

CHINA RECYCLING ENERGY CORP  
Form 10-K  
March 24, 2014

UNITED STATES

**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2013

**Commission file number: 000-12536**

China Recycling Energy Corporation

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(Exact name of registrant as specified in its charter)

**Nevada**

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(State or other jurisdiction of incorporation or organization)

**90-0093373**

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(I.R.S. Employer Identification No.)

**12/F, Tower A**  
**Chang An International Building**  
**No. 88 Nan Guan Zheng Jie**  
**Xi An City, Shaan Xi Province**  
**China** **710068**  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (011) 86-29-8769-1097

**Securities registered pursuant to Section 12(b) of the Act:**

Title of each class	Name of each Exchange on which registered
Common Stock, \$.001 par value	NASDAQ Global Market

**Securities registered pursuant to Section 12(g) of the Act:**

NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements

incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. "

*(Cover continued from previous page)*

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "small reporting company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer " Accelerated filer "

Non-accelerated filer " Smaller reporting company x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes " No x

The aggregate market value of the common stock issued and outstanding and held by non-affiliates of the registrant, based upon the closing sales price for the common stock on the NASDAQ Global Market on June 28, 2013, the last business day of the registrant's second fiscal quarter, was \$22,940,123. For the purposes of this calculation, executive officers and directors are deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 17, 2013, the registrant had 60,910,058 shares of Common Stock outstanding.

#### **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the China Recycling Energy Corporation Proxy Statement regarding the 2013 Annual Meeting of Shareholders (the "Proxy Statement") are incorporated into Part III of this Annual Report on Form 10-K.

CHINA RECYCLING ENERGY CORPORATION

FORM 10-K

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## PART I

When we use the terms "we," "us," "our" and "the Company," we mean China Recycling Energy Corporation., a Nevada corporation, and its wholly-owned subsidiary, Sifang Holdings Co., Ltd., and its wholly-owned subsidiaries, Huahong New Energy Technology Co., Ltd. ("Huahong") and Shanghai TCH, Shanghai TCH's wholly-owned subsidiaries, Xi'an TCH Energy Technology Company, Ltd ("Xi'an TCH"), Xi'an TCH's wholly-owned subsidiary Erdos TCH Energy Saving Development Co., Ltd ("Erdos TCH") and Xi'an TCH's 90% owned subsidiary Xi'an Zhonghong New Energy Technology Co., Ltd.

### ITEM 1. BUSINESS

#### General

We currently engage in the recycling energy business, providing energy savings and recycling products and services. We are a leading developer of waste energy recycling projects for industrial applications in China, and we believe we are the only developer to use a Build-Operate-Transfer ("BOT") model to provide energy saving and recovery facilities for multiple energy intensive industries in China. Our waste energy recycling projects allow customers who use substantial amounts of electricity to recapture previously wasted pressure, heat, and gas from their manufacturing processes to generate electricity. We currently offer waste energy recycling systems to companies for use in iron and steel, nonferrous metal, cement, coal and petrochemical plants. We construct our projects at our customer's facility and the electricity produced is used on-site by the customer. While some of our competitors offer projects targeting one or two verticals, we serve multiple verticals.

We develop fully-customized projects across several verticals to better meet customer's energy recovery needs. Our waste pressure-to-energy solution primarily consists of the Blast Furnace Top Gas Recovery Turbine Unit ("TRT"), a system that utilizes high pressure gas emitted from the blast furnace top to drive turbine units and generate electricity. Our waste heat-to-energy solution primarily consists of heat power generation projects for applications in cement, steel, coking coal, and nonferrous metal industries, which collect the residual heat from various manufacturing processes, e.g. the entrance and exit ends of the cement rotary kilns, to generate electricity. Our waste gas-to-energy solution primarily consists of the Waste Gas Power Generation system ("WGPG") and the Combined Cycle Power Plant (the "CCPP"). A WGPG system utilizes flammable waste gas from coal mining, petroleum exploitation, refinery processing or other sources as a fuel source to generate electricity through the use of a gas turbine. A CCPP system employs more than one power generating cycle to utilize the waste gas, which not only generates electricity by burning the flammable waste gas in a gas turbine (as a WGPG) but also uses the waste heat from burning the gas to make steam to generate additional electricity via a steam turbine.

We provide a clean-technology and energy-efficient solution aimed at reducing the air pollution and energy shortage problems in China. Our projects capture industrial waste energy to produce low-cost electricity, enabling industrial manufacturers to reduce their energy costs, lower their operating costs, extend the life of primary manufacturing equipment. Based on the differential between the cost to our customers of buying power from China's national power grid and the cost to them of buying one of our projects, we believe our customers can recover the cost of our project within two to three years of operations. In addition, our waste energy recycling projects allow our industrial customers to reduce their reliance on China's centralized national power grid, which is prone to black-outs or brown-outs or is completely inaccessible from certain remote areas. Our projects generally produce lower carbon dioxide emissions and other pollutants, and are hence more environmentally-friendly than other forms of power generation.

Since 2007, we have primarily used the BOT model to serve our customers. For each project, we design, finance, construct and install the waste energy recycling projects for our customers, operate the projects for five to twenty years, and then transfer the projects to the owners. The BOT model creates a win-win solution for both our customers and us. We provide the capital expenditure financing in exchange for attractive returns on each project; our customers can focus their capital resources on their core businesses, do not need to invest additional capital to comply with government environmental regulations, reduce noise and emissions and reduce their energy costs. We in turn efficiently recapture our costs through the stream of lease payments.

We are headquartered in China. Our principal executive offices are located at 12/F, Tower A, Chang An International Building, No. 88 Nan Guan Zheng Jie, Xi'an City, Shaanxi Province, China, and our telephone number at this location is +86-29-8769-1097.

## **Company Overview and History**

The Company was incorporated on May 8, 1980 as “Boulder Brewing,” under the laws of the State of Colorado. On September 6, 2001, the Company re-domiciled its state of incorporation from Colorado to Nevada. On March 8, 2007, the Company changed its name to “China Recycling Energy Corporation.” The Company, through its subsidiaries Shanghai TCH Energy Technology Co., Ltd. (“Shanghai TCH”) and Huahong New Energy Technology Co, Ltd, sells and leases energy saving systems and equipment to its customers.

Our business is primarily conducted through our wholly-owned subsidiary, Sifang Holdings, its wholly-owned subsidiaries, Huahong New Energy Technology Co., Ltd. (“Huahong”) and Shanghai TCH, Shanghai TCH’s wholly-owned subsidiaries, Xi’an TCH Energy Technology Company, Ltd (“Xi’an TCH”), Xi’an TCH’s wholly-owned subsidiary Erdos TCH Energy Saving Development Co., Ltd (“Erdos TCH”) and Xi’an TCH’s 90% owned subsidiary Xi’an Zhonghong New Energy Technology Co., Ltd. Shanghai TCH was established as a foreign investment enterprise in Shanghai under the laws of the PRC on May 25, 2004, currently with registered capital of \$29.80 million. Xi’an TCH was incorporated in Xi’an, Shaanxi Province under the laws of the PRC on November 8, 2007. Erdos TCH was incorporated in April 2009. Huahong was incorporated in February 2009. Xi’an Zhonghong New Energy Technology Co., Ltd. was incorporated in July, 2013. Xi’an TCH paid RMB 27 million (\$4.37 million) and owns 90% of Zhonghong. Zhonghong is engaged to provide energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers.

## **Our Projects**

We design, finance, construct, operate and eventually transfer waste energy recycling projects to meet the energy saving and recovery needs of our customers. Our waste energy recycling projects use the pressure, heat or gas, which is generated as a byproduct of a variety of industrial processes to create electricity. The residual energy from industrial processes, which was traditionally wasted, may be captured in a recovery process and utilized by our waste energy recycling projects to generate electricity without burning additional fuel and without additional emissions. Among a wide variety of waste-to-energy technologies and solutions, we primarily focus on waste pressure to energy systems, waste heat to energy systems and waste gas power generation systems. We do not manufacture the equipment and materials that are used in the construction of our waste energy recycling projects. Rather, we incorporate standard power generating equipment into a fully integrated onsite project for our customers.

*Waste Pressure to Energy Systems*

TRT is a power generating system utilizing the exhaust pressure and heat from industrial processes in the iron, steel, petrochemical, chemical and non-ferrous metals industries, often from blast furnace gases in the metal production industries. Without TRT power systems, blast furnace gas is treated by various de-pressurizing valves to decrease its pressure and temperature before the gas is transmitted to end users. No electricity is generated during the process and noise and heat pollution is released. In a TRT system, the blast furnace gas produced during the smelting process is directed through the system to decrease its pressure and temperature. The released pressure and heat is then utilized to drive the turbine unit to generate electricity, which is then transmitted back to the producer. We believe our projects are superior to those of our competitors due to the inclusion of advanced dry-type de-dusting technology, joined turbine systems, and automatic power grid synchronization.

*Waste Heat to Energy Systems*

Waste heat to energy systems utilize waste heat generated in industrial production to generate electricity. The waste heat is trapped to heat a boiler to create steam and power a steam turbine. Our waste heat to energy systems have used waste heat from cement production and from metal production. We invested and have built two cement low temperature heat power generation systems. These projects can use about 35% of the waste heat generated by the cement kiln, and generate up to 50% of the electricity needed to operate the cement plant.



### *Waste Gas to Energy Systems*

Our Waste Gas to Energy Systems primarily include Waste Gas Power Generation (“WGPG”) systems and Combined Cycle Power Plant (“CCPP”) systems. WGPG uses the flammable waste gases emitted from industrial production processes such as blast furnace gas, coke furnace gas, and oil gas, to power gas-fired generators to create energy. A CCPP system employs more than one power generating cycle to utilize the waste gas, which is more efficient because it not only generates electricity by burning the flammable waste gas in a gas-fired generator (WGPG) but also uses the waste heat from burning the gas to make steam to generate additional electricity via a steam generator (CCPP).

### *Shanghai TCH and its Subsidiaries*

Shanghai TCH was established as a foreign investment enterprise in Shanghai under the laws of the PRC on May 25, 2004 and has a registered capital of \$29.80 million. Xi’an TCH was incorporated in Xi’an, Shaanxi Province under the laws of the PRC on November 8, 2007. In February 2009, Huahong was incorporated in Xi’an, Shaanxi province. Erdos TCH was incorporated in April 2009 in Erdos, Inner Mongolia Autonomous Region. On July 19, 2013, Xi’an TCH formed a new company called Xi’an Zhonghong New Energy Technology Co., Ltd (“Zhonghong”). Xi’an TCH owns 90% of Zhonghong, which provides energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers.

As of December 31, 2013, Shanghai TCH had sales or sales-type leases with the following parties: (i) Zhangzhi (for one top gas recovery turbine (“TRT”) system); (ii) Jing Yang Shengwei (for one cement waste heat power generator (“CHPG”) system); (iii) Erdos (for five recycling waste heat power generating systems); (iv) Zhongbao (for one waste heat power generation (“WHPG”) system); (v) Sinosteel Jilin Ferroalloys Co., Ltd. (for one waste heat power generation (“WHPG”)); (vi) Pucheng (for two biomass power generation (“BMPG”) systems); (vii) Shenqiu (for two biomass power generation (“BMPG”) systems); and (viii) Shanxi Datong Coal Group Steel Co., Ltd (for two TRT systems).

