

National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

POWER SYSTEM OPERATION CORPORATION LIMITED

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, क़ुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 23rd Jan 2018

To,

- 1. कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033 Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 General Manager, 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. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 22.01.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 22-जनवरी - 2018 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 22nd January 2018, 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 23-Jan-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	43349	45175	40146	18164	2360	149194
Peak Shortage (MW)	515	11	0	0	45	571
Energy Met (MU)	920	1064	901	355	41	3282
Hydro Gen(MU)	101	25	78	25	8	237
Wind Gen(MU)	9	23	25			57
Solar Gen (MU)*	0.74	16.58	46.46	0.77	0.02	65
Energy Shortage (MU)	15.7	0.0	1.1	0.0	0.3	17.1
Maximum Demand Met during the day (MW) (from NLDC SCADA)	46006	51368	41365	18416	2450	152268

B. Frequency Profile (%)

Region	FVI	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
All India	0.043	0.00	0.28	10.75	11.03	80.23	8.74

C. Power Supply Position in States

RegionRegion	States	Max. Demand Met during the day (MW)	Shortage during maximum Demand (MW)	Energy Met (MU)	Drawal Schedule (MU)	OD(+)/UD(-) (MU)	Max OD (MW)	Energy Shortage (MU
	Punjab	5422	0	111.4	20.9	-0.5	105	0.0
NR	Haryana	6535	0	123.1	68.0	2.0	254	0.4
	Rajasthan	10139	0	207.1	69.2	2.7	387	4.7
	Delhi	3857	0	65.0	47.8	-1.0	187	0.0
	UP	14501	220	300.1	105.1	2.2	774	0.0
	Uttarakhand	2117	0	38.3	29.1	-0.2	150	0.0
	HP	1503	0	27.2	22.1	1.0	197	0.1
	J&K	2114	528	44.4	41.8	-1.2	63	10.5
	Chandigarh	217	0	3.4	3.5	0.0	18	0.0
	Chhattisgarh	3357	0	73.5	8.4	-0.7	148	0.0
	Gujarat	14424	0	303.0	109.4	1.0	451	0.0
	MP	11737	0	220.9	122.6	-1.0	546	0.0
WD	Maharashtra	20679	0	422.3	136.4	1,2	388	0.0
WR	Goa	460	0	9.3	8.6	0.0	37	0.0
	DD	330	0	7.2	6.3	0.9	65	0.0
	DNH	764	0	17.7	16.9	0.9	77	0.0
	Essar steel	475	0	10.5	9.8	0.6	185	0.0
	Andhra Pradesh	8270	0	163.9	43.7	0.2	391	0.2
	Telangana	9008	0	177.4	77.0	0.3	337	0.2
SR	Karnataka	9763	0	205.8	90.5	-1.2	340	0.2
Jit	Kerala	3501	0	66.3	52.6	1.1	200	0.1
	Tamil Nadu	13453	0	281.1	137.6	2.9	555	0.4
	Pondy	285	0	6.4	6.7	-0.4	28	0.0
	Bihar	4339	0	79.6	73.3	-0.2	500	0.0
	DVC	3173	0	70.4	-38.3	-2.3	350	0.0
ER	Jharkhand	1209	0	24.6	15.0	-0.1	100	0.0
EN	Odisha	4191	0	74.6	19.9	1.2	350	0.0
	West Bengal	6159	0	105.0	16.4	1.5	400	0.0
	Sikkim	85	0	1.2	1.8	-0.6	0	0.0
	Arunachal Pradesh	112	4	2.0	1.9	0.0	56	0.0
	Assam	1379	16	22.8	19.2	0.6	122	0.2
	Manipur	182	2	2.7	2.8	-0.1	14	0.0
NER	Meghalaya	317	16	6.2	3.8	-0.1	71	0.0
	Mizoram	91	4	1.8	1.0	0.0	5	0.0
	Nagaland	113	5	1.9	1.8	0.0	63	0.0
	Tripura	221	6	3.7	2.8	0.7	35	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	3.0	-10.3	-12.0
Day peak (MW)	154.9	-527.0	-635.1

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	182.2	-224.4	126.5	-88.1	3.3	-0.4
Actual(MU)	170.9	-225.0	127.9	-83.6	3.5	-6.3
O/D/U/D(MU)	-11.3	-0.6	1.3	4.5	0.2	-5.9

