

# CER Report

OTC/BB: CHGI

April 22, 2010

Rating: **Speculative Buy**  
(Unchanged)

Recent Price: **\$1.28**  
(4/21/10)

Price Target: **\$2.25**  
(From \$3.40)

## MARKET DATA

52-Week High/Low	\$3.50 - \$0.39
Ave. Daily Volume (6-mos.)	251 K
Shares Outstanding	20.0 M
Inside Ownership	47%
Institutional Ownership	<1%
Float	10.6 M
Short Interest (% of float)	<1%

## FINANCIAL DATA

Market Capitalization	\$25.6 M
- Cash & Equivalents	\$ 2.7 M
+ Preferred Stock	\$ 2.3 M
+ Long-term Debt	<u>\$ 3.2 M</u>
Enterprise Value	\$28.4 M
Book Value	\$37.9 M
Working Capital	\$11.9 M
Dividend Yield	Nil

Balance sheet figures pro forma as of 12/31/09

	SALES	INC*	CFO	EPS*
2009A	\$15.4	(\$2.2)	\$1.9	(\$0.16)
1Q10E	\$ 3.3	(\$0.0)		(\$0.00)
2Q10E	\$ 5.0	\$0.2		\$0.01
3Q10E	\$ 9.5	\$1.1		\$0.06
4Q10E	\$11.0	\$1.7		\$0.08
2010E	\$28.8	\$3.0	\$4.4	\$0.15

Dollars in millions, except EPS; Fiscal year ends Dec.  
\*Income and earnings available to shareholders

## VALUATION

Price/Sales	1.7 X
Price/CFO	13.5 X
Price/Trailing 12-mo. Earnings	Neg
Price/Book Value	0.7 X
Consensus EPS Estimate 2010	NA
Forward PE	NA
Consensus EPS Estimate 2011	NA
Forward PE	NA

Lead Analyst: Debra Fiakas, CFA  
212-400-7519  
dfiakas@crystalequityresearch.com

## China Carbon Graphite Group, Inc.

Specialty Materials

China Carbon Graphite Group is a fast growing producer of carbon graphite materials based in China. The Company is has completed a major project to expand and upgrade its production facilities located in Inner Mongolia. With production capacity now at 26,000 tons per year, the Company is expected to expand its distribution relationships to target new, fast growing markets with higher margin products.

## HIGHLIGHTS

- Year-end Disappointment.** Fourth quarter 2009 results fell short of our expectations on weakness in sales volume and selling prices as the world works through the worst economic decline in decades. We estimate fourth quarter 2009 revenue was \$3.2 million on which the Company reported a net loss of \$3.4 million.
- Selling Prices.** China Carbon's top-line and profit margin were also impacted by decreased selling prices. Management indicates that average selling prices for graphite materials declined by 8% to 20% compared to a year-ago.
- Revised Estimates.** We made changes to our estimates for 2H10 to reflect the recent sluggish order flow and depressed selling prices. Given limited color on trends in the first quarter 2009, believe it is appropriate to err on the side of caution and reduced our sales and profit assumptions for the March and June quarters.
- Pending Acquisition.** Our earnings model does not reflect a contribution from the pending acquisition of Chiyu Carbon Graphite a downstream producer of graphite-based products. The strategic acquisition of Chiyu allows the Company to integrate forward into a higher-margin segment of the graphite supply chain.
- Rating and Price Target.** We reiterate our Speculative Buy rating on China Carbon shares. In our view, China Carbon as a compelling play on China's consolidating industrial base as well as the resilience of China's economy. Our price target is reduced to \$2.25 (from \$3.40) following adjustment of our 2010 sales and earnings estimates.

**PLEASE READ THE IMPORTANT DISCLOSURES AND DISCLAIMER ON PAGES 8 AND 9 OF THIS REPORT.**

## SUMMARY

Fourth quarter 2009 results for China Carbon Graphite fell short of our expectations on weakness in sales volume and selling prices as the world works through the worst economic decline in decades. China Carbon was particularly impacted by a sharp pullback in steel production in its home market. Margins were negatively impacted by a squeeze between declining selling prices and sticky raw materials prices. Operating expenses included higher than expected charges for stock compensation expense and bad debts. The nearly perfect financial storm resulted in a sequential decline in sales to and estimated \$3.2 million (from \$5.6 million in 3Q09) and a net loss of \$3.4 million or \$0.23 per share.