### *The Fund Management Company and the HYREF Fund*

On June 25, 2013, Xi’an TCH and Hongyuan Huifu Venture Capital Co. Ltd (“Hongyuan Huifu”) jointly established Hongyuan Recycling Energy Investment Management Beijing Co., Ltd (the “Fund Management Company”) with registered capital of RMB 10 million. Xi’an TCH made an initial capital contribution of RMB 4 million (\$650,000) and has a 40% ownership interest in the Fund Management Company. With respect to the Fund Management Company, voting rights and dividend rights are allocated 80% and 20% between Hongyuan Huifu and Xi’an TCH, respectively.

The Fund Management Company serves as the general partner of Beijing Hongyuan Recycling Energy Investment Center, LLP (the “HYREF Fund”), a limited liability partnership established on July 18, 2013 in Beijing. The Fund Management Company made an initial capital contribution of RMB 5 million (\$830,000) to the HYREF Fund. An initial total amount of RMB 460 million (\$75 million) has been fully subscribed by all partners for the HYREF Fund. The HYREF Fund has three limited partners: (1) China Orient Asset Management Co., Ltd., which made an initial capital contribution of RMB 280 million (\$46.67 million) to the HYREF Fund and is a preferred limited partner; (2) Hongyuan Huifu, which made an initial capital contribution of RMB 100 million (\$16.67 million) to the HYREF Fund and is an ordinary limited partner; and (3) the Company’s wholly-owned subsidiary, Xi’an TCH, which made an initial capital contribution of RMB 75 million (\$12.5 million) to the HYREF Fund and is a secondary limited partner. The term of the HYREF Fund’s partnership is six (6) years from the date of its establishment, expiring on July 18, 2019. The term is three (3) years from the date of contribution for the preferred limited partner, or four (4) years from the date of contribution for the ordinary limited partner. The total size of the HYREF Fund is RMB 460 million (approximately \$76.66 million). The HYREF Fund was formed for the purpose of investing in Xi’an Zhonghong New Energy Technology Co., Ltd., a 90% owned subsidiary of Xi’an TCH, for the construction of two coke dry quenching (“CDQ”) waste heat power generation stations with Jiangsu Tianyu Energy and Chemical Group Co., Ltd. (“Tianyu”) and one CDQ waste heat power generation station with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”).

*Erdos TCH – Joint Venture*

On April 14, 2009, the Company formed Erdos TCH as a joint venture (the “JV”) with Erdos Metallurgy Co., Ltd. (“Erdos”) to recycle waste heat from Erdos’ metal refining plants to generate power and steam to be sold back to Erdos. The JV has a term of 20 years with a total investment for the project estimated at \$79 million (RMB 500 million) and an initial investment of \$17.55 million (RMB 120 million). Erdos contributed 7% of the total investment for the project, and Xi’an TCH contributed 93%. According to Xi’an TCH and Erdos’ agreement on profit distribution, Xi’an TCH and Erdos will receive 80% and 20%, respectively, of the profit from the JV until Xi’an TCH receives the complete return of its investment. Xi’an TCH and Erdos will then receive 60% and 40%, respectively, of the profit from the JV. On June 15, 2013, Xi’an TCH and Erdos entered into a share transfer agreement, pursuant to which Erdos transferred and sold its 7% ownership interest in the JV to Xi’an TCH for \$1.29 million (RMB 8 million), plus certain accumulated profits as described below. Xi’an TCH paid the \$1.29 million in July 2013 and, as a result, became the sole shareholder of the JV. In addition, Xi’an TCH is required to pay Erdos accumulated profits from inception up to June 30, 2013 in accordance with the supplementary agreement entered on August 6, 2013.. In August 2013, Xi’an TCH paid 20% of the accumulated profit (calculated under PRC GAAP) of \$226,000 to Erdos. The JV currently has two power generation systems in Phase I with a total of 18MW power capacity, and three power generation systems in Phase II with a total of 27MW power capacity.

*Shanxi Datong Coal Group Power Generation Projects*

In February 2011, Xi’an TCH entered into an agreement with Shanxi Datong Coal Group Steel Co., Ltd (“Shanxi Datong”) to recycle gas and steam from groups of blast-furnaces and converters at Shanxi Datong’s metal refining plants to generate power and pursuant to which Xi’an TCH agreed to install two 3MW TRT systems, one 15MW WPG system and two 1MW steam power generation systems, with a total of 23MW power capacity for an estimated total investment of \$28.6 million (RMB 180 million). In June 2013, the two 3MW BPRT power generation systems were completed. The lease term is thirty (30) years, during which time Shanxi Datong will pay a service fee to Xi’an TCH. The service fee is based on an average of 8,000 electricity-generating hours per year and \$0.05 (RMB 0.33) per kilowatt hour (“kWh”) for the first five (5) years from the completion of each power generation station. For each of the leases, at the 6th, 11th and 21st year anniversary of the date of the lease, the rates will change to RMB 0.3 kWh, 0.27 kWh and 0.25 kWh, respectively. On June 10, 2013, Xi’an TCH and Shanxi Datong entered into a supplemental agreement relating to the minimum service fee. The minimum service fee per month for the first five (5) years is \$0.19 million (RMB 1.2 million), \$0.18 million (\$1.1 million) for the second five (5) years, \$0.16 (RMB 1.0 million) for the following ten (10) years and \$0.15 million (RMB 0.9 million) for the last ten (10) years. After thirty (30) years, the units will be transferred to Shanxi Datong at no additional charge.

As of December 31, 2013, the Company had construction in progress of \$17.01 million for the remaining Shanxi Datong Coal Group Power Generation project and is committed to paying an additional \$3.77 million. The Company expects to complete the Shanxi Datong project by June 2014.

*Shenqiu Yuneng Biomass Power Generation (“BMPG”) Projects*

On May 25, 2011, Xi’an TCH entered into a Letter of Intent with Shenqiu YuNeng Thermal Power Co., Ltd. (“Shenqiu”) to reconstruct and transform a Thermal Power Generation System owned by Shenqiu into a 75T/H Biomass Power Generation System for \$3.57 million (RMB 22.5 million). The project commenced in June 2011 and was completed in the third quarter of 2011. On September 28, 2011, Xi’an TCH entered into a Biomass Power Generation Asset Transfer Agreement with Shenqiu (the “Shenqiu Transfer Agreement”). Pursuant to the Shenqiu Transfer Agreement, Shenqiu sold Xi’an TCH a set of 12 MW biomass power generation systems (after Xi’an TCH converted the system for biomass power generation purposes). As consideration for the biomass power generation systems, Xi’an TCH agreed to pay Shenqiu \$10,937,500 (RMB 70 million) in cash in three installments within six (6) months upon the transfer of ownership of the systems. By the end of 2012, all of the consideration was paid. On September 28, 2011, Xi’an TCH and Shenqiu also entered into a Biomass Power Generation Project Lease Agreement (the “2011 Shenqiu Lease”). Under the 2011 Shenqiu Lease, Xi’an TCH agreed to lease a set of 12MW biomass power generation systems to Shenqiu at a monthly rental rate of \$286,000 (RMB 1,800,000) for eleven (11) years. Upon expiration of the 2011 Shenqiu Lease, ownership of this system will be transferred from Xi’an TCH to Shenqiu at no additional cost. In connection with the 2011 Shenqiu Lease, Shenqiu paid one (1) month’s rent as a security deposit to Xi’an TCH, in addition to providing personal guarantees.

On October 8, 2012, Xi'an TCH entered into a Letter of Intent for technical reformation of Shenqiu Project Phase II with Shenqiu for technical reformation to enlarge the capacity of the Shenqiu Project Phase I (the "Shenqiu Phase II Project"). The technical reformation involved the construction of another 12MW biomass power generation system. After the reformation, the generation capacity of the power plant increased to 24MW. The project commenced on October 25, 2012 and was completed during the first quarter of 2013. The total cost of the project was \$11.1 million (RMB 68 million). On March 30, 2013, Xi'an TCH and Shenqiu entered into a Biomass Power Generation Project Lease Agreement (the "2013 Shenqiu Lease"). Under the 2013 Shenqiu Lease, Xi'an TCH agreed to lease the second set of 12MW biomass power generation systems to Shenqiu for \$239,000 (RMB 1.5 million) per month for 9.5 years. When the 2013 Shenqiu Lease expires, ownership of this system will be transferred from Xi'an TCH to Shenqiu at no additional cost.

#### *Pucheng Biomass Power Generation ("BMPG") Projects*

On September 5, 2013, Xi'an TCH entered into a Biomass Power Generation Asset Transfer Agreement (the "Pucheng Transfer Agreement") with Pucheng Xin Heng Yuan Biomass Power Generation Corporation ("Pucheng"), a limited liability company incorporated in China. The Pucheng Transfer Agreement provided for the sale by Pucheng to Xi'an TCH of a set of 12MW biomass power generation systems with completion of system transformation for a purchase price of RMB 100,000,000 (\$16.48 million) in the form of 8,766,547 shares of common stock of the Company at the price of \$1.87 per share. Also on September 5, 2013, Xi'an TCH also entered into a Biomass Power Generation Project Lease Agreement with Pucheng (the "Pucheng Lease"). Under the Pucheng Lease, Xi'an TCH will lease this same set of 12MW biomass power generation system to Pucheng, and combine this lease with the lease for the 12MW biomass power generation station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3,800,000 million (\$0.63 million) per month (the "Pucheng Phase II Project"). The term for the combined lease is from September 2013 to June 2025, and the lease agreement for the 12MW station from Pucheng Phase I project terminated upon the execution of the Pucheng Lease on September 1, 2013. The ownership of two 12 MW BMPG systems will be transferred to Pucheng at no additional charge when the Pucheng Lease expires.

#### *Jitie Power Generation Projects*

In May 2013, Xi'an TCH signed a contract with Sinosteel Jilin Ferroalloys Co., Ltd. ("Jitie") to build furnace gas waste heat power generation systems for electricity generation from recycled heat and steam from groups of ferroalloy furnaces and electric furnaces (the "Jitie Project"). According to the contract, Xi'an TCH will install a 7.5 MW and a 3 MW turbine power generation system with a total of 10.5 MW power capacity for an estimated total investment of \$9.71 million (RMB 60 million). The lease term is twenty-four (24) years. During the term of this lease, Jitie will pay a service fee to Xi'an TCH based on the actual generating capacity with a minimum service fee per month of \$300,000 (RMB 1.8 million). Xi'an TCH will be responsible for the systems operation and will own the power generation systems. In December 2013, the Jitie Project was completed and began operations.

