

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, कृतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

दिनांक: 18th Jan 2020

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. 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.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु -560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 17.01.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 17-जनवरी-2020 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 Jan 2020, is available at the NLDC website.

धन्यवाद,

Report for previous day

A. Power Supply Position at All India and Regional level

Date of Reporting 18-Jan-20

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 1900 hrs; from RLDCs)	47543	46662	38222	18203	2396	153026
Peak Shortage (MW)	631	0	0	0	29	660
Energy Met (MU)	927	1099	934	348	40	3349
Hydro Gen (MU)	126	39	86	32	7	290
Wind Gen (MU)	2	28	23			54
Solar Gen (MU)*	30.25	23.00	91.30	1.35	0.05	146
Energy Shortage (MU)	12.8	0.0	0.0	0.0	1.2	14.1
Maximum Demand Met during the day (MW) & time	47895	53578	45589	18130	2431	162874
(from NLDC SCADA)	18:48	10:28	09:26	18:57	17:36	09:56

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	5868	0	111.6	56.7	-1.1	87	0.0
	Haryana	6575	0	125.3	93.2	0.6	265	0.0
	Rajasthan	12857	0	228.1	74.2	0.1	410	0.0
	Delhi	4590	0	77.3	62.3	0.8	264	0.0
NR	UP	15494	85	260.9	114.6	-1.6	599	1.1
	Uttarakhand	1998	0	39.1	20.6	-0.1	108	0.0
	HP	1682	10	31.1	23.2	1.5	250	0.0
	J&K(UT) and Ladakh(UT)	2614	653	49.6	41.9	2.3	565	11.7
	Chandigarh	288	0	4.6	4.5	0.0	40	0.0
	Chhattisgarh	3689	0	79.3	26.1	-1.0	301	0.0
	Gujarat	15466	0	322.9	90.5	5.0	545	0.0
	MP	12464	0	225.0	122.3	-2.8	936	0.0
WR	Maharashtra	21302	0	431.4	137.0	-1.0	413	0.0
WK	Goa	480	0	9.5	9.6	-0.4	27	0.0
	DD	329	0	7.3	6.7	0.6	52	0.0
	DNH	772	0	18.0	18.0	0.0	52	0.0
	Essar steel	309	0	5.8	5.9	-0.1	256	0.0
	Andhra Pradesh	8597	0	167.5	62.1	0.0	351	0.0
	Telangana	10677	0	209.8	112.3	-0.1	766	0.0
SR	Karnataka	13169	0	233.0	65.1	-1.3	535	0.0
311	Kerala	3608	0	71.4	56.5	0.5	205	0.0
	Tamil Nadu	11660	0	246.6	148.4	0.0	626	0.0
	Pondy	271	0	5.4	6.3	-0.9	22	0.0
	Bihar	4164	0	74.2	74.2	-1.1	205	0.0
	DVC	3328	0	63.4	-34.5	-0.4	215	0.0
ER	Jharkhand	1294	0	25.2	16.0	-0.3	110	0.0
EN	Odisha	3940	0	67.9	5.6	0.9	315	0.0
	West Bengal	6276	0	115.0	20.8	2.0	310	0.0
	Sikkim	134	0	2.0	1.9	0.1	20	0.0
	Arunachal Pradesh	124	1	2.2	2.4	-0.3	14	0.0
	Assam	1326	10	22.0	19.0	0.2	73	0.3
	Manipur	210	3	2.8	3.1	-0.3	24	0.0
NER	Meghalaya	372	0	6.0	3.2	0.7	78	0.9
	Mizoram	103	1	1.6	1.6	-0.3	24	0.0
	Nagaland	126	3	2.3	2.1	0.0	31	0.0
	Tripura	224	0	3.6	1.9	-0.4	21	0.0

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	3.9	-6.7	-7.2
Day peak (MW)	607.9	-451.2	-561.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	226.3	-251.2	119.7	-98.3	3.4	0.0
Actual(MU)	225.3	-264.6	133.9	-99.9	3.4	-1.8
O/D/U/D(MU)	-1.0	-13.4	14.2	-1.6	0.0	-1.8

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5135	15258	7052	1570	698	29713
State Sector	12490	17032	8270	4350	11	42153
Total	17625	32290	15322	5920	710	71866

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	461	1199	454	443	12	2568
Lignite	21	15	47	0	0	83
Hydro	126	39	86	32	7	290
Nuclear	24	21	45	0	0	89
Gas, Naptha & Diesel	31	33	18	0	23	104
RES (Wind, Solar, Biomass & Others)	61	57	157	1	0	277
Total	724	1364	805	477	42	3412

Share of RES in total generation (%)	8.45	4.21	19.46	0.29	0.12	8.11
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	29.24	8.58	35.64	7.06	17.13	19.24