We reiterate our Speculative Buy rating on China Carbon shares. In our view, China Carbon as a compelling play on China's consolidating industrial base as well as the resilience of China's economy. Our case is based on several key factors: 1) the Company's ability to remain cash flow positive even during a particularly difficulty economic period, 2) competitive advantages in the production of premium carbon graphite materials, 3) a pending acquisition that will integrate the operations forward into higher-margin finished graphite products, and 4) expanded production capacity.

Our price target is reduced to \$2.25 (from \$3.40) following adjustment of our 2010 sales and earnings estimates. Management provided limited guidance for the year 2010. Furthermore, the delayed release of fourth quarter 2009 results after the close of the March 2010 quarter left management with little latitude in providing color on order trends since the beginning of 2010. Accordingly, we have elected to err on the side of caution by adjusting downward our estimates for first quarter 2010. Additional adjustments for the balance of the year may be necessary.

## FOURTH QUARTER AND YEAR-END 2009 RESULTS

### *Fourth Quarter 2009*

We estimate fourth quarter 2009 revenue was \$3.2 million. This compares to our estimate for \$7.0 million in sales for the previous quarter. Management has indicated that demand for graphite electrodes for use in steel production was much weaker in the quarter than expected. The Company had also shifted much of its attention to strategies to penetrate new markets for fine grain and high purity graphite, which unfortunately, were also experiencing weak demand. The Company continues to ship monthly on a significant graphite electrode order received in June 2009 from Tianrui Group and valued at \$5 million. We believe that order and strong results in the September 2009 quarter gave investors, including us, a perhaps unfounded sense of optimism for sales.

China Carbon's top-line and profit margin were also impacted by decreased selling prices. Management indicates that average selling prices for graphite materials declined by 8% to 20% compared to a year-ago. However, raw material costs did not decline by a commensurate amount. We note that China Carbon reports inventory at the lower of cost or weighted average market value, that latter of which is determined based in part on estimated selling prices.

Combination of reduced coverage of fixed costs at the lower sales volume and higher costs of raw materials relative to selling prices, led to a negative profit margin of -32.3%. We note that earlier in the year the Company earned a profit margin of 23.3% in the June 2009 quarter when sales were \$3.6 million and only slightly higher than the more recently reported quarter. However in the December quarter, the Company's completed construction of its plant expansion, increasing production capacity to 26,000 tons per year (from 15,000 tons). Construction in progress was reclassified, increasing property, plant and equipment to \$26.0 million at the end of December 2009 compared to \$21.5 million three months earlier.

We estimate operating expenses totaled \$2.0 million in the fourth quarter 2009, resulting in an operating loss of \$3.0 million. Excluding non-cash operating expenses such as depreciation and amortization (estimated \$800,000) and stock compensation (estimated \$900,000), we estimate the operating loss would have been \$1.3 million. The Company recorded a bad debt charge of \$289,000 in the fourth quarter, 44% higher than the previous year. Declining economic circumstances have apparently impacted customers' ability to pay trade receivables.

A non-cash charge of \$309,287 related to the change in fair value of outstanding warrants along with net interest, other income and charges, brought the net loss for the quarter to an estimated \$3.4 million. We estimate that excluding the non-cash derivative-related charge, depreciation, amortization and non-cash stock compensation expense, the net loss would have been \$1.4 million.

### **Year 2009**

Fourth quarter sales brought revenue for the year to \$15.4 million, on which the Company recorded a net loss of \$1.4 million or \$0.16 per share. This compares to \$27.3 million in sales and net profits of \$6.0 million or \$0.21 per share in the previous year. The year 2009 was impacted by the sharp economic downturn that impacted steel production and manufacturing activity in China and around the world. The year had got off to a slow start due to the cessation of production before and during Olympic Games held in Beijing in August 2009. A large order for graphite electrodes near the end of the June 2009 quarter and sequentially higher sales in each of the first three quarters of 2009, may have given investors a false impression of demand momentum.

