

### National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

### POWER SYSTEM OPERATION CORPORATION LIMITED

#### पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम)

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

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 01<sup>st</sup> Apr 2018

To,

- 1. कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033 Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए, शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 General Manager, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
- 3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई -400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- 4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 31.03.2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 31-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 31<sup>st</sup> Mar 2018, is available at the NLDC website.

धन्यवाद,

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

Report for previous day 1-Apr-18

## A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	39729	45295	43733	17912	2260	148929
Peak Shortage (MW)	834	0	0	89	103	1026
Energy Met (MU)	850	1130	1030	375	35	3419
Hydro Gen(MU)	88	21	56	24	7	196
Wind Gen(MU)	12	74	48			135
Solar Gen (MU)*	7.04	21.46	50.87	0.82	0.01	80
Energy Shortage (MU)	9.5	0.0	0.0	0.3	1.6	11.3
Maximum Demand Met during the day (MW) (from NLDC SCADA)	42023	50038	45776	18405	2237	152299

## **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	0.030	0.00	0.00	1.09	1.09	75.07	23.84

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	5531	0	117.0	34.6	0.5	106	0.0
	Haryana	6158	0	115.8	45.2	1.6	223	0.0
	Rajasthan	8655	0	174.9	44.2	0.3	533	0.0
	Delhi	3564	0	73.7	60.4	-2.0	76	0.0
NR	UP	14246	395	262.3	95.0	1.7	691	0.0
	Uttarakhand	1865	0	36.2	28.8	0.0	68	0.0
	HP	1396	0	26.0	19.9	0.2	180	0.0
	J&K	1923	481	40.1	37.6	-2.3	119	9.5
	Chandigarh	177	0	3.4	3.2	0.2	41	0.0
	Chhattisgarh	3652	0	87.3	19.5	-0.2	145	0.0
	Gujarat	15187	0	337.7	177.7	3.1	614	0.0
	MP	8462	0	177.3	67.7	-1.8	349	0.0
WR	Maharashtra	22338	0	480.1	152.1	-4.3	441	0.0
VVIN	Goa	519	0	10.5	10.0	-0.3	29	0.0
	DD	303	0	6.9	6.5	0.4	69	0.0
	DNH	746	0	17.4	16.7	0.7	79	0.0
	Essar steel	607	0	12.8	14.3	-1.5	90	0.0
	Andhra Pradesh	8379	0	175.5	53.1	1.3	350	0.0
	Telangana	9602	0	219.1	104.3	0.3	296	0.0
SR	Karnataka	9798	0	219.2	80.9	0.1	340	0.0
JK .	Kerala	3683	0	76.3	55.9	1.5	189	0.0
	Tamil Nadu	14436	0	331.8	169.1	0.9	499	0.0
	Pondy	364	0	7.9	8.3	-0.4	44	0.0
	Bihar	3985	0	61.3	55.9	-3.5	180	0.0
	DVC	3018	0	69.0	-59.7	0.0	250	0.0
ER	Jharkhand	1161	0	23.3	14.0	0.7	200	0.3
ZIV.	Odisha	3795	0	76.4	33.8	-0.7	130	0.0
	West Bengal	7048	0	143.2	32.6	4.6	270	0.0
	Sikkim	95	0	1.6	1.0	0.6	15	0.0
	Arunachal Pradesh	108	5	2.2	1.7	0.5	65	0.0
	Assam	1390	70	20.2	17.8	0.3	95	1.0
	Manipur	150	3	1.8	2.3	-0.5	24	0.1
NER	Meghalaya	312	1	4.7	3.6	-0.4	45	0.0
	Mizoram	78	2	1.5	1.3	-0.1	10	0.0
	Nagaland	114	3	1.9	2.1	-0.3	30	0.0
	Tripura	188	15	2.5	1.7	-0.4	50	0.4

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	2.5	-7.8	-7.5
Day peak (MW)	128.9	-337.5	-611.5

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	150.6	-204.7	122.4	-73.6	4.6	-0.7
Actual(MU)	157.8	-217.6	121.8	-66.7	2.7	-2.0
O/D/U/D(MU)	7.2	-12.9	-0.6	6.9	-1.9	-1.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5070	11666	5902	1580	270	24488
State Sector	8020	17513	3590	3715	50	32888
Total	13090	29179	9492	5295	319	57376

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	Total
Thermal (Coal & Lignite)	518	1154	655	439	7	2773
Hydro	88	21	58	24	7	197
Nuclear	32	26	47	0	0	105
Gas, Naptha & Diesel	26	53	22	0	21	122
RES (Wind, Solar, Biomass & Others)	49	95	140	2	0	285
Total	712	1350	921	464	35	3482

