Harbinger Research
Independent Investment Analysis

Coverage Initiation Report

The People's Republic of China
Alternative Energy

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China Energy Recovery (OTC-BB : CGYV)

Pollution, Tight Energy Markets, and Strong Manufacturing Growth Create the Perfect Storm for China Energy Recovery in China

Strong Speculative Buy

Recent Price: US$1.50

Market Data (closing prices, Mar 23, 2009)	
Market Capitalization (mln)	**40.5**
Enterprise Value (mln)	**45.9**
Basic Shares Outstanding (mln)	**27.5**
Fully Diluted Shares (mln)	**30.2**
Avg. Volume (50 day, approx.)	**45,000**
Institutional Ownership (%)	**33**
Insider Ownership (%)	**65**
Exchange	**OTC Bulletin Board**

Balance Sheet Data (as of Sept 30, 2008)	
Shareholders' Equity (mln)	**7.0**
Price/Book Value	**5.8x**
Cash (000s)	**6,369**
Net Working Capital (000s)	**5,084**
Long-Term Debt (000s)	**0**
Total Debt to Equity Capital	**3:1**

Company Overview

China Energy Recovery creates custom systems that reclaim waste heat from industrial and electricity generation processes. These systems remove harmful waste products from exhaust gasses while also recycling as steam energy up to 2/3 of the heat typically lost as exhaust. The Company is based in China and is currently benefitting from the new "environment-friendly" set of policies recently instituted by the Chinese government.

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Summary and Investment Opportunity

- **The environment in China couldn't be worse – or better for CGYV**

China is now the second largest consumer of energy in the world, and it has become the largest producer of pollution and greenhouse gases on the planet. The EU estimates that just 1% of Chinese people breathe acceptably clean air each day, and birth defects per capita have risen 20% since just 2001. Despite this, Chinese heavy industry is growing at over 20% per year, which is causing intensifying pollution and energy production problems. In 2008, the Chinese Government decided to act.

- **China has Mandated Energy Efficiency and Pollution Control**

Local mayors are now required to improve energy efficiency in a "sustainable way" that includes improving the environment in China. For the first time in its history, China will pursue both high economic growth and a cleaner, more efficient energy production system.

- **China Energy Recovery is in the Right Place at the Right Time**

The Company's products help heavy industry recapture and recycle heat energy that has historically been lost in the form of polluting exhaust gases. The Company's systems both capture and remove most airborne pollutants and improve the energy efficiency of many operations by as much as 60%. This one-two punch of reducing pollutants and increasing energy efficiency is exactly what has been mandated in China and in fact throughout the developed world. The Company's products allow industrial concerns to achieve a full return on invested capital within 2-3 years and benefit from an ongoing supply of "extra" energy that can cost as little as 20% of the costs of fossil fuel alternatives.

- **CGYV is Rapidly Growing, Profitable, and we believe Undervalued**

The Company is growing revenues at nearly 100% per year and we believe that high growth will continue for many years to come. We have confidence in the Company's products, approach, and business, and **based on our 2009 earnings estimate of $0.082 per share and revenue estimate of US$38.5M, we rate the shares of CGYV a Strong Speculative Buy.**

P&L (000s)	FYE 2007A	FYE 2008E	FYE 2009E	FYE 2010A
Revenues	**11,847**	**22,980**	**38,500**	**61,600**
Revenue Gr.	*117.1%*	*94.0%*	*67.5%*	*60.0%*
Op. Exp.	1,668	3,473	5,300	6,200
Op. Margin	*4%*	*7%*	*8%*	*12%*
Net Income	264	1,050	2,143	4,925
Net Margin	2%	5%	6%	8%
Diluted EPS	**.002**	**.040**	**.082**	**.189**
Shares Out.	25,659	27,000	27,000	27,000

Please see analyst certification and required disclosures on page 8 of this report.

