

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: 24th 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 23.01.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 23-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 23rd Jan 2020, is available at the NLDC website.

धन्यवाद,

Report for previous day Date of Reporting 24-Jan-20

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	48119	48758	40765	18623	2430	158695
hrs; from RLDCs) Peak Shortage (MW)	568	0	0	0	42	610
Energy Met (MU)	950	0 1168	1022	362	42	3544
Hydro Gen (MU)	128	40	85	32	6	291
Wind Gen (MU)	20	89	64			173
Solar Gen (MU)*	36.61	25.20	77.67	1.45	0.03	141
Energy Shortage (MU)	12.1	0.0	0.0	0.0	0.6	12.8
Maximum Demand Met during the day (MW) & time	48662	56272	47912	18872	2526	169201
(from NLDC SCADA)	19:04	10:28	07:44	18:29	17:57	09:26

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	0.00	0.35	5.65	6.00	72.51	21.49

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	5682	0	111.0	54.7	-1.2	68	0.0
	Haryana	6640	0	129.6	89.9	1.2	183	0.0
	Rajasthan	13553	0	238.6	56.3	-1.1	558	0.0
NR	Delhi	4382	0	75.0	59.5	-1.3	259	0.0
	UP	15646	0	270.6	114.1	-2.9	662	0.0
	Uttarakhand	2157	0	39.3	21.6	0.5	156	0.0
	HP	1704	0	31.6	24.6	-0.4	111	0.2
	J&K(UT) and Ladakh(UT)	2390	597	50.6	45.8	-0.6	147	11.9
	Chandigarh	268	0	4.2	4.0	0.2	24	0.0
	Chhattisgarh	3753	0	80.8	40.1	-0.9	212	0.0
	Gujarat	15913	0	337.6	62.7	6.5	801	0.0
	MP	13818	0	242.8	134.6	-2.0	620	0.0
WR	Maharashtra	22723	0	464.3	152.5	-2.5	418	0.0
WK	Goa	533	0	10.4	10.3	-0.2	53	0.0
	DD	334	0	7.4	6.9	0.5	38	0.0
	DNH	802	0	18.5	18.5	0.0	154	0.0
	Essar steel	291	0	5.7	5.6	0.1	188	0.0
	Andhra Pradesh	9169	0	184.3	71.4	0.3	400	0.0
	Telangana	11069	0	218.9	108.8	0.0	489	0.0
SR	Karnataka	12149	0	233.2	58.5	-0.7	602	0.0
JK.	Kerala	3796	0	76.0	57.5	1.5	187	0.0
	Tamil Nadu	14427	0	302.3	152.0	0.3	734	0.0
	Pondy	373	0	7.1	7.3	-0.2	56	0.0
	Bihar	4650	0	79.4	78.1	-0.3	100	0.0
	DVC	3182	0	65.2	-35.4	0.3	130	0.0
ER	Jharkhand	1372	0	25.6	18.1	-1.2	70	0.0
LIN	Odisha	5127	0	71.0	7.7	0.4	200	0.0
	West Bengal	6421	0	118.3	28.4	-0.2	170	0.0
	Sikkim	144	0	2.1	1.8	0.2	20	0.0
	Arunachal Pradesh	120	1	2.3	2.0	0.2	52	0.0
	Assam	1359	35	22.8	20.1	0.2	129	0.3
	Manipur	201	1	2.7	3.0	-0.3	24	0.0
NER	Meghalaya	381	0	6.5	5.4	0.0	53	0.3
	Mizoram	112	1	1.9	1.5	-0.1	22	0.0
	Nagaland	129	1	2.5	2.0	0.3	35	0.0
	Tripura	216	1	3.4	3.4	0.1	79	0.0

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

The state of the s	Bhutan	Nepal	Bangladesh
Actual(MU)	3.1	-9.8	-10.0
Day peak (MW)	519.9	-560.0	-763.0

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	218.3	-240.7	107.8	-93.3	8.1	0.0
Actual(MU)	203.7	-261.9	126.0	-82.3	10.3	-4.2
O/D/U/D(MU)	-14.6	-21.2	18.3	11.0	2.3	-4.2

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	5093	15888	6932	1360	613	29886
State Sector	11440	16386	6990	4550	112	39478
Total	16533	32274	13922	5910	726	69364

