

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: 02nd July 2018

Τо

- 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
- 4. महाप्रबंधक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह, लापलंग, शिलोंग ७९३००६ General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. अपर महाप्रबंधक , द .क्षे .भा .प्रे .के., २९ , रेस कोर्स क्रॉस रोड, बंगलुरु –५६०००९ Additional General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 30.06.2018.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 1 जुलाई 2018 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 1st July 2018, 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** 2-Jul-18

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW) (at 2000 hrs; from RLDCs)	50570	42118	37382	18026	2546	150643
Peak Shortage (MW)	702	41	0	0	105	848
Energy Met (MU)	1167	1009	833	410	47	3467
Hydro Gen (MU)	324	12	59	77	24	496
Wind Gen (MU)	30	74	72			176
Solar Gen (MU)*	12.53	18.24	49.11	0.48	0.02	80
Energy Shortage (MU)	12.2	0.0	0.0	0.0	1.2	13.4
Maximum Demand Met during the day	54772	44018	38038	19671	2553	157446
(MW) & time (from NLDC SCADA)	21:58	22:54	20:09	21:07	20:04	21:17

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	0.037	0.13	0.63	6.11	6.86	81.74	11.40

C. Power Supply Po	sition in States	T	1		1		1	1
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	10004	0	226.0	141.2	-0.5	112	0.0
	Haryana	8212	93	178.5	148.1	1.0	424	0.6
	Rajasthan	8184	0	169.0	38.3	2.0	360	2.7
	Delhi	5759	0	113.2	92.8	-0.8	129	0.0
NR	UP	17838	10	373.3	178.6	-0.7	270	0.0
	Uttarakhand	1870	0	40.4	13.5	-1.2	153	0.0
	HP	1207	0	24.0	-0.7	3.3	322	0.0
	J&K	1909	477	37.3	19.6	-7.4	0	8.9
	Chandigarh	295	0	5.7	6.1	-0.4	17	0.0
	Chhattisgarh	3596	0	82.1	17.2	0.3	459	0.0
	Gujarat	13919	0	314.3	100.3	5.6	733	0.0
	MP	7543	0	161.1	58.3	-2.5	296	0.0
WR	Maharashtra	18086	0	408.9	120.6	1.3	507	0.0
VVIX	Goa	373	0	8.5	7.6	0.4	35	0.0
	DD	301	0	6.7	5.8	0.9	68	0.0
	DNH	729	0	17.1	16.6	0.5	40	0.0
	Essar steel	487	0	10.0	9.7	0.2	188	0.0
	Andhra Pradesh	7034	0	156.6	42.9	2.2	441	0.0
	Telangana	7137	0	155.6	77.3	0.3	430	0.0
SR	Karnataka	7912	0	169.3	60.8	1.5	547	0.0
Jii	Kerala	3136	0	60.6	38.7	0.7	379	0.0
	Tamil Nadu	12884	0	284.3	130.9	0.8	597	0.0
	Pondy	325	0	7.0	7.4	-0.4	23	0.0
	Bihar	4475	0	80.8	79.7	-1.5	180	0.0
	DVC	2971	0	68.9	-27.2	0.8	250	0.0
ER	Jharkhand	1063	0	22.0	16.7	-0.2	90	0.0
	Odisha	3958	0	77.8	39.1	1.5	400	0.0
	West Bengal	7952	0	159.2	43.3	4.0	480	0.0
	Sikkim	72	0	0.9	2.1	-1.2	0	0.0
	Arunachal Pradesh	118	3	2.0	2.7	-0.7	0	0.0
	Assam	1596	102	29.2	24.1	0.5	152	1.1
	Manipur	161	2	2.3	2.6	-0.3	30	0.0
NER	Meghalaya	289	5	5.5	0.7	0.0	38	0.0
	Mizoram	77	4	1.6	0.7	0.4	35	0.0
	Nagaland	119	4	2.2	2.0	0.1	20	0.0
	Tripura	255	1	4.5	4.0	0.1	29	0.1

