

National Load Despatch Centre पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)

B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

Ref: POSOCO/NLDC/SO/Daily PSP Report

Date: 07th June, 2016

To,

- 1. महाप्रबंधक, प्. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड , कोलकाता 700033 General Manager, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
- 2. Executive Director, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली 110016 कार्यपालक निदेशक, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi 110016
- 3. महाप्रबंधक, प. क्षे. भा. प्रे. के., एफ-3, 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 793006 General Manager, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
- 5. कार्यपालक 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 06.06.2016.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स. - 5.5.1 के प्रावधान के अनुसार, दिनांक 06th जून 2016 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर निम्न लिंक 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 05th June 2016, is available at the NLDC website.

http://posoco.in/WebsiteData/Reports/DailyReports/2016-2017/May%202016/07.06.16 NLDC PSP.pdf

Thanking You.

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

Report for previous day Date of Reporting 7-Jun-16

A. Maximum Demand

	NR	WR	SR	ER	NER	Total
Demand Met during Evening Peak hrs(MW)	43750	43230	35266	17941	2337	142523
Peak Shortage (MW)	450	28	200	300	100	1078
Energy Met (MU)	1052	1013	769	390	41	3265
Hydro Gen(MU)	305	14	32	43	17	409
Wind Gen(MU)	10	62	74			146

B. Frequency Profile (%)

Region	<49.2	<49.7	49.7-49.8	49.8-49.9	<49.9	49.9-50.05	> 50.05
NEW GRID	0.00	0.00	0.00	3.98	3.98	74.17	21.85
SR GRID	0.00	0.00	0.00	3.98	3.98	74.17	21.85

C.Power Supply Position in States

		Max. Demand	Shortage during	Energy	Drawal	OD(+)/	Max
RegionRegion	States	Met during the	maximum Demand	Met (MU)	Schedule (MU)	UD(-) (MU)	OD (MW
		day (MW)	(MW)	Met (MO)	` ′	OD(-) (MO)	OD (MW
	Punjab	7481	0	162.6	85.7	0.4	188
	Haryana	7255	0	141.7	112.4	-2.3	209
	Rajasthan	9712	0	209.1	69.0	1.5	459
	Delhi	5925	62	120.4	102.8	-0.4	194
NR	UP	14652	0	317.5	139.2	-0.4	431
	Uttarakhand	1775	0	34.5	17.4	-1.6	152
	HP	1193	0	24.2	5.9	0.4	165
	J&K	1935	484	35.9	18.3	-2.4	237
	Chandigarh	344	0	6.5	6.5	0.3	29
	Chhattisgarh	3104	0	74	26	1	365
	Gujarat	15137	16	326	62	-3	320
	MP	7283	0	167	118	0	215
WR	Maharashtra	18022	0	403	130	-3	666
VVIN	Goa	474	0	10	10	0	61
	DD	319	0	7	7	0	62
	DNH	753	0	17	17	0	9
	Essar steel	482	0	9	9	0	112
	Andhra Pradesh	5959	0	131	2.6	4.2	658
	Telangana	5410	0	119	67.0	-1.3	297
SR	Karnataka	8013	0	160	61.6	3.8	398
J.	Kerala	3496	0	64	51.0	2.0	160
	Tamil Nadu	13521	0	288	133.6	1.1	630
	Pondy	338	0	7	7.6	-0.3	21
	Bihar	3510	100	74	66.2	3.7	510
	DVC	2855	0	63	-33.5	-0.2	210
ER	Jharkhand	1026	0	24	15.2	2.0	265
LIN	Odisha	3911	0	79	27.9	0.7	305
	West Bengal	7655	0	150	37.7	-0.7	365
	Sikkim	94	0	1	1.1	0.2	21
	Arunachal Pradesh	116	1	2	2.4	-0.6	47
	Assam	1437	36	26	19.7	1.8	231
	Manipur	133	1	2	2.1	-0.2	16
NER	Meghalaya	275	0	4	2.3	-0.1	36
	Mizoram	72	1	1	1.3	-0.2	5
	Nagaland	110	0	2	2.0	-0.2	10
	Tripura	252	3	4	3.5	0,3	55