*Chengli Waste Heat Power Generation (“WHPG”) Projects*

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of Coke Dry Quenching (CDQ) and CDQ Waste Heat Power Generation Project with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”). The parties entered into a supplement agreement on July 26, 2013. Pursuant to these agreements, Zhonghong will design, build and maintain a 25 MW CDQ system and a CDQ waste heat power generation system to supply power to Chengli, and Chengli will pay energy saving fees (the “Chengli Project”). Chengli will contract the operation of the system to a third party contractor that is mutually agreed to by Zhonghong. In addition, Chengli will provide the land for the CDQ system and CDQ waste heat power generation system at no cost to Zhonghong. The term of the Agreements is for twenty (20) years. The first 800 million watt hours generated by the Chengli Project will be charged at RMB 0.42 (\$0.068) per kilowatt hour (excluding tax); thereafter, the energy saving fee will be RMB 0.20 (\$0.036) per kilowatt hour (excluding tax). The operating time shall be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Chengli, then time charged shall be 8,000 hours a year, and if it is less than 8,000 hours due to a reason attributable to Zhonghong, then it shall be charged at actual operating hours. The construction of the Chengli Project is anticipated to be completed twelve (12) months from the date the parties enter into a Technical Agreement. When operations begin, Chengli shall ensure its coking production line works properly and that working hours for the CDQ system are at least 8,000 hours per year, and Zhonghong shall ensure that working hours and the CDQ waste heat power generation system will be at least 7,200 hours per year.

On July 22, 2013, Zhonghong entered into a EPC (Engineering, Procurement and Construction) General Contractor Agreement for the Boxing County Chengli Gas Supply Co., Ltd. CDQ Power Generation Project (the “Huaxin Project”) with Xi’an Huaxin New Energy Co., Ltd. (“Huaxin”). Zhonghong, as the owner of the Huaxin Project, contracted engineering, procurement and construction services for a CDQ system and a 25 MW CDQ waste heat power generation system for Chengli to Huaxin. Huaxin shall provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary services to complete the Huaxin Project and ensure the CDQ system and CDQ waste heat power generation system for Chengli meet the inspection and acceptance requirements and work normally. The Huaxin Project is a turn-key project where Huaxin is responsible for monitoring the quality, safety, duration and cost of the project. The total contract price is RMB 200 million (approximately \$33.34 million), which includes all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety costs.

*Tianyu Waste Heat Power Generation (“WHPG”) Project*

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the “Tianyu Agreement”) for Energy Management of Coke Dry Quenching (CDQ) and CDQ Waste Heat Power Generation Project with Jiangsu Tianyu Energy and Chemical Group Co., Ltd (“Tianyu”). Pursuant to the Tianyu Agreement, Zhonghong will design, build, operate and maintain two sets of 25 MW CDQ systems and CDQ WHPG systems for two subsidiaries of Tianyu – Xuzhou Tian’an Chemical Co., Ltd (“Xuzhou Tian’an”) and Xuzhou Huayu Coking Co., Ltd (“Xuzhou Huayu”) – to be located at Xuzhou Tian’an and Xuzhou Huayu’s respective locations (the “Tianyu Project”). Upon completion of the Tianyu Project, Zhonghong will charge Tianyu an energy saving service fee of RMB 0.534 (\$0.087) per kilowatt hour (excluding tax). The operating time will be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Tianyu, then time charged will be 8,000 hours a year. The construction of the Tianyu Project is anticipated to be completed in fourteen (14) months from the date the parties enter into a Technical Agreement. Tianyu will provide the land for the CDQ systems and CDQ waste heat power generation systems for free. Tianyu also guarantees that it will purchase all of the power generated by the CDQ WHPG systems.

On July 22, 2013, Xi’an Zhonghong New Energy Technology Co., Ltd. entered into a EPC (Engineering, Procurement and Construction) General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project with Xi’an Huaxin New Energy Co., Ltd. (“Huaxin”). Zhonghong as the owner of the Project contracted EPC for the two sets of CDQ systems and 25 MW CDQ waste heat power generation systems for Tianyu to Huaxin—one for Xuzhou Tian’an and one for Xuzhou Huayu. Huaxin shall provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary works to complete the Project and ensure the CDQ systems and CDQ waste heat power generation systems for Tianyu meet the inspection and acceptance requirements and work normally. The project is a turn-key project and Huaxin is responsible for the quality, safety, duration and cost of the Project. The total contract price is RMB 400 million (approximately \$66.67) of which RMB 200 million (\$33.34 million) is for the Xuzhou Tian’an system and RMB 200 million is for the Xuzhou Huayu system. The price is a cover-all price which includes but not limited to all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety matters.

## **Industry and Market Overview**

### *Overview of Waste-to-Energy Industry*

The waste energy recycling industry concentrates mostly on power-intensive manufacturing and production processes, such as iron, steel and nonferrous metal production, cement production, and coal and petrochemical plants. Our waste energy recycling projects allow customers to recapture previously wasted pressure, heat, and gas from their manufacturing and production processes and use this waste to generate electricity. Waste energy recycling projects are installed at a customer's facility and the electricity produced can be used on-site to lower energy costs and create a more efficient production process. The industry verticals at the vanguard of this trend are metallurgical production (including iron & steel), cement, coal mining, coke production and petrochemicals.



The industry also includes the conversion of biomass to electricity. For thousands of years, biomass, biological material derived from living organisms like plants and their byproducts, was burned to produce heat so as to convert it to energy. A number of non-combustion methods are now available to convert raw biomass into a variety of gaseous, liquid, or solid fuels that can be used directly in a power plant to generate electricity.

### ***Waste-to-Energy Industry Growth***

China has experienced rapid economic growth and industrialization in recent years, increasing the demand for electricity. In the PRC, growth in energy consumption has exceeded growth in gross domestic product, causing a shortage of electricity with blackouts and brownouts over much of the country. Much of the energy demand has been due to the expansion of energy intensive industrial sectors such as steel, cement, and chemicals. China's increasing modernization and industrialization has made it the world's largest consumer of energy.

One result of this massive increase in electric generation capacity has been the rise of harmful emissions. China has surpassed the United States to become the world's largest emitter of greenhouse gases, and the country faces enormous challenges from the pollution brought about by its consumption of conventional energy. About 99% of China's 560 million city dwellers breathe unsafe air under EU standards, environmental problems have led to industrial cities where people rarely see the sun. A 2005 report by Chinese environmental experts, quoted in a New York Times article ("As China Roars, Pollution Reaches Deadly Extremes," August 26, 2007), estimated that annual premature deaths attributable to outdoor air pollution in China were likely to reach 550,000 in 2020.

### ***Description of WGPG (Waste Gas Power Generation)***

During the process of industrial production, some by-products, such as blast furnace gas, coke furnace gas, oil gas, and others are created with certain high intensive thermal energy. The waste gas can be collected and used as a fuel by gas turbine system to generate power energy.

Gas turbines are a set of hi-tech equipment and devices that is crucial to the energy development strategy of China. Gas turbine, which uses flammable gas as fuel and combines with recycling power generating technology, has many merits. These include high efficiency power generation, low investment, short construction periods, small land usage, water savings, environment protection and more. We believe the market prospect of the gas turbine industry is promising. An analysis report in 2008 indicated that during the Tenth Five-year Plan Period, the total volume of Chinese gas power generating was almost 10,000MW and it is expected to reach 60,000MW million by 2020. The natural gas power plants being or to be built, representing about 6% of the total equipment capability of China, most of which are newly constructed projects, provide huge market potential for gas turbine.

Through years of research, development and experimental applications, this gas-to-energy system has started to be applied into some high energy intensive industrial plants, such as in the course of iron-smelting in metallurgy plants. Metallurgical enterprises, as the biggest industrial energy user in China, consume 13%-15% of the nation's electricity. Electricity consumed by the iron-smelting industry accounts for 40% of that consumed by metallurgical enterprises. If all top furnaces in the iron-smelting industry are equipped with gas recovery systems, electricity consumption may decrease by 30-45%. Furthermore, environmental pollution will be reduced while energy efficiency is improved in those heavy industries.

*Stringent Environmental Standards and Increasing Government Supports*

Since energy is a major strategic issue affecting the development of the Chinese economy, the Chinese government has promoted the development of recycling and encouraged enterprises to use waste energy recycling projects of the type we sell and service. Similar to previous five year periods, the China National Environment Protection Plan, for the Twelfth five year period (2011-2015), is focused on high energy consumption industries, including specific programs to support the building of waste energy recycling projects for application in iron, steel and nonferrous metal plants and in cement production lines. Given the worsening environment and insufficient energy supply in China, the Chinese government has implemented policies to curb pollution and reduce wasteful energy usage. The Renewable Energy Law, strict administrative measures to restrict investment and force consolidation in energy wasting industries, and the requirement to install energy-saving and environment protecting equipment whenever possible are just some ways the government is emphasizing the need to reduce emissions and to maximize energy creation. Local government officials, who sometimes flout central government policies for the sake of local GDP growth, are now required to tie emission, energy usage and pollution to GDP growth. If local emissions of pollutants grow faster than the local GDP, these local officials face the risk of losing their jobs. Such determination and strict enforcement by the central and local governments provide a good backdrop and growth opportunity for CREG's business activities.

The following tables show the funds invested, or expected to be invested, in the environmental protection industry by the Chinese government.

*Source: China National Environmental Protection Plan in the Twelve Five Years (2011-2015).*

According to China's National Energy Board, recycled energy accounted for 9.6% of China's total energy consumption during 2010 and has increased steadily since then; our expectation is that this percentage will continue to increase. Because of environmental protection pressure, expanded efforts to improve infrastructure in western China with the related increase in production of cement and other heavy industrial products and emphasis on additional sources of electricity, demand for recycled energy, as a special and stable energy resource, should continue to grow in China.

*Waste-to-Energy is a Cost-Effective Means to Meet Rising Energy Needs*

According to the International Energy Agency, China will need to increase its electricity generating capacity to meet its future needs. This demand may mean price increases for electricity in China. With the need for more energy, in particular energy that does not cause additional emissions, and the relative low price of the waste-to-energy production we provide, we believe that our markets will continue to expand.

Since China has been experiencing a dramatic surge in its energy consumption as well as widespread energy shortages, recycling energy is not only an attractive alternative to other sources of energy as part of a national diversification strategy to avoid dependence on any one energy source or politically sensitive energy supplies, but also a proven solution to make the use of energy more efficient. Under current economic conditions and current tax and regulatory regimes, waste energy recycling projects generally can create price-competitive electricity compared to electricity generated from fossil fuels or other renewable sources. Our customers can reduce energy costs significantly by installing our waste energy recycling projects. Compared to electricity from the national grid, the generating cost from recycling energy is lower, which means our customers can leverage the waste-to-energy projects to generate low-cost electricity, reducing energy costs for the manufacturing process. The current national grid electricity rate ranges from RMB 0.45-0.50/kWh and our operated recycling rate ranges from 0.35-0.45/kWh subject to project type, generating scale and local situation.

Customers of our energy recycling projects may also qualify for credits from the Clean Development Mechanism (“CDM”). The CDM is an international arrangement under the Kyoto Protocol allowing industrialized countries with a greenhouse gas reduction commitment to invest in ventures that reduce emissions in developing countries as an alternative to more expensive emission reductions in their own countries. In 2005, China’s government promulgated “Measures for Operation and Management of Clean Development Mechanism Projects in China” (“China CDM Measures”) to facilitate the application and operation of CDM project activities in China. Our energy recycling solutions are of a kind which falls into the beneficial categories accredited by the China CDM Measures. If our customers can get approval from the Chinese government and successfully register their projects in the United Nations’ CDM Executive Board, they can receive additional revenue income through exchanging their Certified Emission Reductions (“CER”) credits with investors in industrialized countries. As of February 22, 2013, 1,128 China CDM projects received CER credits from the United Nations.