H. All India Demand Diversity Factor

Based on Regional Max Demands	1.029
Based on State Max Demands	1.083

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.}$

		IN	TER-REGI	ONAL EXCH	ANGES	Date of 1	Reporting :	18-Jan-20
								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)
_	Export of	ER (With NR)						
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	299	0.0	7.2	-7.2
1		GAYA-VARANASI	D/C	0	940	0.0	10.8	-10.8
2	765kV	SASARAM-FATEHPUR	S/C	24	444	0.0	4.8	-4.8
3		GAYA-BALIA	S/C	0	602	0.0	8.6	-8.6
6 7	1	PUSAULI-VARANASI PUSAULI -ALLAHABAD	S/C S/C	0	219 176	0.0	4.1 2.9	-4.1 -2.9
8		MUZAFFARPUR-GORAKHPUR	D/C	0	986	0.0	11.4	-11.4
9	400 kV	PATNA-BALIA	Q/C	0	958	0.0	14.2	-14.2
10		BIHARSHARIFF-BALIA	D/C	0	513	0.0	6.3	-6.3
11		MOTIHARI-GORAKHPUR	D/C	0	5	0.0	0.0	0.0
12	220 kV	BIHARSHARIFF-VARANASI PUSAULI-SAHUPURI	D/C S/C	33 5	465 95	0.0	1.2	-4.0 -1.2
14	220 11 1	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15	132 kV	GARWAH-RIHAND	S/C	30	0	0.6	0.0	0.6
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
Import/E	Export of	ER (With WR)			ER-NR	0.6	68.2	-67.6
_	Aport Ol	<u> </u>	0/0	5000	0	10.0	0.0	10.0
18	765 kV	JHARSUGUDA-DHARAMJAIGARH	Q/C	5663	0	18.0	0.0	18.0
19 20	1	NEW RANCHI-DHARAMJAIGARH JHARSUGUDA-DURG	D/C D/C	341 200	374 280	0.0	0.5 2.9	-0.5 -2.9
21	400 1 37	JHARSUGUDA-RAIGARH	Q/C	133	143	0.0	0.1	-0.1
22	400 kV	RANCHI-SIPAT	D/C	142	91	0.7	0.0	0.7
23	220 kV	BUDHIPADAR-RAIGARH	S/C	0	101	0.0	1.5	-1.5
24		BUDHIPADAR-KORBA	D/C	149	0 ER-WR	2.5 21.2	0.0 5.0	2.5 16.2
Import/E	Export of	ER (With SR)			ER-WK	21.2	3.0	10.2
26		JEYPORE-GAZUWAKA B/B	D/C	0.0	529.0	0.0	10.8	-10.8
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	2453.0	0.0	33.1	-33.1
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	3069.0	0.0	52.9	-52.9
28	400 kV	TALCHER-I/C	D/C	1057.0	631.0	7.0	0.0	7.0
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0	0.0 96.8	0.0 -96.8
Import/E	Export of	ER (With NER)			DA DA	0.0	70.0	-50.0
30	400 kV	BINAGURI-BONGAIGAON	D/C	176	87	2.7	0.0	3
31	400 K V	ALIPURDUAR-BONGAIGAON	D/C	299	40	4.4	0.0	4
32	220 kV	ALIPURDUAR-SALAKATI	D/C	54	30	0.6	0.0	1
Import/F	Export of	NER (With NR)			ER-NER	7.7	0.0	7.7
33	HVDC	BISWANATH CHARIALI-AGRA	-	469	0	11.6	0.0	11.6
	1							ł
					NER-NR	11.6	0.0	11.6
	Export of	WR (With NR)						
34		CHAMPA-KURUKSHETRA	D/C	0	1862	0.0	37.7	-37.7
34 35	Export of HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	449	1862	0.0 9.0	37.7 0.0	-37.7 9.0
34		CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG	D/C D/C		1862 0 1925	0.0	37.7	-37.7
34 35 36		CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	449	1862	0.0 9.0 0.0	37.7 0.0 39.3	-37.7 9.0 -39.3
34 35 36 37	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B APL -MHG GWALIOR-AGRA	D/C D/C D/C	0 0	1862 0 1925 2476	0.0 9.0 0.0 0.0	37.7 0.0 39.3 44.9	-37.7 9.0 -39.3 -44.9
34 35 36 37 38 39 40		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 0 650	1862 0 1925 2476 1667 921	0.0 9.0 0.0 0.0 0.0 0.0 0.0 7.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0
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	D/C D/C D/C D/C D/C S/C S/C	449 0 0 0 0 0 0 650	1862 0 1925 2476 1667 921 0 1347	0.0 9.0 0.0 0.0 0.0 0.0 0.0 7.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3
34 35 36 37 38 39 40 41 42	HVDC	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 S/C S/C D/C	449 0 0 0 0 0 650 0 313	1862 0 1925 2476 1667 921 0 1347 780	0.0 9.0 0.0 0.0 0.0 0.0 7.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2
34 35 36 37 38 39 40 41	HVDC - 765 kV	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	449 0 0 0 0 0 0 650	1862 0 1925 2476 1667 921 0 1347	0.0 9.0 0.0 0.0 0.0 0.0 0.0 7.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3
34 35 36 37 38 39 40 41 42 43	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI	D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C	449 0 0 0 0 0 650 0 313 154	1862 0 1925 2476 1667 921 0 1347 780 136	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5
34 35 36 37 38 39 40 41 42 43 44 45	HVDC - 765 kV	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	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	449 0 0 0 0 650 0 313 154 46 970 124	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395	0.0 9.0 0.0 0.0 0.0 0.0 7.0 0.0 0.0 0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI 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	449 0 0 0 0 650 0 313 154 46 970 124	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82	0.0 9.0 0.0 0.0 0.0 7.0 0.0 0.0 0.5 3.4 22.2 0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 650 0 313 154 46 970 124 14	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 1 0.1	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	HVDC - 765 kV - 400 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 650 0 313 154 46 970 124 14 67 96	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0	0.0 9.0 0.0 0.0 0.0 0.0 7.0 0.0 0.0 0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 0.1 0.1	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	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	449 0 0 0 0 650 0 313 154 46 970 124 14	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 1 0.1	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	HVDC 765 kV 400 kV 220 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 1 0.1 0.7	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5