Gross profit margin for the year declined to 14.2% in 2009 compared to 24.5% in the previous year. Profits for the year were materially impacted by the fourth quarter, when profits were squeezed by declining selling prices and sticky raw materials costs. A second factor was the increase in fixed costs associated with expanded plant capacity in the December quarter.

Selling expenses as a percentage of sales increased to 2.4% in 2009 compared to 1.8% in 2008. Spending on general and administrative items increased to 16.9% the year compared to 7.1% in the previous. We believe this was due in part to higher bad debt expenses in the recently reported quarter as well as an increase in stock compensation expenses.

The Company reported a \$2.2 million net loss for the year 2009. Excluding non-cash expenses totaling \$3.1 million, the Company would have reported a net profit of \$1.9 million.

### **Cash from Operations and Balances**

We estimate China Carbon used \$5.4 million in cash resources to support operations during the fourth quarter 2009. Nonetheless, the Company's operations generated \$1.9 million in cash for the year. Cash and equivalents totaled \$2.7 million at the end of December 2009, compared to \$51,799 a year earlier. Working capital declined nominally to \$11.9 million compared to \$12.1 million at the end of 2008.

The Company has supplemented internally generated cash flow with short- and long-term bank loans and sales of preferred stock. At the end of December 2009, China Carbon had \$3.2 million in long-term debt, of which \$1.6 million is considered due within the year 2010. The Company also had \$8.6 million in short-term bank loans. A trade notes payable were partially paid down and the terms lengthened for a portion of the remaining balance. At the end of December 2009, the Company had \$1.2 million in long-term trade notes payable compared to \$5.9 million in short-term trade notes payable.

China Carbon issued 2.2 million shares of Series B preferred stock in 2009 and another 320,000 shares after the beginning of the year. We estimate that after the conversion of 1.5 million shares earlier in 2010, the Company now has 980,500 shares of Series B and 125,000 shares of Series A preferred stock outstanding.

The Company disclosed in its year-end filing that 2009 bad debt charges totaled \$289,000 for the year 2009, compared to \$200,000 in the previous year. Deteriorating economic conditions have resulted in a slowing in collections and an increase in total accounts receivable despite a decrease in sales during the year. Of the \$6.2 million in accounts receivable outstanding at the end of 2009, \$735,000 have gone unpaid for longer than one year.

China Carbon appears to have experienced some concentration in sales and a shift in its customer mix. Two of China Carbon's customers accounted for just over 41.2% of totaled sales in 2009. This compares to the previous year with three customers accounted approximately the same level of sales, only one of

which remained a prominent customer in 2009. Sales to He Ming Advanced Materials increased to 19.7% of total sales in 2009, compared to 14.9% in 2008, yet the value decreased to \$3.1 million in 2009 from \$4.1 million in 2008. No customer accounted for more than 10% of total sales in the year 2007. The total number of customers increased to 200, of which most were distributors of materials used in industrial production.

## REVISED ESTIMATES

The Company issued guidance for the year, indicating a strategy to achieve sufficient net income to meet a make-good commitment related to the preferred stock offering completed in late December 2009. In that commitment the Company pledge to reach net income of \$5.1 million or \$0.25 per share in 2010. The successful increase in production capacity to 26,000 tons per year is a critical part of achieving the targeted income level. The Company plans to accelerate sales and marketing efforts penetrate new markets for fine-grain and high-purity graphite materials.

We updated our earnings model with 4Q09 results and made additional changes to the first half of 2010 to reflect the recent sluggish order flow and depressed selling prices. Given limited color on trends in the first quarter 2009, believe it is appropriate to err on the side of caution and reduced our sales and profit assumptions for the March and June quarters. We also increased our assumptions for fully diluted shares outstanding to reflect recent issuances of stock on the conversion of preferred shares. We made no changes to the balance of the year.