		INTE	R-REGIO	ONAL EX	<u>CHANGES</u>	Date of I	Reporting :	_
	Voltage			Max	1		Ermont	Import=(+ve) /Export =(-ve) for NET (MU)
Sl No	Voltage Level	Line Details	Circuit	Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
 Import/E		ER (With NR)		(1 <b>V1 VV</b> )	1		(MO)	(WIC)
1		GAYA-VARANASI	D/C	0	442	0.0	8.0	-8.0
3	765kV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	0	205 481	0.0	2.9 8.5	-2.9 -8.5
4	HVDC	ALIPURDUAR-AGRA	-	0	0	0.0	0.0	0.0
5	HVDC	PUSAULI B/B	S/C	0	0	0.0	0.0	0.0
6 7	-	PUSAULI-VARANASI	S/C S/C	0	31 64	0.3	0.0	0.3
8	_	PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	D/C	0	435	0.0	6.3	-6.3
9	400 kV	PATNA-BALIA	Q/C	0	748	0.0	11.7	-11.7
10		BIHARSHARIFF-BALIA	D/C	0	259	0.0	6.3	-6.3
11	_	MOTIHARI-GORAKHPUR	D/C	0	295	0.0	5.0	-5.0
12	220 1-37	BIHARSHARIFF-VARANASI	D/C	0	360	0.0	2.8	-2.8 -2.8
13	220 kV	PUSAULI-SAHUPURI SONE NAGAR-RIHAND	S/C S/C	0	173 0	0.0	0.0	0.0
15	-	GARWAH-RIHAND	S/C	0	0	0.4	0.0	0.4
16	132 kV	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
Image - 4/F	Turn 0 4 6 -	ED (W:4k W/D)			ER-NR	0.7	54.4	-53.6
_	export of	ER (With WR)	D /C	^		10.0	0.0	10.0
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	0	18.0	0.0	18.0
19 20		NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-RAIGARH	D/C Q/C	0	159	4.9 15.1	0.0	4.9 15.1
21	400 kV	RANCHI-SIPAT	D/C	0	0	2.5	0.0	2.5
22	220 kV	BUDHIPADAR-RAIGARH	S/C	0	64	0.0	0.1	-0.1
23	220 K V	BUDHIPADAR-KORBA	D/C	0	0	3.9	0.0	3.9
Import/E	Exmant of	ED (With CD)			ER-WR	44.4	0.1	44.4
<u>шроги Е</u> 24	765 kV	ER (With SR) ANGUL-SRIKAKULAM	D/C	0.0	0.0	0.0	29.5	-29.5
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	333.4	0.0	15.1	-15.1
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	2269.8	0.0	51.4	-51.4
27	400 kV	TALCHER-I/C	D/C	0.0	1096.5	0.0	6.7	-6.7
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0 ER-SR	0.0 <b>0.0</b>	96.0	0.0 -96.0
 Import/F	Export of	ER (With NER)			ER-SK	0.0	90.0	-90.0
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	1095	0.0	3.2	-3
30	400 K V	ALIPURDUAR-BONGAIGAON	D/C	0	881	3.9		4
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	0 ED MED	0.0	1.4	-1
Import/F	Export of	NER (With NR)			ER-NER	3.9	4.7	-0.8
32	HVDC	BISWANATH CHARIALI-AGRA	-	0	500	0.0	3.6	-3.6
					NER-NR	0.0	3.6	-3.6
_	Export of	WR (With NR)	<u> </u>	0				T
, ,		CHAMDA ZUDIUZGUETDA	$\mathbf{D}/\mathbf{C}$		610	0.0	0.2	0.2
33	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C D/C		648 250	0.0	6.0	-6.0
33 34 35	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C D/C	0	648 250 307	0.0 0.0 0.0	0.3 6.0 7.4	-0.3 -6.0 -7.4
34	HVDC	V'CHAL B/B	D/C	0	250	0.0	6.0	-6.0
34 35 36 37	HVDC	V'CHAL B/B APL -MHG	D/C D/C D/C D/C	0 0 0 478	250 307 2568 1360	0.0 0.0 0.0 0.0	6.0 7.4 50.7 27.3	-6.0 -7.4 -50.7 -27.3
34 35 36 37 38	HVDC 765 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C	0 0 0 478 0	250 307 2568 1360 736	0.0 0.0 0.0 0.0 0.0	6.0 7.4 50.7 27.3 13.2	-6.0 -7.4 -50.7 -27.3 -13.2
34 35 36 37 38 39		V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 0 0 478 0 773	250 307 2568 1360 736 0	0.0 0.0 0.0 0.0 0.0 16.2	6.0 7.4 50.7 27.3 13.2 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2
34 35 36 37 38 39 40		V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C D/C S/C S/C	0 0 0 478 0 773	250 307 2568 1360 736 0 1551	0.0 0.0 0.0 0.0 0.0 16.2 0.0	6.0 7.4 50.7 27.3 13.2 0.0 36.3	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3
34 35 36 37 38 39	765 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C S/C	0 0 0 478 0 773	250 307 2568 1360 736 0	0.0 0.0 0.0 0.0 0.0 16.2	6.0 7.4 50.7 27.3 13.2 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2
34 35 36 37 38 39 40 41		V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C D/C D/C D/C D/C S/C S/C S/C	0 0 0 478 0 773 0 453	250 307 2568 1360 736 0 1551 0	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2
34 35 36 37 38 39 40 41 42 43 44	765 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C D/C	0 0 0 478 0 773 0 453 447 959 0	250 307 2568 1360 736 0 1551 0 0 0 297	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2
34 35 36 37 38 39 40 41 42 43 44 45	765 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA	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 0 478 0 773 0 453 447 959 0 70	250 307 2568 1360 736 0 1551 0 0 0 297 32	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1
34 35 36 37 38 39 40 41 42 43 44 45 46	765 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK	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 0 478 0 773 0 453 447 959 0 70 30	250 307 2568 1360 736 0 1551 0 0 0 297 32 43	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4
34 35 36 37 38 39 40 41 42 43 44 45 46 47	765 kV - 400 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8