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4221	12685	7692	1220	315	26133
State Sector	8945	16565	7474	5295	47	38326
Total	13166	29250	15166	6515	361	64459

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	577	1187	511	438	10	2724
Hydro	101	23	78	25	8	235
Nuclear	29	24	60	0	0	113
Gas, Naptha & Diesel	26	47	19	0	23	115
RES (Wind, Solar, Biomass & Others)	33	40	118	2	0	192
Total	766	1321	786	465	41	3379

			SK-KEGI	ONAL EXO	CHANGES	Date of 1	Reporting :	23-Jan
								Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage Level	Line Details	Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
<u> </u>	Export of 1	ER (With NR)	D/C		220	0.0	0.0	0.0
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	329 194	0.0	8.8 0.7	-8.8 -0.7
3	/ ocal	GAYA-BALIA	S/C	0	316	0.0	5.2	-5.2
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5		PUSAULI B/B	S/C	0	247	0.0	6.1	-6.1
6	-	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	187	0.0	0.0	0.0
7 8	1	MUZAFFARPUR-GORAKHPUR	D/C	0	123 390	0.0	0.0 5.9	-5.9
9	400 kV	PATNA-BALIA	Q/C	0	1024	0.0	17.5	-17.5
10		BIHARSHARIFF-BALIA	D/C	0	275	0.0	4.0	-4.0
11		MOTIHARI-GORAKHPUR	D/C	0	0	0.0	6.1	-6.1
12		BIHARSHARIFF-VARANASI	D/C	0	158	0.0	1.5	-1.5
13	220 kV	PUSAULI-SAHUPURI	S/C	0	0	0.0	0.0	0.0
14	_	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	0	0	0.5	0.0	0.5
16 17	1	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C S/C	0	0	0.0	0.0	0.0
	1	•	3/0		ER-NR	0.0	55.8	-55.3
	Export of 1	ER (With WR)	D/2		^	11.2	0.0	11.0
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C NEW RANCHI-DHARAMJAIGARH	D/C D/C	0	0 457	0.0	2.8	11.2 -2.8
20	400 1 77	JHARSUGUDA-RAIGARH	Q/C	0	97	1.1	0.0	1.1
21	400 kV	RANCHI-SIPAT	D/C	0	65	1.5	0.0	1.5
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	226	0.0	2.8	-2.8
23		BUDHIPADAR-KORBA	D/C	0	15 ER-WR	0.9 14.7	0.0 5.6	0.9 9.1
port/I	Export of 1	ER (With SR)				14.7	3.0	,,,,
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	0.0	0.0	22.0	-22.0
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	345.7	0.0	14.0	-14.0
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2256.5	0.0	47.9	-47.9
27	400 kV 220 kV	TALCHER-I/C BALIMELA-UPPER-SILERRU	D/C S/C	0.0	6.4 0.0	5.4 0.0	0.0	4.4 0.0
20	220 KV	BALIWELA-UFFER-SILERRU	3/C	0.0	ER-SR	0.0	83.9	-83.9
mert/I	Export of	ED (WALNED)				0.0	00.5	0017
.port/I	mport or	ER (With NER)						
29	T	BINAGURI-BONGAIGAON	D/C	0	95	0.0	0.0	0
	400 kV		D/C D/C	0	95 117	0.0 3.9	0.0	0 4
29	T	BINAGURI-BONGAIGAON			117 0	3.9 0.0	0.5	4 -1
29 30 31	400 kV 220 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C	0	117	3.9		4
29 30 31 aport/I	400 kV 220 kV Export of 1	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	117 0 ER-NER	3.9 0.0 3.9	0.5 0.6	4 -1 3.3
29 30 31	400 kV 220 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	117 0 ER-NER	3.9 0.0 3.9	0.5 0.6	4 -1 3.3
29 30 31 aport/I	400 kV 220 kV Export of I	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA	D/C	0	117 0 ER-NER	3.9 0.0 3.9	0.5 0.6	4 -1 3.3
29 30 31 aport/I	400 kV 220 kV Export of I	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	117 0 ER-NER	3.9 0.0 3.9	0.5 0.6	4 -1 3.3
29 30 31 31 mport/F 32	400 kV 220 kV Export of I	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	D/C D/C	0 0	0 NER-NR	3.9 0.0 3.9	0.5 0.6 0.0 0.0	4 -1 3.3 11.4 11.4
29 30 31 31 aport/F 32 aport/F 33	220 kV 220 kV Export of I HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C D/C -	0 0 468 0 50 0	117 0 ER-NER 0 NER-NR 1341 250 1034	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7
29 30 31 31 32 port/F 33 34 35 36	220 kV 220 kV Export of I HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C - D/C D/C D/C D/C D/C D/C	0 0 468 0 50 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2
29 30 31 port/I 32 port/I 33 34 35 36 37	400 kV 220 kV Export of 1 HVDC HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C D/C D/C D/C D/C D/C	0 0 0 468 0 50 0 0 485	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0