Industry Background

Alternative Energy

As most people know, there is a large and growing focus on alternative energy solutions, both here in the United States, and in other developed economies such as those of Western Europe, Canada, and Japan. However, there have also been sweeping changes in regulation that have generated a strong focus on alternative energy in China. According to McKinsey & Company, China is now the world's second largest consumer of electricity (14%), second only to the United States (22%), and due to its heavy reliance on coal, it has dangerously high levels of general air pollution and $C0_2$ emissions. Furthermore, China's consumption of energy is forecast to grow at 4.4% per year through 2020, double the world energy consumption growth rate, and its industrial use of energy is growing at double-digit rates. Because of all of these factors the Chinese government recently mandated "energy productivity" as a primary goal of all local mayors, and the mandate includes a call for cleaner energy and a 20% boost in the use of energy consumed.

China's new focus on "energy productivity" solutions has made its manufacturing industries highly receptive to any technology that can help reduce energy costs while also reducing harmful emissions on a cost-effective basis. While most alternative energy industry solutions like solar and wind are still plagued by very high capital and operating costs, there is one alternative energy industry that is not. This industry, broadly known as Energy Recovery, has much lower up-front capital requirements and lower operating costs than other forms of alternative energy, and lower costs than traditional fossil fuel energy as well.

Energy Recovery

The general premise of alternative energy is that it can reduce the emissions of greenhouse gases and other air pollutants while providing a source of energy not based on fossil fuel combustion. Energy recovery is a technology that accomplishes just this, although rather than being based on a fossil fuel replacement, it is based on improving how fossil fuels are used.

Currently, when coal or oil is burned to make electricity, the heat energy it produces is used to make steam, which then spins a turbine and converts the heat energy into electrical energy. Unfortunately, this process is quite inefficient, converting just a small percentage of the total heat energy produced into a usable form. For example, a typical modern automobile converts just 12% of gasoline's heat energy into usable mechanical and electrical energy; the rest is lost in the engine's exhaust gases. Other industries make equally poor use of the heat energy produced in their processes, letting the majority of it escape into the atmosphere as exhaust gases.

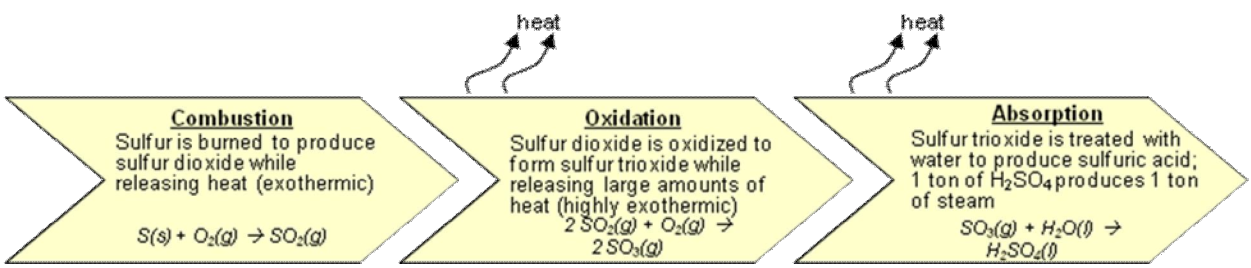
Energy recovery technologies capture a large percentage of this wasted heat energy and "recycles" it through the system, providing two primary benefits;

1. The system is able to generate power at a much lower average cost per unit of fuel consumed, especially when running at near 100% of capacity, and

