

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)
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बी-9, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 14thAug 2019

To,

- कार्यकारी निदेशक, पू .क्षे .भा .प्रे .के.,14 , गोल्फ क्लब रोड , कोलकाता 700033
 Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033
- 2. कार्यकारी निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 Executive Director, 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. मुख्य महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग 793006 Chief General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 13.08.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 13-अगस्त-2019 की अखिल भारतीय प्रणाली की दैनिक ग्रिड 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 13th August 2019, is available at the NLDC website.

धन्यवाद,

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

Date of Reporting Report for previous day 14-Aug-19

A. Power Supply Position at All India and Regional level

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	55338	43780	39214	20585	2693	161610
Peak Shortage (MW)	744	0	0	0	182	926
Energy Met (MU)	1303	1004	915	420	51	3693
Hydro Gen (MU)	350	104	133	107	23	716
Wind Gen (MU)	24	65	173			262
Solar Gen (MU)*	23.59	16.82	63.01	1.92	0.03	105
Energy Shortage (MU)	10.2	0.0	0.0	0.0	2.5	12.6
Maximum Demand Met during the day	59427	45070	47380	21068	2695	165728
(MW) & time (from NLDC SCADA)	00:10	08:40	10:40	21:07	19:17	10:40

B. Frequency Profile (%)
Region
All India FVI <49.7 49.7-49.8 49.8-49.9 <49.9 49.9-50.05 > 50.05 0.025 21.01

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	10395	0	229.1	136.2	-1.8	66	0.0
	Haryana	9609	93	204.7	167.7	-0.8	172	0.8
	Rajasthan	9577	0	214.5	72.2	-3.4	234	0.0
	Delhi	5587	0	117.8	101.7	-0.2	159	0.0
NR	UP	20598	0	420.6	199.3	-2.2	678	0.0
	Uttarakhand	1827	0	41.4	16.6	-0.3	136	0.0
	HP	1406	0	29.6	-2.6	-0.1	97	0.0
	J&K	2106	526	38.7	17.6	1.7	297	9.3
	Chandigarh	323	0	6.3	7.1	-0.7	15	0.0
	Chhattisgarh	3701	0	87.9	29.2	-0.5	183	0.0
	Gujarat	13017	0	292.7	55.2	2.9	510	0.0
	MP	8603	0	186.9	82.4	-4.2	626	0.0
WR	Maharashtra	17879	0	396.2	123.9	0.4	443	0.0
WK	Goa	541	0	10.5	9.8	0.1	50	0.0
	DD	349	0	7.8	7.0	0.8	69	0.0
	DNH	810	0	18.9	19.0	-0.1	45	0.0
	Essar steel	174	0	3.0	2.8	0.2	238	0.0
	Andhra Pradesh	8744	0	183.4	21.8	3.5	1110	0.0
	Telangana	8928	0	191.9	74.7	1.9	785	0.0
SR	Karnataka	8491	4	160.5	35.9	2.0	549	0.0
SK	Kerala	3025	0	58.6	42.3	1.8	219	0.0
	Tamil Nadu	14066	0	312.4	131.5	-0.6	877	0.0
	Pondy	413	0	8.6	8.7	-0.2	42	0.0
	Bihar	5366	0	96.5	97.0	-3.7	100	0.0
	DVC	2855	0	57.8	-25.6	-4.8	50	0.0
ER	Jharkhand	1023	0	22.9	14.8	-1.0	25	0.0
EN	Odisha	4389	0	91.3	45.7	1.2	300	0.0
	West Bengal	7553	0	150.5	71.6	-0.2	200	0.0
	Sikkim	88	0	0.8	1.4	-0.6	5	0.0
	Arunachal Pradesh	148	2	2.2	2.5	-0.3	85	0.0
	Assam	1741	163	32.6	28.2	0.0	233	2.1
	Manipur	152	2	2.4	2.3	0.1	22	0.1
NER	Meghalaya	303	0	5.1	1.8	0.0	154	0.0
	Mizoram	93	3	1.8	0.8	0.3	16	0.0
	Nagaland	137	1	2.4	2.1	-0.1	45	0.2
	Tripura	265	4	4.7	4.6	-0.7	29	0.2

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	36.3	-5.9	-18.6
Day peak (MW)	1975.4	-387.1	-921.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	289.6	-269.7	8.3	-30.0	1.6	-0.1
Actual(MU)	282.3	-263.8	32.8	-57.3	-0.5	-6.4
O/D/U/D(MU)	-7.3	5.9	24.5	-27.3	-2.1	-6.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3429	16698	9832	1605	521	32085
State Sector	8790	17221	11750	6910	50	44720
Total	12219	33918	21582	8515	571	76805

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	557	988	367	399	7	2318
Lignite	19	8	42	0	0	69
Hydro	350	104	133	107	23	716
Nuclear	27	31	53	0	0	111
Gas, Naptha & Diesel	34	57	15	0	28	133
RES (Wind, Solar, Biomass & Others)	63	88	279	2	0	432
Total	1049	1275	889	508	57	3779

