

National Load Despatch Centre राष्टीय 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, क़त्ब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 9th Feb 2018

To,

- 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 08.02.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 08-Feb - 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 08th Feb 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 9-Feb-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	42879	45047	41017	18643	2371	149957
Peak Shortage (MW)	981	55	-215	0	58	879
Energy Met (MU)	926	1054	907	361	41	3290
Hydro Gen(MU)	94	27	54	31	9	215
Wind Gen(MU)	1	22	9			32
Solar Gen (MU)*	5.72	17.68	42.03	0.77	0.01	66
Energy Shortage (MU)	19.1	0.0	0.0	0.0	0.5	19.6
Maximum Demand Met during the day (MW) (from NLDC SCADA)	46086	48453	40412	18637	2486	154828

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	0.050	0.00	0.98	13.21	14.19	78.53	7.28

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	5485	0	118.5	45.3	-0.4	119	0.0
	Haryana	6877	0	129.0	68.4	1.7	222	0.1
NR	Rajasthan	10371	2150	203.4	73.1	5.5	498	8.0
	Delhi	3707	0	65.5	51.5	0.5	231	0.0
NR	UP	14768	410	297.9	102.2	0.4	809	0.0
NR	Uttarakhand	1968	0	35.1	27.7	0.0	125	0.0
	HP	1528	0	27.3	22.0	1.7	332	0.3
	J&K	2386	596	45.5	42.6	-0.7	313	10.7
	Chandigarh	209	0	3.4	3.0	0.3	36	0.0
	Chhattisgarh	3396	0	75.4	13.8	-0.8	39	0.0
	Gujarat	13990	0	298.8	125.6	1.7	729	0.0
WR	MP	9519	0	207.2	104.1	-2.5	301	0.0
	Maharashtra	20658	0	427.7	132.3	-1.6	280	0.0
	Goa	400	0	9.5	8.5	0.4	60	0.0
	DD	330	0	7.4	6.9	0.5	55	0.0
	DNH	760	0	17.8	16.7	1.1	82	0.0
	Essar steel	512	0	10.6	10.7	-0.1	126	0.0
	Andhra Pradesh	8166	0	167.8	59.8	4.5	1027	0.0
	Telangana	9410	0	182.7	73.1	-1.3	388	0.0
SR	Karnataka	9755	0	206.9	96.1	-1.0	574	0.0
JN.	Kerala	3417	0	69.4	56.1	1.3	215	0.0
	Tamil Nadu	13372	0	273.6	163.7	-0.7	465	0.0
	Pondy	329	0	6.9	7.3	-0.4	35	0.0
	Bihar	3990	0	66.7	63.3	-2.8	250	0.0
	DVC	3003	0	68.0	-40.2	-2.1	150	0.0
ER	Jharkhand	1211	0	23.9	14.6	-0.2	50	0.0
LIN	Odisha	4360	0	82.8	31.5	4.3	500	0.0
	West Bengal	6613	0	118.5	20.8	-0.1	160	0.0
	Sikkim	107	0	1.6	1.4	0.1	25	0.0
	Arunachal Pradesh	122	2	2.3	2.0	0.3	44	0.0
	Assam	1424	11	23.3	20.4	0.4	104	0.3
	Manipur	176	11	2.6	2.9	-0.3	17	0.0
NER	Meghalaya	299	11	5.1	4.5	-0.5	38	0.0
	Mizoram	91	1	1.7	1.0	-0.1	24	0.0
	Nagaland	115	5	2.1	2.1	-0.2	40	0.0
	Tripura	225	3	4.0	2.4	0.4	43	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	1.9	-10.3	-12.1
Day peak (MW)	110.2	-497.9	-622.4

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	205.9	-238.5	123.5	-93.1	4.3	2.1
Actual(MU)	195.0	-241.3	129.5	-83.4	2.7	2.5
O/D/U/D(MU)	-10.9	-2.8	6.1	9.7	-1.6	0.4

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	4717	11981	5322	1220	291	23531
State Sector	10495	17250	6310	5535	50	39640
Total	15212	29231	11632	6755	341	63171

