	0	452.4	162.0	-0.8	586	0.00
	MP	11393	0	239.5	139.5	-1.8	413	0.00
WR	Maharashtra	27145	0	581.9	200.5	-3.6	783	0.00
	Goa	740	0	16.1	16.0	-0.4	30	0.00
	DNHDDPDCL	1261	0	29.5	29.8	-0.3	62	0.00
	AMNSIL	885	0	19.5	8.2	0.0	290	0.00
	BALCO	522	0	12.4	12.5	-0.1	516	0.00
	Andhra Pradesh	12074	0	241.3	106.4	-0.4	658	0.00
	Telangana	11374	0	219.2	89.0	-2.0	518	0.00
SR	Karnataka	15664	0	298.1	114.9	-0.2	469	0.00
	Kerala	4752	0	99.5	74.2	0.1	189	0.00
	Tamil Nadu	18892	0	405.4	243.5	-1.8	401	0.00
	Puducherry	474	0	10.6	10.6	-0.6	22	0.00
	Bihar	6155	0	122.7	115.9	-3.0	315	0.54
	DVC	3420	0	79.3	-43.5	0.1	302	0.00
	Jharkhand	1788	0	35.1	31.2	-3.9	138	0.00
ER	Odisha	5045	0	111.0	39.3	-1.8	510	0.00
	West Bengal	10969	0	220.4	89.5	-5.5	165	0.00
	Sikkim	100	0	1.3	1.2	0.1	60	0.00
	Arunachal Pradesh	131	0	2.4	2.6	-0.3	10	0.00
	Assam	1701	0	27.8	22.6	-0.8	80	0.00
	Manipur	123	0	1.4	1.9	-0.6	43	0.00
NER	Meghalaya	291	25	5.0	4.0	0.1	95	1.10
	Mizoram	98	0	1.3	1.6	-0.7	25	0.00
	Nagaland	139	0	2.3	2.4	-0.1	9	0.00
	Tripura	224	0	3.2	3,6	-1.1	20	0.00

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

	Bhutan	Nepal	Bangladesh	Godda -> Bangladesh
Actual (MU)	5.5	-13.2	-24.2	-15.9
Day Peak (MW)	417.0	-759.6	-1084.0	-759.2

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	104.0	-254.9	200.1	-43.6	-5.6	0.0
Actual(MU)	75.2	-238.6	217.9	-54.0	-7.3	-6.7
O/D/U/D(MU)	-28.8	16.3	17.8	-10.4	-1.7	-6.7

#### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL	% Share
Central Sector	3047	10611	3498	2290	425	19871	52
State Sector	6005	7767	1958	2100	286	18116	48
Total	9052	18378	5456	4390	711	37986	100

### G. Sourcewise generation (Gross) (MU)

	NR	WR	SR	ER	NER	All India	% Share
Coal	764	1553	751	658	15	3740	75
Lignite	25	18	60	0	0	102	2
Hydro	218	32	65	47	13	374	8
Nuclear	30	35	45	0	0	110	2
Gas, Naptha & Diesel	17	20	6	0	29	73	1
RES (Wind, Solar, Biomass & Others)	177	170	211	5	1	565	11
Total	1232	1827	1137	710	57	4964	100
Share of RES in total generation (%)	11.20	0.22	10.55	0.53	1 1 15	11.25	
	14.38	9.32	18.57	0.73	1.45	11.37	
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation(%)	34.54	12.97	28.18	7.35	23.85	21.13	

H. All India Demand Diversity Factor	
Based on Regional Max Demands	1.058
Based on State Max Demands	1.087

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

<sup>\*\*</sup>Note: All generation MU figures are gross

\*\*\*Godda (Jharkhand) -> Bangladesh power exchange is through the radial connection (isolated from Indian Grid)

#### INTER-REGIONAL EXCHANGES

Import=(+ve) /Export =(-ve) for NET (MU)
Date of Reporting: 22-Apr-2023

						Date of Reporting:	22-Apr-2023
Sl No Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
Import/Export of ER		1				l .	