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	475	1166	505	437	11	2595
Lignite	24	14	48	0	0	86
Hydro	128	40	85	32	6	291
Nuclear	24	33	39	0	0	96
Gas, Naptha & Diesel	31	32	18	0	20	100
RES (Wind, Solar, Biomass & Others)	86	134	198	1	0	420
Total	769	1418	894	470	36	3588

Share of RES in total generation (%)	11.22	9.46	22.10	0.31	0.08	11.69
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation (%)	31.05	14.60	36.06	7.06	15.24	22.49

H. All India Demand Diversity Factor

III III III III Belliulu Bireisti I uctoi	
Based on Regional Max Demands	1.030
Based on State Max Demands	1.093

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.}$

ĺ		IN	TER-REGI	ONAL EXCH	ANGES	Date of l	Reporting :	24-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)
		ER (With NR)			1			
5	HVDC	ALIPURDUAR-AGRA PUSAULI B/B	S/C	0	299	0.0	0.0 7.4	0.0 -7.4
1		GAYA-VARANASI	D/C	0	761	0.0	9.1	-9.1
2	765kV	SASARAM-FATEHPUR	S/C	92	302	0.0	1.6	-1.6
3		GAYA-BALIA	S/C	0	427	0.0	6.8	-6.8
6		PUSAULI-VARANASI	S/C	0	220	0.0	4.6	-4.6
7 8	-	PUSAULI -ALLAHABAD MUZAFFARPUR-GORAKHPUR	S/C D/C	0	145 654	0.0	2.6 7.3	-2.6 -7.3
9	400 kV	PATNA-BALIA	O/C	0	825	0.0	12.0	-12.0
10		BIHARSHARIFF-BALIA	D/C	0	320	0.0	4.2	-4.2
11		MOTIHARI-GORAKHPUR	D/C	0	5	0.0	0.0	0.0
12		BIHARSHARIFF-VARANASI	D/C	119	226	0.0	0.5	-0.5
13	220 kV	PUSAULI-SAHUPURI	S/C	0	188	0.0	2.9	-2.9
14	4	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0
15 16	132 kV	GARWAH-RIHAND	S/C S/C	30 0	0	0.6	0.0	0.6
17		KARMANASA-SAHUPURI KARMANASA-CHANDAULI	S/C	0	0	0.0	0.0	0.0
1/	I	TO THE PROPERTY OF THE PROPERT	3/C	U	ER-NR	0.6	51.6	-51.0
Import/E	Export of	ER (With WR)				~~~		
18		JHARSUGUDA-DHARAMJAIGARH	Q/C	1345	0	20.8	0.0	20.8
19	765 kV	NEW RANCHI-DHARAMJAIGARH	D/C	514	271	5.3	0.0	5.3
20		JHARSUGUDA-DURG	D/C	91	106	0.0	0.2	-0.2
21	400 kV	JHARSUGUDA-RAIGARH	Q/C	122	267	0.0	1.5	-1.5
22		RANCHI-SIPAT	D/C	194	88	2.1	0.0	2.1
23	220 kV	BUDHIPADAR-RAIGARH	S/C	149	104	0.0 2.3	0.0	-1.3 2.3
24		BUDHIPADAR-KORBA	D/C	149	ER-WR	30.5	3.1	27.4
Import/E	Export of	ER (With SR)			ER-WR	30.3	3.1	27.4
26		JEYPORE-GAZUWAKA B/B	D/C	0.0	538.0	0.0	12.4	-12.4
27	HVDC	TALCHER-KOLAR BIPOLE	D/C	0.0	1977.0	0.0	35.6	-35.6
25	765 kV	ANGUL-SRIKAKULAM	D/C	0.0	2610.0	0.0	49.7	-49.7
28	400 kV	TALCHER-I/C	D/C	866.0	517.0	2.8	0.0	2.8
29	220 kV	BALIMELA-UPPER-SILERRU	S/C	1.0	0.0 ER-SR	0.0	0.0	0.0
Import/F	export of	ER (With NER)			ER-SK	0.0	97.6	-97.6
30	Ĺ	BINAGURI-BONGAIGAON	D/C	105	140	0.1	0.6	0
31	400 kV	ALIPURDUAR-BONGAIGAON	D/C	193	169	0.5	0.0	1
32	220 kV	ALIPURDUAR-SALAKATI	D/C	28	44	0.0	0.1	0
		TIER CRECTIC-STEPHENT	D/C		1		0.1	Ü
		•	D/C		ER-NER	0.7	0.7	0.0
_		NER (With NR)	D/C	471	1		0.7	0.0
Import/E	Export of HVDC	•		471	0	11.5	0.7	11.5
33	HVDC	NER (With NR) BISWANATH CHARIALI-AGRA		471	1	11.5	0.7	0.0
33	HVDC	NER (With NR)	- D/C	471	0	11.5	0.7	11.5
33 Import/E	HVDC	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR)	-		0 NER-NR	11.5 11.5	0.7 0.0 0.0	0.0 11.5 11.5
33 Import/E 34 35 36	HVDC Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL -MHG	D/C D/C D/C	0 448 0	0 NER-NR 2507 493 1926	11.5 11.5 0.0 2.9 0.0	0.0 0.0 31.3 2.6 33.3	11.5 11.5 11.5 -31.3 0.2 -33.3
33 Import/E 34 35 36 37	HVDC Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA	D/C D/C D/C D/C	0 448 0 0	0 NER-NR 2507 493 1926 2649	11.5 11.5 0.0 2.9 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0
33 Import/E 34 35 36 37 38	HVDC Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C D/C D/C	0 448 0 0 264	0 NER-NR 2507 493 1926 2649 1188	11.5 11.5 0.0 2.9 0.0 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0
33 Import/E 34 35 36 37 38 39	HVDC Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL 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	0 448 0 0 264	0 NER-NR 2507 493 1926 2649 1188 855	0.0 2.9 0.0 0.0 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0
33 Import/E 34 35 36 37 38	HVDC Export of HVDC	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR	D/C D/C D/C D/C D/C D/C	0 448 0 0 264	0 NER-NR 2507 493 1926 2649 1188	11.5 11.5 0.0 2.9 0.0 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0
33 Import/E 34 35 36 37 38 39 40	HVDC Export of HVDC	NER (With NR) BISWANATH CHARIALI-AGRA 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 D/C S/C	0 448 0 0 0 264 0	0 NER-NR 2507 493 1926 2649 1188 855 0	11.5 11.5 0.0 2.9 0.0 0.0 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1
33 Import/E 34 35 36 37 38 39 40 41	HVDC Export of HVDC	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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 D/C S/C S/C	0 448 0 0 264 0 676	0 NER-NR 2507 493 1926 2649 1188 855 0 1399	11.5 11.5 0.0 2.9 0.0 0.0 0.0 0.0 10.1	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0
