

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: 22nd Mar 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 21.03.2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 21-Mar-2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा०भा०प्रे०के० 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 21st Mar 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 22-Mar-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	39635	44493	43947	20413	2391	150880
Peak Shortage (MW)	900	76	0	43	41	1060
Energy Met (MU)	876	1095	1024	414	40	3449
Hydro Gen(MU)	99	24	62	35	7	227
Wind Gen(MU)	9	67	33			108
Solar Gen (MU)*	5.61	19.79	53.51	0.67	0.02	80
Energy Shortage (MU)	10.4	0.0	0.0	0.1	0.4	10.9
Maximum Demand Met during the day (MW) (from NLDC SCADA)	41832	48897	44916	20862	2364	155027

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	0.031	0.00	0.14	6.19	6.33	86.17	7.50

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	5017	0	102.6	21.6	-0.6	137	0.0
	Haryana	6280	158	117.7	43.7	3.0	238	0.3
NR	Rajasthan	9453	0	181.5	43.2	1.1	398	0.0
	Delhi	3541	0	70.3	58.6	-0.1	162	0.2
	UP	14413	375	299.2	98.8	0.8	672	0.0
	Uttarakhand	1819	0	33.8	25.5	1.6	238	0.0
	HP	1421	0	26.1	19.9	1.1	167	0.0
	J&K	1994	499	41.9	39.0	-2.1	72	9.9
	Chandigarh	187	0	3.3	3.0	0.3	33	0.0
	Chhattisgarh	3710	0	84.3	15.8	-3.1	58	0.0
	Gujarat	14424	0	322.4	165.3	2.8	388	0.0
	MP	8637	0	176.2	78.3	-2.0	289	0.0
WR	Maharashtra	21576	0	462.1	128.0	-0.7	445	0.0
VVIC	Goa	484	0	11.0	10.1	0.3	37	0.0
	DD	334	0	7.6	6.7	0.9	74	0.0
	DNH	751	0	17.8	16.9	0.9	60	0.0
	Essar steel	619	0	13.6	13.2	0.4	195	0.0
	Andhra Pradesh	8383	0	178.1	48.8	-0.1	421	0.0
	Telangana	9919	0	222,2	120.5	0.4	398	0.0
SR	Karnataka	9568	0	214.4	70.2	0.4	518	0.0
JI.	Kerala	3681	0	76.7	53.2	1.8	224	0.0
	Tamil Nadu	14500	0	325.0	157.9	0.8	468	0.0
	Pondy	346	0	7.4	7.7	-0.3	48	0.0
	Bihar	4381	0	79.6	71.2	-1.0	210	0.0
	DVC	2963	0	67.1	-45.8	-1.4	220	0.0
ER	Jharkhand	1177	0	24.8	14.1	0.7	80	0.1
LIN	Odisha	4500	0	90.5	41.6	2.8	225	0.0
	West Bengal	8076	0	150.3	49.2	1.1	220	0.0
	Sikkim	101	0	1.5	1.4	0.1	12	0.0
	Arunachal Pradesh	94	15	2.1	1.8	0.3	31	0.0
	Assam	1437	22	22.6	18.7	1.0	94	0.3
	Manipur	169	8	2.3	2.4	-0.1	20	0.0
NER	Meghalaya	289	23	5.5	3.5	0.0	35	0.0
	Mizoram	85	2	1.5	1.2	0.2	31	0.0
	Nagaland	121	8	2.1	1.9	0.1	17	0.0
	Tripura	240	2	3.9	3.4	0.0	32	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	1.8	-10.0	-14.6
Day peak (MW)	238.3	-275.8	-776.3

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	122.3	-171.3	101.3	-54.0	2.4	0.7
Actual(MU)	123.8	-188.1	99.8	-42.3	3.3	-3.5
O/D/U/D(MU)	1.5	-16.8	-1.5	11.6	0.9	-4.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5260	13621	6402	1580	220	27083
State Sector	7765	17362	4010	4775	50	33962
Total	13025	30983	10412	6355	269	61045

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	577	1099	678	446	10	2810
Hydro	99	24	62	35	7	227
Nuclear	27	24	46	0	0	97
Gas, Naptha & Diesel	26	54	20	0	23	123
RES (Wind, Solar, Biomass & Others)	42	87	130	2	0	261
Total	771	1287	936	484	41	3518

		INTE	K-KEGI	ONAL EXO	CHANGES	Date of 1	Reporting :	: 22-Mar-	
								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 l	ER (With NR)	D/C	1 0	224	0.0	2.0	2.0	
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	0	226 107	0.0	2.0 0.0	-2.0 0.4	
3	70081	GAYA-BALIA	S/C	0	341	0.0	5.8	-5.8	
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	12.9	-12.9	
5		PUSAULI B/B	S/C	0	0	0.0	0.0	0.0	
6 7	-	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	0	1.2 2.6	0.0	1.2 2.6	
8	1	MUZAFFARPUR-GORAKHPUR	D/C	0	255	0.0	1.3	-1.3	
9	400 kV	PATNA-BALIA	O/C	0	581	0.0	9.9	-9.9	
10		BIHARSHARIFF-BALIA	D/C	0	127	0.0	3.6	-3.6	
11		MOTIHARI-GORAKHPUR	D/C	0	229	0.0	3.9	-3.9	