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

	Bhutan	Nepal	Bangladesh
Actual(MU)	9.3	-4.9	-12.9
Day peak (MW)	485.1	-257.1	-563.5

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

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	162.5	-153.5	60.3	-66.9	-1.9	0.5
Actual(MU)	163.1	-161.8	60.6	-60.3	-2.4	-0.8
O/D/U/D(MU)	0.6	-8.4	0.3	6.7	-0.5	-1.3

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	Total
Central Sector	3981	13781	1680	1550	21	21013
State Sector	10580	14884	6737	4639	110	36950
Total	14561	28665	8417	6189	131	57963

सचिव(ऊर्जा)/ विशेष सचिव(ऊर्जा)/अतिरिक्त सचिव(ऊर्जा)/संयुक्त सचिव(पारेषण)/(ओ एम)/निदेशक(ओ एम)/मुख्य अभियंता-के०वि॰प्रा॰(ग्रि॰प्र॰)/ अध्यक्ष एवं प्रबंध निदेशक (पावरग्रिङ)/मुख्य कार्यपालक अधिकारी(पोसोको)/सभी राज्यो के मुख्य सचिव/ऊर्जा सचिव

		<u>INTER-R</u>	2010111	<u> </u>	11020	Date of R	eporting :	7-Jun-	
								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)	T n/a						
2		GAYA-VARANASI	D/C	360	234	0.0 5.0	0.0	-4.4	
3	765KV	SASARAM-FATEHPUR GAYA-BALIA	S/C S/C	0	301	0.0	3.2	5.0 -3.2	
	HVDC	-							
4	LINK	PUSAULI B/B	S/C	0	198	0.0	4.8	-4.8	
5	4	PUSAULI-SARNATH	S/C	0	170	0.0	0.0	0.0	
7	4	PUSAULI -ALLAHABAD	D/C	0 79	59	0.0	0.0	0.0	
8	400 KV	MUZAFFARPUR-GORAKHPUR PATNA-BALIA	D/C Q/C	0	413 712	0.0	6.3 10.0	-6.3 -10.0	
9	100 11	BIHARSHARIFF-BALIA	D/C	18	246	0.0	3.3	-3.3	
10	1	BARH-GORAKHPUR	D/C	0	432	0.0	7.8	-7.8	
11		BIHARSHARIFF-VARANASI	D/C	242	2	1.9	0.0	1.9	
12	220 KV	PUSAULI-SAHUPURI	S/C	0	242	0.0	4.7	-4.7	
13	1	SONE NAGAR-RIHAND	S/C	0	0	0.0	0.0	0.0	
14	132 KV	GARWAH-RIHAND	S/C	0	0	0.6	0.0	0.6	
15	-	KARMANASA-SAHUPURI	S/C	0	0	0.0	0.0	0.0	
16	1	KARMANASA-CHANDAULI	S/C	0	0 ER-NR	0.0 7.5	0.0 44.4	0.0 -36.9	
nport/I	Export of	ER (With WR)						2017	
17	765 KV	JHARSUGUDA-DHARAMJAIGARH S/C	D/C	0	990	0.0	16.2	-16.2	
18	, 55 K V	NEW RANCHI-DHARAMJAIGARH	D/C	128	272	0.0	1.5	-1.5	
19		ROURKELA - RAIGARH (SEL LILO BYPASS)	S/C	123	0	1.4	0.0	1.4	
20		JHARSUGUDA-RAIGARH	S/C	177	0	2.2	0.0	2.2	
21	400 KV	IBEUL-RAIGARH	S/C	126	0	1.5	0.0	1.5	
22		STERLITE-RAIGARH	D/C	0	102	0.0	3.0	-3.0	
23		RANCHI-SIPAT	D/C	346	66	3.2	0.0	3.2	
24	220 KV	BUDHIPADAR-RAIGARH	S/C	0	138	0.0	2.1	-2.1	
25		BUDHIPADAR-KORBA	D/C	55	60 ER-WR	0.0	0.2	-0.2	
nnort/F	Export of	ER (With SR)			EK-WK	8.3	23.0	-14.7	
26	HVDC	JEYPORE-GAZUWAKA B/B	D/C	0.0	280	0.0	12.8	-12.8	
27	LINK	TALCHER-KOLAR BIPOLE	D/C	0.0	1967	0.0	36.4	-36.4	
28	400 KV	TALCHER-I/C		371.2	645	1.4	1.7	-0.2	
29	220 KV	BALIMELA-UPPER-SILERRU	S/C	0	0	0.0	0.0	0.0	
	D 4 6	ED (WALNED)			ER-SR	1.4	49.3	-49.3	
30	400 KV	ER (With NER) BINAGURI-BONGAIGAON	Q/C	387	556	1	0	1	
31	220 KV	BIRPARA-SALAKATI	D/C	0	0	0	0	0	
	220111		D/C		ER-NER	1.4	0.5	0.9	
nport/I	Export of	NR (With NER)						L.	