1 HVDC	ALIPURDUAR-AGRA	2	0	0	0.0	0.0	0.0
2 HVDC	PUSAULI B/B		0	97	0.0	2.5	-2.5
3 765 kV 4 765 kV	GAYA-VARANASI	2	462	508	0.0	2.3	-2.3
4 765 kV 5 765 kV	SASARAM-FATEHPUR GAYA-BALIA	1	178 0	457 550	0.0 0.0	7.7	-3.7 -7.7
6 400 kV	PUSAULI-VARANASI	1	0	150	0.0	2.2	-2.2
7 400 kV	PUSAULI -ALLAHABAD	1	45	58 739	0.0	0.1 3.2	-0.1
8 400 kV 9 400 kV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	2	405 95	739 474	0.0 0.0	5.3	-3.2 -5.3
10 400 kV	NAUBATPUR-BALIA	2	139	508	0.0	5.2	-5.2
11 400 kV	BIHARSHARIFF-BALIA MOTIHARI-GORAKHPUR	2	332	315	0.0	0.2 3.5	-0.2
12 400 kV 13 400 kV	BIHARSHARIFF-VARANASI	2 2	117 277	441 259	0.0	1.0	-3.5 -1.0
14 220 kV	SAHUPURI-KARAMNASA	1	0	201	0.0	3.7	-3.7
15 132 kV 16 132 kV	NAGAR UNTARI-RIHAND GARWAH-RIHAND	1	0 25	0	0.0 0.4	0.0 0.0	0.0 0.4
17 132 kV	KARMANASA-SAHUPURI	1	0	0	0.4	0.0	0.4
18 132 kV	KARMANASA-CHANDAULI	1	0	0	0.0	0.0	0.0
				ER-NR	0.4	40.5	-40.2
Import/Export of ER	(With WR)						
1 765 kV 2 765 kV	JHARSUGUDA-DHARAMJAIGARH NEW RANCHI-DHARAMJAIGARH	4 2	2154 953	0 379	32.8 9.5	0.0 0.0	32.8 9.5
3 765 kV	JHARSUGUDA-DURG	2	0	687	0.0	10.0	-10.0
4 400 kV	JHARSUGUDA-RAIGARH	4	29	384	0.0	4.2	-4.2
5 400 kV 6 220 kV	RANCHI-SIPAT BUDHIPADAR-RAIGARH	2	198	106 56	1.9	0.0 1.9	1.9
7 220 kV	BUDHIPADAR-KORBA	2	97	0	1.6	0.0	1.6
				ER-WR	45.7	16.0	29.7
Import/Export of ER							
1 HVDC	JEYPORE-GAZUWAKA B/B	2	0	657	0.0	12.2 38.9	-12.2
2 HVDC 3 765 kV	TALCHER-KOLAR BIPOLE ANGUL-SRIKAKULAM	2 2	0	1652 2845	0.0	38.9 54.4	-38.9 -54.4
4 400 kV	TALCHER-I/C	2	418	110	2.6	0.0	2.6
5 220 kV	BALIMELA-UPPER-SILERRU	1	0	0	0.0	0.0	0.0
Import/Francis of ED	(With NED)			ER-SR	0.0	105.4	-105.4
Import/Export of ER 1 400 kV	(WITH NER) BINAGURI-BONGAIGAON	,	326	0	3.9	0.0	3.9
2 400 kV	ALIPURDUAR-BONGAIGAON	2	1008	0	11.8	0.0	11.8
3 220 kV	ALIPURDUAR-SALAKATI	2	178	0	2.2	0.0	2.2
I	O (WALNE)			ER-NER	17.9	0.0	17.9
Import/Export of NE			40-			0.0	
1 HVDC	BISWANATH CHARIALI-AGRA	. 2	481	0 NER-NR	11.4 11.4	0.0	11.4 11.4
Import/Export of WR	(With NR)					-10	
1 HVDC	CHAMPA-KURUKSHETRA	2	0	747	0.0	32.0	-32.0
2 HVDC	VINDHYACHAL B/B		439	0	11.1	0.0	11.1
3 HVDC 4 765 kV	MUNDRA-MOHINDERGARH	2	0	784	0.0	27.2 16.0	-27.2
4 765 kV 5 765 kV	GWALIOR-AGRA GWALIOR-PHAGI	2 2	189	1567 0	0.2	8.9	-15.8 -8.9
6 765 kV	JABALPUR-ORAI	2	270	614	0.0	10.5	-10.5
7 765 kV	GWALIOR-ORAI	1	0	0	11.2	0.0 13.8	11.2
8 765 kV 9 765 kV	SATNA-ORAI BANASKANTHA-CHITORGARH	2	0 1167	777	0.0 30.0	0.0	-13.8 30.0
10 765 kV	VINDHYACHAL-VARANASI	2	0	2181	0.0	37.6	-37.6
11 400 kV	ZERDA-KANKROLI	1	459	0	5.6	0.0	5.6
						0.0	
12 400 kV	ZERDA -BHINMAL VINDHYACHAL -RIHAND	1	322 477	0	7.7	0.0 0.0	7.7
12 400 kV 13 400 kV 14 400 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR	1 1 2	322 477 790	0 0 222	7.7 21.3 5.7	0.0 0.0 1.1	7.7 21.3 4.6
12 400 kV 13 400 kV 14 400 kV 15 220 kV	VINDHYACHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	1 1 2 1	322 477 790 0	0 0 222 0	7.7 21.3 5.7 0.0	0.0 0.0 1.1 0.0	7.7 21.3 4.6 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	1 1 2 1 1	322 477 790 0	0 0 2222 0	7.7 21.3 5.7 0.0 0.0	0.0 0.0 1.1	7.7 21.3 4.6 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 2 1 1 1	322 477 790 0	0 0 222 0	7.7 21.3 5.7 0.0	0.0 0.0 1.1 0.0 0.0 0.0	7.7 21.3 4.6 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	1 1 2 1 1 1 1 1	322 477 790 0 0 39 66	0 0 222 0 0 0 0	7.7 21.3 5.7 0.0 0.0 1.1 0.8	0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21,3 4.6 0.0 0.0 1.1 0.8
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV	VINDHYACHAL -RHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	1 1 2 1 1 1 1 1 1 1 2 2 1 1 1 1 2 2 1	322 477 790 0 0 39 66	0 0 222 0 0 0 0	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 132 kV	VINDIYACHAL RIHAND RAPP-SHUALPIR BHANPIRA-RANPIR BHANPIRA-RANPIR BHANPIRA-WANA MEHGAON-AURAYA MALAPPIR-AURAYA (GWALIOR-SAWAI MADHOPUR RAJGHAT-LALITPUR	1 1 2 1 1 1 1 1 1 2	322 477 790 0 0 39 66	0 0 222 0 0 0 0	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21,3 4.6 0.0 0.0 1.1 0.8