33 Import/E 34 35 36 37 38 39 40 41 42 43 44	HVDC Export of HVDC	NER (With NR) BISWANATH CHARIALI-AGRA 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	0 448 0 0 264 0 676 0 0 95	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307	11.5 11.5 0.0 2.9 0.0 0.0 0.0 0.0 10.1 0.0 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 13.5 0.5 2.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45	HVDC Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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 D/C D/C D/C D/C D/C D/C S/C S/C S/C S/C S/C S/C	0 448 0 0 264 0 676 0 0 95 205	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0	11.5 11.5 0.0 2.9 0.0 0.0 0.0 10.1 0.0 0.0 0.0 0.0 0.0 21.6	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 27.0 0.0 27.0 0.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46	HVDC Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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	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 D/C	0 448 0 0 264 0 676 0 0 95 205 977 297	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318	11.5 11.5 11.5 0.0 2.9 0.0 0.0 0.0 10.1 0.0 0.0 0.0 0.	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 13.5 0.5 2.0 0.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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	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	0 448 0 0 264 0 676 0 0 95 205 977 297 50	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66	11.5 11.5 11.5 0.0 2.9 0.0 0.0 0.0 10.1 0.0 0.0 0.0 0.	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 13.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110	11.5 11.5 11.5 0.0 0.0 0.0 0.0 0.0 10.1 0.0 0.0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 13.5 0.5 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47	HVDC Export of HVDC - 765 kV - 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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	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	0 448 0 0 264 0 676 0 0 95 205 977 297 50	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66	11.5 11.5 11.5 0.0 2.9 0.0 0.0 0.0 10.1 0.0 0.0 0.0 0.	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 13.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	HVDC Export of HVDC - 765 kV - 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0	11.5 11.5 11.5 10.0 2.9 0.0 0.0 0.0 10.1 0.0 0.0 0.0 0.	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.5 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	HVDC Export of HVDC 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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-SWAI MADHOPUR	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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17	11.5 11.5 11.5 11.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 13.5 2.0 0.0 0.0 0.0 0.0 0.0	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E	HVDC Export of HVDC 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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 BHANPURA-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	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	0 448 0 0 264 0 676 0 95 205 977 297 50 35 96 50	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR	11.5 11.5 11.5 11.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.5 2.0 0.0 0.4 0.9 0.0 0.1 0.0 199.8	0.0 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52	HVDC Export of HVDC 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABAL PUR-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 WR-NR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.1 0.5 2.0 0.0 0.4 0.9 0.0 0.1 0.0 199.8	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53	HVDC Export of HVDC 765 kV 400 kV 132kV Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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 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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 WR-NR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.0 0.0 0.0	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	HVDC Export of HVDC 765 kV 400 kV 132kV Export of	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.0 0.4 0.9 0.0 0.1 0.0 199.8	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 10.1 -27.0 0.1 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4
