

# **National Load Despatch Centre** पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

## POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

Date: 19<sup>th</sup> Dec, 2015

To,

- 1. महाप्रबंधक, पू. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड , कोलकाता 700033 General Manager, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. Executive Director, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 कार्यपालक निदेशक, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
- 3. महाप्रबंधक, प. क्षे. भा. प्रे. के., एफ-3, एम आई डी सी क्षेत्र , अंधेरी, मुंबई 400093 General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यपालक निदेशक, द. क्षे. भा. प्रे. के., 29, रेस कोर्स क्रॉस रोड, बंगल्र 560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 18.12.2015.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स. - 5.5.1 के प्रावधान के अन्सार, दिनांक 18th Dec 2015 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर निम्न लिंक 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 18<sup>th</sup> Dec 2015, is available at the NLDC website.

http://posoco.in/attachments/article/94/19.12.15 NLDC PSP.pdf

Thanking You.

## पाँवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

# राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Report for previous day Date of Reporting 19-Dec-15

#### A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW)	40560	41553	32753	16728	2313	133907
Peak Shortage (MW)	1749	446	700	100	47	3042
Energy Met (MU)	861	985	754	332	37	2970
Hydro Gen(MU)	156	26	49	18	8	257
Wind Gen(MU)	9	43	8			61

### B. Frequency Profile (%)

Region	<49.2	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
NEW GRID	0.00	0.00	1.11	10.47	11.59	66.75	21.67
SR GRID	0.00	0.00	1.11	10.47	11.59	66.75	21.67

C.Power Supply Position in States

		Max. Demand	Shortage during	Energy	Drawal	OD(+)/	Max
RegionRegion	States	Met during the	maximum Demand	Met (MU)	Schedule (MU)	UD(-) (MU)	OD (MW
		day (MW)	(MW)	Met (MO)	Schedule (MC)	OD(-) (MO)	OD (MW
	Punjab	5825	0	114.1	40.3	0.3	158
Haryana	Haryana	6448	0	117.2	64.2	-0.5	215
	Rajasthan	10251	0	223.4	69.8	1.4	242
NR	Delhi	3650	23	65.6	48.8	0.7	264
	UP	10253	1215	232.4	104.8	-0.5	365
	Uttarakhand	1852	0	35.2	25.6	2.3	311
	HP	1444	0	27.0	21.1	1.8	185
	J&K	1961	490	42.8	36.7	0.3	186
	Chandigarh	214	0	3.7	3.4	0.3	52
	Chhattisgarh	3346	393	68.8	25.8	1.3	317
	Gujarat	12452	0	267.0	59.6	1.7	322
	MP	10865	0	220.5	126.3	-4.2	452
WR	Maharashtra	18339	20	389.1	94.7	-4.5	584
WK	Goa	456	0	10.7	9.3	0.2	34
	DD	286	0	5.1	6.2	-1.2	50
	DNH	648	0	15.2	15.4	-0.2	12
	Essar steel	428	0	8.7	7.6	1.1	186
	Andhra Pradesh	6315	0	130.8	32.9	0.4	5252
	Telangana	6008	0	136.0	89.1	1.3	247
SR	Karnataka	7915	700	171.8	38.2	3.4	769
JK .	Kerala	3390	0	62.9	47.0	1.6	186
	Tamil Nadu	11905	0	246.7	108.9	4.8	544
	Pondy	291	0	6.0	6.0	0.0	22
	Bihar	3346	100	66.3	61.7	2.3	200
	DVC	2426	0	55.3	-12.6	-1.4	120
ER	Jharkhand	903	0	21.9	10.9	0.2	40
<b>-</b>	Odisha	3818	0	66.5	21.5	-2.1	150
	West Bengal	6728	0	121.5	20.0	1.1	170
	Sikkim	72	0	1.0	1.2	-0.2	30
	Arunachal Pradesh	104	-2	1.9	1.4	0.5	42
	Assam	1330	-5	21.5	14.5	2.0	276
	Manipur	156	-1	2.3	2.4	-0.1	35
NER	Meghalaya	336	-1	5.3	4.6	-0.2	30
	Mizoram	87	-2	1.3	1.1	0.2	36
	Nagaland	109	-3	1.9	1.6	0.3	37
	Tripura	211	-1	2.6	-0.5	-0.3	22

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	3.5	-4.4	-7.7
Max MW		-245.5	-463.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	152.5	-154.7	62.5	-65.5	5.6	0.3
Actual(MU)	151.5	-171.7	74.9	-65.2	7.8	-2.8
O/D/U/D(MU)	-1.0	-17.0	12.4	0.3	2.2	-3.1

#### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3561	11621	3140	1200	433	19955
State Sector	9135	13826	4392	5849	110	33312
Total	12696	25447	7532	7049	543	53267

सचिव(ऊर्जा)/ विशेष सचिव(ऊर्जा)/अतिरिक्त सचिव(ऊर्जा)/संयुक्त सचिव(पारेषण)/(ओ एम)/निदेशक(ओ एम)/मुख्य अभियंता-के॰वि॰पा॰(ग्रि॰प्र॰)/ अध्यक्ष एवं प्रबंध निदेशक (पावरग्रिङ)/मुख्य कार्यपालक अधिकारी(पोसोको)/सभी राज्यो के मुख्य सचिव/ऊर्जा सचिव

						Date of R	Reporting :	19-Dec-
								Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage	Line Details	Circuit	Max Import	Max Export	Import (MU)	Export	NET
mport/F	Level	ER (With NR)		(MW)	(MW)		(MU)	(MU)
1		GAYA-FATEHPUR	S/C	0	401	0.0	6.0	-6.0
	765KV	GAYA-BALIA	S/C	0	0	0.0	0.0	0.0
2		SASARAM-FATEHPUR	S/C	0	0	0.0	4.0	-4.0
3	HVDC	PUSAULI B/B	S/C	0	0	0.0	8.0	-8.0
4	LINK	PUSAULI-SARNATH	S/C	0	213	0.0	0.0	0.0
5		PUSAULI -ALLAHABAD	D/C	0	195	0.0	0.0	0.0
6		MUZAFFARPUR-GORAKHPUR	D/C	429	172	1.0	0.0	1.0
7	400 KV	PATNA-BALIA	Q/C	0	303	0.0	11.0	-11.0
8		BIHARSHARIFF-BALIA	D/C	169	84	0.0	1.0	-1.0
		BARH-GORAKHPUR	D/C	0	0	0.0	10.0	-10.0
10	220 KV	PUSAULI-SAHUPURI	S/C	0	207	0.0	3.0	-3.0
11		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
12	132 KV	GARWAH-RIHAND	S/C	37	13	1.0	0.0	1.0
13		KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
14	<u> </u>	KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 <b>2.0</b>	0.0 43.0	0.0 -41.0
nport/F	Export of	ER (With WR)			EK-NK	2.0	43.0	-41.0
15		JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	0.0	11.0	-11.0
16	765 KV	NEW RANCHI-DHARAMJAIGARH	S/C	0	0	0.0	2.0	-2.0
17		ROURKELA - RAIGARH ( SEL LILO	S/C	0	0	2.0	0.0	2.0
	-	BYPASS) JHARSUGUDA-RAIGARH						
18	400 KV	JHAKSUGUDA-KAIGARH IBEUL-RAIGARH	S/C S/C	0	0	2.0 1.0	0.0	2.0
20		STERLITE-RAIGARH	D/C	0	0	1.0	0.0	1.0
21		RANCHI-SIPAT	D/C	421	0	3.0	0.0	3.0
22		BUDHIPADAR-RAIGARH	S/C	0	173	0.0	2.0	-2.0
23	220 KV	BUDHIPADAR-KORBA	D/C	38	86	0.0	1.0	-1.0
<u> </u>	•		•		ER-WR	9.0	16.0	-7.0
mport/E	Export of	ER (With SR)						
24	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0	780	0	17.0	-17.0
25	LINK	TALCHER-KOLAR BIPOLE	D/C	0	2350	0	46.0	-46.0
26	400 KV	TALCHER-I/C	210	338	293	3	0	3.0
	220 KV	BALIMELA-UPPER-SILERRU	S/C	0	0 ER-SR	3.0	63.0	0.0 -63.0
27					DI DI	3.0	05.0	-05.0
	Export of	ER (With NER)						
	Export of	ER (With NER) BINAGURI-BONGAIGAON	Q/C	199	113	2	0	2
nport/E	-		Q/C D/C	199 50	113 33	0	0	2 0
nport/E	400 KV	BINAGURI-BONGAIGAON	_					
27 28	400 KV 220 KV	BINAGURI-BONGAIGAON	_		33	0	0	0
27 28	400 KV 220 KV Export of	BINAGURI-BONGAIGAON BIRPARA-SALAKATI	_		33 <b>ER-NER</b> 505	0 2.0	0 <b>0.0</b>	0 2.0 -12.1
27 28 mport/E 29	400 KV 220 KV Export of HVDC	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA	D/C	50	33 ER-NER	0 2.0	0 <b>0.0</b>	0 2.0
mport/E 27 28 mport/E 29	400 KV 220 KV Export of HVDC	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)	D/C	0	33 ER-NER 505 NR-NER	0 2.0 0 0.0	0 0.0 12 12.1	0 2.0 -12.1 -12.1
27 28 mport/E 29 mport/E 30	400 KV 220 KV Export of HVDC Export of HVDC	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B	D/C - D/C	0 400	33 ER-NER 505 NR-NER	0 2.0 0 0.0	0 0.0 12 12.1	-12.1 -12.1 -4.6
27 28 mport/E 29 mport/E 30 31	400 KV 220 KV Export of HVDC Export of HVDC 765 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA	D/C - D/C D/C	50 0 400 0	33 ER-NER 505 NR-NER 100 3142	0 2.0 0 0.0 4.7 0.0	0 0.0 12 12.1 0.2 64.2	0 2.0 -12.1 -12.1 4.6 -64.2
mport/E 27 28 mport/E 29 mport/E 30 31 32	A00 KV 220 KV Export of HVDC Export of HVDC 765 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR	D/C - D/C D/C D/C	50 0 400 0	33 ER-NER 505 NR-NER 100 3142 1016	0 2.0 0 0.0 4.7 0.0 0	0 0.0 12 12.1 0.2 64.2 20.5	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5
27 28 mport/E 29 mport/E 30 31	400 KV 220 KV Export of HVDC Export of HVDC 765 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA	D/C - D/C D/C	50 0 400 0	33 ER-NER 505 NR-NER 100 3142	0 2.0 0 0.0 4.7 0.0	0 0.0 12 12.1 0.2 64.2	0 2.0 -12.1 -12.1 4.6 -64.2
