

# **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

Date: 30<sup>th</sup> Nov. 2015

Ref: POSOCO/NLDC/SO/Daily PSP Report

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 29.11.2015.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स. - 5.5.1 के प्रावधान के अन्सार, दिनांक 29th Nov 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 29<sup>th</sup> Nov 2015, is available at the NLDC website.

http://posoco.in/attachments/article/94/30.11.15 NLDC PSP.pdf

Thanking You.

## पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

Report for previous day Date of Reporting 30-Nov-15

#### A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW)	36164	40854	28863	17048	2164	125093
Peak Shortage (MW)	1159	107	1000	88	58	2412
Energy Met (MU)	760	948	668	334	36	2747
Hydro Gen(MU)	112	22	31	20	9	194
Wind Gen(MU)	10	35	19			64

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	0.24	6.76	7.00	68.72	24.28
SR GRID	0.00	0.00	0.24	6.76	7.00	68.72	24.28

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 (MO)	OD(-) (MO)	OD (MW
	Punjab	4782	0	88.7	47.5	-0.3	92
	Haryana	5661	0	98.0	54.1	-1.9	193
	Rajasthan	9466	0	201.7	70.0	1.6	406
	Delhi	3034	0	55.5	40.4	-0.7	145
NR	UP	10155	640	217.9	104.5	-1.7	343
	Uttarakhand	1639	0	31.2	24.5	0.2	129
	HP	1245	0	23.0	17.2	1.0	160
	J&K	2004	501	41.3	34.7	0.7	451
	Chandigarh	166	0	3.0	3.3	0.3	9
	Chhattisgarh	3065	96	67.0	23.7	0.4	135
	Gujarat	11570	20	248.8	62.6	-4.4	724
	MP	10273	0	217.2	133.7	-3.4	189
WR	Maharashtra	17671	15	381.6	96.3	-0.6	328
WK	Goa	377	0	8.0	8.1	-0.6	39
	DD	260	0	6.0	6.2	-0.2	29
	DNH	640	0	15.0	15.2	-0.2	0
	Essar steel	258	0	5.0	4.9	0.1	181
	Andhra Pradesh	5470	0	116.6	14.1	0.4	1484
	Telangana	5219	0	120.5	78.6	-0.9	98
SR	Karnataka	7440	1000	154.4	30.1	-0.8	363
JN.	Kerala	3184	0	57.4	46.2	1.9	149
	Tamil Nadu	9965	0	214.2	94.3	2.5	582
	Pondy	243	0	4.9	5.0	-0.1	28
	Bihar	3298	0	63.2	61.1	-0.3	178
	DVC	2468	0	58.0	-9.5	1.1	187
ER	Jharkhand	976	88	22.3	10.8	-0.7	0
LN	Odisha	3901	0	71.1	24.0	2.1	260
	West Bengal	6349	0	118.4	18.7	-0.8	308
	Sikkim	91	0	1.2	1.2	0.1	31
•	Arunachal Pradesh	101	1	1.7	1.5	0.2	32
	Assam	1259	4	20.3	14.3	1.0	181
	Manipur	137	6	2.4	2.5	-0.2	29
NER	Meghalaya	297	3	5.3	4.2	-0.2	43
	Mizoram	82	0	1.3	1.2	0.0	30
	Nagaland	115	0	1.8	1.3	0.5	53
	Tripura	214	2	3.2	-0.8	2.0	87

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	5.5	-4.0	-9.4
Max MW		-197.4	-478.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	141.8	-142.4	60.0	-62.9	3.4	0.0
Actual(MU)	143.2	-155.2	61.7	-60.0	6.3	-4.0
O/D/U/D(MU)	1.4	-12.8	1.7	2.8	2.9	-4.0

### F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3926	10246	2080	2000	363	18615
State Sector	11400	12116	7008	5549	110	36183
Total	15326	22362	9088	7549	473	54798