32	HVDC	BISWANATH CHARIALI-AGRA	-	0	0	0.0	0.0	0.0	
					NR-NER	0.0	0.0	0.0	
		WR (With NR)	T 5/0	250	1 0	_			
33 34	HVDC	V'CHAL B/B APL -MHG	D/C D/C	250	0 2519	6	54	6.1 54	
	765 KV	GWALIOR-AGRA	D/C D/C	0	3110	0	61	61	
35	100 IX V	PHAGI-GWALIOR	D/C	0	742	0	13	-13.1	
35 36	765 KV			-			0	3	
	765 KV 400 KV	ZERDA-KANKROLI	S/C	263	0	3		0	
36			S/C S/C	263 232	56	0	0		
36 37	400 KV	ZERDA-KANKROLI ZERDA -BHINMAL V'CHAL -RIHAND					0	0	
36 37 38 39 40	400 KV 400 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR	S/C S/C D/C	232 0 0	56 0 0	0 0 0	0	0.0	
36 37 38 39 40 41	400 KV 400 KV 400 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA	S/C S/C D/C S/C	232 0 0 69	56 0 0 22	0 0 0 0	0 0	0.0 0.4	
36 37 38 39 40 41 42	400 KV 400 KV 400 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK	S/C S/C D/C S/C S/C	232 0 0 69 0	56 0 0 22 79	0 0 0 0	0 0 0	0.0 0.4 -1.1	
36 37 38 39 40 41 42 43	400 KV 400 KV 400 KV 400 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	S/C S/C D/C S/C S/C S/C	232 0 0 69 0 20	56 0 0 22 79 16	0 0 0 0 0	0 0 0 1	0.0 0.4 -1.1 0.1	
36 37 38 39 40 41 42 43 44	400 KV 400 KV 400 KV 400 KV - 220 KV	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	S/C S/C D/C S/C S/C S/C S/C S/C	232 0 0 69 0 20	56 0 0 22 79 16 29	0 0 0 0 0 0	0 0 0 1 0	0.0 0.4 -1.1 0.1 -0.5	
36 37 38 39 40 41 42 43	400 KV 400 KV 400 KV 400 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA	S/C S/C D/C S/C S/C S/C	232 0 0 69 0 20	56 0 0 22 79 16	0 0 0 0 0	0 0 0 1	0.0 0.4 -1.1 0.1	
36 37 38 39 40 41 42 43 44 45	400 KV 400 KV 400 KV 400 KV 200 KV	ZERDA-KANKROLI ZERDA-BHINMAL VCHAL-RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA	S/C S/C D/C S/C S/C S/C S/C S/C	232 0 0 69 0 20	56 0 0 22 79 16 29 0	0 0 0 0 0 0	0 0 0 1 0 1 0	0.0 0.4 -1.1 0.1 -0.5 0.0	
36 37 38 39 40 41 42 43 44 45	400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR	S/C S/C D/C S/C S/C S/C S/C S/C	232 0 0 69 0 20	56 0 0 22 79 16 29 0	0 0 0 0 0 0	0 0 0 1 0 1 0	0.0 0.4 -1.1 0.1 -0.5 0.0	
36 37 38 39 40 41 42 43 44 45	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-MORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR)	S/C S/C D/C S/C S/C S/C S/C S/C S/C S/C	232 0 0 69 0 20 0 0	56 0 0 22 79 16 29 0 WR-NR	0 0 0 0 0 0 0 0 0 0 9.7	0 0 0 1 0 1 0 129.8	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0	
36 37 38 39 40 41 42 43 44 45 mport/F 46 47 48	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV	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	S/C S/C S/C D/C S/C S/C	232 0 0 69 0 20 0 0	56 0 0 22 79 16 29 0 WR-NR	0 0 0 0 0 0 0 0 0 0 9.7	0 0 0 1 1 0 1 1 0 129.8	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5	