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	571	1186	563	445	9	2775
Hydro	94	26	54	31	9	214
Nuclear	25	24	69	0	0	117
Gas, Naptha & Diesel	21	47	18	0	24	110
RES (Wind, Solar, Biomass & Others)	34	40	96	2	0	171
Total	746	1322	800	478	42	3387

^{*&}lt;u>Source</u>: RLDCs for solar connected to ISTS; SLDCs for embedded solar. Limited visibility of embedded solar data. सचिव(ऊर्जा)/संयुक्त सचिव(पारेषण)/(ओ एम)/निदेशक(ओ एम)/मुख्य अभियंता-के०वि॰प्रा०(ग्रि॰प्र०)/ मुख्य कार्यपालक अधिकारी(पोसोको)/सभी राज्यों के मुख्य सचिव/ऊर्जा सचिव

						Date of F	Reporting :	
								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)
•	Export of	ER (With NR)	D/G		220	0.0	0.1	0.1
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	328 90	0.0 1.1	8.1 0.0	-8.1 1.1
3	703K V	GAYA-BALIA	S/C	0	383	0.0	6.6	-6.6
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5	HVDC	PUSAULI B/B	S/C	0	338	0.0	8.0	-8.0
6		PUSAULI-VARANASI	S/C	0	243	0.0	0.0	0.0
7		PUSAULI -ALLAHABAD	S/C	0	155	0.0	0.0	0.0
8	1	MUZAFFARPUR-GORAKHPUR	D/C	0	342	0.0	5.1	-5.1
9	400 kV	PATNA-BALIA	Q/C	0	970	0.0	16.4	-16.4
10	1	BIHARSHARIFF-BALIA	D/C	0	317	0.0	4.7	-4.7
11	-	MOTIHARI-GORAKHPUR	D/C	0	0	0.0	6.1	-6.1
12	220 1-37	BIHARSHARIFF-VARANASI	D/C	0	260	0.0	0.5	-0.5
13	220 kV	PUSAULI-SAHUPURI	S/C S/C	0	165 0	0.0	3.0 0.0	-3.0 0.0
15	1	SONE NAGAR-RIHAND GARWAH-RIHAND	S/C S/C	0	0	0.0	0.0	0.0
16	132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	S/C S/C	0	0	0.5	0.0	0.5
17	1	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
1 /	l	INTERIORISTA CHANDAULI	3/0	U	ER-NR	1.6	58.6	-57.0
port/I	Export of	ER (With WR)			ER-NK	1.0	30.0	-37.0
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	15.2	0.0	15.2
19	1.55 K	NEW RANCHI-DHARAMJAIGARH	D/C	0	374	0.0	0.9	-0.9
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	0	0	8.3	0.0	8.3
21	400 KV	RANCHI-SIPAT	D/C	0	45	2.1	0.0	2.1
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	99	0.0	0.8	-0.8
23		BUDHIPADAR-KORBA	D/C	0	0 ER-WR	4.9 30.6	0.0 1.7	4.9 28.8
port/I	Export of	ER (With SR)			ER-WR	30.0	1.7	20.0
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	0.0	0.0	17.6	-17.6
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	345.7	0.0	15.0	-15.0
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2414.0	0.0	50.5	-50.5
27	400 kV	TALCHER-I/C	D/C	0.0	815.3	0.0	12.6	-12.6
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0	0.0	0.0	0.0
	F 4 . 4	CED (W'AL NED)			ER-SR	0.0	83.1	-83.1
iport/l	Export of	ER (With NER)	D/C	0		1		1
port/l	Export of	BINAGURI-BONGAIGAON	D/C	0	1007	0.0	6.1	-6
iport/l	400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON	D/C D/C D/C	0 0		0.0	6.1	1
29 30		BINAGURI-BONGAIGAON	D/C	0	1007 822	0.0		-6 4
30 31 31	400 kV 220 kV Export of	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	1007 822 0 ER-NER	0.0 3.9 0.0 3.9	6.1 2.2 8.3	-6 4 -2 -4.4
29 30 31	400 kV 220 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C	0	1007 822 0 ER-NER	0.0 3.9 0.0 3.9	6.1 2.2 8.3 9.1	-6 4 -2 -4.4
29 30 31 aport/I	400 kV 220 kV Export of HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA	D/C	0	1007 822 0 ER-NER	0.0 3.9 0.0 3.9	6.1 2.2 8.3	-6 4 -2 -4.4
29 30 31 31 aport/l 32	400 kV 220 kV Export of HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	D/C D/C	0	1007 822 0 ER-NER	0.0 3.9 0.0 3.9	6.1 2.2 8.3 9.1	-6 4 -2 -4.4
30 31 31 32 32 33	400 kV 220 kV Export of HVDC Export of	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C D/C D/C	0 0	1007 822 0 ER-NER 500 NER-NR	0.0 3.9 0.0 3.9 0.0 0.0	6.1 2.2 8.3 9.1 9.1 59.2	-6 4 -2 -4.4 -9.1 -9.1 -59.2
port/I 29 30 31 port/I 32	400 kV 220 kV Export of HVDC Export of	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B	D/C D/C	0 0	1007 822 0 ER-NER 500 NER-NR	0.0 3.9 0.0 3.9 0.0 0.0	6.1 2.2 8.3 9.1 9.1	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0
port/I 29 30 31 port/I 32 port/I 33 34	400 kV 220 kV Export of HVDC Export of HVDC	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C D/C D/C D/C	0 0 0	1007 822 0 ER-NER 500 NER-NR	0.0 3.9 0.0 3.9 0.0 0.0 0.0	6.1 2.2 8.3 9.1 9.1 59.2 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2
port/I 29 30 31 port/I 32 port/I 33 34 35	400 kV 220 kV Export of HVDC Export of	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG	D/C D/C D/C D/C D/C D/C D/C D/C	0 0 0 0 250 0	1007 822 0 ER-NER 500 NER-NR	0.0 3.9 0.0 3.9 0.0 0.0 0.0	9.1 9.1 59.2 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7