Share of RES in total generation (%)	6.01	6.87	31.35	0.38	0.05	11.42
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	41.93	17.45	52.31	21.43	39.38	33.32

H. Diversity Factor
All India Demand Diversity Factor
1.060
Diversity factor = Sum of regional maximum demands / All India maximum demand

 $[\]textbf{*}\underline{\textbf{Source}}\textbf{:} \textbf{RLDCs} \ \text{for solar connected to ISTS; SLDCs} \ \text{for embedded solar.} \ Limited \ visibility \ \text{of embedded solar} \ \text{data}.$

		<u>IN'</u>	ΓER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	14-Aug-19
								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)
Import/E		ER (With NR)						
2	765kV	GAYA-VARANASI	D/C S/C	32 182	311 65	0.0 1.7	4.9 0.0	-4.9 1.7
3	70387	SASARAM-FATEHPUR GAYA-BALIA	S/C	0	416	0.0	7.5	-7.5
4	HVDC	ALIPURDUAR-AGRA	-	0	1001	0.0	23.2	-23.2
5	пове	PUSAULI B/B	S/C	0	198	0.0	4.7	-4.7
6		PUSAULI-VARANASI	S/C	0	195	0.0	3.8	-3.8
7 8		PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	S/C D/C	0	59 743	0.0	0.7	-0.7 -11.4
9	400 kV	PATNA-BALIA	O/C	0	755	0.0	13.4	-11.4
10	100 111	BIHARSHARIFF-BALIA	D/C	0	280	0.0	5.7	-5.7
11		MOTIHARI-GORAKHPUR	D/C	0	334	0.0	5.6	-5.6
12		BIHARSHARIFF-VARANASI	D/C	127	104	0.4	0.0	0.4
13	220 kV	PUSAULI-SAHUPURI	S/C	0	179	0.0	3.4	-3.4
14	4	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.3	0.0	0.3
16 17		KARMANASA-SAHUPURI	S/C S/C	0	0	0.0	0.0	0.0
17		KARMANASA-CHANDAULI	S/C	U	ER-NR	2.4	0.0 84.2	0.0 -81.9
Import/F	Export of	ER (With WR)			2K-11K	#1·T	07.4	-01.7
18	k 01	JHARSUGUDA-DHARAMJAIGARH	Q/C	1568	0	23.9	0.0	23.9
	765 kV							
19 20	1	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	1194 313	0	16.2 4.4	0.0	16.2 4.4
21	400	JHARSUGUDA-RAIGARH	Q/C	320	112	3.4	0.0	3.4
22	400 kV	RANCHI-SIPAT	D/C	381	1	5.5	0.0	5.5
23	220 kV	BUDHIPADAR-RAIGARH	S/C	15	103	0.0	1.2	-1.2
24	220 K 1	BUDHIPADAR-KORBA	D/C	185	0	3.3	0.0	3.3
					ER-WR	56.6	1.2	55.4
	· -	ER (With SR)	D/G	0.0	1065.0	0.0	20.7	20.7
25 26	765 kV HVDC	ANGUL-SRIKAKULAM JEYPORE-GAZUWAKA B/B	D/C D/C	0.0 258.0	1965.0 0.0	0.0 6.1	30.7 0.0	-30.7 6.1
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	988.0	0.0	22.1	-22.1
28	400 kV	TALCHER-I/C	D/C	590.0	18.0	5.1	0.0	5.1
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
		•			ER-SR	6.1	52.8	-46.8
Import/E	Export of	ER (With NER)						•
30	400 kV	BINAGURI-BONGAIGAON	D/C	0	546	0.0	9.9	-10
31		ALIPURDUAR-BONGAIGAON	D/C	78	259	0.0	2.2	-2
32	220 kV	ALIPURDUAR-SALAKATI	D/C	0	103 ER-NER	0.0	1.7	-2 -13.8
Import/F	Export of	NER (With NR)			EK-IVEK	0.0	13.0	-13.6
33	HVDC	BISWANATH CHARIALI-AGRA	-	0	703	0.0	16.4	-16.4
		•			NER-NR	0.0	16.4	-16.4
Import/E	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0	2503	0.0	37.7	-37.7
35	HVDC	V'CHAL B/B	D/C	452	0	8.4	0.0	8.4
36		APL -MHG	D/C	0	1642	0.0	31.7	-31.7
37	-	GWALIOR-AGRA	D/C	0	2614	0.0	48.3	-48.3
38 39	ł	PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C	0	1136 1035	0.0	20.9	-20.9
40	765 kV	GWALIOR-ORAI	S/C	395	0	0.0 8.3	37.4 0.0	-37.4 8.3
41	1	SATNA-ORAI	S/C	0	1387	0.0	29.8	-29.8
42	1			0		0.0	14.3	14.3
42		CHITTORGARH-BANASKANTHA	D/C	U	976	0.0		
43		ZERDA-KANKROLI	D/C S/C	41	976 172	0.0	1.6	-1.6
	400 1-37						1.6 1.6	-1.6 -1.4
43	400 kV	ZERDA-KANKROLI	S/C	41	172	0.0		
43 44 45 46	400 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR	S/C S/C S/C D/C	41 83 954 0	172 239 0 424	0.0 0.2 22.4 0	1.6 0.0 3	-1.4 22.4 -3
43 44 45 46 47	400 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	S/C S/C S/C D/C S/C	41 83 954 0	172 239 0 424 72	0.0 0.2 22.4 0 0.0	1.6 0.0 3 1.0	-1.4 22.4 -3 -1.0
43 44 45 46 47 48	400 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	S/C S/C S/C D/C S/C S/C	41 83 954 0 0	172 239 0 424 72 138	0.0 0.2 22.4 0 0.0 0.0	1.6 0.0 3 1.0 1.1	-1.4 22.4 -3 -1.0 -1.1
43 44 45 46 47 48 49	-	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	S/C S/C S/C D/C S/C S/C S/C	41 83 954 0 0 0	172 239 0 424 72 138	0.0 0.2 22.4 0 0.0 0.0 0.8	1.6 0.0 3 1.0 1.1 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7
43 44 45 46 47 48 49 50	220 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C	41 83 954 0 0 0 96 49	172 239 0 424 72 138 14	0.0 0.2 22.4 0 0.0 0.0 0.0 0.8	1.6 0.0 3 1.0 1.1 0.0 0.3	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1
