

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: 17th June 2018

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. 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. महाप्रबंधक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई -400093 General Manager, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
- महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006
 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong 793006, Meghalaya
- 5. अपर महाप्रबंधक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 Additional General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 16.06.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 16-जून 2018 की अखिल भारतीय प्रणाली की दैनिक ग्रिंड 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 16th June 2018, is available at the NLDC website.

धन्यवाद.

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

Report for previous day 17-Jun-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	52173	46047	37892	19817	2457	158385
Peak Shortage (MW)	423	11	33	0	162	629
Energy Met (MU)	1242	1121	880	458	42	3744
Hydro Gen (MU)	310	10	54	92	29	495
Wind Gen (MU)	53	155	157			365
Solar Gen (MU)*	13.01	18.69	59.74	0.82	0.01	92
Energy Shortage (MU)	9.5	0.0	0.0	0.0	1.6	11.1
Maximum Demand Met during the day	57237	48841	38973	21249	2364	164003
(MW) & time (from NLDC SCADA)	00:08	14:46	15:22	21:11	19:58	00:10

B. Frequency Profile (%)

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Region	FVI	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
All India	0.029	0.00	0.03	4.54	4.57	82.42	13.01

C. Power Supply Position in States

Region	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	7090	0	163.6	107.5	-1.1	115	0.0
	Haryana	8860	200	181.0	131.2	1.0	316	0.1
	Rajasthan	10991	0	231.1	66.7	5.2	589	0.0
	Delhi	6254	0	124.7	100.7	-2.2	194	0.1
NR	UP	20062	0	433.9	186.8	1.5	297	0.0
	Uttarakhand	1953	0	40.5	14.5	0.1	168	0.0
	HP	1259	0	23.8	1.6	0.6	99	0.0
	J&K	1885	471	39.1	19.6	-5.3	0	9.3
	Chandigarh	272	0	4.7	6.0	-1.3	0	0.0
	Chhattisgarh	3508	0	83.7	24.6	-0.2	209	0.0
	Gujarat	16081	0	355.0	109.1	5.3	668	0.0
	MP	8366	0	182.1	64.6	-4.3	227	0.0
NA/D	Maharashtra	20155	0	454.5	142.2	1.5	498	0.0
WR	Goa	451	0	10.2	9.8	-0.2	14	0.0
	DD	323	0	7.3	6.8	0.5	66	0.0
	DNH	755	0	17.0	17.1	0.0	72	0.0
	Essar steel	587	0	11.0	10.9	0.0	209	0.0
	Andhra Pradesh	7750	0	172.9	33.9	2.3	490	0.0
	Telangana	6840	0	147.6	58.0	-0.8	351	0.0
SR	Karnataka	7691	0	168.8	54.1	-0.1	460	0.0
ЭK	Kerala	3242	0	64.9	43.1	0.6	196	0.0
	Tamil Nadu	14420	0	318.2	112.2	1.1	495	0.0
	Pondy	360	0	8.0	8.2	-0.2	22	0.0
	Bihar	4685	0	90.5	91.0	-1.7	200	0.0
	DVC	2925	0	69.8	-28.3	0.6	100	0.0
ER	Jharkhand	1198	0	25.5	19.6	0.1	50	0.0
EK	Odisha	4413	0	91.0	44.8	0.6	350	0.0
	West Bengal	8768	0	180.1	63.6	3.8	450	0.0
	Sikkim	83	0	1.0	1.4	-0.4	2	0.0
	Arunachal Pradesh	116	2	2.2	2.8	-0.6	0	0.0
	Assam	1551	47	25.7	19.6	0.7	175	1.5
	Manipur	151	3	2.3	2.5	-0.2	11	0.0
NER	Meghalaya	306	13	5.3	0.2	-0.2	110	0.0
	Mizoram	79	4	1.9	1.1	0.2	1	0.0
	Nagaland	131	7	2.2	2.4	-0.3	36	0.0
	Tripura	212	17	2.5	4.3	-0.9	89	0.0

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

D. Transnational Exchanges (WIC) - Import(Bhutan	Nepal	Bangladesh
Actual(MU)	25.1	-4.9	-15.1
Day peak (MW)	1342.2	-378.0	-662.6

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	247.7	-225.0	23.4	-37.8	-7.4	0.9
Actual(MU)	243.0	-221.0	24.5	-34.6	-10.9	1.0
O/D/U/D(MU)	-4.7	4.0	1.1	3.2	-3.5	0.1

F. Generation Outage(MW)

_	NR	WR	SR	ER	NER	Total
Central Sector	4145	14270	8862	1700	416	29393
State Sector	6510	15728	9220	5905	50	37413
Total	10655	29998	18082	7605	465	66805