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RAUBAN MEHGAON-AURATVA MALANPUR-AURATVA GWALIOR-SAWAI MADHOPUR BAJGHAT-JALITPUR (With SR)	1 1 2 2 1 1 1 1 1 1 1 1 2 2 1 1 1 1 1 2 2 1	322 477 790 0 0 39 66	0 0 2222 0 0 0 0 0 0 WR-NR	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0 0.0 94.6	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 147.1	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 -52.4
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV Import/Export of WR 1 HVDC 2 HVDC	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RAUPAT  MALANPUR-RUPAT  (WALANPUR-ALIPAT  (WHI SR)  BHADRAWATI BB  RAGGAT-LALIPUR  RAGGAT-LAUPAT  RAGGAT-LAUPAT  RAGGAT-LAUPAT  RAGGAT-LAUPAT  RAGGAT-LAUPAT  RAGGAT-LAUPAT  RAGGAT-LOCALUR	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 1 2 2 1	322 477 790 0 0 39 66 0	0 0 222 0 0 0 0	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0 0.0 94.6	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 147.1 12.1 109.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 132 kV Import/Export of WR 1 HVDC 2 HVDC 3 765 kV	VINDIFACHAL RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR MALANPUR-BURATY GWALIOR-SAWAI MADHOPUR RAIGHA-LALITPUR (With SR) EHADRAWATI EB RAIGARI-PUGALUR SOLAPUR-RAIGHUR	1 1 2 2 1 1 1 1 1 1 1 2 2 1 2 2 2 2 2 2	322 4777 790 0 0 39 66 0 0	0 0 2222 0 0 0 0 0 0 WR-NR	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0 0.0 94.6	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 0.0 -52.4
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV Import/Export of WR 1 HYDC 2 HYDC 3 765 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RAUPAU GWALOR-SAWAI MADHOPUR RAIGHAT-HALTPUR (With SR) BHADRAWATI BB RAIGART-HUCALUR SOLAPUR-BAICHUR WARBH-ANURAMBAD	1 1 2 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	322 477 790 0 0 0 39 66 0 0	0 0 222 0 0 0 0 0 0 0 0 0 WR-NR	7.7 21.3 5.7 9.0 9.0 9.0 9.0 1.1 9.8 9.0 9.0 94.6	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 0.0 -52.4 -11.0 -13.0 -46.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 152 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR MALANPUR-RAUFAH  (WHI SR) BHADRAWATI BB RAIGRAFI-ALITPUR  (WHI SR) BHADRAWATI BB RAIGRAFI-CALUR SOLAPUR-RAICHUR WARDH-ANUZAMBAD  KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-KUDGI	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	322 477 790 0 0 39 66 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 22 0 0 0 0 0 0 0 WR-NR 1009 4514 423 22674 0 0	7.7 21.3 5.7 9.0 9.0 9.0 9.0 1.1 0.8 0.0 9.0 94.6 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 -52.4 -11.0 -13.0 -46.0 20.1 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 6 220 kV	VINDIVACHAL RIHAND RAFPASHUALPUR BHANFURARANFUR BHANFURAROBAK MEHRAON-AURANYA MALANFURAROBAK MEHRAON-AURANYA MALANFURAROBAK (WALIOKAMWA MAHADPUR RAGIGHA-LALIFUR BRAGBAWATI RB RAGARI-PUGALUR WARNHANIZAMARAD KOHARUK-KUBGI KOHARUK-KUBGI KOHARUK-KUBGI ROHARUK-KUBGI KOHARUK-KUBGI ROHARUK-KUBGI	1 1 2 2 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2	322 477 790 0 0 339 66 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 1.1 1.1 0.8 1.1 1.1 0.0 0.0 0.0 1.1 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 132 kV 20 152 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR MALANPUR-RAUFAH  (WHI SR) BHADRAWATI BB RAIGRAFI-ALITPUR  (WHI SR) BHADRAWATI BB RAIGRAFI-CALUR SOLAPUR-RAICHUR WARDH-ANUZAMBAD  KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-KUDGI	1 1 2 2 1 1 1 1 2 2 2 2 2 2 2 2 2 1	322 477 790 0 0 39 66 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 22 0 0 0 0 0 0 WR-NR 10009 4514 4514 4514 0 0 0 77	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.5 0.0 0.0 94.6 1.1 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21,3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.8 0.0 0.0 1.1 1.10 1.10