43 44 45 46 47 48 49	-	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	S/C S/C S/C D/C S/C S/C S/C	41 83 954 0 0 0	172 239 0 424 72 138	0.0 0.2 22.4 0 0.0 0.0 0.8	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7
43 44 45 46 47 48 49 50	220 kV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C	41 83 954 0 0 0 96 49	172 239 0 424 72 138 14 45	0.0 0.2 22.4 0 0.0 0.0 0.0 0.8 0.2	1.6 0.0 3 1.0 1.1 0.0 0.3	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1
43 44 45 46 47 48 49 50	220 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RAPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C	41 83 954 0 0 0 96 49	172 239 0 424 72 138 14 45	0.0 0.2 22.4 0 0.0 0.0 0.0 0.8 0.2	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1
43 44 45 46 47 48 49 50 51	220 kV 132kV Export of	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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	41 83 954 0 0 0 96 49	172 239 0 424 72 138 14 45 0 WR-NR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0
43 44 45 46 47 48 49 50 51 Import/E	220 kV 132kV Export of HVDC LINK	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-JURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	S/C S/C S/C D/C S/C S/C S/C S/C S/C S/C	41 83 954 0 0 0 96 49 0	172 239 0 424 72 138 14 45 0 WR-NR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	220 kV 132kV Export of HVDC LINK 765 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	S/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 S/C S/C S/C S/C S/C	41 83 954 0 0 0 0 96 49 0 0 0 1280	172 239 0 424 72 138 14 45 0 WR-NR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	220 kV 132kV Export of HVDC LINK	ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	S/C	41 83 954 0 0 0 96 49 0	172 239 0 424 72 138 114 45 0 WR-NR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	S/C	41 83 954 0 0 0 96 49 0 0 1280 13 1018	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 15.6 0.0	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV	ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RAPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	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	41 83 954 0 0 0 96 49 0 0 1280 13 1018 0	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19 0 59	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 15.6 0.0 0.0	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0 -0.1
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	S/C	41 83 954 0 0 0 96 49 0 0 1280 13 1018	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19 0 59 34	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.6 0.0 0.0 0.1	1.6 0.0 3 1.0 0.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0 -0.1
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RAPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	41 83 954 0 0 0 96 49 0 0 1280 13 1018 0 2	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19 0 0 59 34 WR-SR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 15.6 0.0 0.0	1.6 0.0 3 1.0 1.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0 -0.1
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WALIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	41 83 954 0 0 0 96 49 0 0 1280 13 1018 0	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19 0 0 59 34 WR-SR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.6 0.0 0.0 0.1	1.6 0.0 3 1.0 0.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0 -0.1 0.1 -15.2
43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	220 kV 132kV Export of HVDC LINK 765 kV 400 kV	ZERDA-KANKROLI ZERDA - BHINMAL VCHAL - RIHAND RAPP-SHUJALPUR BHANPURA-RAPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	41 83 954 0 0 0 96 49 0 0 1280 13 1018 0 2	172 239 0 424 72 138 14 45 0 WR-NR 1006 0 1192 1888 19 0 0 59 34 WR-SR	0.0 0.2 22.4 0 0.0 0.0 0.8 0.2 0.0 40.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.6 0.0 0.0 0.1	1.6 0.0 3 1.0 0.1 0.0 0.3 0.0 228.7 12.4 0.0 3.3 22.7 0.0 0.0	-1.4 22.4 -3 -1.0 -1.1 0.7 -0.1 0.0 -160.0 -12.4 0.0 4.4 -22.7 15.6 0.0 -0.1