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	570	1103	494	419	4	2591
Hydro	310	10	56	92	29	496
Nuclear	31	30	47	0	0	107
Gas, Naptha & Diesel	33	50	15	0	23	121
RES (Wind, Solar, Biomass & Others)	79	174	255	1	0	509
Total	1023	1366	866	512	56	3824

Share of RES in total generation (%)	7.73	12.74	29.37	0.22	0.04	13.30
Share of Non-fossil fuel (Hydro, Nuclear and	41.07	15.62	41 17	10 10	51 50	20.00
RES) in total generation (%)	41.07	15.63	41.17	18.10	51.50	29.08

H. Diversity Factor

		1.028			or	Facto	sity	Divers	mand i	a Der	Indi	All :
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Diversity factor = Sum of regional maximum demands / All India maximum demand

		INTE	R-REGIO	ONAL EX	CHANGES	Date of I	Reporting :	17-Jun-18
								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)
1 mport/1	Export of	ER (With NR) GAYA-VARANASI	D/C	78	252	0.0	2.5	-2.5
2	765kV	SASARAM-FATEHPUR	S/C	342	0	3.9	0.0	3.9
3		GAYA-BALIA	S/C	0	433	0.0	7.6	-7.6
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	285 247	0.0	11.8 5.8	-11.8 -5.8
6		PUSAULI-VARANASI	S/C	0	220	0.0	0.0	0.0
7		PUSAULI -ALLAHABAD	S/C	0	109	0.0	0.0	0.0
8		MUZAFFARPUR-GORAKHPUR	D/C	0	684	0.0	11.2	-11.2
9	400 kV	PATNA-BALIA	Q/C	0	937	0.0	17.0	-17.0
10	_	BIHARSHARIFF-BALIA	D/C	0	438	0.0	7.6	-7.6
11		MOTIHARI-GORAKHPUR BIHARSHARIFF-VARANASI	D/C D/C	278 794	0	0.0	0.0	-4.0 0.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	215	0.0	4.6	-4.6
14		SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	35	0	0.3	0.0	0.3
16	132 K	KARMANASA-SAHUPURI	S/C	0	56	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 4.2	71.9	0.0 -67.7
Import/I	Export of	ER (With WR)			ER-IVE	4.2	/1.9	-07.7
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	904	0	12.8	0.0	12.8
19		NEW RANCHI-DHARAMJAIGARH	D/C	795	0	11.4	0.0	11.4
20	400 kV	JHARSUGUDA-RAIGARH RANCHI-SIPAT	Q/C D/C	959 369	0 0	12.8 6.8	0.0	12.8 6.8
22		BUDHIPADAR-RAIGARH	S/C	72	60	0.0	0.0	0.1
23	220 kV	BUDHIPADAR-KORBA	D/C	131	0	2.2	0.0	2.2
Import/I	Export of	ER (With SR)			ER-WR	46.2	0.0	46.2
24	т -	ANGUL-SRIKAKULAM	D/C	0.0	1196.8	0.0	19.6	-19.6
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	461.8	0.0	11.1	-11.1
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1384.2	0.0	25.8	-25.8
27	400 kV 220 kV	TALCHER-I/C BALIMELA-UPPER-SILERRU	D/C S/C	735.5	0.8	3.8 0.0	0.0	-0.9 0.0
20	220 KV	D'ALIMELA CITER-SILLARC	5/0	0.0	ER-SR	0.0	56.5	-56.5
Import/I	Export of	f ER (With NER)						
29	400 kV	BINAGURI-BONGAIGAON	D/C	59	389	0.0	2.3	-2
30	220 1 77	ALIPURDUAR-BONGAIGAON	D/C D/C	294	169	3.0	0.0	3
31	220 kV	ALIPURDUAR-SALAKATI	D/C	23	118 ER-NER	0.0 3.0	1.4 3.7	-1 - 0.7
Import/I	-	NER (With NR) BISWANATH CHARIALI-AGRA	-	0	501	0.0	12.0	-12.0
_					NER-NR	0.0	12.0	-12.0
	Export of	TITE (TITEL NIE)			11211111	0.0	12.0	
33	T	WR (With NR)						1
		CHAMPA-KURUKSHETRA	D/C	55	2000	0.0	46.6	-46.6
34		CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	0	2000 250	0.0 5.6	46.6	5.6
		CHAMPA-KURUKSHETRA			2000	0.0	46.6	
34 35		CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C	0	2000 250 2015	0.0 5.6 0.0	46.6 0.0 33.1	5.6 -33.1
34 35 36 37 38		CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C D/C D/C	0 0 0 0 0	2000 250 2015 2328 1332 1082	0.0 5.6 0.0 0.0 0.0 0.0	46.6 0.0 33.1 46.0 26.7 18.9	5.6 -33.1 -46.0 -26.7 -18.9
34 35 36 37 38 39	HVDC	CHAMPA-KURUKSHETRA 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 0 0	2000 250 2015 2328 1332 1082 1884	0.0 5.6 0.0 0.0 0.0 0.0 9.5	46.6 0.0 33.1 46.0 26.7 18.9 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5
34 35 36 37 38 39 40	HVDC	CHAMPA-KURUKSHETRA 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 0 0 0 0 460	2000 250 2015 2328 1332 1082 1884 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3
34 35 36 37 38 39 40 41	HVDC	CHAMPA-KURUKSHETRA 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 0 0 0 0 460 530	2000 250 2015 2328 1332 1082 1884 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2
34 35 36 37 38 39 40	HVDC	CHAMPA-KURUKSHETRA 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 0 0 0 0 460	2000 250 2015 2328 1332 1082 1884 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3
34 35 36 37 38 39 40 41 42	HVDC 765 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C C S/C S/C S/C S/C	0 0 0 0 0 0 460 530 352	2000 250 2015 2328 1332 1082 1884 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8
34 35 36 37 38 39 40 41 42 43	HVDC 765 kV	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND	D/C D/C D/C D/C S/C S/C S/C S/C S/C	0 0 0 0 0 0 460 530 352 955	2000 250 2015 2328 1332 1082 1884 0 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0