*Trends in Industries We Principally Service*

*Iron, Steel and Nonferrous Metal Industry*

Despite improvements made in reducing the amount of energy consumed per ton of steel produced (from more than 900kgce/ton in 2000 to less than 750kgce/ton in 2008 according to the 2009 Report of China's Iron & Steel Association), if all furnaces in the iron-smelting industry were equipped with waste energy recycling systems to utilize the waste heat and gas pressure that are byproducts of the metal producing process, electricity consumption in the industry could decrease 30-45%. Furthermore, environmental pollution would be reduced while energy efficiency improved in those heavy industries.

China is one of the largest producers and consumers of nonferrous metals in the world. However, the global economic downturn has slowed the momentum of China's nonferrous metal industry after keeping high-speed growth for almost a decade. A detailed three-year stimulus plan to support the nonferrous metal industry was released in the beginning of 2009 by China's State Council. Its purpose is to help the nonferrous metal sector maintain steady operations and achieve a sustainable development. China's nonferrous metal import and export value increased 3.7% in 2012 from 2011, and the output of the ten major types of nonferrous metals was 36.91 million tons in 2012, an increase of 9.3% from 2011. In 2013, the production of ten kinds of non-ferrous metal was 40.29 million tons in China, up 9.9% from 2012. Among them, growth rates of the production of refined copper, aluminium, lead and zinc are 13.5%, 9.7%, 5% and 9.7%, respectively. The production of copper and aluminum was 14.99 million tons and 39.63 million tons, up 25% and 24% respectively. With the wide development of new technology, significant results were obtained in energy savings in the nonferrous metal industry. In 2013, China's aluminum composite ac power consumption dropped to 13740 KWH/ton, down 104 KWH/tons; the annual electricity saved was about 2.3 billion KWH; copper smelting and electrolytic zinc comprehensive energy consumption dropped to 314.4 kg per standard coal/ton and 909.3 kg per standard coal/ton.

Environmental pollution, shortage of resources and energy shortage have been identified in China as three major challenges for China's nonferrous metal industry. China aims to save 1.7 million tons of coal and 6 billion kWh of electricity per year, as well as reduce sulfur dioxide by 850,000 tons annually as part of the industrial upgrading for the nonferrous metallurgy sector and, at the same time, to improve the utilization efficiency for resources. In China, the utilization rate for the nonferrous metal mineral resources is 60%, which is 10 to 15% lower than developed countries. The utilization rate for associated nonferrous metals is only 40%, which is 20% lower than developed nations. In addition, parts of nonferrous mines located in different cities are disorganized with random mining, causing severe wastes of resources.

### *Coal and Petrochemicals*

Flammable waste gases emitted from industrial production processes, such as blast furnace gas, coke furnace gas, oil or gas can be used to power gas-fired generators to create energy. Two large producers of these waste gases are coal mining and petrochemical refining. The PRC is the largest coal producer and consumer in the world. Coal is the dirtiest fossil fuel and a major cause of methane gas emissions, a greenhouse gas 21 times more potent than carbon dioxide. Methane gas is found naturally in coal beds. In the 1950s, China began recovering methane to make mines safer. Now, as then, most of the captured methane is released into the air but it could be used as a clean energy source using waste energy recycling technologies.

### *Biomass Waste to Energy Industry*

In China, agricultural waste and biogas are two main sources for biomass waste. China has more than 600 million tons of wasted straw produced every year. It also has 19 billion tons of forest biomass, of which 300 million tons can be utilized as an energy source. The straw burning power industry will grow faster in China with supportive policies, development of new technologies and the formation of raw material collection and storage systems, according to the National Development and Reform Commission. Electricity generated from straw has a preferential price of RMB 0.25 per kWh higher than coal-fueled power when sold to the state grid. In addition, straw power plants enjoy a series of preferential policies including tax exemption.

Biogas technology captures methane gases emitted from compostable materials and burns it to power a turbine to produce electricity. The waste that is usually disposed of in landfills is converted into liquid or gaseous fuels. By utilizing the resource from waste cellulosic or organic materials, biomass energy can be generated through the fermentation process.

## **Our Strategies**

***Focus on Core Verticals to Increase Market Share in China***

We focus on waste-to-energy projects to specific verticals, such as steel, cement, nonferrous metal and coal mining. We plan to continue to focus on such core verticals and leverage our expertise to expand our market share. We intend to expand our waste-to-energy power generating capacity rapidly in order to meet the anticipated growth of demand in China's energy efficiency industrial applications and to gain market share. We continually identify potential customers in our core verticals. Based on our existing contracts and signed MOUs, we are targeting to increase our in-operation power generating capacity from 180.5MW in 2013 and 272.5MW in 2014, respectively.

***Expand to New Verticals with Future High Growth Potentials***

We plan to pursue disciplined and targeted expansion strategies for verticals which we currently do not serve. We actively seek and explore opportunities to apply waste-to-energy technologies to new industries or segments with high growth potential, including glass, ceramics, magnesium metal and electrolytic aluminum industries. We have expanded into the biomass area, having completed our first biomass to power generation acquisition project. We believe that we have the flexibility to pursue acquisitions or develop new projects in-house through our existing research and development team. Our market entry strategy will focus on obtaining or developing new industrial applications in China as well as accesses to new market segments and customers, with the goal of using our early mover advantage to become the industry standard maker and maintain our leading position in the waste-to-energy industry.

***Increase Sales of Integrated Projects Targeting Large-Scale Customers***

Large-scale manufacturers have complex manufacturing processes, from multiple points of which we can collect waste pressure, heat or gas to generate electricity. In addition, we can also combine more than one power generating cycle to recycle the waste collected from such multi-point industrial processes, which results in improved overall energy efficiency. For example, the CCPP system combines both gas and steam cycles - a gas turbine generator generates electricity and the waste heat from the gas turbine is used to make steam to generate additional electricity via a steam turbine. We are targeting mid- to large-scale customers with highly intensive energy consumption, sizeable power generating capacity and substantial project investment requirement, e.g. RMB 500 million/ \$78 million or above, which can benefit from economies of scale. We believe offering large-scale integrated systems will increase overall energy efficiency and promote higher customer satisfaction and in return provide us an attractive internal rate of return and higher barrier to entry through the establishment of long-term operation contracts.

***Continually Enhance Research and Development Efforts***

In 2013 and 2012, we invested about \$0.68 million and \$0.65 million, respectively, in research and development. We plan to devote substantial resources to research and development in order to enhance our waste-to-energy design and engineering capabilities. Our in-house design and engineering team provide additional competitive advantages, including flexibility to quickly design and evaluate new technologies or applications in response to changing market trends.

***Selectively Acquire Waste-to-Energy Power Plants***



While we have experienced substantial organic growth, we plan to pursue a disciplined acquisition strategy to accelerate our growth. Our strategy will focus on obtaining additional power generating capacity, research and development capabilities and access to new markets and customers.

## Our Business Models

We have sold our products to our customers under two models: the BOT model and the operating lease model, although we emphasize the BOT model which we believe is more economically beneficial to us and to our customers.

### ***BOT Model***

We primarily engage in the “Build-Operate-Transfer” (the “BOT”) model to provide waste-to-energy solutions to our customers:

#### “Build”

We work directly with customers for each of our waste-to-energy projects. Our working process starts with a team of engineers that assesses and analyzes the specific needs of the customer to establish the design layout, equipment procurement list and capital expenditure budget for the project. Our sales team works closely with our engineering staff to present and negotiate the model with the customer.

After the signing of a contract, we finance the entire capital expenditure budget ourselves and commence the construction and installation of the project. We do not manufacture the equipment and materials that are used in the construction of the waste-to-energy power generation facility. Rather, we incorporate standard power generating equipment into a fully integrated on-site waste energy recycling project for our customer. The construction and installation period ranges from three to 12 months subject to the project type, size and complexity.

We usually engage an EPC general contractor, who is experienced in power plant and waste energy recycling project construction, to take charge of equipment procurement, project construction and installation. Our team of eight to 10 engineers participates in and monitors the equipment purchase process; this team also oversees the construction and installation activities to ensure that they are completed on time and meet our rigorous standards and specifications.

#### “Operate”

After the project has been installed at the customer site and passed a series of stringent tests, we, currently, outsource the operation to a third-party vendor. The operation period ranges from 5 to 20 years subject to the terms of each contract.

During the operation period, the customer can purchase all the electricity at a below-market price. We collect energy-saving-based lease payments from the customer; the lease term is equivalent to the operation period, ranging from five to twenty years, and the payments are based on the sale by us as lessor to our customers as lessee of energy generated by the waste energy recycling project at below-market rates. The customer’s payments are based on a minimum operation schedule agreed upon by us with our customer, and are collateralized by assets of the customer and/or third party guarantees. To reduce risk, we offer leasing services across a wide variety of industries and only target larger manufacturers or state-owned enterprises. Operation in excess of the minimum schedule enables us to receive additional revenues from the excess energy generated and sold to the customer.

#### “Transfer”

Based on the specific terms for each project, we eventually transfer the waste energy recycling project to the customer at no cost or a nominal cost upon the completion of the operation/lease period.

#### Why BOT

Waste-to-energy projects are capital intensive, which requires the manufacturers to invest a considerable amount of cash to purchase equipment during the construction period. As a BOT service provider, we fund all contracted projects on our own or jointly with our customers; such financing arrangements can help our customers by removing or reducing the heavy capital expenditure burden required by specific projects, thereby allowing them to concentrate on their core business. While technologically mature in advanced countries, waste-to-energy projects are still new to most of China's industrial companies and require intensive technology or know-how with respect to energy recycling and power generation. It is time-consuming or not feasible for industrial manufacturers to equip themselves with adequate expertise and technicians. Our specific sector knowledge and rich project experience allow us to construct, operate and maintain the power plants efficiently and to respond to operational issues in a timely and cost-efficient manner.

In exchange for upfront capital investment, we require secured power generating capacity during the operation period and guaranteed attractive internal rates of return from each project. Our operation period ranges from 5 to 20 years, during which we are entitled to sell the recycled electricity to those customers at a predetermined rate. Such electricity sales are secured by long-term electricity production agreements with guarantees which result in minimum annual payments. We employ a process of stringent and systematic internal scrutiny on new customer development so as to minimize operational and default risk; for some smaller or non-SOE businesses, we require property collateral, management or third party guarantees, and/or prepayment of three months. As such, our cash inflow schedule from each in-operation project is fixed and predictable providing clear financial visibility. Our payback period is generally two to three years, depending on the project size.

In our experience, this BOT model is well received by our existing and potential customers in China. The insufficient supply of BOT vendors to the market is wholly due to the funding limitations of most of the recycling energy solution providers. Not all of our competitors have the ability to access sufficient capital on a timely basis.