mport/E 27 28 mport/E 29 mport/E 30 31 32 33	Export of HVDC  Export of HVDC  To KV  To KV  To KV  To KV  To KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI	D/C   D/C  D/C  D/C  D/C  S/C	50 0 400 0 0 254	33 ER-NER 505 NR-NER 100 3142 1016 0	0 2.0 0 0.0 4.7 0.0 0 3.5	0 0.0 12 12.1 0.2 64.2 20.5 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5
mport/E 27 28 mport/E 29 mport/E 30 31 32 33 34	400 KV 220 KV Export of HVDC Export of HVDC 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL	D/C  D/C  D/C  D/C  D/C  S/C  S/C	50 0 400 0 0 254 236	33 ER-NER 505 NR-NER 100 3142 1016 0 49	0 2.0 0 0.0 4.7 0.0 0 3.5 1.7	0 0.0 12 12.1 0.2 64.2 20.5 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7
mport/E 27 28 mport/E 29 mport/E 30 31 32 33 34 35	400 KV 220 KV Export of HVDC Export of HVDC 765 KV 400 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	D/C  D/C  D/C  D/C  D/C  S/C  S/C  S/C	0 400 0 0 254 236	33 ER-NER 505 NR-NER 100 3142 1016 0 49	0 2.0 0 0.0 4.7 0.0 0 3.5 1.7 0.0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0
mport/E 27 28 mport/E 29 mport/E 30 31 32 33 34 35 36 37 38	400 KV 220 KV Export of HVDC Export of HVDC 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0	0 2.0 0 0.0 4.7 0.0 0 3.5 1.7 0.0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0
mport/E 27 28 29 mport/E 29 30 31 32 33 34 35 36 37 38 39	400 KV 220 KV Export of HVDC Cxport of HVDC 765 KV 400 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72 29	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0	0 2.0 0 0.0 0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4
nport/E 27 28 29 29 29 30 31 32 33 34 35 36 37 38	400 KV 220 KV Export of HVDC Export of HVDC 765 KV 400 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 0 13 0 0	0 2.0 0 0.0 0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0
nport/E 27 28 29 29 29 29 30 31 32 33 34 35 36 37 38 39 40	400 KV 220 KV 220 KV Export of HVDC Cxport of HVDC 765 KV 400 KV 400 KV 220 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL-RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72 29 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 0 WR-NR	0 2.0 0 0.0 0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 12.8	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1
mport/E 27 28 mport/E 29 30 31 32 33 34 35 36 37 38 39 40 41	400 KV 220 KV 220 KV Export of HVDC 765 KV 400 KV 400 KV 132KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72 29	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 0 13 0 0	0 2.0 0 0.0 0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0
pport/E 27 28  pport/E 29  30 31 32 33 34 35 36 37 38 39 40  41  41  pport/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E	400 KV 220 KV 220 KV Export of HVDC Export of HVDC 765 KV 400 KV 400 KV 132KV HVDC Export of HVDC	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) VCHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL VCHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR)	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 0 25 72 29 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 0 0 WR-NR	0 2.0 0 0.0 0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 -12.1  4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1 -53.4
pport/E 27 28  pport/E 29 30 31 32 33 34 35 36 37 38 39 40 41 41 41 42	400 KV 220 KV 220 KV Export of HVDC 765 KV 400 KV 400 KV 132KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72 29 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 0 WR-NR 2519	0 2.0 0 0.0 0 0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 12.8 0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 -12.1  4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1 -53.4
pport/E 27 28  pport/E 29  30 31 32 33 34 35 36 37 38 39 40  41  41  pport/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E/E	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV 400 KV  132KV  HVDC  HVDC  HVDC  HVDC  HVDC  LINK	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 0 25 72 29 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 0 WR-NR 2519	0 2.0 0 0.0 0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 -12.1  4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1 -53.4