The net results of our changes reduced our estimates to \$28.8 million in sales (from \$36.0 million), providing \$3.0 million in net income or \$0.15 per share (from \$5.0 million and \$0.34 per share). Our new estimate for cash from operations is \$4.4 million (from \$7.2 million). The conservative approach to the first half of the year has left our estimates well below the Company's make good target of \$5.1 million or \$0.25 per share. We expect to evaluate our earnings model against March quarter results when reported in early to mid May. At that time we anticipate introducing estimates for the year 2011.

### ***Pending Acquisition***

Our model does not reflect a contribution from the pending acquisition of Chiyu Carbon Graphite Ltd., a downstream producer of graphite-based products including models for drilling tools and metal smelting, crucibles, bearings, sealing rings, and graphite anodes for lithium batteries. The strategic acquisition of Chiyu allows the Company to integrate forward into a higher-margin segment of the carbon graphite supply chain. Located in Xingtai in Hebei Province, Chiyu uses high-purity and fine grain graphite to produce EDM and casting graphite among other products. Chiyu's customers include machine tool producers, construction companies, chemical producers, and aerospace contractors.

Management indicates due diligence has been completed and the audit of Chiyu's financials should be completed in time for a mid-summer closing of the deal. Final terms and purchasing considerable will be determined following completion of the audit. We believe the deal is potential accretive to earnings, depending upon the use of common stock as a purchase consideration.

With the deal terms yet to be finalized, China Carbon management has been non-committal about the need to raise capital to support the deal. Another capital raise to replenish working capital after the deal is completed seems more likely than not. That said, successful collections of outstanding accounts receivable could make a meaningful contribution to cash resources.

Successful completion of the deal would be incremental to our earnings model. We expect to revise our estimates once again after the deal terms and Chiyu financial performance are disclosed. We expect the deal to increase sales and profit margins. Depending upon the size of the deal, deal terms and amortization expense, operating income may also increase.

## VALUATION AND OUTLOOK

With the reduction in our earnings estimate for the year 2010 to \$0.15, we are setting a new six-month price target for CHGI shares. Our new target of \$2.25 implies a multiple of 15.0 times. Even though the stock has historically traded at a lower multiple, we believe the addition of higher-margin finished graphite products to the mix may justify a higher valuation multiple. We expect to revisit this argument when the Chiyu deal closes.

A review of historic trading patterns for CHGI shares suggests a line of price resistance may have developed near the \$2.25 price level. Accordingly, we do not expect the stock to move past our near-term target until a quarter is ported that reflects solid improvements in sales and profits. We also note that a line of support appears to have developed at the \$1.25 price level, suggesting that at the current price level investors may face nominal downside risk. In our view, the recent sell off in CHGI shares presents a compelling entry point for building positions in the stock.

## STOCK CHART



Source: [Stockcharts.com](http://Stockcharts.com)

*Additional information is available upon request.*

**Table I: Historical and Projected Sales and Expenses**

Dollars in Thousands	2007	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10E	2Q10E	3Q10E	4Q10E	2010E
Total revenue	25,357	27,304	2,894	3,658	5,581	3,237	15,370	3,300	5,000	9,500	11,000	28,800
Cost of sales	20,447	20,606	2,053	2,804	4,056	4,279	13,192	2,805	4,000	7,125	7,975	21,905
Gross profit	4,910	6,698	841	854	1,525	(1,042)	2,178	495	1,000	2,375	3,025	6,895
Operating expenses:												
Selling	124	505	309	9	14	34	366	116	175	333	385	1,008
General & administrative	1,121	1,952	136	322	219	1,918	2,595	264	370	688	770	2,092
Depreciation & amortization	16	68	19	19	19	18	75	35	35	35	35	140
Total operating expenses	1,261	2,525	464	350	252	1,970	3,036	415	580	1,055	1,190	3,240
Operating income (loss)	3,649	4,173	377	504	1,273	(3,012)	(858)	81	420	1,320	1,835	3,655
Other income (expense)												
Change in fair value of warrants	-	-	-	-	-	(309)	(309)	-	-	-	-	-
Interest expense	(495)	(581)	(198)	(206)	(357)	(73)	(834)	(161)	(161)	(161)	(161)	(646)
Other, net	440	390	292	232	19	(16)	527	-	-	-	-	-
Total other income (expense)	(55)	(191)	94	26	(338)	(398)	(616)	(161)	(161)	(161)	(161)	(646)
Income (loss) before income taxes	3,594	3,982	471	530	935	(3,410)	(1,474)	(81)	259	1,158	1,674	3,010
Provision for income taxes (benefit from)	-	-	-	-	-	-	-	-	-	-	-	-
Net income (loss)	3,594	3,982	471	530	935	(3,410)	(1,474)	(81)	259	1,158	1,674	3,010
Preferred dividend	-	(854)	-	-	-	-	(773)	-	-	-	-	-
Income available to shareholders	3,594	3,128	471	530	935	(3,410)	(2,247)	(81)	259	1,158	1,674	3,010
Foreign currency translation gain	1,794	2,043	45	3	76	-	46	-	-	-	-	-
Total comprehensive income	5,388	6,025	516	533	1,011	(3,410)	(1,428)	(81)	259	1,158	1,674	3,010
Net EPS (loss), shareholders	\$ 0.34	\$ 0.21	\$ 0.03	\$ 0.04	\$ 0.06	\$ (0.23)	\$ (0.16)	\$ (0.00)	\$ 0.01	\$ 0.06	\$ 0.08	\$ 0.15
Weighted shares outstanding, diluted	10,506	14,623	13,847	14,239	15,085	15,000	14,427	18,000	20,000	20,000	20,000	19,500