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	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-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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 0.0 0.0 0.0 0.0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52	HVDC 765 kV 400 kV 220 kV	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-JURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B	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	449 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 7.0 0.0 0.5 3.4 22.2 0 0.1 0.3 1.0 0.5 0.0 44.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 1.7	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53	HVDC - 765 kV - 400 kV - 220 kV - 132kV	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-RANPUR BHANPURA-WAIYA MALANPUR-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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 12.7	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	HVDC - 765 kV - 400 kV - 220 kV - 132kV	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-WORAK 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 S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 12.7 0.0 28.7	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of HVDC - 765 kV	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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	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 S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 19.9 12.7 0.0 28.7 43.6	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 -22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	HVDC - 765 kV - 400 kV - 220 kV - 132kV Export of - HVDC	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-WORAK 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 S/C D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 12.7 0.0 28.7	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of HVDC - 765 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHASUL-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI	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 D/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	449 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 WR-NR 1006 0 2228 2622 80	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 199.9	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6 7.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV - 400 kV	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 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 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 S/C S/C S	449 0 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0 0 0 0 0 716	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 199.9 12.7 0.0 28.7 43.6 0.0 0.0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6 7.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV - 400 kV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	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 D/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 S/C S/C S	449 0 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0 0 0 0 1	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR 1006 0 2228 2622 80 0	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 3.4 22.2 0 0.1 0.3 1.0 0.5 0.0 44.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 0.0 1 0.1 0.7 0.0 0.0 0.0 1 22.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6 7.0 0.0 0.0
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 S1 S2 S3 S4 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV - 400 kV	CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI CHITTORGARH-BANASKANTHA ZERDA-KANKROLI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BHANPURA-RANPUR BHANPURA-RANPUR BHANPURA-WORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L-SILERU SOLAPUR-RAICHUR WARDHA-NICHUR WARD	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 S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0 0 0 0 1	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 199.9 12.7 0.0 28.7 43.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6 7.0 0.0 0.0 1.6 -76.5
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54 55 56 57 58	HVDC - 765 kV - 400 kV - 220 kV - 132kV - Export of - HVDC - 765 kV - 400 kV	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-RANPUR BHANPURA-WARIAM MALANPUR-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	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 S/C S/C S/C S/C S/C S/C S	449 0 0 0 0 0 0 0 650 0 313 154 46 970 124 14 67 96 63 0 0 0 1 0 0 1 1 0	1862 0 1925 2476 1667 921 0 1347 780 136 422 0 395 82 110 0 18 0 WR-NR	0.0 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	37.7 0.0 39.3 44.9 21.4 28.1 0.0 23.3 3.2 0.0 0.0 1 0.1 0.7 0.0 0.0 199.9 12.7 0.0 28.7 43.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-37.7 9.0 -39.3 -44.9 -21.4 -28.1 7.0 -23.3 -3.2 0.5 3.4 22.2 -1 -0.1 -0.4 1.0 0.5 0.0 -155.9 -12.7 0.0 -28.7 -43.6 7.0 0.0 0.0 1.6