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	22.8	-3.6	-13.7
Day peak (MW)	1210.3	-369.3	-654.4

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	261.6	-256.2	83.6	-83.5	-0.4	5.1
Actual(MU)	255.0	-252.7	81.0	-78.3	-3.3	1.6
O/D/U/D(MU)	-6.6	3.4	-2.5	5.1	-2.9	-3.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5338	14976	10032	715	168	31229
State Sector	8920	16043	9540	5755	50	40308
Total	14258	31019	19572	6470	218	71536

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Thermal (Coal & Lignite)	503	1096	483	430	9	2520
Hydro	324	12	61	77	24	498
Nuclear	27	27	45	0	0	99
Gas, Naptha & Diesel	28	48	18	0	21	116
RES (Wind, Solar, Biomass & Others)	54	92	156	1	0	303
Total	936	1276	763	508	54	3536

Share of RES in total generation (%)	5.75	7.25	20.46	0.15	0.06	8.57
Share of Non-fossil fuel (Hydro, Nuclear and	42.22	10.32	34.29	15.22	44.60	25.45
RES) in total generation (%)	43.32	10.52	34.29	15.25	44.00	25.45

H. Diversity Factor
All India Demand Diversity Factor
1.010
Diversity factor = Sum of regional maximum demands / All India maximum demand