सचिव(ऊर्जा)/ विशेष सचिव(ऊर्जा)/अतिरिक्त सचिव(ऊर्जा)/संयुक्त सचिव(पारेषण)/(ओ एम)/निदेशक(ओ एम)/मुख्य अभियंता-के०वि॰प्रा॰(ग्रि॰प्र॰)/ अध्यक्ष एवं प्रबंध निदेशक (पावरग्रिङ)/मुख्य कार्यपालक अधिकारी(पोसोको)/सभी राज्यो के मुख्य सचिव/ऊर्जा सचिव

Simple   Line Details							Date of R	Reporting :	30-1
SIND   Color   Line   Line Details   Crimit   Import   Export   Import   Export   CR (With NR)   ONT   ON									Import=(+v /Export =(- for NET (N
Teach	Sl No	_	Line Details	Circuit	Import	Export	Import (MU)	-	NET (MU
7.6 SKV		xport of	ER (With NR)		1	1	1		1
SABRAM FATERPUR	1								-6.0
NYNC   PURAULI BB		765KV							
Section   Sec		HVDC	SASARAM-FATEHPUR						
STATE   STA	3		PUSAULI B/B	S/C	0	0	0.0	0.0	0.0
400 KF   MURAPARPER GORAKIPUR   D.C   0   532   0.0   7.0   -7.0   -7.4									-1.0
7									+
BIHARSHARIFE-BALIA   D.C   63   213   0.0   3.0   3.0   3.1		400 KV		+					+
BABRIGORAKIPUR		1							-3.0
11		1							-9.0
132   132   132   132   132   133   134	10	220 KV		S/C	0	90	0.0	3.0	-3.0
13   13   13   13   14   15   15   14   15   15   16   17   16   17   16   17   16   17   17									0.0
13		132 KV		_					1.0
Import/Export of ER (With WR)   15									0.0
Import/Export of ER (With WR)	14	<u> </u>	KAKMANASA-CHANDAULI	S/C	L				
15	Import/F	export of	ER (With WR)			ER-NK	1.0	47.0	-40.0
16   16   16   176   176   176   176   177				D/C	0	0	0.0	7.0	-7.0
18		705 KV	NEW RANCHI-DHARAMJAIGARH	_					-1.0
18	17	1		S/C	0	0	3.0	0.0	3.0
19	18	1		S/C	0	0	0.0	3.0	-3.0
21	19	400 KV		S/C	0	0	3.0	0.0	3.0
22   220 KV   BUDHIPADAR-RAIGARH   S/C   7   204   0.0   2.0   -2.0	20		STERLITE-RAIGARH	D/C	0	0	0.0	2.0	-2.0
220 KV   BUDHIPADAR-KORBA	21		RANCHI-SIPAT						5.0
Import/Export of ER (With SR)		220 KV		+					-2.0
Import/Export of ER (With SR)	23		BUDHIPADAR-KORBA	D/C	44				1
24	Import/E	vnort of	ER (With SR)			EK-WK	11.0	10.0	-5.0
25				D/C	0	735	0	17.0	-17.0
27   220 KV   BALIMELA-UPPER-SILERRU   S/C   0   0   0   0   0   0   0   0   0	25	4	TALCHER-KOLAR BIPOLE	D/C	0				-42.0
Import/Export of ER (With NER)   27   400 KV   BINAGURI-BONGAIGAON   Q.C.   159   98   5   0   5   5   28   220 KV   BIRPARA-SALAKATI   D.C.   75   0   1   0   1   0   1   1   1   1   1	26	400 KV	TALCHER-I/C		359	235	6	0	6.0
Import/Export of ER (With NER)   27	27	220 KV	BALIMELA-UPPER-SILERRU	S/C	0				0.0
27	I		PED (WALNED)			ER-SR	6.0	59.0	-59.0
28   220 KV   BIRPARA-SALAKATI				O/C	159	98	5	0	5
Import/Export of NR (With NER)   29   HVDC   BISWANATH CHARIALI-AGRA   -   0   500   0   12   -12   -12									1
NR-NER									6.0
NR-NER   0.0   12.1   -12.									1
Import/Export of WR (With NR)   30	Import/E	export of	NR (With NER)						