29 30 31 31 32 aport/F 33 34 35 36 37 38	400 kV 220 kV Export of 1 HVDC HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C	0 0 0 468 0 50 0 0 0 485 173	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1
29 30 31 31 port/F 32 port/F 33 34 35 36 37 38 39	400 kV 220 kV Export of 1 HVDC HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL	D/C	0 0 0 468 0 50 0 0 0 485 173 107	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0
29 30 31 port/H 32 port/H 33 34 35 36 37 38 39 40	400 kV 220 kV Export of 1 HVDC HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C	0 0 0 468 0 50 0 0 0 485 173 107 967	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0
29 30 31 31 port/F 32 port/F 33 34 35 36 37 38 39	400 kV 220 kV Export of 1 HVDC HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C D/C	0 0 0 468 0 50 0 0 485 107 967 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 0.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4
29 30 31 31 32 32 33 34 35 36 37 38 39 40 41	400 kV 220 kV Export of 1 HVDC Export of V HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C	0 0 0 468 0 50 0 0 0 485 173 107 967	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0
29 30 31 31 32 pport/F 33 34 35 36 37 38 39 40 41 42	400 kV 220 kV Export of 1 HVDC HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C	0 0 0 468 0 50 0 0 485 173 107 967 0 75	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1
29 30 31 31 32 pport/F 33 34 35 36 37 38 39 40 41 42 43	400 kV 220 kV Export of 1 HVDC Export of V HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C	0 0 0 468 0 50 0 0 485 173 107 967 0 75 33	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0
29 30 31 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44	400 kV 220 kV Export of 1 HVDC Export of V HVDC 765 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C	0 0 0 468 50 0 0 485 173 107 967 0 75 33 108	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0 0.1 0.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 2.1 1.0
29 30 31 31 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46	400 kV 220 kV Export of 1 HVDC 765 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 468 50 0 0 485 173 107 967 0 75 33 108 55	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0	0.5 0.6 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0 0.1 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 0.0 22.0 -4 1.1 0.0 2.1 1.0
29 30 31 31 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46	400 kV 220 kV Export of 1 HVDC Export of V HVDC 765 kV 400 kV 220 kV 132kV Export of V HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 468 50 0 0 485 173 107 967 0 75 33 108 55	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0 0.1 0.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 2.1 1.0
29 30 31 32 pport/K 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	220 kV Export of Y HVDC 765 kV 400 kV 220 kV 132kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-MOTA BADOD-MOTA BADOD-MOTA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	D/C	0 0 0 50 0 50 0 0 485 173 107 967 0 75 33 108 55	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 2.1 1.0 0.0 -3.3 -3.3 -3.3 -3.3
29 30 31 31 32 pport/F 33 34 35 37 38 39 40 41 42 43 44 45 46 47 48 49	220 kV Export of 1 HVDC T65 kV 400 kV 220 kV 132kV Export of 1 HVDC LINK	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 3 468 50 0 0 485 173 107 967 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0 28.6	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 4 0.0 0.1 0.0 0.0 0.0 162.6	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 2.1 1.0 0.0 -3.3.9
29 30 31 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 49 50	400 kV 220 kV Export of 1 HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 50 0 0 0 0 0 0 485 173 107 967 0 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.0 22.1 1.0 0.0 28.6	0.5 0.6 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 2.1 1.0 0.0 -33.9