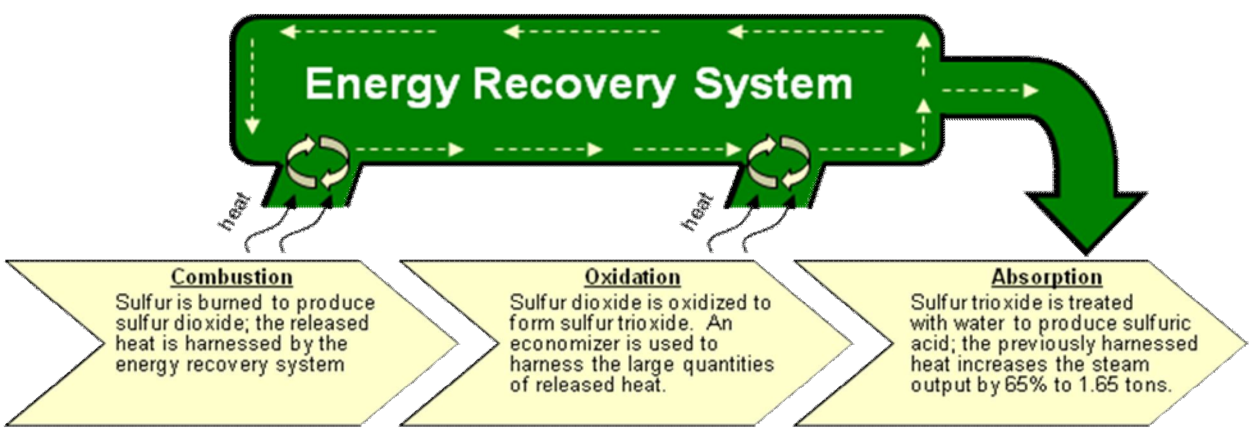
2. The energy recovery system is able to filter out many of the air pollutants, thus reducing harmful emissions.

Because of these two benefits, we believe energy recovery systems are likely to be in high demand in all industrial economies, including in (and especially in) China. With broad applications in both the power-generation and heavy industry sectors, effective energy recovery solutions have obvious appeal. Given currently strong economic and industrial growth rates in China, which have been broadly forecast to continue well into the foreseeable future, we believe trends in alternative energy and energy recovery strongly favor the shares of China Energy Recovery (OTC-BB: CGYV).

Traditional Sulfuric Acid Production Process: The production of sulfuric acid involves highly exothermic chemical reactions; most of the heat is released into the atmosphere through cooling towers. Without the use of an energy recovery system, 1 ton of sulfuric acid will produce 1 ton of steam.



Sulfuric Acid Production Process with CER's Technologies: The incorporation of a Recovery System increases the efficiency such that 1 ton of sulfuric acid can produce as much as 1.65 tons of steam; In so doing, 94% of the heat that would have otherwise been released to the atmosphere is utilized.



Company Analysis

Corporate Overview

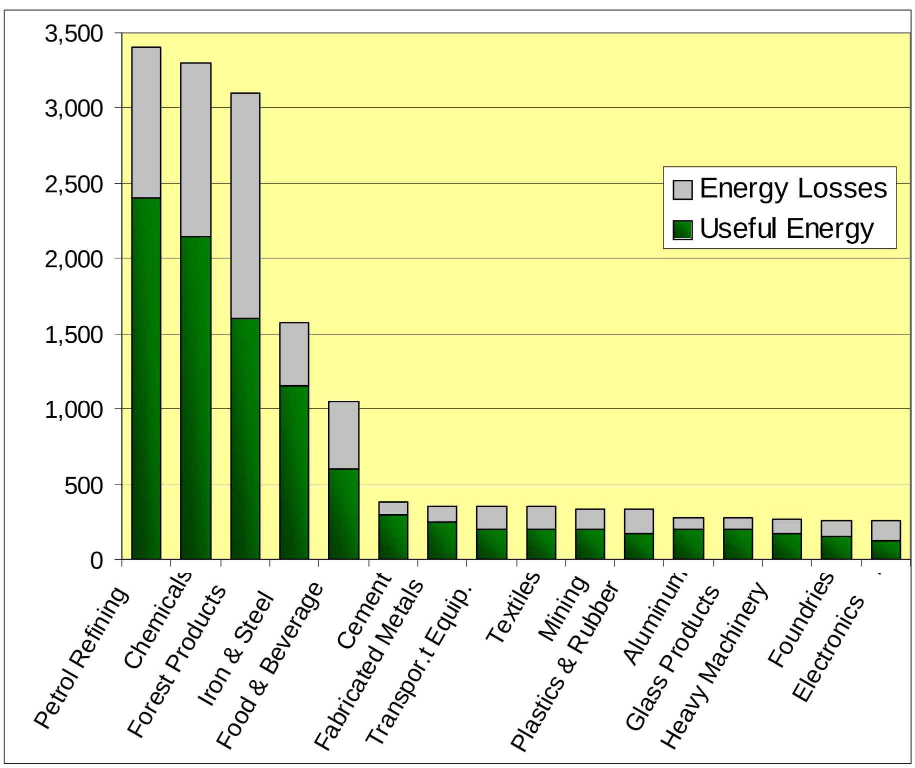
China Energy Recovery is in the business of making industrial plants run cleanly and more efficiently. They accomplish this through custom-designed systems that reclaim and reuse the heat energy that has historically been lost to the atmosphere as exhaust. Because the Company's systems also clean the exhaust gases they recycle, their customers gain the benefit of inexpensive additional energy and an overall improvement in their environmental footprint. As a bonus, so to speak, the Company's clients also gain tradable carbon credits, thus further enhancing the value of the Company's systems. China Energy Recovery is based in Shanghai, China and, in addition to its core business within China, has clients in several other nations around the world. The Company trades on the over-the-counter bulletin board under the symbol CGYV.