30 HVDC VCHAL B/B D/C 50 200 0.0 1.0 -1.1 31 765 KV GWALIOR-AGRA D/C 0 2976 0.0 61.0 -61. 32 765 KV PHAGI-GWALIOR D/C 0 1322 0 25.8 -25. 33 400 KV ZERDA-KANKROLI S/C 254 69 2.0 0.0 2.0 34 400 KV ZERDA-BHINMAL S/C 225 167 0.0 0.0 0.0 35 400 KV VCHAL -RIHAND S/C 0 0 0 0.0 0.0 0.0 36 BADDD-KOTA S/C 77 0 1.0 0.0 0.0 1.0 37 220 KV BADOD-MORAK S/C 84 58 0.0 0.0 0.0 38 BADOD-MORAK S/C 84 58 0.0 0.0 0.0 40 132KV GWALIOR-SAWAI MADHOPUR S/C 0 0 0 0.0 0.0 0.0 40 132KV GWALIOR-SAWAI MADHOPUR S/C 0 0 0 0.0 0.0 0.0 41 HVDC APL-MHG D/C 0 0 0.0 0.0 0.0 42 HVDC APL-MHG D/C 0 0 0.0 0.0 0.0 43 LINK BARSUR-L-SILERU - 0 0 0 0.0 0.0 0.0 44 765 KV SOLAPUR-RAICHUR D/C 0 1685 0.0 23.0 -23. 400 KV KOLHAPUR-KUDGI D/C 0 203 0.0 4.0 -4.4 46 220 KV KOLHAPUR-KUDGI D/C 0 203 0.0 4.0 -4.4 47 BHUTAN BHUTAN				_	0				-12.
31 765 KV GWALIOR-AGRA D/C 0 2976 0.0 61.0 -61.  32 765 KV PHAGL-GWALIOR D/C 0 1322 0 25.8 -25.  33 400 KV ZERDA-KANKROLI S/C 254 69 2.0 0.0 2.0  34 400 KV ZERDA-BHNMAL S/C 225 167 0.0 0.0 0.0  35 400 KV VCHAL-RIHAND S/C 0 0 0 0.0 0.0 0.0  36 BADOD-KOTA S/C 77 0 1.0 0.0 0.0 1.0  37 220 KV BADOD-MORAK S/C 84 58 0.0 0.0 0.0  38 BADOD-MORAK S/C 84 58 0.0 0.0 0.0 0.0  40 132KV GWALIOR-SAWAI MADHOPUR S/C 67 0 1.0 0.0 0.0  40 132KV GWALIOR-SAWAI MADHOPUR S/C 0 0 0 0.0 0.0 0.0  41 HVDC APL-MHG D/C 0 0 0.0 0.0 0.0  42 HVDC BHADRAWATI B/B - 0 1000 0.0 0.0  43 LINK BARSUR-L.SILERU - 0 0 0 0.0 0.0 0.0  44 765 KV SOLAPUR-RAICHUR D/C 0 1685 0.0 23.0 -23.  400 KV KOLHAPUR-KUDGI D/C 0 0 203 0.0 4.0 -44.  41 1 KVDC KOLHAPUR-KUDGI D/C 0 0 0.0 0.0 0.0 3.0  45 KOLHAPUR-CHIKODI D/C 0 203 0.0 4.0 -44.  46 220 KV KOLHAPUR-CHIKODI D/C 0 203 0.0 4.0 -44.  47 BHUTAN	29	HVDC	BISWANATH CHARIALI-AGRA	<u> </u>	0				-12.1 -12.1
32 765 KV PHAGI-GWALIOR D/C 0 1322 0 25.8 -25.  33 400 KV ZERDA-KANKROLI S/C 254 69 2.0 0.0 2.0  34 400 KV ZERDA BHINMAL S/C 225 167 0.0 0.0 0.0  35 400 KV VCHAL -RIHAND S/C 0 0 0 0.0 0.0 0.0  36 BADOD-KOTA S/C 77 0 1.0 0.0 1.0  37 220 KV BADOD-MORAK S/C 84 58 0.0 0.0 0.0  38 WEHGAON-AURAIYA S/C 67 0 1.0 0.0 0.0  40 132KV GWALIOR-SAWAI MADHOPUR S/C 0 0 0 0.0 0.0 0.0  WR-NR 4.0 87.8 -83.  41 HVDC APL -MHG D/C 0 0 0 0.0 0.0 0.0  Import/Export of WR (With SR)  42 HVDC BHADRAWATI B/B - 0 1000 0.0 24.0 -24.  43 LINK BARSUR-L.SILERU - 0 0 0 0.0 0.0 0.0  44 765 KV SOLAPUR-RAICHUR D/C 0 1685 0.0 23.0 -23.  400 KV KOLHAPUR-KUDGI D/C 0 203 0.0 4.0 -44.  46 220 KV PONDA-AMBEWADI S/C 0 0 0 0.0 0.0 0.0  **TRANSNATIONAL EXCHANGE**	29 Import/E	HVDC Export of	BISWANATH CHARIALI-AGRA WR (With NR)	- D/C	1	NR-NER	0.0	12.1	-12.1