port/l 29 30 31 port/l 32 port/l 33 34 35 36	400 kV 220 kV Export of HVDC Export of 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 0 0 250 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0	9.1 9.1 59.2 0.0 16.7 55.5	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5
port/l 29 30 31 port/l 32 port/l 33 34 35 36 37	400 kV 220 kV Export of 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	D/C D/C D/C D/C D/C D/C D/C D/C	0 0 0 0 250 0 0 489	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0	9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5
port/I 29 30 31 32 port/I 33 34 35 36 37 38	400 kV 220 kV Export of HVDC Export of 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	0 0 0 250 0 0 489 157	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0	0.0 3.9 0.0 3.9 0.0 0.0 0.0 6.0 0.0 0.0	9.1 9.1 59.2 0.0 16.7 55.5 31.5	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5
port/I 29 30 31 31 32 port/I 33 34 35 36 37 38 39	400 kV 220 kV Export of 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	D/C	0 0 0 250 0 489 157 47	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0	0.0 3.9 0.0 3.9 0.0 0.0 0.0 6.0 0.0 0.0 0.0	6.1 2.2 8.3 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 1.2	-6 4 -2 -4.4 -9.1 -9.1 -59.2 6.0 -16.7 -55.5 -31.5 1.7
port/I 32 port/I 33 34 35 36 37 38 39 40	400 kV 220 kV Export of 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	D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C	0 0 0 250 0 0 489 157 47	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	59.2 0.0 16.7 55.5 0.0 1.2 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2 6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3
port/I 32 port/I 33 34 35 36 37 38 39 40 41	400 kV 220 kV Export of HVDC Export of 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-SHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR	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 0 250 0 0 489 157 47 975	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.3 0	59.2 0.0 16.7 55.5 31.5 0.0 1.2 0.0 4	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 -1.2 -22.3 -4
port/I 29 30 31 32 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42	400 kV 220 kV Export of 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	0 0 0 250 0 0 489 157 47 975 0 54	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 1.7 0.0 22.3 0	6.1 2.2 8.3 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 1.2 0.0 4	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5
port/I 29 30 31 31 32 port/I 33 34 35 36 37 38 39 40 41 42 43	400 kV 220 kV Export of HVDC Export of 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 0 250 0 0 489 157 47 47 975 0 54 25	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 390 0 63	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2
port/I 29 30 31 31 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44	400 kV 220 kV Export of HVDC Export of 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-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 0 250 0 0 489 157 47 975 0 54 25 93	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0 1	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2
port/l 29 30 31 31 32 port/l 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	### 400 kV 220 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 MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 250 0 0 489 157 47 975 0 54 25 93 48	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	59.2 0.0 16.7 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2
port/l 29 30 31 31 32 port/l 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46	400 kV 220 kV Export of HVDC Export of 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 V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUALPUR BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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 0 250 0 489 157 47 975 0 54 25 93 48	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0 11 0 WR-NR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6
port/I 29 30 31 31 32 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46	### ### ##############################	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	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 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 390 0 63 0 1 0 WR-NR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6
