

National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

POWER SYSTEM OPERATION CORPORATION LIMITED पाँवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 18th Dec 2019

To,

- 1. 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. 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. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के.,२९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 17.12.2019.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 17-दिसम्बर-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 17th Dec 2019, is available at the NLDC website.

धन्यवाद,

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

Report for previous day Date of Reporting 18-Dec-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 1900 hrs; from RLDCs)	45701	47350	39222	17787	2268	152328
Peak Shortage (MW)	540	0	0	0	38	578
Energy Met (MU)	892	1099	906	337	39	3273
Hydro Gen (MU)	124	38	81	35	9	287
Wind Gen (MU)	15	103	57			176
Solar Gen (MU)*	25.46	19.60	73.16	1.84	0.04	120
Energy Shortage (MU)	13.1	0.0	0.0	0.0	0.6	13.6
Maximum Demand Met during the day (MW) & time	46177	52276	43102	17920	2429	155445
(from NLDC SCADA)	18:39	09:30	07:41	18:51	17:24	09:29

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	0.031	0.00	0.32	3.62	3.95	75.43	20.63

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	5513	0	105.0	59.1	-1.2	111	0.0
	Haryana	6397	0	119.2	90.8	0.7	272	0.0
	Rajasthan	12320	0	222.5	64.6	-0.8	394	0.0
	Delhi	4028	0	70.2	54.2	-0.6	197	0.0
NR	UP	14041	0	253.5	102.1	1.2	790	1.5
	Uttarakhand	2044	0	38.5	21.0	0.3	256	0.0
	HP	1673	0	30.0	22.1	0.3	182	0.0
	J&K(UT) and Ladakh(UT)	2323	581	48.9	42.4	1.2	242	11.5
	Chandigarh	250	0	4.2	3.9	0.2	32	0.0
	Chhattisgarh	3575	0	75.8	16.5	0.2	869	0.0
	Gujarat	14659	0	309.1	78.9	-4.8	592	0.0
	MP	12514	0	223.8	112.6	-2.9	328	0.0
WR	Maharashtra	21809	0	445.4	134.1	-0.7	439	0.0
WK	Goa	611	0	12.7	12.1	0.0	37	0.0
	DD	338	0	7.3	7.0	0.3	41	0.0
	DNH	806	0	18.6	18.6	0.0	30	0.0
	Essar steel	320	0	6.3	6.7	-0.4	199	0.0
	Andhra Pradesh	7763	0	158.2	69.8	-0.2	424	0.0
	Telangana	10329	0	208.6	114.8	1.1	498	0.0
SR	Karnataka	10882	0	198.9	34.7	-0.4	607	0.0
311	Kerala	3325	0	67.1	56.2	0.8	153	0.0
	Tamil Nadu	13072	0	266.2	136.7	0.0	576	0.0
	Pondy	353	0	7.0	7.4	-0.3	50	0.0
	Bihar	3938	0	65.4	64.5	-0.4	150	0.0
	DVC	3162	0	63.8	-31.1	0.0	250	0.0
ER	Jharkhand	1248	0	24.2	15.5	-1.3	50	0.0
EN	Odisha	3679	0	68.9	9.0	-0.3	300	0.0
	West Bengal	6167	0	112.9	31.2	2.3	300	0.0
	Sikkim	122	0	1.8	1.5	0.3	40	0.0
	Arunachal Pradesh	115	2	2.1	1.5	0.4	53	0.0
	Assam	1339	18	21.2	16.2	0.5	147	0.5
	Manipur	202	1	2.6	2.9	-0.3	50	0.0
NER	Meghalaya	336	0	5.9	2.5	0.9	90	0.0
	Mizoram	103	0	1.8	1.1	0.2	26	0.0
	Nagaland	129	1	2.1	2.2	-0.3	15	0.0
	Tripura	221	1	3.5	1.4	0.0	43	0.0