33   400 KV   ZERDA-KANKROLI   S/C   254   69   2.0   0.0   2.0     34   400 KV   ZERDA-BHINMAL   S/C   225   167   0.0   0.0   0.0     35   400 KV   VCHAL-RIHAND   S/C   0   0   0.0   0.0   0.0     36   BADDD-KOTA   S/C   77   0   1.0   0.0   0.0     37   220 KV   BADOD-MORAK   S/C   84   58   0.0   0.0   0.0     39   MEHGAON-AURAIYA   S/C   67   0   1.0   0.0   1.0     MALANPUR-AURAIYA   S/C   67   0   1.0   0.0   0.0     MALANPUR-AURAIYA   S/C   33   5   0.0   0.0   0.0     40   132KV   GWALIOR-SAWAI MADHOPUR   S/C   0   0   0.0   0.0   0.0     WR-NR   4.0   87.8   -83.     41   HVDC   APL-MHG   D/C   0   0   0.0   0.0   0.0     42   HVDC   BHADRAWATI B/B   - 0   1000   0.0   24.0   -24.     43   LINK   BARSUR-LSILERU   - 0   0   0.0   0.0   0.0     44   765 KV   SOLAPUR-RICHUR   D/C   0   1685   0.0   23.0   -23.     400 KV   KOLHAPUR-KUDGI   D/C   303   0   3.0   0.0   3.0     45   46   220 KV   KOLHAPUR-CHIKODI   D/C   0   203   0.0   4.0   -44.     46   220 KV   EACH AMBEWADI   S/C   0   0   0.0   0.0   0.0     TRANSNATIONAL EXCHANGE	29 Import/E 30	HVDC Export of HVDC	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B		50	NR-NER 200	0.0	12.1	-12.1 -1.0
35   400 KV   VCHAL-RIHAND   S/C   0   0   0.0   0.0   0.0     36	29 Import/E 30 31	Export of HVDC 765 KV	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B  GWALIOR-AGRA	D/C	50	NR-NER 200 2976	0.0	12.1 1.0 61.0	-12.1
BADOD-KOTA   S/C   77   0   1.0   0.0   1.0	29 Import/E 30 31 32	Export of HVDC 765 KV 765 KV	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B  GWALIOR-AGRA  PHAGI-GWALIOR	D/C D/C	50 0	200 2976 1322	0.0 0.0 0.0 0	12.1 1.0 61.0 25.8	-12.1 -1.0 -61.0
BADOD-MORAK   S/C   84   58   0.0   0.0   0.0	29 Import/F 30 31 32 33	HVDC Export of HVDC 765 KV 765 KV 400 KV	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B  GWALIOR-AGRA  PHAGI-GWALIOR  ZERDA-KANKROLI	D/C D/C S/C	50 0 0 254	200 2976 1322 69	0.0 0.0 0.0 0 2.0 0.0	12.1 1.0 61.0 25.8 0.0	-12.1 -1.0 -61.0 -25.1 2.0 0.0
Mehgaon-auraiya	29 Import/E 30 31 32 33 34 35	HVDC Export of HVDC 765 KV 765 KV 400 KV	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 S/C S/C S/C	50 0 0 254 225 0	200 2976 1322 69 167 0	0.0 0.0 0.0 0 2.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0	-12.1 -1.0 -61.4 -25.1 2.0 0.0 0.0
39 MALANPUR-AURAIYA S/C 33 5 0.0 0.0 0.0  40 132KV GWALIOR-SAWAI MADHOPUR S/C 0 0 0 0.0 0.0 0.0  WR-NR 4.0 87.8 -83.  41 HVDC APL-MHG D/C 0 0 0 0.0 0.0 0.0  Import/Export of WR (With SR)  42 HVDC BHADRAWATI B/B - 0 1000 0.0 24.0 -24.  43 LINK BARSUR-L.SILERU - 0 0 0 0.0 0.0 0.0 0.0  44 765 KV SOLAPUR-RAICHUR D/C 0 1685 0.0 23.0 -23.  400 KV KOLHAPUR-KUDGI D/C 303 0 3.0 0.0 3.0  45 KOLHAPUR-CHIKODI D/C 0 203 0.0 4.0 -44.  46 220 KV PONDA-AMBEWADI S/C 0 0 0 0.0 0.0 0.0  XELDEM-AMBEWADI S/C 100 0 2.0 0.0 2.0  XELDEM-AMBEWADI S/C 100 0 2.0 0.0 2.0  XELDEM-AMBEWADI S/C 100 0 2.0 0.0 2.0  TRANSNATIONAL EXCHANGE	29 Import/E 30 31 32 33 34 35 36	HVDC Export of HVDC 765 KV 765 KV 400 KV	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B  GWALIOR-AGRA  PHAGI-GWALIOR  ZERDA-KANKROLI  ZERDA -BHINMAL  VCHAL -RIHAND  BADOD-KOTA	D/C D/C S/C S/C S/C S/C	50 0 0 254 225 0	200 2976 1322 69 167 0	0.0 0.0 0.0 0 2.0 0.0 0.0 1.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0	-12.: -1.0 -61.: -25.: 2.0 0.0 0.0 1.0