Source: Company Reports and Crystal Equity Research Estimates

**Table II: Selected Measures of Historical and Projected Sales and Expenses**

Dollars in Thousands	2007	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10E	2Q10E	3Q10E	4Q10E	2010E
Total revenue	25,357	27,304	2,894	3,658	5,581	3,237	15,370	3,300	5,000	9,500	11,000	28,800
Operating income (loss)	3,649	4,173	377	504	1,273	(3,012)	(858)	81	420	1,320	1,835	3,655
Income available to shareholders	3,594	3,128	471	530	935	(3,410)	(2,247)	(81)	259	1,158	1,674	3,010
Net EPS (loss), shareholders	\$ 0.34	\$ 0.21	\$ 0.03	\$ 0.04	\$ 0.06	\$ (0.23)	\$ (0.16)	\$ (0.00)	\$ 0.01	\$ 0.06	\$ 0.08	\$ 0.15
Weighted shares outstanding, diluted	10,506	14,623	13,847	14,239	15,085	15,000	14,427	18,000	20,000	20,000	20,000	19,500
SELECTED MEASURES:												
Sales growth, yr/yr	47.4%	7.7%					-43.7%					87.4%
Net income growth, yr/yr	34.1%	-10.8%					-137.0%					304.2%
EPS growth, yr/yr	32.5%	20.4%					-137.5%					251.1%
Gross margin	19.4%	24.5%	29.1%	23.3%	27.3%	-32.2%	14.2%	15.0%	20.0%	25.0%	27.5%	23.9%
Operating margin	14.4%	15.3%	13.0%	13.8%	22.8%	-93.0%	-5.6%	2.4%	8.4%	13.9%	16.7%	12.7%
EBIT margin	16.1%	16.7%	23.1%	20.1%	23.1%	-93.5%	-2.2%	2.4%	8.4%	13.9%	16.7%	12.7%
Net margin	14.2%	14.6%	16.3%	14.5%	16.8%	-105.3%	-9.6%	-2.5%	5.2%	12.2%	15.2%	10.5%
Direct costs, % sales	80.6%	75.5%	70.9%	76.7%	72.7%	132.2%	85.8%	85.0%	80.0%	75.0%	72.5%	76.1%
Selling expense, % sales	0.5%	1.8%	10.7%	0.2%	0.3%	1.1%	2.4%	3.5%	3.5%	3.5%	3.5%	3.5%
G&A expense, % sales	4.4%	7.1%	4.7%	8.8%	3.9%	59.3%	16.9%	8.0%	7.4%	7.2%	7.0%	7.3%
Effective tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA, \$\$	4,796	5,428					956					5,055
EBITDA margin	18.9%	19.9%					6.2%					17.6%

Source: Company Reports and Crystal Equity Research Estimates

## CRYSTAL EQUITY RESEARCH, LLC

Crystal Equity Research, LLC is an impartial research resource, providing coverage of small capitalization companies in selected industries. The firm provides research reports by subscription to institutional investors, supplies research consulting services to financial professionals and offers an issuer or agent sponsored research program for qualifying companies. Crystal Equity Research is a Registered Investment Advisor with the State of New York.