36 37 38 39 40 41 42 43 44 45 mport/F 46 47 48 49	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of 'HVDC LINK	ZERDA-KANKROLI ZERDA -BHINMAL VCHAL -RIHAND RAPP-SHUJALPUR BADOD-KOTA BADOD-KOTA BADOD-KOTA BADOD-WORAK MEHGAON-AURAIYA MALANPUR-AURAIYA GWALIOR-SAWAI MADHOPUR WR (With SR) BHADRAWATI B/B BARSUR-L.SILERU SOLAPUR-RAICHUR KOLHAPUR-KUDGI	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	232 0 0 69 0 20 0 0 0 0 0 0 0 0	56 0 0 22 79 16 29 0 WR-NR	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 0 129.8 20 0 33	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0	
36 37 38 39 40 41 42 43 44 45 mport/F 46 47 48 49 50	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV 400 KV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	S/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C	232 0 0 69 0 20 0 0 0 0	56 0 0 22 79 16 29 0 WR-NR 1000 0 2115 0 178	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 0 129.8 20 0 33 0	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0 -4.0	
36 37 38 39 40 41 42 43 44 45 mport/F 46 47 48 49 50 51	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV 400 KV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	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	232 0 0 69 0 20 0 0 0 0 0 0 0 0 0 0	56 0 0 22 79 16 29 0 WR-NR 1000 0 2115 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 0 129.8 20 0 33 0 4	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0 -4.0 0.0	
36 37 38 39 40 41 42 43 44 45 aport/F 46 47 48 49 50	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV 400 KV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	S/C S/C S/C D/C S/C D/C D/C D/C D/C D/C D/C D/C D/C D/C S/C S/C	232 0 0 69 0 20 0 0 0 0	56 0 0 22 79 16 6 29 0 WR-NR 1000 0 2115 0 178 0	0 0 0 0 0 0 0 0 9.7	0 0 0 1 0 1 0 129.8 20 0 33 0 4	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0 -4.0 0.0	
36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV 400 KV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	232 0 0 69 0 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	56 0 0 22 79 16 6 29 0 WR-NR 1000 0 2115 0 178 0 WR-SR	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 0 129.8 20 0 33 0 4	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0 -4.0 0.0	
36 37 38 39 40 41 42 43 44 45 Export/F 46 47 48 49 50 51	400 KV 400 KV 400 KV 400 KV 400 KV 220 KV 132KV Export of HVDC LINK 765 KV 400 KV	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 KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	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	232 0 0 69 0 20 0 0 0 0 0 0 0 0 0 0	56 0 0 22 79 16 6 29 0 WR-NR 1000 0 2115 0 178 0 WR-SR	0 0 0 0 0 0 0 0 9.7	0 0 0 1 0 1 0 129.8 20 0 33 0 4	0.0 0.4 -1.1 0.1 -0.5 0.0 110.0 -19.7 0.0 -32.5 0.0 -4.0 0.0	