40   132KV   GWALIOR-SAWAI MADHOPUR   S/C   0   0   0.0   0.0   0.0     WR-NR   4.0   87.8   -83.   41   HVDC   APL -MHG   D/C   0   0   0.0   0.0   0.0     Import/Export of WR (With SR)     42   HVDC   BHADRAWATI B/B   - 0   1000   0.0   24.0   -24.   43   LINK   BASUR-L.SILERU   - 0   0   0.0   0.0   0.0   0.0     44   765 KV   SOLAPUR-RAICHUR   D/C   0   1685   0.0   23.0   -23.   400 KV   KOLHAPUR-KUDGI   D/C   303   0   3.0   0.0   3.0     45   KOLHAPUR-CHIKODI   D/C   0   203   0.0   4.0   -44.   46   220 KV   EVALUATION   EV	29 Import/E 30 31 32 33 34 35 36 37	Export of HVDC 765 KV 765 KV 400 KV 400 KV	BISWANATH CHARIALI-AGRA  WR (With NR)  VCHAL B/B  GWALIOR-AGRA  PHAGI-GWALIOR  ZERDA-KANKROLI  ZERDA-BHINMAL  VCHAL -RIHAND  BADOD-KOTA  BADOD-MORAK	D/C D/C S/C S/C S/C S/C S/C	50 0 0 254 225 0 77 84	200 2976 1322 69 167 0 0	0.0 0.0 0.0 0 2.0 0.0 0.0 1.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0	-12.: -1.0 -61.: -25.: 2.0 0.0 0.0 1.0 0.0
WR-NR   4.0   87.8   -83.	29 Import/F 30 31 32 33 34 35 36 37 38	Export of HVDC 765 KV 765 KV 400 KV 400 KV	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	D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C	50 0 0 254 225 0 77 84 67	200 2976 1322 69 167 0 0 58	0.0 0.0 0.0 0 2.0 0.0 0.0 1.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0	-12.: -1.0 -61.4 -25.: 2.0 0.0 0.0 1.0 0.0
Import/Export of WR (With SR)   42	29  Import/F 30 31 32 33 34 35 36 37 38 39	HVDC  Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV	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	D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 254 225 0 77 84 67 33	NR-NER  200 2976 1322 69 167 0 0 58 0 5	0.0 0.0 0.0 0 2.0 0.0 0.0 1.0 0.0 1.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-12.: -1.0 -61.: -25.: 2.0 0.0 0.0 1.0 0.0
42	29  Import/F 30 31 32 33 34 35 36 37 38 39	HVDC  Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV	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	D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 254 225 0 77 84 67 33	200 2976 1322 69 167 0 0 58 0	0.0 0.0 0.0 0 2.0 0.0 0.0 1.0 0.0 1.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12.: -1.0 -61.4 -25.: 2.0 0.0 0.0 1.0 0.0 0.0
A3   LINK   BARSUR-L.SILERU   - 0 0 0 0.0 0.0 0.0	29 Import/F 30 31 32 33 34 35 36 37 38 39 40	HVDC Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 254 225 0 77 84 67 33 0	200 2976 1322 69 167 0 58 0 58 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12.: -1.0 -61.4 -25.: 2.0 0.0 0.0 1.0 0.0 1.0 0.0 0.0 0.0