		INTE	INTER-REGIONAL EXCHANGES					2-Jul-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)	
	Export of	ER (With NR)				1		ı	
2	765kV	GAYA-VARANASI SASARAM-FATEHPUR	D/C S/C	209	544 35	0.0 1.9	7.7	-7.7 1.9	
3	703K V	GAYA-BALIA	S/C	0	382	0.0	7.3	-7.3	
4	HVDC	ALIPURDUAR-AGRA	-	325	153	0.0	5.8	-5.8	
5	HVDC	PUSAULI B/B	S/C	0	378	0.0	9.3	-9.3	
6		PUSAULI-VARANASI	S/C	0	274	0.0	0.0	0.0	
7 8	4	PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	S/C D/C	0	172 766	0.0	0.0	0.0 -15.0	
9	400 kV	PATNA-BALIA	Q/C	0	1051	0.0	18.9	-13.0	
10	1	BIHARSHARIFF-BALIA	D/C	0	421	0.0	7.8	-7.8	
11		MOTIHARI-GORAKHPUR	D/C	280	11	3.4	0.0	3.4	
12		BIHARSHARIFF-VARANASI	D/C	715	0	0.0	2.7	-2.7	
13	220 kV	PUSAULI-SAHUPURI	S/C	0	185	0.0	3.7	-3.7	
14		SONE NAGAR-RIHAND	S/C	0	0	0.6	0.0	0.6	
15	132 kV	GARWAH-RIHAND	S/C	35	0	0.3	0.0	0.3	
16 17	4	KARMANASA-SAHUPURI	S/C S/C	0	45 0	0.0	0.0	0.0	
1 /	ı	KARMANASA-CHANDAULI	3/C	U	ER-NR	0.0 6.2	78.0	-71.8	
Import/E	Export of	ER (With WR)			LAC-IN	0,2	70.0	-/1.0	
18	765 kV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	976	1	13.9	0.0	13.9	
19	1	NEW RANCHI-DHARAMJAIGARH	D/C	571	2	7.3	0.0	7.3	
20	400 kV	JHARSUGUDA-RAIGARH	Q/C	805	0	12.1	0.0	12.1	
21		RANCHI-SIPAT	D/C	296	0	3.2	0.0	3.2	
22	220 kV	BUDHIPADAR-RAIGARH BUDHIPADAR-KORBA	S/C D/C	70 143	63	0.0 2.5	0.2	-0.2 2.5	
23		BUDHIFADAK-KOKBA	D/C	143	ER-WR	39.0	0.0	38.8	
Import/E	Export of	ER (With SR)	-	-				1	
24	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	1121.8	0.0	16.7	-16.7	
25	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	521.8	0.0	12.3	-12.3	
26	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1974.7	0.0	32.6	-32.6	
27	400 kV	TALCHER-I/C	D/C	1089.0	0.8	0.9	14.0	-13.1	
28	220 kV	BALIMELA-UPPER-SILERRU	S/C	0.0	0.0 ER-SR	0.0	0.0 61.5	0.0 -61.5	
Import/E	Export of	ER (With NER)				0.0	0110	02.0	
29	400 kV	BINAGURI-BONGAIGAON	D/C	0	478	0.0	6.0	-6	
30	400 K V	ALIPURDUAR-BONGAIGAON	D/C	5	410	0.0	3.9	-4	
31	220 kV	ALIPURDUAR-SALAKATI	D/C	0	138	0.0	2.8	-3	
Import/E	Export of	NER (With NR)			ER-NER	0.0	12.8	-12.8	
32	HVDC	BISWANATH CHARIALI-AGRA	-	0	700	0.0	16.8	-16.8	
					NER-NR	0.0	16.8	-16.8	
	Export of	WR (With NR)						T	
33	HVDC	CHAMPA-KURUKSHETRA V'CHAL B/B	D/C	0	1650	0.0	39.1	-39.1	
34	пурс		D/C		200	4.0	0.0	4.0	
36		ADI MHG	D/C		200	4.8	0.0	4.8	
		APL -MHG GWALIOR-AGRA	D/C D/C	0	1714	0.0	29.8	-29.8	
37		APL -MHG GWALIOR-AGRA PHAGI-GWALIOR	_	0				-	
37 38	765 kV	GWALIOR-AGRA	D/C	0	1714 2564	0.0	29.8 51.3	-29.8 -51.3	
	765 kV	GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C	0 0 0	1714 2564 1686	0.0 0.0 0.0	29.8 51.3 20.6	-29.8 -51.3 -20.6	
38 39 40	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI	D/C D/C D/C S/C S/C	0 0 0 0 0 0 383	1714 2564 1686 1211 1753 0	0.0 0.0 0.0 0.0 7.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5	-29.8 -51.3 -20.6 -22.6 7.0 -38.5	
38 39 40 41	765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI	D/C D/C D/C S/C S/C S/C	0 0 0 0 0 0 383 265	1714 2564 1686 1211 1753 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4	29.8 51.3 20.6 22.6 0.0 38.5 0.0	-29.8 -51.3 -20.6 -22.6 7.0 -38.5 3.4	
38 39 40 41 42	765 kV - 400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL	D/C D/C D/C S/C S/C S/C S/C	0 0 0 0 0 383 265 255	1714 2564 1686 1211 1753 0 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3	29.8 51.3 20.6 22.6 0.0 38.5 0.0	-29.8 -51.3 -20.6 -22.6 7.0 -38.5 3.4 3.3	
38 39 40 41 42 43	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 0 0 0 383 265 255 957	1714 2564 1686 1211 1753 0 0 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0	-29.8 -51.3 -20.6 -22.6 7.0 -38.5 3.4 3.3 20.2	
38 39 40 41 42 43 44	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR	D/C D/C D/C S/C S/C S/C S/C S/C D/C	0 0 0 0 0 383 265 255 957 0	1714 2564 1686 1211 1753 0 0 0 0 414	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2	
38 39 40 41 42 43	400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND	D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 0 0 0 0 383 265 255 957	1714 2564 1686 1211 1753 0 0 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0	-29.8 -51.3 -20.6 -22.6 7.0 -38.5 3.4 3.3 20.2	
38 39 40 41 42 43 44 45	-	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA	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 0 383 265 255 957 0	1714 2564 1686 1211 1753 0 0 0 0 414	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 0.0 2	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2	
38 39 40 41 42 43 44 45 46	400 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK	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 0 383 265 255 957 0 10	1714 2564 1686 1211 1753 0 0 0 0 414 77 93	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4	