34 35 36 37 38 39 40 41 42 43 44 45 46	765 kV - 400 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK	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 0 478 0 773 0 453 447 959 0 70 30	250 307 2568 1360 736 0 1551 0 0 0 297 32 43	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV - 400 kV - 220 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  GWALIOR-SAWAI MADHOPUR	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 0 478 0 773 0 453 447 959 0 70 30 78 48	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV  400 kV  220 kV  132kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48	250 307 2568 1360 736 0 1551 0 0 297 32 43 0 9 0 WR-NR	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV  400 kV  220 kV  132kV  Export of HVDC	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  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 S/C S/C S/C S/C S/C S/C S/C S/C -	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR	D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48	250 307 2568 1360 736 0 1551 0 0 297 32 43 0 9 0 WR-NR	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	765 kV  400 kV  220 kV  132kV  Export of HVDC	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  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 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 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 297 32 43 0 9 0 WR-NR	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  Import/E 50 51 52	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  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	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 D/C S/C S/C S/C D/C S/C S/C D/C S/C S/C S/C D/C D/C D/C D/C D/C D/C	0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  Import/E 50 51 52 53 54 55	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK  765 kV  400 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI 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-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	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 D/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C D	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR  1000 0 1275 2210 71 0	0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  Import/E 50 51 52 53 54 55 56	765 kV  400 kV  220 kV  132kV  Export of  HVDC LINK  765 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA  PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  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-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI  PONDA-AMBEWADI	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 D/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR  1000 0 1275 2210 71 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7 0.0 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  [mport/E 50 51 52 53 54 55	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK  765 kV  400 kV	V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI 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-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI	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 D/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C D	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR  1000 0 1275 2210 71 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0 0.0 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7 0.0 0.0 0.0 2.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  [mport/E) 50 51 52 53 54 55 56	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK  765 kV  400 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI PONDA-AMBEWADI  XELDEM-AMBEWADI	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR  1000 0 1275 2210 71 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  **mport/E 50 51 52 53 54 55 56	765 kV  400 kV  220 kV  132kV  Export of HVDC LINK  765 kV  400 kV	V'CHAL B/B  APL -MHG  GWALIOR-AGRA PHAGI-GWALIOR  JABALPUR-ORAI  GWALIOR-ORAI  SATNA-ORAI  ZERDA-KANKROLI  ZERDA -BHINMAL  V'CHAL -RIHAND  RAPP-SHUJALPUR  BADOD-KOTA  BADOD-MORAK  MEHGAON-AURAIYA  MALANPUR-AURAIYA  GWALIOR-SAWAI MADHOPUR  WR (With SR)  BHADRAWATI B/B  BARSUR-L.SILERU  SOLAPUR-RAICHUR  WARDHA-NIZAMABAD  KOLHAPUR-CHIKODI PONDA-AMBEWADI  XELDEM-AMBEWADI	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 478 0 773 0 453 447 959 0 70 30 78 48 0	250 307 2568 1360 736 0 1551 0 0 0 297 32 43 0 9 0 WR-NR  1000 0 1275 2210 71 0 0 0 WR-SR	0.0 0.0 0.0 0.0 0.0 0.0 16.2 0.0 7.2 6.6 21.2 0 0.3 0.1 0.8 0.3 0.0 52.7  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	6.0 7.4 50.7 27.3 13.2 0.0 36.3 0.0 0.0 0.0 2 0.2 0.5 0.0 0.0 144.2 24.0 0.0 13.7 41.7 0.0 0.0 0.0 0.0	-6.0 -7.4 -50.7 -27.3 -13.2 16.2 -36.3 7.2 6.6 21.2 -2 0.1 -0.4 0.8 0.3 0.0 -91.5  -24.0 0.0 -13.7 -41.7 4.7 0.0 0.0 0.0 2.2