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

The state of the s	Bhutan	Nepal	Bangladesh
Actual(MU)	5.6	-5.7	-9.7
Day peak (MW)	423.1	-379.6	-749.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	219.7	-230.8	122.5	-113.1	1.9	0.2
Actual(MU)	217.6	-244.2	126.2	-107.7	5.5	-2.6
O/D/U/D(MU)	-2.1	-13.5	3.8	5.4	3.6	-2.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5071	18243	8552	1260	910	34036
State Sector	11922	16262	9440	6040	11	43675
Total	16993	34504	17992	7300	922	77711

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	405	1105	430	426	8	2375
Lignite	24	13	44	0	0	82
Hydro	124	38	81	35	9	287
Nuclear	28	28	43	0	0	99
Gas, Naptha & Diesel	32	30	16	0	21	100
RES (Wind, Solar, Biomass & Others)	70	141	176	2	0	389
Total	684	1356	790	463	38	3331

Share of RES in total generation (%)	10.28	10.37	22.25	0.40	0.10	11.66
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	32.49	15.25	37.97	7.96	23.01	23.25

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.042	
Based on State Max Demands	1.092	

Diversity factor = Sum of regional or state-wise maximum demands / All India maximum demand

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

		<u>IN'</u>	FER-REGI	ONAL EXCH	ANGES	Date of I	Reporting :	18-Dec-1
								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)
		ER (With NR)						
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	200 198	0.0	0.0 4.8	0.0 -4.8
1	+	GAYA-VARANASI	D/C	0	1269	0.0	14.0	-14.0
2	765kV	SASARAM-FATEHPUR	S/C	0	472	0.0	5.6	-5.6
3		GAYA-BALIA	S/C	0	447	0.0	3.9	-3.9
6		PUSAULI-VARANASI	S/C	0	142	0.0	2.6	-2.6
7	_	PUSAULI -ALLAHABAD	S/C	0	138	0.0	2.0	-2.0
9	400 kV	MUZAFFARPUR-GORAKHPUR	D/C	0	1038	0.0	11.5	-11.5
10	400 KV	PATNA-BALIA BIHARSHARIFF-BALIA	Q/C D/C	0	1168 517	0.0	18.7 7.6	-18.7 -7.6
11		MOTIHARI-GORAKHPUR	D/C D/C	0	7	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	0	424	0.0	4.0	-4.0
13	220 kV	PUSAULI-SAHUPURI	S/C	0	73	0.0	0.8	-0.8
14		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	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
4.0	E 4.6	ED (W'd WD)			ER-NR	0.3	70.6	-70.3
	Export of	ER (With WR)						
18		JHARSUGUDA-DHARAMJAIGARH	Q/C	1148	327	13.0	0.0	13.0
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	482	404	0.4	0.0	0.4
20	1	JHARSUGUDA-DURG	D/C	87	153	0.0	0.6	-0.6
21	400 kV	JHARSUGUDA-RAIGARH	Q/C D/C	295 212	72 92	2.5	0.0	2.5
23		RANCHI-SIPAT BUDHIPADAR-RAIGARH	S/C	16	110	0.0	1.1	1.3 -1.1
24	220 kV	BUDHIPADAR-KORBA	D/C	207	0	2.9	0.0	2.9
24		BUDHIFADAR-KUKBA	D/C	207	ER-WR	20.1	1.7	18.4
mport/l	Export of	ER (With SR)				2011		1011
26	T	JEYPORE-GAZUWAKA B/B	D/C	0.0	680.0	0.0	15.9	-15.9
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	2470.0	0.0	49.5	-49.5
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1874.0	0.0	33.3	-33.3
28	400 kV	TALCHER-I/C	D/C	0.0	989.0	0.0	11.2	-11.2
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0	0.0	0.0	0.0
					ER-SR	0.0	98.6	-98.6
_	Export of	ER (With NER)				1		
30	400 kV	BINAGURI-BONGAIGAON	D/C	227	167	1.9	0.0	2
31		ALIPURDUAR-BONGAIGAON	D/C	246	157	1.9	0.0	2
32	220 kV	ALIPURDUAR-SALAKATI	D/C	50	54 ER-NER	0.3 4.1	0.0	0 4.1
mport/l	Export of	NER (With NR)			ER-NER	4.1	0.0	4.1
33	HVDC	BISWANATH CHARIALI-AGRA		487	0	10.4	0.0	10.4
	-		-				0.0	1
			-		NER-NR	10.4	0.0	10.4
mport/l	Export of	WR (With NR)	-		1700 170	10.4		10.4
mport/I	Export of		D/C	0	1700 170	0.0		-36.6
	Export of HVDC	WR (With NR)	D/C D/C	0 230	NER-NR		0.0	
34 35 36		WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C D/C	230	NER-NR 1871 264 1079	0.0 4.7 0.0	36.6 1.4 21.3	-36.6 3.3 -21.3
34 35 36 37		WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C D/C	230 0 0	NER-NR 1871 264 1079 2641	0.0 4.7 0.0 0.0	36.6 1.4 21.3 47.4	-36.6 3.3 -21.3 -47.4
34 35 36 37 38		WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C D/C D/C	230 0 0 0	NER-NR 1871 264 1079 2641 1782	0.0 4.7 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9	-36.6 3.3 -21.3 -47.4 -20.9
34 35 36 37 38 39		WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI	D/C D/C D/C D/C D/C D/C D/C D/C	230 0 0 0 0	NER-NR 1871 264 1079 2641 1782 958	0.0 4.7 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5	-36.6 3.3 -21.3 -47.4 -20.9 -27.5