Target Markets

Because the Company's primary value proposition is based on improving heat-inefficient industrial processes, its traditional base of customers have been in industries such as chemicals, paper, petrochemical refining, and other heat-intensive industries. This particular target market is good for the Company for two reasons:

- These industries constitute the fastest-growing and most important segments of the Chinese economy, growing at over 20% per year, and
- There is a global opportunity for the Company to help improve the cost-structure and environmental impact of industrial companies around the world.

China Energy Recovery's Target Markets, by Industry



Source: China Energy Recovery

The Company currently has over 100 installed systems within these target markets, and has plans to expand its reach globally in the coming years. Given that the Company's potential customers number in the thousands within China alone, and given the world focus on clean and efficient energy production, we believe that this is an extremely attractive target market segment. We also believe that the Company is well-positioned to garner a large share of it.

Products and Services

The Company custom designs and manufactures (in a leased facility) its heat recycling systems based on the needs of each client, and this system is then shipped directly to the client site, where the Company's engineers assemble the system and get it running. The Company then continues to provide the customer with ongoing engineering services; 25% of the Company's customers are repeat customers, giving us high confidence in the Company's products and services.

China Energy Recovery's products have a much lower required capital investment than competing green technologies such as solar and wind, giving its customers an extremely quick return on invested capital. Furthermore, the Company's systems allow its customers to improve the environmental footprint of the entire operation. In some cases, the Company's systems produce 50% up to even 80% of the total energy needs of their customers – all from heat energy they are already producing.

Energy Source	CapX ($/KW)	Operating Cost at 25% of Capacity	Operating Cost at 100% of Capacity
CGYV's Systems	$57 - $222	$26	$6
Natural Gas	$400	$44	$39
Wind	$1,700-$1,800	$60	$40
Coal	$125	$55	$48
Hydroelectric	$1,200-$3,600	$113	$51
Geothermal	$2,770	$75	$55
Nuclear	$2,000-$3,000	$145	$111
Solar	$6,000-$9,000	$320	$200

Source: China Energy Recovery

As is readily apparent, the Company's systems have pronounced cost advantages over competing offerings.

Patent Protection

The Company's products are highly technical in nature, and small innovations in functionality, cost, and serviceability can lead to significant competitive and sustainable advantages for the Company. Given that the Company has superior engineering and product design capability, it is not surprising that it holds an entire family of patents covering various system components and innovations thereof. Note that the Company has only filed Chinese patents to date, and only those it deems most important to the sustainability of its long-term competitive advantage. It currently holds five (5) patents that are good through 2013 (one of them through 2015), and it has recently applied for two (2) more key patents, one of which is classified as an "invention patent."