44 765 KV SOLAPUR-RAICHUR D/C 0 1685 0.0 23.0 -23.  400 KV KOLHAPUR-KUDGI D/C 303 0 3.0 0.0 3.0  45 KOLHAPUR-CHIKODI D/C 0 203 0.0 4.0 -4.0  46 220 KV PONDA-AMBEWADI S/C 0 0 0.0 0.0 0.0 0.0  XELDEM-AMBEWADI S/C 100 0 2.0 0.0 2.0  WR-SR 5.0 51.0 -46.  TRANSNATIONAL EXCHANGE	29  Import/E 30 31 32 33 34 35 36 37 38 39 40 41  Import/E	HVDC   Export of   HVDC   765 KV   765 KV   400 KV   400 KV   400 KV   220 KV   132KV   HVDC   Export of   Expor	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)	D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 WR-NR 0	0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12.2 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0
400 KV   KOLHAPUR-KUDGI   D/C   303   0   3.0   0.0   3.0   3.0   4.0   -4.0   4.0	29  Import/F 30 31 32 33 34 35 36 37 38 39 40  Import/F 42	HVDC	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)  BHADRAWATI B/B	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	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 0 5 0 WR-NR 0 1000	0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12.2 -1.0.2 -61.1 -61.1 -25.3 -2.0 -0.0 -0.0 -0.0 -0.0 -0.0 -0.0 -0.0
45 46 46 220 KV PONDA-AMBEWADI S/C 0 0 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29  Import/F 30 31 32 33 34 35 36 37 38 39 40  Import/F 42 43	HVDC	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)  BHADRAWATI B/B  BARSUR-L.SILERU	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	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 WR-NR 0 1000 0	0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12.  -1.0.  -61.1.  -25.3.  2.0  0.0.  0.0.  1.0  0.0.  0.0.  0.0.  0.0.  -24.1  0.0  0.0.
46   220 KV	29  Import/F 30 31 32 33 34 35 36 37 38 39 40  Import/F 42 43	HVDC	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)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR	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	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 WR-NR 0 1000 0 1685	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-121.0 -61.1 -25.1 -2.0 -0.0 -0.0 -0.0 -1.0 -0.0 -0.0 -0.0 -0
47 XELDEM-AMBEWADI S/C 100 0 2.0 0.0 2.0 WR-SR 5.0 51.0 -46.  TRANSNATIONAL EXCHANGE	29  Import/E 30 31 32 33 34 35 36 37 38 39 40 41  Import/E 42 43 44	HVDC	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)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  KOLHAPUR-KUDGI	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	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 58 0 WR-NR 0 1000 0 1685	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-12. -1.0. -61.1. -25.1. 2.0 0.0 0.0. 1.0. 0.0.