port/I 29 30 31 32 port/I 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47	400 kV 220 kV Export of HVDC Export of 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-KANKROLI ZERDA-BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-MOTA BADOD-MOTA BADOD-MOTA MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	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 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0 1 0 WR-NR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.6 -0.0 -135.6
port/I 29 30 31 32 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48	### ### ##############################	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-KOTA BADOD-MORAK MEHGAON-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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 0 63 0 0 1 0 WR-NR	0.0 3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6
port/I 29 30 31 31 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 47 48 49 50	### ##################################	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 155 0 0 390 0 63 0 1 0 WR-NR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6
port/I 29 30 31 31 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48 49 50 51	Export of HVDC Total HVDC Export of HVDC Export of HVDC Total HVDC Total HVDC Total 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-BHINMAL V'CHAL -BHINMAL V'CHAL -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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 0 40 0 WR-NR 1000 0 1785 2135 0	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 5.3
port/I 29 30 31 31 32 port/I 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 48 49 50 51 52	### ### ##############################	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-SHUALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHMEND WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	D/C D/C D/C D/C D/C D/C S/C S/C	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0 11 0 WR-NR 1000 0 1785 2135 0 0	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2 0.0	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 5.3 0.0
port/I 29 30 31 31 32 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48 49 50 51 52 53	### ##################################	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-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C D/C D/C D/C D/C S/C D/C D/C D/C D/C D/C S/C S/C	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 390 0 63 0 1 0 WR-NR 1000 0 0 1785 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2 0.0 0.0	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 -5.3 0.0 0.0
port/I 29 30 31 31 port/I 32 port/I 33 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48 49 50 51	### ### ##############################	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-SHUALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHMEND WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	D/C D/C D/C D/C D/C D/C S/C S/C	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 155 0 390 0 63 0 11 0 WR-NR 1000 0 1785 2135 0 0	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2 0.0	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 -5.3 0.0 0.0 1.3
port/I 29 30 31 31 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48 49 50 51 52 53	### ### ##############################	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-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 1555 0 0 390 0 63 0 1 0 WR-NR 1000 0 1785 2135 0 0 0 WR-SR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2 0.0 0.0 0.0 0.0	-6 4 -2 -4.4 -9.1 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 -5.3 0.0 0.0
port/I 29 30 31 31 port/I 32 port/I 33 34 35 36 37 38 39 40 41 42 43 44 45 46 port/I 47 48 49 50 51 52 53	### ### ##############################	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-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-MOTA BADOD-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C D/C D/C D/C D/C S/C S/C	0 0 0 250 0 0 489 157 47 975 0 54 25 93 48 0	1007 822 0 ER-NER 500 NER-NR 1445 0 709 2726 1548 0 0 1555 0 0 390 0 63 0 1 0 WR-NR 1000 0 1785 2135 0 0 0 WR-SR	0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6.1 2.2 8.3 9.1 9.1 9.1 59.2 0.0 16.7 55.5 31.5 0.0 4 0.0 0.4 0.0 0.0 168.2 24.0 0.0 28.3 38.1 0.2 0.0 0.0 0.0 0.0	-6 4 -2 -4.4 -9.1 -9.1 -59.2 -6.0 -16.7 -55.5 -31.5 1.7 -1.2 22.3 -4 0.5 -0.2 1.4 0.6 0.0 -135.6 -24.0 0.0 -28.3 -38.1 5.3 0.0 0.0 1.3