### ***Operating Lease Model***

In the past, we also recorded rental income from two separate one-year operating leases. Under the operating leases, we leased waste-energy systems and subleased the systems to a customer for a greater amount. We choose not to renew our lease agreements, and we do not generally expect any revenue in the future through such model. In 2014, however, the Company plans to put the two Tianu projects under operating leases; these projects were under construction at the end of 2013.

### **Contractor and Equipment Suppliers**

We generally conduct our project construction through an EPC general contractor. We select the EPC general contractor for each project through a bidding process; then we sign a contract with the selected contractor for that project. The general contractor may outsource parts of our project construction to subcontractors according to the complexity and economics of the project. The general contractor is responsible for purchasing equipment to satisfy the requirements of the project we design for our customer. We generally do not purchase equipment directly from the equipment suppliers, but our general contractors obtain our consent before selecting the equipment suppliers. Our engineering department is involved in the equipment supplier selection process together with our general contractors and makes sure our stringent standards and requirements have been appropriately applied in selection of the equipment. We currently have engaged Shaanxi Huaxin Energy Engineering Co., Ltd. and Xianyang Hengfeng Energy Engineering Co., Ltd. for our projects under construction, and we also maintain relationships with many other quality general contractors in China, including Wuxi Guolian, CITIC Heavy Industries Co., Ltd., A-Power Energy Generation Systems, Ltd.

As mentioned above, we do not manufacture the equipment and materials that are used in the construction of our waste energy recycling projects. Rather, we incorporate standard power generating equipment into a fully integrated onsite system. The key equipment used in our projects are the boilers and turbine generators, which represent the majority of equipment cost for each project. Though we do not place the direct procurement orders, we believe we maintain good relationships with those power generation equipment suppliers, and these relationships help provide cost-effective equipment purchasing by the general contractor for our intended projects and ensure the timely completion of these projects. We have well-established business relationships with most of the suppliers from whom our general contractors procure equipment, including Hangzhou Boiler Plant, Beijing Zhongdian Electric Machinery, Chengdu Engine Group, Shanghai Electric Group, China Aviation Gas Turbine Co. Ltd and Xuji Electric. Therefore, we believe we have a strong position and support in equipment supply and installation, which benefit us, the general contractors and our customers.

### **Main Customers**

Our customers are mainly mid- to large-size enterprises in China involving high energy-consuming businesses. Following our selection process described in the next paragraph, we conduct stringent evaluation procedures to identify and qualify potential customers and projects. To lower our investment and operational risk, we target companies with geographic or industry competitive advantages, with strong reputations and in good financial condition. Generally, our targets include steel and nonferrous metal mills with over 3 million tons of production capacity per year, cement plants with over 2 million tons of production capacity per year that utilize new-suspension-line process, and coking plants with over 600 tons production capacity per year. Our customers include Zhonggang Binhai's JV Plant (Zhongbao), which is China's largest nickel steel plant; Erdos Metallurgy Co., Ltd., which is the largest ferrosilicon alloy plant in the world, as well as other mid- to large-scale players in their specific industries or geographies, including Shengwei Cement Group, Shenmu County Jiujiang Trading Co., Ltd. Our existing customers operate in Hebei province, Shanxi province, Shaan'xi province, Shandong province, Jiangsu province and the Inner Mongolia Autonomic Region in China.

### Marketing and Sales

We market and sell our projects nationwide through our direct sales force of 27 employees based in Xi'an, China. Our marketing programs include industrial conferences, trade fairs, sales training, and trade publication advertising. Our sales and marketing group works closely with our research and development and engineering departments to coordinate our project development activities, project launches and ongoing demand and supply planning. We market our projects directly to the industrial manufacturers who can utilize our energy recovery projects in their manufacturing processes, including steel, cement, nonferrous metal, coal and petrochemical industries.

Our management team has long-standing relationships with our existing customers and those companies that we consider to be potential customers. We also maintain relationships with municipal governments, which often sponsor or subsidize potential customers that can utilize our projects.

### **Geographic Distribution of Sales**

Sales outside the U.S. accounted for approximately 100% of revenue in 2013, 2012 and 2011.

### **Seasonality**

For the most part, the Company's business and sales is not subject to any seasonality factors.

### **Intellectual Property Rights**

#### *Service Marks*

We have applied for the service mark "TCH" in China, which will be used in all of our business operations. The USPTO has also approved CREG and our logo for the trademark in the U.S.

#### *Patents*

As of December 31, 2013, we owned patents: (i) A usage and design patent of High Temperature Flap Valve in China by Xi'an TCH transferred from Shanghai Bake Technology Development Co., Ltd. (Chinese Patent No. ZL 2006 2 0041958.6); and (ii) A usage and design patent of Compound Barrel Type Slag Cooler/Quencher in China by Xi'an TCH transferred from Shanghai Bake Technology Development Co., Ltd. (Chinese Patent No. ZL 2006 2 0047536.X).

#### *Licenses*

From time to time, we enter into license agreements with third parties under which we obtain or grant rights to patented or proprietary technology.

## **Research and Development**

In 2013 and 2012, we invested about \$0.68 million and \$0.65 million, respectively, in research and development. We believe that our research and development efforts are among the best in the waste heat, gas and pressure to energy industry, particularly with regards to practical usage and application. All of the individuals that comprise our research and development staff have more than 10 years of experience on heat powered energy, mechanical, furnace engineering or power generation engineering.

To develop new and practical solutions for our customers, our R&D team also has the support of our on-site and project engineers who provide feedback and numerous ideas to the R&D team from their daily experiences with installation and operation of various waste gas, heat or pressure to energy projects. Our cooperative relationship with the South China University of Technology School of Power and Electricity and Xi'an University of Architecture and Technology gives us access to the latest developments in energy and waste to energy technologies as well as technical support of the research and development teams of these universities on integrated utilization of waste heat, gas and pressure to energy.

## **Government and Environmental Management System**

We own all licenses that the Chinese governments require for our operations.

## **Competition**

In the past, waste energy recycling projects have been mainly installed by the industrial plants themselves. These plants hire general contractors to purchase waste energy recycling equipment manufactured by third parties and with design support from government design institutes, which usually charge a one-time design fee, construct the projects on-site. Pressure has increased on Chinese producers to become more energy-efficient, but many mid-sized companies do not have the special technical expertise or the capital to install and operate such waste energy recycling projects. Many companies have begun to outsource these functions to third-party providers, creating an opportunity in a growing market.

We are a leading developer of industrial waste energy recycling projects in China. To our knowledge, we are the only non-state owned enterprise primarily using a BOT model to provide energy saving and recovery systems for various energy intensive industries, such as cement, steel and metallurgy industries. We face competition from an array of market participants.

Our main competitors as third-party providers are state owned research institutes or their wholly owned construction companies; however, smaller private companies occasionally employ a BOT model to provide waste to energy systems. The state-owned enterprises include Equipment and System Engineer Co., Ltd. of Hangzhou Steam Turbine & Power Group (Hangzhou Turbine) and Energy Saving Development Co., Ltd of China National Material Group, Sinoma Development Co., Ltd. The private companies include China Senyuan Electronic Co., Ltd., Dalian East New Energy Development Co. Ltd., Top Resource Conservation Engineering Co., Ltd. and Nanjing Kaisheng Kaineng Environmental Energy.

We believe that there is a larger market in the waste-to-energy industry in China for systems constructed on the “Engineering Procurement Construction” or “EPC” model in which customers purchase the services of a contractor to construct a system for the customer at the customer’s expense. Service providers include Dalian East New Energy Development, Nanjing Kaisheng Cement Technology and Engineering Co., Ltd., Jiangxi Sifang Energy Co., Ltd., Beijing Century Benefits Co., Ltd., Beijing Shineng Zhongjin Energy Technology Co., Ltd., Kunming Sunwise Co., Ltd. and China Everbright International Ltd. We compete with EPC providers for waste-to-energy projects when potential customers are able to obtain external financing or have the necessary capital.



We believe that we offer advantages over our competitors in several ways:

- Our management team has over 20 years of industry experience and expertise;
- We have the capabilities to provide TRT, CHPG and WPGG systems, while our competitors usually concentrate on one type or another;
- We have the capabilities and experience in undertaking large scale projects; and
- We provide BOT or capital lease services to the customers, while our competitors usually use an EPC (engineering, procurement and construction) or turnkey contract model.

## Employees

As of December 31, 2013, we had 166 employees:

<i>Management:</i>	10	<i>Employees</i>
<i>Administration:</i>	9	<i>Employees</i>
<i>Marketing:</i>	27	<i>Employees</i>
<i>Research &amp; Development:</i>	36	<i>Employees</i>
<i>Accounting &amp; Finance:</i>	12	<i>Employees</i>
<i>Project Officer:</i>	72	<i>Employees, including 69 operators</i>

All of our personnel are employed full-time and none of them are represented under collective bargaining agreements. We consider our relations with our employees to be good.

### **Costs and effects of compliance with environmental laws**

There were many new laws, regulations, rules and notices regarding the environment and energy production adopted, promulgated and put into force during past years. The Chinese government is putting more stringent requirements and urgency on reducing pollution and emissions and improving energy efficiency nationwide. Our products are designed and constructed to comply with the environmental laws and regulations of China. As our systems allow our customers to use waste heat and gases to create energy, we help reduce the overall environmental impact of our customers. Since our business focuses on recycling energy, the effect of the strengthening of environmental laws in China may be to increase demand for the products and services we offer and others like them.

### **Available Information**

We file reports with the SEC, including annual reports on Form 10-K, quarterly reports on Form 10-Q and other reports from time to time. The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The Company is an electronic filer and the SEC maintains an Internet site at <http://www.sec.gov> that contains the reports, proxy and information statements, and other information filed electronically. Our website address is [www.creg-cn.com](http://www.creg-cn.com). Please note that our website address is provided as an inactive textual reference only. The information provided on our website is not part of this report, and is therefore not incorporated by reference unless such information is otherwise specifically referenced elsewhere in this report.

## **ITEM 1A. RISK FACTORS**

### **Risks Related to our Common Stock**

*The market price for our common stock may be volatile.*

The market price for our common stock is highly volatile and subject to wide fluctuations in response to factors including the following:

- actual or anticipated fluctuations in our quarterly operating results;
- announcements of new services by us or our competitors;
- changes in financial estimates by securities analysts;
- conditions in the energy recycling market;
- changes in the economic performance or market valuations of other companies involved in the same industry;
- changes in accounting standards, policies, guidance, interpretation or principles;
- loss of external funding sources;
- failure to maintain compliance with NASDAQ listing rules;
- announcements by our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- potential litigation;
- conditions in the market; or
- relatively small size of shares of our common stock available for purchase.

In addition, the securities markets from time to time experience significant price and volume fluctuations that are not related to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our common stock.

***Shareholders could experience substantial dilution.***

We may issue additional shares of our capital stock to raise additional cash for working capital. If we issue additional shares of our capital stock, our shareholders will experience dilution in their respective percentage ownership in the company.

***We have no present intention to pay dividends.***

We have not paid dividends or made other cash distributions on our common stock during any of the past three years, and we do not expect to declare or pay any dividends in the foreseeable future. We intend to retain any future earnings for working capital and to finance current operations and expansion of our business.