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 6 220 kV	VINDITYACHAL RIHAND RAFPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR MALANPURARAN GWALANPUR RAGIALAHITUR (WITH SR) BHADRAWATI BE RAGIARHAMITUR RAGIARHAMITUR RAGIARHAMITUR SOLATURARAGUR WARPHANIZAMABAD KOHAPURARUB KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHBADI VELDEMAMBEWADI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	322 477 790 0 0 0 39 66 0 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0	7.7 21.3 5.7 0.0 0.0 1.1 0.8 0.0 0.0 94.6 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	7.7 21,3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 1.1 0.1 1.1 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL RIHAND RAFPASHUALPUR BHANFURARANFUR BHANFURARANFUR BHANFURARANFAR MEHRAON-AURANFAR MEHRAON-AURANFAR MALANFURARANFAR GWALIOKSAWAI MADROPUR RAGBAT-LALIFUR (WHI S.R) BHAORWAYAT DR BHAORWAYAT DR BHAORWAYAT DR SOLAPURARATUR WARDHANIZAMABAD KOLHAFURARUB KOHAFURARUB KOHAFURARUB KOHAFURARUB KOHAFURARUB INDIRAWANDI IN	1	322 477 790 0 0 0 339 66 0 0 0 0 0 CHANGES	0 0 222 222 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 -52.4  -1.10 -1.09.0 -1.30 -2.0 -0.0 0.0 -5.2.4  +ve)/Export(-ve)
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 6 220 kV	VINDITYACHAL RIHAND RAFPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR MALANPURARAN GWALANPUR RAGIALAHITUR (WITH SR) BHADRAWATI BE RAGIARHAMITUR RAGIARHAMITUR RAGIARHAMITUR SOLATURARAGUR WARPHANIZAMABAD KOHAPURARUB KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHANIZAMABAD KOHAPURARUB ROHAPURAHBADI VELDEMAMBEWADI	Line	322 477 790 0 0 39 66 0 0 0 0 0 0 0 0 0 CHANGES	0 0 22 0 0 0 0 0 0 WR-NR 10009 4514 4514 4514 0 0 0 77	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.5 0.0 0.0 94.6 1.1 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	7.7 21,3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 1.1 0.1 1.1 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL RIHAND RAFPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR MALANPURARAN MEHRAON-AURANYA MALANPURARAN KARANYA MALANPURARANYA  (WALIONSAWAM MADHOPUR RAHGARIALHTPUR  (WHI SR) HINDRAWATI BE RAHGARI-HUGALUR SOLAPURARAUTUR WARDHANIZAMABAD KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XEL DEM-AMBEWADI IN Region	Line 400kV MANGDECHHU-/	322 477 790 0 0 0 339 66 0 0 0 0 0 0 CHANGES Name	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0 0 WR-SR	7.7 21.3 5.7 9.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.9 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 1.1 0.0 0.0 1.1 1.1 0.0 1.1 1.1
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL RIHAND RAFPASHUALPUR BHANFURARANFUR BHANFURARANFUR BHANFURARANFAR MEHRAON-AURANFAR MEHRAON-AURANFAR MALANFURARANFAR GWALIOKSAWAI MADROPUR RAGBAT-LALIFUR (WHI S.R) BHAORWAYAT DR BHAORWAYAT DR BHAORWAYAT DR SOLAPURARATUR WARDHANIZAMABAD KOLHAFURARUB KOHAFURARUB KOHAFURARUB KOHAFURARUB KOHAFURARUB INDIRAWANDI IN	Line 400kV MANGDECHHU-A ALIPURDUAR RECEIPT	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 CHANGES Name LIPURDUAR 1,2&3 Le. (from MANGDECHU	0 0 222 222 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.1 0.0 1.0 0.0 1.0 1
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL RIHAND RAFPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR MALANPURARAN MEHRAON-AURANYA MALANPURARAN KARANYA MALANPURARANYA  (WALIONSAWAM MADHOPUR RAHGARIALHTPUR  (WHI SR) HINDRAWATI BE RAHGARI-HUGALUR SOLAPURARAUTUR WARDHANIZAMABAD KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XEL DEM-AMBEWADI IN Region	Line 400kV MANGDECHHU-A ALIPURDUAR RECEIPT	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 CHANGES Name LIPURDUAR 1,2&3 Le. (from MANGDECHU	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0 0 WR-SR	7.7 21.3 5.7 9.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.9 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 1.1 0.0 0.0 1.1 1.1 0.0 1.1 1.1