33 Import/E 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 Export of HVDC - 765 kV - 400 kV - 220 kV - 132kV Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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.SILIERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD	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 D/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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 13.5 0.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 0.0 -24.5 -40.3
33 Import/E 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 Import/E 52 53 54	HVDC Export of HVDC 765 kV 400 kV 132kV Export of HVDC	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) 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 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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.0 0.4 0.9 0.0 0.1 0.0 199.8	0.0 11.5 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4
33 Import/E 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	HVDC Export of HVDC - 765 kV - 400 kV - 220 kV - 132kV Export of HVDC - 765 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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-MORAK MEHGAON-AURAIYA MALANPUR-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 WR-NR 989 0 1892 2539 0	11.5 11.5 11.5 11.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 13.5 0.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3 0.0	0.0 11.5 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 -13.4 -0.0 -24.5 -40.3 9.8
33 Import/E 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 Export of HVDC - 765 kV - 400 kV - 132kV Export of HVDC - 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BHASUR-I.SILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	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	0 448 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR 989 0 1892 2539 0 0	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 0.0 0.1 0.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3 0.0 0.0	0.0 11.5 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 0.0 -24.5 -40.3 9.8 0.0
33 Import/E 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 Export of HVDC - 765 kV - 400 kV - 132kV Export of HVDC - 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA 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-RANPUR BHANPURA-WANDUR GWALIOR-SAWAI MADHOPUR WR (With SR) BHARDAWATI B/B BARSUR-LSILERU SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI PONDA-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 D/C S/C S/C S/C S/C S/C S/C S/C S/C S/C S	0 448 0 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR 989 0 1892 2539 0 0 0	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 13.5 0.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3 0.0 0.0 0.0 0.0	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 13.5 -0.5 -2.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 0.0 -24.5 -40.3 9.8 0.0 0.0
33 Import/E 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 Export of HVDC - 765 kV - 400 kV - 132kV Export of HVDC - 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GALIOR-ORAI SATNA-ORAI 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-CHIKODI PONDA-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	0 448 0 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR 989 0 1892 2539 0 0 0 91 WR-SR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 13.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 10.1 -27.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 0.0 -24.5 -40.3 9.8 0.0 0.0 1.7
33 Import/E 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 Export of HVDC - 765 kV - 400 kV - 132kV Export of HVDC - 765 kV 400 kV	NER (With NR) BISWANATH CHARIALI-AGRA WR (With NR) CHAMPA-KURUKSHETRA VCHAL B/B APL-MHG GWALIOR-AGRA PHAGI-GWALIOR JABALPUR-ORAI GALIOR-ORAI SATNA-ORAI 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-CHIKODI PONDA-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	0 448 0 0 0 264 0 676 0 0 95 205 977 297 50 35 96 50 0 0 0 521 0 868 0 1	0 NER-NR 2507 493 1926 2649 1188 855 0 1399 1078 158 307 0 318 66 110 0 17 0 WR-NR 989 0 1892 2539 0 0 0 91 WR-SR	11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	0.7 0.0 0.0 31.3 2.6 33.3 45.0 16.0 27.0 0.0 27.0 13.5 2.0 0.0 0.1 0.0 199.8 13.4 0.0 24.5 40.3 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 11.5 11.5 11.5 -31.3 0.2 -33.3 -45.0 -16.0 -27.0 10.1 -27.0 10.1 -27.0 21.6 0 0.1 -0.8 1.0 0.2 0.0 -163.4 -13.4 0.0 -24.5 -40.3 9.8 0.0 0.0 1.7