38 39 40 41 42 43 44 45 46 47	400 kV	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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 0 383 265 255 957 0 10	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2	
38 39 40 41 42 43 44 45 46 47 48 49	- 400 kV - 220 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 383 265 255 957 0 10 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8	
38 39 40 41 42 43 44 45 46 47 48 49	- 400 kV - 220 kV - 132kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	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 0 383 265 255 957 0 10 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0	
38 39 40 41 42 43 44 45 46 47 48 49	- 400 kV - 220 kV - 132kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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 0 383 265 255 957 0 10 0 19	1714 2564 1686 1211 1753 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 3.8,9	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8	
38 39 40 41 42 43 44 45 46 47 48 49 Import/F	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -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 S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 0 383 265 255 957 0 10 0 19 0	1714 2564 1686 1211 1753 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 38.9	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 7.0 -38.5 3.4 3.3 20.2 -2 -0.9 -1.4 -0.2 -0.8 0.0 -168.8	
38 39 40 41 42 43 44 45 46 47 48 49 Import/F 50 51 52	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - Total HVDC LINK - 765 kV	GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GWALIOR-ORAI SATNA-ORAI ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-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	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 0 0 383 265 255 957 0 10 0 19 0 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5	
38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51	- 400 kV - 220 kV - 132kV - Export of - HVDC - LINK	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 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 0 383 265 255 957 0 10 0 19 0 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -19.1 -10.0 -16.7 -18.5 -9.1	
38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI	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 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 0 383 265 255 957 0 10 0 19 0 0 0 287 0 621	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7 19.1 0.0 16.7 18.5 0.0 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0	
38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55 56	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI PONDA-AMBEWADI	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 S/C S/C S/C S/C S/C S/C S/C S	0 0 0 0 0 383 265 255 957 0 10 0 19 0 0 0 287 0 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0 -0.0	
38 39 40 41 42 43 44 45 46 47 48 49 Import/E 50 51 52 53 54 55	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI	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 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 0 383 265 255 957 0 10 0 19 0 0 0 287 0 621	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7 19.1 0.0 16.7 18.5 0.0 0.0 0.0 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0 -0.0 -1.5	
38 39 40 41 42 43 44 45 46 47 48 49 Import/F 50 51 52 53 54 55 56	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 0 383 265 255 957 0 10 0 19 0 0 0 287 0 0 621 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0 -0.0	
38 39 40 41 42 43 44 45 46 47 48 49 Import/F 50 51 52 53 54 55 56 57	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI PONDA-AMBEWADI TR.	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 0 0 383 265 255 957 0 10 0 19 0 0 0 287 0 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7 19.1 0.0 16.7 18.5 0.0 0.0 0.0 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0 -0.0 -1.5 -43.7	
38 39 40 41 42 43 44 45 46 47 48 49 Import/F 50 51 52 53 54 55 56	- 400 kV - 220 kV - 132kV - 220 kV - 132kV - 765 kV - 765 kV - 400 kV	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 KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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 0 0 383 265 255 957 0 10 0 19 0 0 0 287 0 0 621 0	1714 2564 1686 1211 1753 0 0 0 0 414 77 93 22 42 0 WR-NR	0.0 0.0 0.0 0.0 0.0 0.0 7.0 0.0 3.4 3.3 20.2 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.8 51.3 20.6 22.6 0.0 38.5 0.0 0.0 2 0.9 1.4 0.2 0.8 0.0 207.7 19.1 0.0 16.7 18.5 0.0 0.0 0.0 0.0	-29.8 -51.3 -20.6 -22.6 -7.0 -38.5 -3.4 -3.3 -20.2 -2 -0.9 -1.4 -0.2 -0.8 -0.0 -168.8 -19.1 -0.0 -16.7 -18.5 -9.1 -0.0 -0.0 -1.5	