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL RIHAND RAFPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR MALANPURARAN MEHRAON-AURANYA MALANPURARAN KARANYA MALANPURARANYA  (WALIONSAWAM MADHOPUR RAHGARIALHTPUR  (WHI SK) HINDRAWATI BE RAHGARI-HUGALUR SOLAPURARAUTUR WARDHANIZAMABAD KOHAPUR-KUDGI KOHAPUR-KUDGI KOHAPUR-CHIKODI PONDA-AMBEWADI XEL DEM-AMBEWADI IN Region	Line 400kV MANGDECHHU- 400kV MANGDECHHU- ALIPURDUAR RECEIPT HEP 4*180MW) 400kV TALA-BINAGURI MALBASE - BINAGURI	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 CHANGES Name CHANGES Name (from MANGDECHU 1,24 (& 400kV) 0, e. BINAGURI	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0 0 WR-SR	7.7 21.3 5.7 9.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 1.1 0.0 0.0 1.1 1.1 0.0 1.1 1.1
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RAURATYA MALANPUR-RURATYA GWALIOR SAWAI MADHOPUR BAGIGAT-LALIPUR (With SR) BHADRAWATI BB RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDH-ANJEWADHAN KOHAPUR-KUDGI BKOHAPUR-KUDGI BKOHAPUR-BKUDGI	Line 400kV MANGDECHHU- 400kV MANGDECHHU- ALIPURDUAR RECEIPT HEP 4*180MW) 400kV TALA-BINAGURI MALBASE - BINAGURI	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 CHANGES Name CHANGES Name (from MANGDECHU 1,24 (& 400kV) 0, e. BINAGURI	0 0 20 222 0 0 0 0 0 0 WR-NR 10000 4514 423 2674 0 0 0 77 WR-SR	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 19 132 kV 19 132 kV 10 10 10 10 10 10 10 10 10 10 10 10 10 1	VINDIVACHAL RIHAND RAPPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR GWALORSAWAH MADAOPUR RAGGRAT-LALIPUR (With SR) BHADRAWATUR RAGGRATALIPUR RAGGRATANPUCALUR SOLATURARANPUCALUR IN REGION ER	Line 400kV MANGDECHHU-4 ALIPURDUAR RECEIPT HEP 4° 180MW 400kV TALA-BINAGURI MALBASE - BINAGURI RECEIPT (FOR TALA H RECEIPT (HUKHA-BIRPA)	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0 77 WR-SR	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 -52.4
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 20 132 kV 20 132 kV 4 765 kV 4 765 kV 6 220 kV 8 220 kV	VINDITYACHAL -RIHAND RAPP-SHUALPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RANPUR BHANPUR-RAURATYA MALANPUR-RURATYA GWALIOR SAWAI MADHOPUR BAGIGAT-LALIPUR (With SR) BHADRAWATI BB RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDH-ANJEWADHAN KOHAPUR-KUDGI BKOHAPUR-KUDGI BKOHAPUR-BKUDGI	Line 400kV MANGDECHHU- 400kV MANGDECHHU- HEP 4*180MW) 400kV TALA-BHAGURI MALBASE - BINAGURI RECEIPT (from TALA H 220kV CHUKHA-BIRPAI MALBASE - BIRPARA); I	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 CHANGES Name LIPURDUAR 1,2&1 i.e. (from MANGDECHU 1,2 i (& 400kV 1) i.e. BINAGURI F F6-170MV RA 182 i (& 220kV RA	0 0 20 222 0 0 0 0 0 0 WR-NR 10000 4514 423 2674 0 0 0 77 WR-SR	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 94.6 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 19 132 kV 19 132 kV 10 10 10 10 10 10 10 10 10 10 10 10 10 1	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   AND	Line 400kV MANGDECHHU- 400kV MANGDECHHU- 400kV TALA-BHAGURI MALBASE BINAGURI RECEIPT (from TALA H 220kV CHUKHA-BIRPAI MALBASE BIRPARA) i (from CHUKHA HEP 4*8	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 WR-NR 1009 4514 2674 6 0 0 77 WR-SR Max (MW) 192	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 1.0 1.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 19 132 kV 19 132 kV 10 10 10 10 10 10 10 10 10 10 10 10 10 1	VINDIVACHAL RIHAND RAPPSHUALPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR BHANPURARANPUR GWALORSAWAH MADAOPUR RAGGRAT-LALIPUR (With SR) BHADRAWATUR RAGGRATALIPUR RAGGRATANPUCALUR SOLATURARANPUCALUR IN REGION ER	Line 400kV MANGDECHHU- 400kV MANGDECHHU- HEP 4*180MW) 400kV TALA-BHAGURI MALBASE - BINAGURI RECEIPT (from TALA H 220kV CHUKHA-BIRPAI MALBASE - BIRPARA); I	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 423 2674 0 0 77 WR-SR	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 -52.4