34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC 765 kV	CHAMPA-KURUKSHETRA 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	0 0 0 0 0 0 460 530 352 955 53 33	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 0.0 1 0.7 1.5	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47	765 kV	CHAMPA-KURUKSHETRA 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 0 0 460 530 352 955 53 33 0 31	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	HVDC 765 kV 400 kV	CHAMPA-KURUKSHETRA 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	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 0 0 460 530 352 955 53 33 0 31	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC 765 kV 400 kV 220 kV	CHAMPA-KURUKSHETRA 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 0 0 0 460 530 352 955 53 33 0 31	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC 765 kV 400 kV 220 kV 132kV	CHAMPA-KURUKSHETRA 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 0 0 460 530 352 955 53 33 0 31	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC 765 kV 400 kV 220 kV	CHAMPA-KURUKSHETRA 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 0 0 0 460 530 352 955 53 33 0 31	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 0.1	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	CHAMPA-KURUKSHETRA 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 S/C -	0 0 0 0 0 460 530 352 955 53 33 0 31 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC	CHAMPA-KURUKSHETRA 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 S/C	0 0 0 0 0 460 530 352 955 53 33 0 31 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK	CHAMPA-KURUKSHETRA 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-KUDGI	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 D/C S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C D/C D/C D/C D/C	0 0 0 0 0 460 530 352 955 53 33 0 31 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA 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	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 S/C S/C D/C D/C D/C D/C D/C D/C D/C	0 0 0 0 0 460 530 352 955 53 33 0 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0	0.0 5.6 0.0 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55 56	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV	CHAMPA-KURUKSHETRA 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	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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 0 460 530 352 955 53 33 0 31 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0 0	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA 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	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 S/C S/C D/C D/C D/C D/C D/C D/C D/C	0 0 0 0 0 460 530 352 955 53 33 0 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0 0 0	0.0 5.6 0.0 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0 0.0 2.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55 56	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA 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 S/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 0 0 460 530 352 955 53 33 0 31 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0 0 WR-SR	0.0 5.6 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55 56	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA 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 S/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 0 0 460 530 352 955 53 33 0 31 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0 0 0	0.0 5.6 0.0 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0 0.0 2.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 Import/I 50 51 52 53 54 55 56 57	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC LINK 765 kV 400 kV	CHAMPA-KURUKSHETRA 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 S/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 0 0 460 530 352 955 53 33 0 31 0 0 0	2000 250 2015 2328 1332 1082 1884 0 0 0 0 0 232 94 113 35 50 0 WR-NR 500 0 990 1322 0 0 0 WR-SR	0.0 5.6 0.0 0.0 0.0 0.0 0.0 9.5 0.0 7.2 4.8 21.0 0 0.1 0.0 0.1 0.0 48.3	46.6 0.0 33.1 46.0 26.7 18.9 0.0 42.3 0.0 0.0 0.0 1 0.7 1.5 0.2 0.8 0.0 218.0 12.1 0.0 0.0 13.7 0.0 0.0 0.0 0.0	5.6 -33.1 -46.0 -26.7 -18.9 9.5 -42.3 7.2 4.8 21.0 -1 -0.6 -1.5 -0.1 -0.8 0.0 -169.7 -12.1 0.0 2.5 -13.7 10.2 0.0 0.0 2.1 -10.9