34 35 36 37 38 39 40	HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI	D/C D/C D/C D/C D/C D/C S/C	230 0 0 0 0 0 764	NER-NR 1871 264 1079 2641 1782 958 0	0.0 4.7 0.0 0.0 0.0 0.0 12.2	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2
34 35 36 37 38 39 40 41	HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGG-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C D/C D/C D/C S/C S/C	230 0 0 0 0 0 0 764 0	NER-NR 1871 264 1079 2641 1782 958 0 1464	0.0 4.7 0.0 0.0 0.0 0.0 0.0 12.2 0.0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3
34 35 36 37 38 39 40 41 42	HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA	D/C D/C D/C D/C D/C D/C D/C S/C S/C D/C	230 0 0 0 0 0 764 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4
34 35 36 37 38 39 40 41 42 43	HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C	230 0 0 0 0 0 764 0 0 70	NER-NR 1871 264 1079 2641 1782 958 0 1464 984	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4
34 35 36 37 38 39 40 41 42 43 44	HVDC	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C	230 0 0 0 0 764 0 0 70 88	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4
34 35 36 37 38 39 40 41 42 43 44 45	HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C	230 0 0 0 0 0 764 0 0 70 88 982	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0
34 35 36 37 38 39 40 41 42 43 44	HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C 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	230 0 0 0 0 764 0 0 70 88	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4
34 35 36 37 38 39 40 41 42 43 44 45	HVDC - 765 kV - 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR	D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C D/C	230 0 0 0 0 764 0 0 70 88 982 181	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGG-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA - BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 21.0 0.8	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -0.4 -2.4 21.0 -1 0.8
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV - 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	HVDC - 765 kV - 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-BUSHEN MALANPURA-BUSH GWALIOR-SAWAI MADHOPUR	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18 0 91 42	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 0.1	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATTAA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	D/C D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18 0 91 42	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 0.0 1 0.0 1.2 0.0 0.1 196.6	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 -28.3 -8.4 -0.4 -2.4 -21.0 -1 -0.8 -1.2 -0.9 -0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA 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	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18 0 91 42 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 UR-NR	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 0.1 1.2 1.0 1.0 1.1 1.0 1.0 1.1 1.0 1.0 1.1 1.0 1.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -21.0 -1 0.8 -1.2 0.9 0.0 0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA 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	D/C 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 S/C S	230 0 0 0 0 764 0 0 70 88 982 181 18 0 91 42 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 0.1 1.2 0.0 118 0.0 11866	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 -2.1.0 -1 0.8 -1.2 0.9 0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 45 46 47 50 51	HVDC - 765 kV - 400 kV - 220 kV - 132kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 91 42 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 0.1 0.0 196.6	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 -2.1.0 -1 0.8 -1.2 0.9 0.0 0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 51 52 53 54 55	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -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	D/C	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 91 42 0 0 0 464	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 0.1 0.0 196.6	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9 0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 50 51 mmport/I 52 53 54	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L-SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	D/C D/C 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 S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 0 0 0 0 464 0 750	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1.2 0.0 0.1 0.0 11.8 0.0 22.1 45.0 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9 0.0 0.0 -156.9