***A large portion of our common stock is controlled by a small number of shareholders.***

A large portion of our common stock is held by a small number of shareholders. As a result, these shareholders are able to influence the outcome of shareholder votes on various matters, including the election of directors and extraordinary corporate transactions including business combinations. In addition, the occurrence of sales of a large number of shares of our common stock, or the perception that these sales could occur, may affect our stock price and could impair our ability to obtain capital through an offering of equity securities. Furthermore, the current ratios of ownership of our common stock reduce the public float and liquidity of our common stock which can in turn affect the market price of our common stock.

***We may be unable to maintain compliance with NASDAQ Marketplace Rules which could cause our common stock to be delisted from the NASDAQ Global Market. This could result in the lack of a market for our common stock, cause a decrease in the value of our common stock, and adversely affect our business, financial condition and results of operations.***

Under the NASDAQ Marketplace Rules our common stock must maintain a minimum price of \$1.00 per share for continued inclusion on the NASDAQ Global Market. The per share price of our common stock has fluctuated significantly. We cannot guarantee that our stock price will remain at or above \$1.00 per share and if the price again drops below \$1.00 per share, the stock could become subject to delisting. If our common stock is delisted, trading of the stock will most likely take place on an over-the-counter market established for unlisted securities. An investor is likely to find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our common stock on an over-the-counter market, and many investors may not buy or sell our common stock due to difficulty in accessing

over-the-counter markets, or due to policies preventing them from trading in securities not listed on a national exchange or other reasons. For these reasons and others, delisting would adversely affect the liquidity, trading volume and price of our common stock, causing the value of an investment in us to decrease and having an adverse effect on our business, financial condition and results of operations by limiting our ability to attract and retain qualified executives and employees and limiting our ability to raise capital.

### **Risks Related to Our Business Operations**

*In recent years, the economy of China has experienced unprecedented growth. As a result of the global financial crisis, this growth has slowed in the last year, and if the growth of the economy continues to slow or if the economy contracts, our financial condition may be materially and adversely affected.*

The rapid growth of the PRC economy has historically resulted in widespread growth opportunities in industries across China. As a result of the global financial crisis and the inability of enterprises to gain comparable access to the same amounts of capital available in past years, there may be an adverse effect on the business climate and growth of private enterprise in the PRC. An economic slowdown could have an adverse effect on our financial condition. Further, if economic growth slows, and if, in conjunction, inflation is allowed to proceed unchecked, our costs would likely increase, and there can be no assurance that we would be able to increase our prices to an extent that would offset the increase in our expenses.

***We depend on the waste energy of our customers to generate electricity.***

We acquire waste pressure, heat and gases from steelworks, cement, coking or metallurgy plants and use these to generate power. Therefore, our power generating capacity depends on the availability of an adequate supply of our “raw materials” from our customers. If we do not have enough supply, power generated for those customers will be impeded. Since our contracts are often structured so that we receive compensation based on the amount of energy we supply, a reduction in production may cause problems for our revenues and results of operations.

***Our revenue depends on gaining new customers and project contracts and purchase commitments from customers.***

Currently and historically, we have only had a limited number of projects in process at any time. Thus, our revenues have historically resulted, and are expected to continue in the immediate future to result, primarily from the sale and operation of our waste energy recycling projects that, once completed, typically produce ongoing revenues from energy production. Customers may change or delay orders for any number of reasons, such as force majeure or seasonality factors that are unrelated to us. As a result, in order to maintain and expand our business, we must continue to develop and obtain new orders. However, it is difficult to predict whether and when we will receive such orders or project contracts due to the lengthy process, which may be affected by factors that we do not control, such as market and economic conditions, financing arrangements, commodity prices, environmental issues and government approvals.

***We may require additional funds to run our business and may be required to raise these funds on terms which are not favorable to us or which reduce our stock price.***

We may need to complete additional equity or debt financings to fund our operations. Our inability to obtain additional financing could adversely affect our business. Financings may not be available at all or on terms favorable to us. In addition, these financings, if completed, may not meet our capital needs and could result in substantial dilution to our stockholders. In November 2011, we filed a Registration Statement on Form S-3 with the SEC for the issuance and sale of up to \$20,000,000 million of equity, proceeds from which will be used for general corporate purposes. The Form S-3 provides additional financial flexibility for the Company to sell shares as needed at any time.

***Changes in the economic and credit environment could have an adverse effect on demand for our projects, which would in turn have a negative impact on our results of operations, our cash flows, our financial condition, our ability to borrow and our stock price.***

Since late 2008 and continuing into 2013, global market and economic conditions have been disrupted and volatile. Concerns over increased energy costs, geopolitical issues, the availability and cost of credit, the U.S. mortgage market and a declining residential real estate market in the U.S. contributed to this increased volatility. These factors, combined with declining business and consumer confidence and increased unemployment, precipitated a global recession. It is difficult to predict how long the current economic conditions will persist or whether they will deteriorate further. As a result, these conditions could adversely affect our financial condition and results of operations.

The global economic crisis has also resulted in tighter credit conditions, which may lead to higher financing costs. Although poor market conditions can act as an incentive for our customers to reduce their energy costs, if the global economic crisis persists and has material adverse effects on our customers' business, our customers may delay or cancel their plan of installing waste energy recycling projects.

*Decreases in the price of coal, oil and gas or a decline in popular support for "green" energy technologies could reduce demand for our waste energy recycling projects, which could materially harm our ability to grow our business.*

Higher coal, oil and gas prices provide incentives for customers to invest in "green" energy technologies such as our waste energy recycling projects that reduce their need for fossil fuels. Conversely, lower coal, oil and gas prices would tend to reduce the incentive for customers to invest in capital equipment to produce electric power or seek out alternative energy sources. Demand for our projects and services depends in part on the current and future commodity prices of coal, oil and gas. We have no control over the current or future prices of these commodities.

In addition, popular support by governments, corporations and individuals for “green” energy technologies may change. Because of the ongoing development of, and the possible change in support for, “green” energy technologies we cannot assure you that negative changes to this industry will not occur. Changes in government or popular support for “green” energy technologies could have a material adverse effect on our business, prospects and results of operations.

*Changes in the growth of demand for or pricing of electricity could reduce demand for our waste energy recycling projects, which could materially harm our ability to grow our business.*

Our revenues are dependent on the ability to provide savings on energy costs for our clients. According to the National Bureau of Statistics of the PRC, domestic electricity consumption grew at a rate of **7.5%** in 2013. Power generation capacity of new energy and recycling energy was 31% of national power generation capacity, which is 0.387 billion kWh, an increase of 5.76% from 2012. Clean energy power generation increased largely in 2013. The China Electricity Council has forecasted that the rate of growth in China’s electricity demand will continue to increase in 2014 as the growth in electricity consumption increases due to the continued development of the Chinese economy. However, such growth is unpredictable and depends on general economic conditions and consumer demand, both of which are beyond our control. Furthermore, pricing of electricity in the PRC is set in advance by the state or local electricity administration and may be artificially depressed by governmental regulation or influenced by supply and demand imbalances. If these changes reduce the cost of electricity from traditional sources of supply, the demand for our waste energy recycling projects could be reduced, and therefore, could materially harm our ability to grow our business.

*Our insurance may not cover all liabilities and damages.*

Our industry can be dangerous and hazardous. The insurance we carry might not be enough to cover all the liabilities and damages that may be caused by potential accidents.

*A downturn in the Chinese economy may slow down our growth and profitability.*

The growth of the Chinese economy has been uneven across geographic regions and economic sectors. There is no assurance that growth of the Chinese economy will be steady or that any downturn will not have a negative effect on our business. Our profitability will decrease if less energy is consumed due to a downturn in the Chinese economy.

*Our heavy reliance on the experience and expertise of our management may cause adverse impacts on us if a management member departs.*



We depend on key personnel for the success of our business. Our business may be severely disrupted if we lose the services of our key executives and employees or fail to add new senior and middle managers to our management.

Our future success is heavily dependent upon the continued service of our key executives. We also rely on a number of key technology staff for the operation of our company. Our future success is also dependent upon our ability to attract and retain qualified senior and middle managers to our management team. If one or more of our current or future key executives or employees are unable or unwilling to continue in their present positions, we may not be able to easily replace them, and our business may be severely disrupted. In addition, if any of these key executives or employees joins a competitor or forms a competing company, we could lose customers and suppliers and incur additional expenses to recruit and train personnel. We do not maintain key-man life insurance for any of our key executives.

***We may need more capital for the operation and failure to raise capital we need may delay the development plan and reduce the profits.***

If we don't have adequate income or our capital can't meet the requirement for expansion of operations, we will need to seek financing to continue our business development. If we fail to acquire adequate financial resources at acceptable terms, we might have to postpone our proposed business development plans and reduce projections of our future incomes.

*Our use of a “Build-Operate-Transfer” model requires us to invest substantial financial and technical resources in a project before we deliver a waste energy recycling project.*

We use a “Build-Operate-Transfer” model to provide our waste energy recycling projects to our customers. This process requires us to provide significant capital at the beginning of each project. The design, construction and completion of a waste energy recycling project is highly technical and the time necessary to complete a project can take three to 12 months without any delays, including delays outside our control such as from the result of customer’s operations, and we incur significant expenses as part of this process. Our initial cash outlay and the length of the delivery time makes us particularly vulnerable to the loss of a significant customer or contract because we may be unable to quickly replace the lost cash flow.

*Our BOT model and the accounting for our projects as sales-type leases could result in a difference between our revenue recognition and our cash flows.*

While we recognize a large portion of the revenue from each project when it goes on-line, all of the cash flow from the project is received in even monthly payments across the term of the lease. Although our revenues may be high, the initial cash outlay required for each project is substantial and even with the recovery of this cost in the early years of each lease, we may need to raise additional capital resulting in a dilution in your holdings. This discrepancy between revenue recognition and cash flow could also contribute to volatility in our stock price.

*There is collection risk associated with payments to be received over the terms of agreements with customers of our waste energy recycling projects.*

We are dependent in part on the viability of our customers for collections under our BOT model. Customers may experience financial difficulties that could cause them to be unable to fulfill their contractual payment obligations to us. Although our customers usually provide collateral or other guarantees to secure their obligations to provide the minimum electricity income from the waste energy recycling projects, there is no guarantee that such collateral will be sufficient to meet all obligations under the respective contract. As a result, our future revenues and cash flows could be adversely affected.

*We may not be able to assemble and deliver our waste energy recycling projects as quickly as customers may require which could cause us to lose sales and could harm our reputation.*

We may not be able to assemble our waste energy recycling projects and deliver them to our customers at the times they require. Manufacturing delays and interruptions can occur for many reasons, including, but not limited to

- the failure of a supplier to deliver needed components on a timely basis or of acceptable quality;
  - equipment failures;
  - personnel shortage;
  - labor disputes; or
  - transportation disruptions.

Assembly of our waste energy recycling projects is complex. If we fail to assemble and deliver our waste energy recycling projects in a timely fashion, our reputation may be harmed, we may jeopardize existing orders and lose potential future sales, and we may be forced to pay penalties to our customers.