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 19 132 kV 19 132 kV 10 10 10 10 10 10 10 10 10 10 10 10 10 1	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   AND	Line  400KV MANGDEGHEY ALPURDUAR RECEIPI HEP 4º 1800 MV 400KV TAL AW 400KV TAL AW MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRPARA). 132kV GELEPHU-SALAH 132kV GELEPHU-SALAH	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 WR-NR 1009 4514 2674 6 0 0 77 WR-SR Max (MW) 192	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 1.0 1.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 20 132 kV 20 132 kV 21 18 220 kV 22 132 kV 23 765 kV 4 765 kV 5 400 kV 7 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   AND	Line 400kV MANGDECHHU- 400kV MANGDECHHU- 400kV TALA-BHAGURI MALBASE BINAGURI RECEIPT (from TALA H 220kV CHUKHA-BIRPAI MALBASE BIRPARA) i (from CHUKHA HEP 4*8	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 WR-NR 1009 4514 2674 6 0 0 77 WR-SR Max (MW) 192	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 1.0 1.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 20 132 kV 20 132 kV 21 18 220 kV 22 132 kV 23 765 kV 4 765 kV 5 400 kV 7 220 kV 8 220 kV	VINDITYACHAL - RIHAND	Line  400KV MANGDEGHEY ALPURDUAR RECEIPI HEP 4º 1800 MV 400KV TAL AW 400KV TAL AW MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRPARA). 132kV GELEPHU-SALAH 132kV GELEPHU-SALAH	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR  1000 4514 423 2674 0 0 0 77 WR-SR  Max (MW) 192 411	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)  -118	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.8 0.0 0.0 52.4  -1.10 -1.09.0 -1.30 -1.09.0 -1.30 -1.56.3 -+ve)/Export(-ve) Energy Exchange (M1) 1.68 5.58
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 20 132 kV 20 132 kV 21 18 220 kV 22 132 kV 23 765 kV 4 765 kV 5 400 kV 7 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPPASHUALPUR   BHANPURARANPUR   BHANPURARANPUR   BHANPURARANPUR   MALANPURARANPUR   RAMANPURARANPUR   RAMANPURARANPUR   RAMANPURALITPUR   RAMGRAPATA	Line 400kV MANGBECHIVA ALIPURDUAR RECEIPI HEF 4º 1800MV 400kV TALA-BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRAGRI 120kV CHUKHA-BIRPA 132kV GELEPHU-SALAF 132kV MOTANGA-RANG	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR  1009 423 22674 0 0 0 77 WR-SR  Max (MW) 192 411 -98	7.7 21.3 5.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 -52.4  -11.0 -109.0 -13.0 -20.1 -20.1 -156.3 +ve)/Export(-ve) Energy Exchange (MIL) (MIL) -1.68  5.58 -1.62 -0.26
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 20 132 kV 20 132 kV 21 18 220 kV 22 132 kV 23 765 kV 4 765 kV 5 400 kV 7 220 kV 8 220 kV	VINDITYACHAL - RIHAND	Line  400KV MANGDEGHEY ALPURDUAR RECEIPI HEP 4º 1800 MV 400KV TAL AW 400KV TAL AW MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRPARA). 132kV GELEPHU-SALAH 132kV GELEPHU-SALAH	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR  1000 4514 423 2674 0 0 0 77 WR-SR  Max (MW) 192 411	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 94.6  1.1 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)  -118	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 0.0 1.10 0.0 1.10 0.0 1.10 0.0 2.0 1.10 0.0 0.0 1.56.3 +ve)/Export(-ve) Energy Exchange (MII) 1.68 5.58