29 30 31 31 32 pport/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 47 48 49 50 51	220 kV Export of 1 HVDC T65 kV 400 kV 220 kV 132kV Export of 1 HVDC LINK	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 50 0 50 0 0 0 485 173 107 967 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.1 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0 28.6	0.5 0.6 0.0 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 162.6 23.8 0.0 20.2 45.2 0.4	4 -1 3.3 11.4 11.4 -57.2 -4.1 -19.7 -50.2 -27.0 2.1 0.0 22.0 -4 1.1 0.0 0.0 -133.9 -23.8 0.0 -20.2 -45.2 -27.0 -
29 30 31 32 pport/H 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	220 kV Export of 1 HVDC A00 kV Export of 1 HVDC 765 kV 400 kV Export of 1 HVDC 132kV Export of 1 HVDC 132kV A00 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUIALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 30 468 0 50 0 0 485 173 107 967 0 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83 0	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0 28.6	0.5 0.6 0.0 0.0 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 0.0	4 -1 3.3 -11.4 -11.4 -57.2 -4.1 -19.7 -50.2 -27.0 -2.1 -0.0 -22.0 -4 -1.1 -0.0 -133.9 -23.8 -20.2 -45.2 -2.3 -2.0 -45.2 -2.3 -2.0
29 30 31 32 32 33 34 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 55 55 55 55 55 56 57 57 57 57 57 57 57 57 57 57 57 57 57	400 kV 220 kV Export of 1 HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C	0 0 0 50 0 0 50 0 0 485 173 107 967 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83 0 0	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0 28.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.5 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -1 3.3 -11.4 -57.2 -4.1 -19.7 -50.2 -2.0 -2.1 -0.0 -22.0 -4 -1.1 -0.0 -133.9 -23.8 -20.2 -45.2 -2.3 -2.0 -0.0 -0.0
29 30 31 32 port/F 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/F 47 48 49 50 51 52	220 kV Export of 1 HVDC A00 kV Export of 1 HVDC 765 kV 400 kV Export of 1 HVDC 132kV Export of 1 HVDC 132kV A00 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUIALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 30 468 0 50 0 0 485 173 107 967 0 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83 0 0 0 0	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 0.0 2.1 0.0 0.2 2.1 0.0 0.2 2.1 0.0 0.0 2.1 0.0 0.0 2.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.5 0.6 0.0 0.0 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -1 3.3 -11.4 -11.4 -57.2 -4.1 -19.7 -50.2 -27.0 -2.1 -0.0 -22.0 -4 -1.1 -0.0 -133.9 -23.8 -20.2 -45.2 -2.3 -0.0 -0.0 -1.5
29 30 31 31 port/F 32 port/F 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46 47 48 49 50 51 52 53	220 kV Export of 1 HVDC A00 kV Export of 1 HVDC 765 kV 400 kV Export of 1 HVDC 132kV Export of 1 HVDC 132kV A00 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHMEN SOLAPUR-RICHMEN WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C	0 0 0 0 50 0 0 485 107 967 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83 0 0 0 WR-SR	3.9 0.0 3.9 11.4 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 2.1 0.0 22.0 0 1.1 0.2 2.1 1.0 0.0 28.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.5 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -1 3.3 -11.4 -57.2 -4.1 -19.7 -50.2 -2.0 -2.1 -0.0 -22.0 -4 -1.1 -0.0 -133.9 -23.8 -20.2 -45.2 -2.3 -2.0 -0.0 -0.0
29 30 31 31 port/F 32 port/F 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46 47 48 49 50 51 52 53	220 kV Export of 1 HVDC T65 kV 400 kV 220 kV 132kV Export of 1 HVDC T65 kV 400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHMEN SOLAPUR-RICHMEN WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C	0 0 0 50 0 0 50 0 0 485 173 107 967 0 75 33 108 55 0	117 0 ER-NER 0 NER-NR 1341 250 1034 2758 1372 0 159 0 1517 0 32 0 0 WR-NR 1000 0 1499 2378 83 0 0 0 WR-SR	3.9 0.0 3.9 11.4 11.4 0.0 0.1 0.0 0.0 0.0 0.0 0.0 2.1 0.0 0.2 2.1 0.0 0.2 2.1 0.0 0.0 2.1 0.0 0.0 2.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.5 0.6 0.0 0.0 0.0 0.0 0.0 57.2 4.2 19.7 50.2 27.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -1 3.3 -11.4 -11.4 -57.2 -4.1 -19.7 -50.2 -27.0 -2.1 -0.0 -22.0 -4 -1.1 -0.0 -133.9 -23.8 -20.2 -45.2 -2.3 -0.0 -0.0 -1.5