12		BIHARSHARIFF-VARANASI	D/C	0	406	1.0	0.0	1.0	
13	220 kV	PUSAULI-SAHUPURI	S/C	0	168	0.0	3.3	-3.3	
14	-	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0	
15 16	132 kV	GARWAH-RIHAND KARMANASA-SAHUPURI	S/C S/C	0	0	0.7	0.0	0.7	
17	1	KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0	
			5.0	ı	ER-NR	5.9	42.7	-36.8	
nport/I	T	ER (With WR) JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	18.9	0.0	18.9	
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C D/C	0	204	3.9	0.0	3.9	
20		JHARSUGUDA-RAIGARH	O/C	0	0	13.0	0.0	13.0	
21	400 kV	RANCHI-SIPAT	D/C	0	16	2.5	0.0	2.5	
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	171	0.0	1.2	-1.2	
23	220 K 1	BUDHIPADAR-KORBA	D/C	0	0 ER-WR	4.9	0.0	4.9	
nport/I	Export of 1	ER (With SR)			ER-WR	43.2	1.2	42.0	
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	0.0	0.0	24.9	-24.9	
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	344.3	0.0	15.8	-15.8	
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2270.6	0.0	47.5	-47.5	
27	400 kV	TALCHER-I/C	D/C	0.0	492.1	2.3	6.5	-4.2	
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0 ER-SR	0.0 0.0	0.0 88.2	0.0 -88.2	
nport/I	Export of	ER (With NER)			ER-5R	0.0	00.2	-00.2	
29	Ī	L	D/C	0		0.0			
	400 1-37	BINAGURI-BONGAIGAON	D/C	U	1026	0.0	4.5	-4	
30	400 kV	BINAGURI-BONGAIGAON ALIPURDUAR-BONGAIGAON	D/C D/C	0	1026 886	3.9	4.5	-4 4	
	400 kV 220 kV				886 0	3.9 0.0	1.5	4 -2	
30 31	220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	D/C	0	886	3.9		4	
30 31 mport/I	220 kV Export of I	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	886 0 ER-NER	3.9 0.0 3.9	1.5 6.0	4 -2 -2.1	
30	220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	886 0 ER-NER	3.9 0.0 3.9	1.5 6.0	-2 -2.1	
30 31 aport/I	220 kV Export of I HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA	D/C	0	886 0 ER-NER	3.9 0.0 3.9	1.5 6.0	4 -2 -2.1	
30 31 aport/I	220 kV Export of I HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR)	D/C	0	886 0 ER-NER	3.9 0.0 3.9	1.5 6.0	-2 -2.1	
30 31 mport/F 32	220 kV Export of I HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	D/C D/C	0 0	886 0 ER-NER 0 NER-NR	3.9 0.0 3.9 0.0 0.0	1.5 6.0 0.0 0.0	-2 -2.1 0.0 0.0	
30 31 mport/F 32 mport/F 33	Export of I HVDC	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA	D/C D/C -	0 0	886 0 ER-NER 0 NER-NR	3.9 0.0 3.9 0.0 0.0	1.5 6.0 0.0 0.0 45.7	4 -2 -2.1 0.0 0.0	
30 31 mport/F 32 mport/F 33 34 35 36	Export of I HVDC	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 50 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424	3.9 0.0 3.9 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2	
30 31 31 32 32 33 34 35 36 37	220 kV Export of I HVDC Export of V HVDC	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	0 0 0 0 50 0 0 478	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114	3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.5 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7	
30 31 31 32 32 33 34 35 36 37 38	220 kV Export of I HVDC Export of V HVDC	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 0 50 0 0 478 458	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 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	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1	
30 31 31 32 32 33 34 35 36 37 38 39	220 kV Export of I HVDC Export of V HVDC	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 0 50 0 0 478 458 435	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5	
30 31 31 32 32 33 34 35 36 37 38	220 kV Export of I HVDC Export of V HVDC 765 kV	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 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 0 50 0 0 478 458	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 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	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1	