Growth Plan

The Company completed a go-public event concurrent with an US$8.5M financing in late April of 2008. Since its most current financial reports are for the Sept '08 quarter, we have not yet seen the benefits of this new financial strength in the Company's operating results. However, we expect to see increased sales and R&D activity in 2009, as the Company seeks to expand into several additional industrial markets (such as coke refining and cement production) and into target markets outside of China. In 2010, we expect to see the Company build its own manufacturing facility, which should improve processes, cut costs, and in general lead to margin expansion. The Company then plans even more aggressive expansion into international markets in 2010 and 2011 – including the United States and Europe.

Key Management

Mr. Qinghuan Wu, Chairman and CEO

Mr. Wu has devoted 40 years to the study, design, and production of energy recovery systems, and was recently awarded the China National Science and Technology Advancement Award for his technological innovation in the waste recovery industry. Previous to his time at China Energy Recovery, Mr. Wu spent 23 years as an engineer at the Nanjing Chemical Industry Research Institute, China largest chemical research institute. Mr. Wu has degrees in Process Equipment and Control Engineering from the Beijing University of Chemical and Technology.

Mr. Qi Chen, General Manager

Mr. Chen joined the Company in 1997 and was a part of the design, engineering, and sales departments before taking over as the Company's General Manager in May 2007. Previous to joining the Company, Mr. Chen worked as a trader for Xiamen Trading and Development.

Mr. Richard Liu, Chief Financial Officer

Previous to joining China Energy Recovery, Mr. Liu spent time at several U.S. and Chinese companies as a senior executive. Earlier in his career, he worked at Arthur Anderson & Co., and in total he has managed six private and public equity financings. Mr. Liu earned his undergraduate degree from the Shanghai Jiao Tong University and he has a Masters Degree in Business Administration from UCLA.

Mr. Jie (James) Zhao, Chief Technology Officer (operating affiliate)

Mr. Zhao has a strong sales background as well as in technology; he was previously the National Sales Manager for Asland in China, a leading U.S. chemical company. Prior to his time at Ashland, Mr. Zhao served as a Sales Manager for Monsanto EnvironChem China, a company specializing in sulfuric acid processes. Mr. Zhao holds an MBA from Washington University and a BS in Fine Chemical from the East China University of Chemical and Technology.

Mr. Roger Ballentine, Director and Chairman of the Compensation Committee

Mr. Ballentine is a Venture Partner at ArborView Capital, and investor in the Company, and the current President of Green Strategies, where he advises top-level political officials and Fortune 50 companies on clean energy strategy. Formerly, he was the Chairman of White House Climate Change Task Force under Bill Clinton, and he is still a Visiting Professor at Harvard and a Senior Fellow at the Progressive Policy Institute in Washington, D.C.

Competition

China Energy Recovery is a unique company with a relatively unique offering, due to its specific expertise in certain industrial processes, such as those involving sulfuric acid and paper manufacturing. However, it does have several competitors in China, the two largest of which see their primary business as making power boilers – in these cases, energy recovery boilers are only adjunct side businesses. In all cases, the Company has a design and engineering advantage, and is well-positioned to continue on its current growth path.

Specifically, the Company's large competitors are Dong Fang Boiler Group, Wuhan Boiler Co., Hangzhou Boiler Group, and Anshan Boiler Group. As previously stated, we do not see the presence of any of these companies as representing a real threat to the Company, and in some cases, the competitive divisions may be acquisition candidates for China Energy Recovery. Also, note that in 2008 the Company bid for and won the world largest straw pulp alkali recovery boiler contract (US$11 million), which was RFPed internationally and bid on by Wuhan Boiler.