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 21 kVDC 2 HVDC 3 HVDC 4 760 kV 6 220 kV 8 220 kV State	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   MALANPURA-RANPUR   RAFIGHAL-HALITUR   RA	Line  400kV MANGBECHEY ALPURDUAR RECEIPT HEF 4-1800AVI MAUBASE - BINAGURI MAUBASE - BINAGURI MAUBASE - BINAGURI MAUBASE - BINAGURI H200kV HUKHA-BINAGURI H32kV GELEPHU-SALAF L32kV MOTANGA-RANG L32kV MAHENDRANAG	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 0 0 0 0 0 CHANGES Name LIPURDUAR 1,2&1 i.c. (from MANGDECHU 1,2,4 (& 400kV ) ) i.e. BINAGURI FR 6=170AWN KAITAL SATI	0 0 20 222 0 0 0 0 0 0 0 WR-NR 10009 4551 4572 2074 0 0 0 77 WR-SR Max (MW) 192 411 -98 -24	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 0.0 1.1 0.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 15 220 kV 16 220 kV 18 220 kV 20 132 kV 20 132 kV 21 18 220 kV 22 132 kV 23 765 kV 4 765 kV 5 400 kV 7 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPPASHUALPUR   BHANPURARANPUR   BHANPURARANPUR   BHANPURARANPUR   MALANPURARANPUR   RAMANPURARANPUR   RAMANPURARANPUR   RAMANPURALITPUR   RAMGRAPATA	Line 400kV MANGBECHIVA ALIPURDUAR RECEIPI HEF 4º 1800MV 400kV TALA-BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRAGRI 120kV CHUKHA-BIRPA 132kV GELEPHU-SALAF 132kV MOTANGA-RANG	322 477 790 0 0 0 39 66 60 0 0 0 0 0 0 0 0 0 0 0 0 CHANGES Name LIPURDUAR 1,2&1 i.c. (from MANGDECHU 1,2,4 (& 400kV )) i.e. BINAGURI FR 6-170AWN KA 1,52 (& 220kV AMNO KATI SIA	0 0 222 0 0 0 0 0 0 WR-NR  1009 423 22674 0 0 0 77 WR-SR  Max (MW) 192 411 -98	7.7 21.3 5.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 -52.4  -11.0 -109.0 -13.0 -20.1 -20.1 -156.3 +ve)/Export(-ve) Energy Exchange (MIL) (MIL) -1.68  5.58 -1.62 -0.26
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 20 132 kV 20 kV 3 220 kV 8 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   MALANPURA-RANPUR   RAFIGHAL-HALITUR   RA	Line  400KV MANGBECHMAN  ALIPURDUJAR RECEIPI HEF 47 HONAY  MALEASE - BINAGURI 150KV CHIKHASHRAM  MALBASE - BIRAGRIR 152KV GHUKHASHRAM  MALBASE - BIRRARAJI 132KV GELEPHU-SALAH  132KV GELEPHU-SALAH  132KV MOTANGA-RANG  132KV MAHENDRANAG  NEFAL IMPORT (FROM	322 477 790 0 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 0 0 WR-NR 10009 4551 4572 2074 0 0 0 77 WR-SR Max (MW) 192 411 -98 -24	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 0.0 1.1 0.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 20 132 kV 20 kV 3 220 kV 8 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHURAN   MALANPURA-RANPUR   RAFIGHAL-HALITUR   RA	Line  400kV MANGBECHEY ALPURDUAR RECEIPT HEF 4-1800AVI MAUBASE - BINAGURI MAUBASE - BINAGURI MAUBASE - BINAGURI MAUBASE - BINAGURI H200kV HUKHA-BINAGURI H32kV GELEPHU-SALAF L32kV MOTANGA-RANG L32kV MAHENDRANAG	322 477 790 0 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 0 0 WR-NR 10009 4551 4572 2074 0 0 0 77 WR-SR Max (MW) 192 411 -98 -24	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 0.0 1.1 0.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 20 132 kV 20 kV 3 220 kV 8 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   CWALANPAR   CW	Line  400KV MANGBECHMAN  ALIPURDUJAR RECEIPI HEF 47 HONAY  MALEASE - BINAGURI 150KV CHIKHASHRAM  MALBASE - BIRAGRIR 152KV GHUKHASHRAM  MALBASE - BIRRARAJI 132KV GELEPHU-SALAH  132KV GELEPHU-SALAH  132KV MOTANGA-RANG  132KV MAHENDRANAG  NEFAL IMPORT (FROM	322 477 790 0 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR  1000 4514 423 2674 0 0 0 77 WR-SR  Max (MW) 192 411 -98 -24 25 -79	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 23.7 23.8  Min (MW)  -118  -23 -2 -12	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 20 132 kV 20 kV 3 220 kV 8 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   CWALANPAR   CW	Line  400KV MANGBECHMAN  ALIPURDUJAR RECEIPI HEF 47 HONAY  MALEASE - BINAGURI 150KV CHIKHASHRAM  MALBASE - BIRAGURI 152KV GHUKHASHRAM  MALBASE - BIRRARAJI 132KV GELEPHU-SALAH  132KV GELEPHU-SALAH  132KV MOTANGA-RANG  132KV MAHENDRANAG  NEFAL IMPORT (FROM	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR  1000 4514 423 2674 0 0 0 77 WR-SR  Max (MW) 192 411 -98 -24 25 -79	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 23.7 23.8  Min (MW)  -118  -23 -2 -12	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 20 132 kV 20 kV 3 220 kV 8 220 kV 8 220 kV	VINDITYACHAL RIHAND   RAPPASHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPASHUALPUR	Line 400KV MANGBECHHU- ALIPURDUAR RECEIPI 1005-7-180A-WINAGURI MALBASE - BINAGURI RECEIPI (ITOM TALAH MALBASE - BIRPARA); 132kV MOTANGA-RANG 132kV MOTANGA-RANG 132kV MAHENDRANAG NEPAL IMPORT (FROM 400KV DHALKEBAR-MU	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 4514 2674 0 0 77 WR-SR Max (MW) 192 411 -98 -24 -25 -79 -166	7.7 21.3 5.7 9.0 9.0 9.0 1.1 0.8 0.0 9.4.6 1.1 0.0 9.0 9.1 0.0 1.1 1.1 0.0 1.1 1.1 0.0 1.1 1.1 0.0 1.1 1.1	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.0 0.0 1.0 0.0 1.0 1
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 21 kVDC 2 HVDC 3 400 kV 5 400 kV 5 200 kV 8 220 kV  State	VINDITYACHAL RIHAND   RAPPASHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPASHUALPUR	Line 400KV MANGBECHEY ALIPURDUAR RECEIPT HEF 4° 1804 VI. MORY TALA-BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRACHT MALBA	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 0 0 0 WR-NR 10009 4514 523 2674 0 0 0 0 77 WR-SR  Max (MW) 192 411 -98 -24 -25 -79 -166 -515	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.2 0.0 0.0 0.0 1.1 1.1 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 21 kVDC 2 HVDC 3 HVDC 4 760 kV 6 220 kV 8 220 kV State	VINDITYACHAL RIHAND   RAPP-SHUALPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   BHANPURA-RANPUR   RAPPAHUA   CWALIONSAWA MALANPURA-RANPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANAL-ALIPUR   RAMIGANI-ALIPUR   REGION   ER   ER   ER   ER   ER   ER   ER   E	Line 400KV MANGBECHHU- ALIPURDUAR RECEIPI 1005-7-180A-WINAGURI MALBASE - BINAGURI RECEIPI (ITOM TALAH MALBASE - BIRPARA); 132kV MOTANGA-RANG 132kV MOTANGA-RANG 132kV MAHENDRANAG NEPAL IMPORT (FROM 400KV DHALKEBAR-MU	322 477 790 0 0 0 39 66 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 WR-NR 1009 4514 4514 2674 0 0 77 WR-SR Max (MW) 192 411 -98 -24 -25 -79 -166	7.7 21.3 5.7 9.0 9.0 9.0 1.1 0.8 0.0 9.4.6 1.1 0.0 9.0 9.1 0.0 1.1 1.1 0.0 1.1 1.1 0.0 1.1 1.1 0.0 1.1 1.1	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 1.0 1.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 16 220 kV 17 220 kV 19 132 kV 20 kV 21 kVDC 2 HVDC 3 400 kV 5 400 kV 5 200 kV 8 220 kV  State	VINDIVACHAL - RIHAND	Line 400KV MANGBEHMAN AUTHER 15 HENAY MALBASE - BINAGURI BE 15 HENAY MALBASE - BINAGURI EECTEPT (FORD TALA H MABASE - BIRFARA) 132kV GELEPHU-SALAH 132kV GELEPHU-SALAH 132kV MAHENDRANAG NEFAL IMPORT (FROM 400kV DHALKEBAR-MU BHERAMARA B/B HVDG 400kV GODDA_TPS-RAF	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 20 222 0 0 0 0 0 0 WR-NR  10000 4514 423 2674 0 0 0 77 WR-SR  Max (MW) 192 411 -98 -24 -25 -79 -166 -515	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 94.6  1.1 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 2.7 2.3.8  Min (MW)  -118  -13  -2  -12  -15 -181 -822	0.0 0.0 1.1 0.0 0.0 1.1 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0
12 400 kV 13 400 kV 14 400 kV 15 220 kV 16 220 kV 17 220 kV 18 220 kV 19 132 kV 20 132 kV 21 HVDC 2 HVDC 2 HVDC 3 400 kV 5 400 kV 7 220 kV 8 220 kV  State	VINDIVACHAL RIHAND   RAPP-SHUALPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   BHANPUR-ARANPUR   CWALANPAR   CWA	Line 400KV MANGBECHEY ALIPURDUAR RECEIPT HEF 4° 1804 VI. MORY TALA-BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BINAGURI MALBASE - BIRACHT MALBA	322 477 790 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 222 0 0 0 0 0 0 0 0 0 WR-NR 10009 4514 523 2674 0 0 0 0 77 WR-SR  Max (MW) 192 411 -98 -24 -25 -79 -166 -515	7.7 21.3 5.7 0.0 0.0 0.0 1.1 0.2 0.0 0.0 0.0 1.1 1.1 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.7 21.3 4.6 0.0 0.0 0.0 1.1 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0