34 35 36 37 38 39 40 41 42 43 44 45 50 51 mmport/J 52 53 54 55 56 57	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C 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 S/C D/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	230 0 0 0 0 764 0 0 770 88 982 181 18 0 0 0 0 464 0 750 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1.2 0.0 0.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9 0.0 -156.9 -11.8 -0.0 -21.6 -45.0 -9.8 -0.0
34 35 36 37 38 39 40 41 42 43 44 45 50 51 mport/1 52 53 53 54 55 56 57 58	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of HVDC - 765 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-AICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	D/C	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 0 91 42 0 0 0 0 464 0 750 0 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 WR-NR 502 0 1716 2605 0 0 83	0.0 4.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 1.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0 1.5	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 -12.2 -28.3 -8.4 -0.4 -2.4 -21.0 -1 -1 -0.8 -1.2 -0.9 -0.0 -156.9 -11.8 -0.0 -21.6 -45.0 -9.8 -0.0 -1.5
34 35 36 37 38 39 40 41 42 43 44 45 50 51 mport/J 52 53 53 54 55 56 57	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL V'CHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	D/C 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 S/C D/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	230 0 0 0 0 764 0 0 770 88 982 181 18 0 0 0 0 464 0 750 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 0 WR-NR 502 0 1716 2605 0 0 83 94	0.0 4.7 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 1.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0 1.5 0.0 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -21.0 -1 -0.8 -1.2 -0.9 -0.0 -156.9 -11.8 -1.0 -21.6 -45.0 -9.8 -0.0 -1.5 -1.5 -1.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 50 51	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGG-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BASUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI	D/C D/C 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 S/C S	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 91 42 0 0 0 464 0 0 750 0 0 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 1.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0 1.5	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.4 21.0 -1 0.8 -1.2 0.9 0.0 -156.9 -11.8 0.0 -21.6 -45.0 9.8 0.0 -1.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 50 51 51 52 53 54 55 56 57 58	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGG-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BASUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI	D/C D/C 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 S/C S	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 0 91 42 0 0 0 0 464 0 750 0 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 1.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0 1.5 0.0 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.1 0.8 -1.2 0.9 0.0 0.0 -156.9 -11.8 0.0 -21.6 -45.0 9.8 0.0 -1.5 1.7
34 35 36 37 38 39 40 41 42 43 44 45 46 47 50 51 51 52 53 54 55 56 57 58	HVDC 765 kV 400 kV 220 kV 132kV Export of HVDC 765 kV 400 kV	WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGG-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BASUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI XELDEM-AMBEWADI	D/C D/C 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 S/C S	230 0 0 0 0 0 764 0 0 770 88 982 181 18 0 91 42 0 0 0 464 0 0 750 0 0 0	NER-NR 1871 264 1079 2641 1782 958 0 1464 984 167 368 0 380 81 115 0 26 0 WR-NR	0.0 4.7 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 36.6 1.4 21.3 47.4 20.9 27.5 0.0 28.3 8.4 0.4 2.4 0.0 1 0.0 1.2 0.0 1.1 0.0 196.6 11.8 0.0 22.1 45.0 0.0 0.0 1.5 0.0 0.0	-36.6 3.3 -21.3 -47.4 -20.9 -27.5 12.2 -28.3 -8.4 -0.4 -2.1 0.8 -1.2 0.9 0.0 0.0 -156.9 -11.8 0.0 -21.6 -45.0 9.8 0.0 -1.5 1.7