Risks and Historical Performance Analysis

We do not believe that the core business or technology of the Company is at serious risk of technological obsolescence, as the Company's customers make use of industrial processes that change very slowly, if at all. However, the Company will face "standard" operational risks related to the growth of its business, as different management skills sets become necessary as an enterprise hits inflection points in its size and complexity. Given the Company's strong management and governance teams, however, we believe that this risk is both minimal and manageable.

In terms of historical performance, after many years of operations, the Company "turned the corner in 2008," and is expected to have a break-out year in terms of net profits. Also, f the Company is able to meet or exceed our revenue estimate for 2008 (very likely), it will have almost doubled sales from 2007 levels, which we consider to be very impressive considering the global economic slowdown.

Overall, we expect the Company to face only minimal growth and product-related risks going forward, and as a result we assign a high confidence interval to our growth assumptions for the Company's revenues and earnings.

Valuation and Investment Opinion

There are not very many publicly available valuation comparables for the company, but three that we could identify are listed here.

Peer Group Analysis – China Energy Recovery (CGYV – OTC-BB)

Company Name and Symbol	Price per Share*	Market-Capitalization*	Price/Sales (Trailing 12 mos.)*	Est. Growth	Price/Sales Estimate (Next 12 mos.)*
Energy Recovery, Inc. (ERII)	6.50	$325 mln	5.59	unknown	unknown
Fuel-Tech, Inc. (FTEK)	10.49	$253 mln	3.06	unknown	unknown
SmartHeat, Inc. (HEAT)	5.95	$144 mln	3.87	unknown	unknown

*Market Data as of market close, 3/23/09

Conclusion

China Energy Recovery is at the right place at the right time. It has patent-protected technology and in-house design and engineering strength that allows it to compete very effectively in the Chinese market for waste heat recovery systems. Not only does the company have significant advantages over its competitors and a historical revenue growth rate of nearly 100% (in '08), but it also operates in a hyper-growth, high-demand industry with global potential. Vis-à-vis is peer group, **the Company is trading at very attractive multiples, just 1.9x our estimated 2008 sales.** We believe that the Company also exhibits much high growth and growth potential and warrants a premium multiple. Therefore, **we rate the shares of China Energy Recovery a Strong Speculative Buy and set our 12-month price target at $2.50 per share**, with significant upside to our target possible in an improving equity market scenario.

Our Rating System

We rate enrolled companies based on the appreciation potential we believe their shares represent. The performance of those companies rated "Speculative Buy" or "Strong Speculative Buy" are often highly dependent on some future event, such as FDA drug approval or the development of a new key technology.

Explanation of Ratings Issued by Harbinger Research

STRONG BUY	We believe the enrolled company will appreciate more than 20% relative to the general market for U.S. equities during the next 12 to 24 months.
BUY	We believe the enrolled company will appreciate more than 10% relative to the general market for U.S. equities during the next 12 to 24 months.
STRONG SPECULATIVE BUY	We believe the enrolled company could appreciate more than 20% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
SPECULATIVE BUY	We believe the enrolled company could appreciate more than 10% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
NEUTRAL	We expect the enrolled company to trade between -10% and +10% relative to the general market for U.S. equities during the following 12 to 24 months.
SELL	We expect the enrolled company to underperform the general market for U.S. equities by more than 10% during the following 12 to 24 months.

Analyst Certification

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Analyst Highlight

Brian R. Connell, CFA **Senior Research Analyst**

Mr. Connell has over 15 years' experience in the securities industry, as an equity analyst and portfolio manager, and as the founder and CEO of StreetFusion (acquired by CCBN/StreetEvents), a software company serving the institutional investment community. On the sell-side, Mr. Connell served as the technology analyst for Neovest, an Atlanta-based boutique, and as a Senior Analyst - Internet for Preferred Capital Markets, an investment bank based in San Francisco. Mr. Connell has also held the position of Executive Director of Marquis Capital Management, a technology-focused investment management organization.

Mr. Connell holds degrees in Economics and Psychology from Duke University, and is a CFA Charterholder.