TRANSNATIONAL EXCHANGE  47 BHUTAN	29  Import/F 30 31 32 33 34 35 36 37 38 39 40 41 Import/F 42 43 44	Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV 132KV HVDC Export of HVDC LINK 765 KV 400 KV	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-LSILERU  SOLAPUR-RAICHUR  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI	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	50 0 0 254 225 0 77 84 67 33 0	NR-NER  200 2976 1322 69 167 0 0 58 0 55 0 WR-NR 0 1000 0 1685 0 203	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	12.1 1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-121.06161252.0. 0.0 0.0. 1.0. 0.0. 0.0. 0.024. 0.023. 3.04.6.
₹ 47 BHUTAN	29  Import/E 30 31 32 33 34 35 36 37 38 39 40  Import/E 42 43 44 45 46	Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV 132KV HVDC Export of HVDC LINK 765 KV 400 KV	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)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI	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	50 0 0 254 225 0 77 84 67 33 0 0	NR-NER  200 2976 1322 69 69 167 0 58 0 WR-NR 0 1000 0 1685 0 203	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0	12.1  1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.0 0.0 24.0 0.0 4.0 0.0	-121.0 -61.1 -25. 2.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0
₹ 47 BHUTAN	29  Import/E 30 31 32 33 34 35 36 37 38 39 40  Import/E 42 43 44 45 46	Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV 132KV HVDC Export of HVDC LINK 765 KV 400 KV	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)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI	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	50 0 0 254 225 0 77 84 67 33 0 0	NR-NER  200 2976 1322 69 167 0 0 58 0 WR-NR 0 1000 0 1000 0 203 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0	12.1  1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.0 0.0 24.0 0.0 4.0 0.0 0.0	-12.   -1.0   -61.1   -25.   -20.0   -20.0   -20.0   -20.0   -20.0   -20.0   -21.0   -22.0   -22.0   -23.0   -24.0   -20.0   -
	29  Import/E 30 31 32 33 34 35 36 37 38 39 40  Import/E 42 43 44 45 46	Export of HVDC 765 KV 765 KV 400 KV 400 KV 400 KV 132KV HVDC Export of HVDC LINK 765 KV 400 KV	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)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  KOLHAPUR-KUDGI  KOLHAPUR-CHIKODI  PONDA-AMBEWADI  XELDEM-AMBEWADI	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	50 0 0 254 225 0 77 84 67 33 0 0 0 0 0 0 0 0 0 0 0 0 0	NR-NER  200 2976 1322 69 69 167 0 58 0 5 0 WR-NR 0 1000 0 1685 0 203 0 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0	12.1  1.0 61.0 25.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.0 0.0 24.0 0.0 4.0 0.0 0.0	-121.0 -61.1 -25.1 -2.0 -0.0 -0.0 -0.0 -1.0 -0.0 -0.0 -0.0 -0