mport/E 27 28 29 29 30 31 32 33 34 35 36 37 38 39 40 41 mport/E 42 43	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV 400 KV  132KV  HVDC  HVDC  HVDC  HVDC	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50 0 400 0 0 254 236 0 90 25 72 29 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 0 WR-NR 2519	0 2.0 0 0.0 0 0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 0 0 0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1 -53.4
mport/E 27 28 29 29 30 31 32 33 34 35 36 37 38 39 40 41 mport/E 42 43	400 KV 220 KV  Export of HVDC  Export of HVDC  Export of HVDC  Total HVDC  Export of HVDC  LINK  Total HVDC  LINK  Total HVDC  LINK  Total HVDC  LINK	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR)  V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 254 236 0 90 25 72 29 0 0 0 0 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519	0 2.0 0 0.0 0 0 0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 12.8 0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 -12.1 -12.1 4.6 -64.2 -20.5 3.5 1.7 0.0 1.2 0.0 1.2 0.4 0.0 -72.1 -53.4
mport/E 27 28 mport/E 29 mport/E 30 31 32 33 34 35 36 37 38 39 40 41 mport/E 42 43 44	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV  132KV  HVDC  LINK 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 254 236 0 90 25 72 29 0 0 0 0 426	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519 1000 0 1802 0	0 2.0 0 0.0 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 12.8 0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.
pport/E 27 28  sport/E 29  mport/E 30 31 32 33 34 35 36 37 38 39 40 41 41 41 42 43 44	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV  132KV  HVDC  LINK 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 254 236 0 90 25 72 29 0 0 0 0 426 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519 1000 0 1802 0 210	0 2.0 0 0.0 4.7 0.0 0 3.5 1.7 0.0 1.2 0.1 1.2 0.4 0.0 12.8 0	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.
pport/E  27  28  pport/E  29  pport/E  30  31  32  33  34  35  36  37  38  39  40  41  41  42  43  44  45	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV  132KV  HVDC  LINK 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL -MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 0 254 236 0 90 25 72 29 0 0 0 0 426 0 0	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519 1000 0 1802 0 210 0	0 2.0  0 0.0  4.7  0.0  0 3.5  1.7  0.0  1.2  0.1  1.2  0.4  0.0  12.8  0  0.0  0.0  0.0  0.0  0.0  0.0  0.	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.
pport/E  27  28  pport/E  29  pport/E  30  31  32  33  34  35  36  37  38  39  40  41  41  42  43  44  45  46	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV  132KV  HVDC  LINK 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 0 254 236 0 90 25 72 29 0 0 0 0 426 0 97	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519 1000 0 1802 0 0 WR-SR	0 2.0  0 0.0  4.7  0.0  0 3.5  1.7  0.0  1.2  0.1  1.2  0.4  0.0  12.8  0  0.0  0.0  0.0  0.0  0.0  0.0  0.	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.
pport/E  27  28  pport/E  29  pport/E  30  31  32  33  34  35  36  37  38  39  40  41  41  42  43  44  45  46	400 KV 220 KV  Export of HVDC  Export of HVDC  765 KV 400 KV 400 KV  132KV  HVDC  LINK 765 KV 400 KV	BINAGURI-BONGAIGAON BIRPARA-SALAKATI  NR (With NER) BISWANATH CHARIALI-AGRA  WR (With NR) V'CHAL B/B GWALIOR-AGRA PHAGI-GWALIOR ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR  APL-MHG WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	D/C  D/C  D/C  D/C  S/C  S/C  S/C  S/C	50  400 0 0 0 254 236 0 90 25 72 29 0 0 0 0 426 0 97	33 ER-NER 505 NR-NER 100 3142 1016 0 49 0 0 13 0 WR-NR 2519 1000 0 1802 0 0 WR-SR	0 2.0  0 0.0  4.7  0.0  0 3.5  1.7  0.0  1.2  0.1  1.2  0.4  0.0  12.8  0  0.0  0.0  0.0  0.0  0.0  0.0  0.	0 0.0 12 12.1 0.2 64.2 20.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.