## ANALYST

Debra Fiakas, CFA is a seasoned, credentialed investment professional with a diversified and successful track record as a research analyst and as an investment banker. Her decade-plus career includes solid experience in all aspects of the equity capital markets with particular emphasis on emerging growth companies operating in the technology sectors. Ms. Fiakas is also the principal member of Crystal Equity Research, LLC.

## ANALYST CERTIFICATION

The analyst who is primarily responsible for this research and whose name is listed first under Analysts above certifies that: 1) all of the views expressed in this research accurately reflect his or her professional views about any and all of the subject securities or issuers, and 2) no part of any of the analyst's compensation was, is or will be directly or indirectly related to the specific rating expressed by analyst in this research.

## CER REPORT RESEARCH UNIVERSE\*

Speculative Buy	2	40%	Unproved business model; catalysts exist to generate higher returns
Accumulate	2	40%	Long-term return potential above 10%; near-term catalysts may not exist
Hold	0	0%	Total return potential below 10%; an acceptable long-term holding
Sell	0	0%	Potential return greater than negative 10%; take profits or stem losses
Not Rated	1	20%	No rating
<b>Total</b>	<b>5</b>	<b>100%</b>	

*\*Research universe categorized by rating only; Crystal Equity Research provides no investment banking services.*

## HISTORICAL RECOMMENDATIONS AND TARGET PRICE: China Carbon Graphite / CHGI

<u>Report</u>	<u>Date</u>	<u>Price</u>	<u>Rating</u>	<u>Target Price</u>
Initial	9/8/09	\$1.30	Speculative Buy	\$3.40
Update	11/19/09	\$1.35	Speculative Buy	\$3.40
Update	4/22/2010	\$1.28	Speculative Buy	\$2.25

**DISCLOSURES**

<u>Name</u>	<u>Symbol: Exchange</u>	<u>Disclosures</u>
China Carbon Graphite Group, Inc.	CHGI: OTC/BB	D, E

**Disclosure Key**

- A A member or employee of Crystal Equity Research, LLC serves on the board of directors of the company.
- B A controlling member of Crystal Equity Research, LLC has a beneficial interest in the common stock of the company.
- C A person or persons preparing this report or an immediate family member of the preparer has a beneficial interest in the common stock of the company.
- D Crystal Equity Research, LLC received compensation for research coverage from the company or one of its agents. Subscription fees for CER Research Coverage in the amount of \$15,000 per year are paid in advance in cash.
- E The company has a convertible issue outstanding.
- F The securities covered in this report can be optioned.
- G The securities covered in this report can be margined.

**ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST.** Inquiries may be made by telephone at **212-400-7519**, by electronic message to **info@crystalequityresearch.com** or by mail to **1040 Avenue of the Americas, Floor 24, New York, NY 10018**. Additional information about Crystal Equity Research is available at the firm's web site at **www.crystalequityresearch.com**.

---

The information and opinions in this report were prepared by Crystal Equity Research, LLC. The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. We make no representation as to the accuracy or completeness of such information. Opinions, estimates and projections in this report constitute the current judgment of the author as of the date of the report and are subject to change without notice. We have no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate, or if research on the subject company is withdrawn.

This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction. Opinions and recommendations in our reports do not take into account individual investor circumstances, objectives, or needs and are not intended as recommendations of particular securities or strategies to particular investors. The recipients of our reports must make their own independent decisions regarding any securities mentioned in our reports.

Crystal Equity Research, LLC may receive compensation from the company or companies mentioned in this report or agents acting on their behalf. Please review the important disclosures in this report.

This report may not be reproduced, distributed or published by any person for any purpose without the prior written consent of Crystal Equity Research. Please cite source when quoting.

Copyright © 2007-2010 Crystal Equity Research, LLC.