*We operate in an emerging competitive industry and if we are unable to compete successfully our revenue and profitability will be adversely affected.*

Currently, the PRC waste energy recycling market is fragmented but competitive. As the industry evolves, we anticipate that competition will increase. We currently face competition primarily from companies that focus on one type of waste energy recycling project or one industry in the waste energy recycling market, some of which may have more expertise in their area of focus than we do. We also compete against companies that have substantial competitive advantage because of longer operating histories and larger marketing budgets, as well as substantially greater financial and other resources than us. Our largest potential clients may choose to build their own systems. National or global competitors could enter the market with more substantial financial and workforce resources, stronger existing customer relationships, and greater name recognition or could choose to target medium to small companies in our traditional markets. Competitors could focus their substantial resources on developing a more attractive solution set than ours or products with technologies that reduce demand for energy beyond what our solutions can provide and at cheaper prices. Competition also places downward pressure on our contract prices and profit margins, which presents us with significant challenges in our ability to maintain strong growth rates and acceptable profit margins. If we are unable to meet these competitive challenges, we could lose market share to our competitors and experience an overall reduction in our profits.

*If we infringe the rights of third parties, we could be prevented from selling products, forced to pay damages and compelled to defend against litigation.*

If our waste energy recycling projects, methods, processes and other technologies infringe proprietary rights of other parties, we may have to obtain licenses (which may not be available on commercially reasonable terms, if at all), redesign our waste energy recycling projects or processes, stop using the subject matter claimed in the asserted patents, pay damages, or defend litigation or administrative proceedings, which may be costly whether we win or lose. All of the above could result in a substantial diversion of valuable management resources and we could incur substantial costs.

We believe we have taken reasonable steps, including prior patent searches, to ensure we have the freedom to operate under our intellectual property rights, and that our development and commercialization efforts can be carried out as planned without infringing others' proprietary rights. However, a third-party patent may have been filed or will be filed that may contain subject matter of relevance to our development, causing a third-party patent holder to claim infringement. Resolution of such issues sometimes results in lengthy and costly legal proceedings, the outcome of which we cannot predict accurately.

*We may not be able to adequately respond to changes in technology affecting the waste energy recycling industry.*

Our industry could experience rapid technological changes and new product introductions. Current competitors or new market entrants could introduce new or enhanced products with features which render the systems used in our projects obsolete or less marketable. Our future success will depend, in part, on our ability to respond to changing technology and industry standards in a timely and cost-effective manner. We may not be successful in effectively using new technologies, developing new systems or enhancing our existing systems and technology on a timely basis. Our new technologies or enhancements may not achieve market acceptance. Our pursuit of new technologies may require substantial time and expense. We may need to license new technologies to respond to technological change. These licenses may not be available to us on terms that we can accept. Finally, we may not succeed in adapting our projects to new technologies as they emerge.

*We are dependent on third parties for manufacturing key components and delays by third parties may cause delays in assembly and increased costs to us.*

We rely upon third parties for the manufacture of key components. Delays and difficulties in the manufacturing of our waste energy recycling projects could substantially harm our revenues. There are limited sources of supply for some key waste energy recycling project components. Business disruptions, financial difficulties of the manufacturers or suppliers of these components, or raw material shortages could increase our costs, reduce the availability of these components or delay our delivery of projects to customers. To date, we have been able to obtain adequate supplies of these key components. If we are unable to obtain a sufficient supply of required components, we could experience significant delays in construction, which could result in the loss of orders and customers, and could materially and adversely affect our business, financial condition and results of operations. If the cost of components increases, we may not be able to pass on price increases to our customers if we are to remain competitively priced. This would reduce profit, which in turn would reduce the value of your investment.

## Risks Related to the People's Republic of China

*Adverse changes in political and economic policies of the PRC government could have a material adverse effect on the overall economic growth of China, which could materially and adversely affect the demand for our projects and our business.*

Currently, all of our operations are conducted in China. Accordingly, our business, financial condition, results of operations and prospects are affected significantly by economic, political and legal developments in China. The PRC economy differs from the economies of most developed countries in many respects, including:

the amount of government involvement;  
the level of development;  
the growth rate;  
the control of foreign exchange; and  
the allocation of resources.

While the PRC economy has grown significantly since the late 1970s, the growth has been uneven, both geographically and among various sectors of the economy. The PRC government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures benefit the overall PRC economy, but may also have a negative effect on us. For example, our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations that are applicable to us.

The PRC economy has been transitioning from a planned economy to a more market-oriented economy. Although the PRC government has in recent years implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of sound corporate governance in business enterprises, a substantial portion of the productive assets in China is still owned by the PRC government. The continued control of these assets and other aspects of the national economy by the PRC government could materially and adversely affect our business. The PRC government also exercises significant control over economic growth in China through the allocation of resources, controlling payment of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. Efforts by the PRC government to slow the pace of growth of the PRC economy could result in decreased capital expenditure by energy users, which in turn could reduce demand for our products. In addition, the PRC government, which regulates the power industry in China, has adopted laws related to renewable energy, and has adopted policies for the accelerated development of renewable energy as part of a Development Plan promulgated on August 31, 2007.

Any adverse change in the economic conditions or government policies in China could have a material adverse effect on the overall economic growth and the level of energy investments and expenditures in China, which in turn could lead to a reduction in demand for our products and consequently have a material adverse effect on our business and prospects.

*Restrictions under PRC law on our subsidiaries' ability to make dividends and other distributions could materially and adversely affect our ability to grow, make investments or acquisitions that could benefit our business, pay dividends to you, and otherwise fund and conduct our business.*

We conduct all of our business through our consolidated subsidiaries and affiliated companies operating in the PRC. We rely on dividends paid by these consolidated subsidiaries for our cash needs, including the funds necessary to pay any dividends and other cash distributions to our stockholders, to service any debt we may incur and to pay our operating expenses. The payment of dividends by entities established in the PRC is subject to limitations imposed by government regulations. Regulations in the PRC currently permit payment of dividends only out of accumulated profits as determined in accordance with accounting standards and regulations in the PRC, subject to certain statutory procedural requirements and these may not be calculated in the same manner as US GAAP. In addition, each of our subsidiaries in China is required to set aside a certain amount of its after-tax profits each year, if any, to fund certain statutory reserves. These reserves are not distributable as cash dividends. Furthermore, if our subsidiaries in China incur debt on their own behalf in the future, the instruments governing the debt may restrict their ability to pay dividends or make other payments to us. Any limitations on the ability of our PRC subsidiaries to transfer funds to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our business, pay dividends and otherwise fund and conduct our business.

*Fluctuation in the value of the Renminbi may have a material adverse effect on your investment.*

The value of the Renminbi (“RMB”) against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China’s political and economic conditions. The conversion of RMB into foreign currencies, including U.S. dollars, has historically been set by the People’s Bank of China. On July 21, 2005, the PRC government changed its policy of pegging the value of the RMB to the U.S. dollar. Under the new policy, the RMB is permitted to fluctuate within a band against a basket of certain foreign currencies, determined by the Bank of China, against which it can rise or fall by as much as 0.3% each day. Since the adoption of this new policy, the value of the RMB against the U.S. dollar has fluctuated on a daily basis within narrow ranges, but overall has strengthened against the U.S. dollar. There remains significant international pressure on the PRC government to further liberalize its currency policy, which could result in a further and more significant appreciation in the value of the RMB against the U.S. dollar. Appreciation or depreciation in the value of the RMB relative to the U.S. dollar would affect our financial results reported in U.S. dollar terms even if there is no underlying change in our business or results of operations. In addition, if we decide to convert our RMB into U.S. dollars for the purpose of making payments for dividends on our common stock or for other business purposes, appreciation of the U.S. dollar against the RMB would have a negative effect on the U.S. dollar amount available to us.

*The PRC currency is not a freely convertible currency, which could limit our ability to obtain sufficient foreign currency to support our business operations in the future. In addition, changes in foreign exchange regulations in the PRC may affect our ability to pay dividends in foreign currency or conduct other foreign exchange business.*

The PRC government imposes controls on the convertibility of RMB into foreign currencies and, in certain cases, the remittance of currency out of the PRC. We receive substantially all of our revenues in RMB, which is currently not a freely convertible currency. Shortages in the availability of foreign currency may restrict our ability to remit sufficient foreign currency to pay dividends, or otherwise satisfy foreign currency-denominated obligations. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and expenditures from the transaction, can be made in foreign currencies without prior approval from the PRC State Administration of Foreign Exchange, or the SAFE, by complying with certain procedural requirements. However, approval from appropriate governmental authorities is required where RMB are to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of bank loans denominated in foreign currencies.

The PRC government may also at its discretion restrict access in the future to foreign currencies for current account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currency to satisfy our currency demands, we may not be able to pay certain of our expenses as they come due.

*There are significant uncertainties under the Enterprise Income Tax Law regarding our PRC enterprise income tax liabilities, such as tax on dividends paid to us by our PRC subsidiaries and tax on any dividends we pay to our*



*non-PRC stockholders.*

The Enterprise Income Tax Law, also known as the EIT Law, provides that enterprises established outside of the PRC whose “de facto management bodies” are located in the PRC are considered as a “tax-resident enterprise” and are generally subject to the uniform 25.0% enterprise income tax rate on global income. Under the implementation regulations to EIT Law, “de facto management body” refers to a managing body that in practice exercises overall management control over the production and business, personnel, accounting and assets of an enterprise. In addition, on April 22, 2009, the State Administration of Taxation of the PRC issued the *Notice on the Issues Regarding Recognition of Overseas Incorporated Enterprises that are Domestically Controlled as PRC Resident Enterprises Based on the De Facto Management Body Criteria*, which was retroactively effective as of January 1, 2008. This notice provides that an overseas incorporated enterprise that is controlled domestically will be recognized as a “tax-resident enterprise” if it satisfies all of the following conditions: (i) the senior management responsible for daily production/business operations are primarily located in the PRC, and the location(s) where such senior management execute their responsibilities are primarily in the PRC; (ii) strategic financial and personnel decisions are made or approved by organizations or personnel located in the PRC; (iii) major properties, accounting ledgers, company seals and minutes of board meetings and stockholder meetings, etc, are maintained in the PRC; and (iv) 50.0% or more of the board members with voting rights or senior management habitually reside in the PRC.

In addition, dividends paid by us to our non-PRC stockholders as well as gains realized by such stockholders from the sale or transfer of our stock may be subject to a PRC tax under the EIT Law, and we may be required to withhold PRC tax on dividends paid to our non-PRC stockholders.

*PRC regulation of loans to and direct investment by offshore holding companies in PRC entities may delay or prevent us from making loans or additional capital contributions to our PRC operating companies, which could materially and adversely affect our liquidity and ability to fund and expand our business.*

As an offshore holding company of PRC operating companies, we may make loans or additional capital contributions to our PRC operating companies. Any loans to our PRC operating companies are subject to PRC regulations. For example, loans to our operating companies in China to finance their activities may not exceed statutory limits and must be registered with SAFE. If we decide to make capital contributions to our operating entities in the PRC, the PRC Ministry of Commerce, or MOFCOM, (or MOFCOM's local counterpart, depending on the amount involved) must approve these capital contributions. We cannot assure you that we will be able to obtain these government approvals on a timely basis, if at all, with respect to any such capital contributions. If we fail to receive such approvals, our ability to use the proceeds of this offering and to capitalize our PRC operations may be negatively affected, which could adversely affect our ability to fund and expand our business.