30 31 31 32 32 33 34 35 36 37 38 39 40	220 kV Export of I HVDC Export of V HVDC 765 kV	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 0 50 0 0 478 458 435 958	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0	3.9 0.0 3.9 0.0 0.0 0.5 0.0 0.0 0.0 0.0 8.1 6.5	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4	
30 31 31 32 32 33 34 35 36 37 38 39 40	220 kV Export of I HVDC Export of V HVDC - 765 kV - 400 kV	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 0 50 0 0 478 435 958 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2	
30 31 32 32 33 34 35 36 37 38 39 40 41 42	220 kV Export of I HVDC Export of V HVDC 765 kV	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 50 0 0 478 435 958 0 108	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8	
30 31 31 32 33 34 35 36 37 38 39 40 41 42 43 44 44 45	Export of I HVDC Export of V HVDC 765 kV 400 kV	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 50 0 0 478 458 435 958 0 108 43 84	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 1 26 55 0 5	3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.5 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44	220 kV Export of I HVDC Export of V HVDC - 765 kV - 400 kV	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	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 50 0 0 478 458 435 958 0 108 43 84	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 0	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 8.1 6.5 22.4 0 0.8 0.1 0.9	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 -22.4 -2 0.8 -0.2 0.9 0.5 0.0	
30 31 32 32 33 34 35 36 37 38 39 40 40 41 42 43 44 45 46	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV	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 50 0 0 478 458 435 958 0 108 43 84	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 1 26 55 0 5	3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.5 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 44 45 46	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V HVDC	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 50 0 0 478 448 435 958 0 108 43 84 48 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 WR-NR	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0	
30 31 32 32 33 34 35 36 37 38 40 41 42 43 44 45 46 47 48	220 kV Export of I HVDC Export of V 400 kV 132kV Export of V	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	D/C	0 0 0 50 0 0 478 435 958 0 108 43 84 48 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 1 26 55 0 WR-NR	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 -0.5 -7.4 -2.5 -7.4 -2.5 -7.4 -2.5 -7.4 -2.5 -7.4 -2.5 -7.4 -2.5 -7.4 -2.5 -7.4 -7.5 -7.4 -7.5 -7.4 -7.5 -7.5 -7.4 -7.5 -7.4 -7.5 -7.5 -7.4 -7.5 -7.5 -7.4 -7.5	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V HVDC	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 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 50 0 0 478 438 435 958 0 108 43 84 48 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 1 26 55 0 WR-NR 1000 0 770	3.9 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1	
30 31 32 32 33 34 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 220 kV 132kV Export of V HVDC LINK 765 kV	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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-LSILERU 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 0 478 458 435 958 0 108 43 43 43 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 WR-NR 1000 0 770 2027	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 8.1 6.5 22.4 0 0.8 0.1 0.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 -22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V HVDC LINK	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 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 0 478 478 435 958 0 108 43 84 48 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 770 2027	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 8.1 6.5 22.4 0 0.8 0.1 0.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	4 -2 -2.1 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1 -27.9 0.0 -6.1 -36.1 7.7	
30 31 32 32 33 34 35 36 37 37 38 39 40 41 42 43 44 44 45 46 46 47 48 48 49 50 51 52	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V LINK 765 kV	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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILEFU 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 50 0 0 478 435 958 0 108 43 43 43 0 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 770 2027 0 0	3.9 0.0 3.9 0.0 0.0 0.5 0.0 0.0 0.0 0.0 8.1 6.5 22.4 0 0.8 0.1 0.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 0.0 0.0 0.0 125.9 27.9 0.0 6.1 36.1 0.0	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -6.1 -36.1 7.7	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 220 kV 132kV Export of V HVDC LINK 765 kV	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-RICHIKODI FONDA-AMBEWADI	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 0 478 435 958 0 108 43 84 48 0 0	886 0 ER-NER 0 NER-NR 11114 250 307 2424 11114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 770 2027 0 0 0	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9 27.9 0.0 6.1 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1 -7.7 0.0 0.0	
30 31 32 32 33 34 35 36 37 37 38 39 40 41 42 43 44 45 46 47 48 48 49 50 51 52	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V LINK 765 kV	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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILEFU 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 50 0 0 478 435 958 0 108 43 43 43 0 0	886 0 ER-NER 0 NER-NR 1114 250 307 2424 1114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 770 2027 0 0	3.9 0.0 3.9 0.0 0.0 0.5 0.0 0.0 0.0 0.0 8.1 6.5 22.4 0 0.8 0.1 0.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 0.0 0.0 0.0 125.9 27.9 0.0 6.1 36.1 0.0 0.0	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 8.1 6.5 22.4 -2 0.9 0.5 0.0 -86.1 -27.9 0.0 -6.1 -36.1 7.7	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V LINK 765 kV	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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHAMBAD KOLHAPUR-AURAHBAD KOLHAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 478 435 958 0 108 43 84 48 0 0	886 0 ER-NER 0 NER-NR 11114 250 307 2424 11114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 0 770 2027 0 0 0 0 WR-SR	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9 27.9 0.0 6.1 36.1 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1 -7.7 0.0 0.0 0.0	
30 31 32 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	220 kV Export of I HVDC Export of V HVDC 765 kV 400 kV 132kV Export of V LINK 765 kV	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 GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RICHAMBAD KOLHAPUR-AURAHBAD KOLHAPUR-RUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 478 435 958 0 108 43 84 48 0 0 0 0 469 0 0 0 0	886 0 ER-NER 0 NER-NR 11114 250 307 2424 11114 0 0 0 1 26 55 0 5 0 WR-NR 1000 0 0 770 2027 0 0 0 0 WR-SR	3.9 0.0 3.9 0.0 0.0 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	1.5 6.0 0.0 0.0 45.7 3.0 7.4 49.2 18.7 0.0 0.0 0.0 2 0.1 0.4 0.0 0.0 0.0 125.9 27.9 0.0 6.1 36.1 0.0 0.0 0.0	4 -2 -2.1 0.0 0.0 0.0 -45.7 -2.5 -7.4 -49.2 -18.7 6.5 22.4 -2 0.8 -0.2 0.9 0.5 0.0 -86.1 -7.7 0.0 0.0 0.0	