*We may face PRC regulatory risks relating to our equity incentive plan.*

On March 28, 2007, the SAFE promulgated a notice requiring PRC individuals who are granted stock options and other types of stock-based awards by an overseas publicly-listed company to obtain approval from the local SAFE branch through an agent of the overseas publicly-listed company (generally its PRC subsidiary or a financial institution).

We urged our PRC management personnel, directors, employees and consultants who were granted stock options under our 2007 Plan to register them with the local SAFE pursuant to the said regulation. However, we cannot ensure that each of these individuals have carried out all of the required registration procedures.

If we, or any of these persons, fail to comply with the relevant rules or requirements, we may be subject to penalties, and may become subject to more stringent review and approval processes with respect to our foreign exchange activities, such as our PRC subsidiaries' dividend payment to us or borrowing foreign currency loans, all of which may adversely affect our business and financial condition.

*The Chinese government exerts substantial influence over the manner in which we must conduct our business activities.*

The Chinese government has exercised and continues to exercise substantial control over virtually every sector of the Chinese economy through regulation and state ownership. Our ability to operate in China may be harmed by changes in its laws and regulations, including those relating to taxation, environmental regulations, land use rights, property and other matters. The central or local governments of these jurisdictions may impose new, stricter regulations or interpretations of existing regulations that would require additional expenditures and efforts on our part to ensure our compliance with such regulations or interpretations. Accordingly, government actions in the future, including any decision not to continue to support recent economic reforms and to return to a more centrally planned economy or regional or local variations in the implementation of economic policies, could have a significant effect on economic conditions in China or particular regions thereof, and could require us to divest ourselves of any interest we then hold in Chinese properties.

*Uncertainties with respect to the PRC legal system could adversely affect us and we may have limited legal recourse under PRC law if disputes arise under our contracts with third parties.*

Since 1979, PRC legislation and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China in particular, because these laws and regulations are relatively new, and because of the limited volume of published decisions and their non-binding nature, the interpretation and enforcement of these laws and regulations involve uncertainties. In addition, the PRC legal system is based in part on government policies and internal rules (some of which are not published on a timely basis or at all) that may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until some time after violation.

The Chinese government has enacted some laws and regulations dealing with matters such as corporate organization and governance, foreign investment, commerce, taxation and trade. However, their experience in implementing, interpreting and enforcing these laws and regulations is limited, and our ability to enforce commercial claims or to resolve commercial disputes is unpredictable. The resolution of these matters may be subject to the exercise of considerable discretion by agencies of the Chinese government, and forces unrelated to the legal merits of a particular matter or dispute may influence their determination. Any rights we may have to specific performance, or to seek an injunction under PRC law, in either of these cases, are severely limited, and without a means of recourse by virtue of the Chinese legal system, we may be unable to prevent others from violating our rights. The occurrence of any such events could have a material adverse effect on our business, financial condition and results of operations.

*We must comply with the Foreign Corrupt Practices Act and Chinese anti-corruption laws.*

We are required to comply with the United States Foreign Corrupt Practices Act, or FCPA, which prohibits U.S. companies from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. Foreign companies, including some of our competitors, are not subject to these prohibitions. The PRC also strictly prohibits bribery of government officials. Certain of our suppliers are owned by the PRC government and our dealings with them are likely to be considered to be with government officials for these purposes. Corruption, extortion, bribery, pay-offs, theft and other fraudulent practices occur from time-to-time in China. It is our policy to prohibit our employees and to discourage our agents, representatives and consultants from engaging in such practices. If our competitors engage in these practices, they may receive preferential treatment from personnel of some companies, giving our competitors an advantage in securing business or from government officials who might give them priority in obtaining new licenses, which would put us at a disadvantage. Our employees, agents, representatives and consultants may not always be subject to our control. If any of them violates FCPA or other anti-corruption law, we might be held responsible. We could suffer severe penalties in that event. In addition, the U.S. government may seek to hold us liable for successor liability FCPA violations committed by companies in which we invest or which we acquire.

*We may have difficulty maintaining adequate management, legal and financial controls in the PRC.*

The PRC historically has been deficient in western style management and financial reporting concepts and practices, as well as in modern banking, and other control systems. We may have difficulty in hiring and retaining a sufficient number of qualified employees to work in the PRC. As a result of these factors, and especially since we are a publicly listed company in the U.S. and subject to regulation as such, we may experience difficulty in maintaining management, legal and financial controls, collecting financial data and preparing financial statements, books of account and corporate records and instituting business practices that meet western standards. We may have difficulty establishing adequate management, legal and financial controls in the PRC. Therefore, we may, in turn, experience difficulties in implementing and maintaining adequate internal controls as required under Section 404 of the Sarbanes-Oxley Act of 2002, or SOX 404, and other applicable laws, rules and regulations. This may result in significant deficiencies or material weaknesses in our internal controls which could impact the reliability of our financial statements and prevent us from complying with SEC rules and regulations and the requirements of the Sarbanes-Oxley Act of 2002. Any such deficiencies, weaknesses or lack of compliance could have a materially adverse effect on our business and the market price of our stock.

***If we fail to maintain an effective system of internal control over financial reporting, our ability to accurately and timely report our financial results or prevent fraud may be adversely affected and investor confidence and the market price of our ordinary shares may be adversely impacted.***

As directed by SOX 404, the SEC adopted rules requiring public companies to include a report of management on the company's internal controls over financial reporting in their annual reports. Our management may conclude that our internal controls over our financial reporting are not effective, which could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our reporting processes, which could adversely impact the market price of our common stock.

*Your ability to bring an action against us or against our directors and officers, or to enforce a judgment against us or them, will be limited because we conduct substantially all of our operations in the PRC and because the majority of our directors and officers reside outside of the United States.*

We are a Nevada corporation but nearly all of our assets are located outside of the U.S. Most of our current operations are conducted in the PRC. In addition, most of our directors and officers are nationals and residents of the PRC. A substantial portion of the assets of these persons is located outside the U.S. As a result, it may be difficult for you to effect service of process within the United States upon these persons. It may also be difficult for you to enforce in U.S. courts judgments on the civil liability provisions of the U.S. federal securities laws against us and our officers and directors. In addition, there is uncertainty as to whether the courts of the PRC would recognize or enforce judgments of U.S. courts. The recognition and enforcement of foreign judgments are provided for under the *PRC Civil Procedures Law*. Courts in the PRC may recognize and enforce foreign judgments in accordance with the requirements of the *PRC Civil Procedures Law* based on treaties between the PRC and the country where the judgment is made or on reciprocity between jurisdictions. The PRC does not have any treaties or other arrangements that provide for the reciprocal recognition and enforcement of foreign judgments with the United States. In addition, according to the *PRC Civil Procedures Law*, courts in the PRC will not enforce a foreign judgment against us or our directors and officers if they decide that the judgment violates basic principles of PRC law or national sovereignty, security or the public interest. So it is uncertain whether a PRC court would enforce a judgment rendered by a court in the U.S.

*A failure by our stockholders or beneficial owners who are PRC residents to comply with certain PRC foreign exchange regulations could restrict our ability to distribute profits, restrict our overseas and cross-border investment activities or subject us to liability under PRC laws, which could adversely affect our business and financial condition.*

On October 21, 2005, SAFE issued the Notice on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents Engaging in Financing and Roundtrip Investments via Offshore Special Purpose Vehicles, or SAFE Circular 75. SAFE Circular 75 states that PRC residents (including both legal persons and natural persons) must register with SAFE or its local branch in connection with their establishment or control of an offshore entity

established for the purpose of overseas equity financing involving a roundtrip investment whereby the offshore entity acquires or controls onshore assets or equity interests held by the PRC residents. In addition, such PRC residents must update their SAFE registrations when the offshore SPV undergoes material events relating to increases or decreases in investment amount, transfers or exchanges of shares, mergers or divisions, long-term equity or debt investments, external guarantees, or other material events that do not involve roundtrip investments. To further clarify the implementation of SAFE Circular 75, the General Affairs Department of SAFE issued SAFE Circular 106 on May 29, 2007. Under SAFE Circular 106, PRC subsidiaries of an offshore company governed by SAFE Circular 75 are required to coordinate and supervise the filing of SAFE registrations in a timely manner by the offshore holding company's shareholders who are PRC residents. If these shareholders fail to comply, the PRC subsidiaries are required to report to the local SAFE authorities. If our shareholders who are PRC residents do not complete their registration with the local SAFE authorities, our PRC subsidiaries will be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to us, and we may be restricted in our ability to contribute additional capital to our PRC subsidiaries.

We are committed to complying, and to ensuring that our shareholders, who are PRC residents, comply with the SAFE Circular 75 requirements. We believe that all of our PRC resident shareholders and beneficial owners have completed their required registrations with SAFE, or are otherwise in the process of registering. However, we may not at all times be fully aware or informed of the identities of all our beneficial owners who are PRC residents, and we may not always be able to compel our beneficial owners to comply with the SAFE Circular 75 requirements. As a result, we cannot assure you that all of our shareholders or beneficial owners who are PRC residents will at all times comply with, or in the future make or obtain any applicable registrations or approvals required by, SAFE Circular 75 or other related regulations. Failure by any such shareholders or beneficial owners to comply with SAFE Circular 75 could subject us to fines or legal sanctions, restrict our overseas or cross-border investment activities, limit our subsidiaries' ability to make distributions or pay dividends or affect our ownership structure, which could adversely affect our business and prospects.

*PRC regulations involve complex procedures for acquisitions conducted by foreign investors that could make our restructuring or an offering subject to government approval.*

Pursuant to the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors (“M&A Rule”), effective as of September 8, 2006 and revised as of June 22, 2009, additional procedures and requirements were established that are expected to make merger and acquisition activities in China by foreign investors more time-consuming and complex, including requirements in some instances that MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise, or that the approval from MOFCOM be obtained in circumstances where overseas companies established or controlled by PRC enterprises or residents acquire affiliated domestic companies and special anti-monopoly submissions for parties meeting certain reporting thresholds.

The M&A Rules require offshore companies formed for overseas listing purposes through acquisitions of PRC domestic companies and controlled by PRC companies or individuals to obtain the approval of MOFCOM prior to a cross-border share swap and the CSRC prior to the public listing of their securities on an overseas stock exchange through share swap. On September 21, 2006, pursuant to the M&A Rule and other PRC Laws, the CSRC published on its official website relevant guidance with respect to the listing and trading of PRC domestic enterprises’ securities on overseas stock exchanges (“Related Clarifications”), including a list of application materials regarding the listing on overseas stock exchange by special purpose vehicles, however, the CSRC currently has not issued any definitive rule concerning whether an offering, such as an offering under the previously described registration statement of Form S-3, is subject to the M&A Rule and Related Clarifications.

There are substantial uncertainties regarding the interpretation and application of the above rules, and MOFCOM and CSRC have yet to promulgate any written provisions or formally to declare or state whether the overseas listing of a PRC related company similar to us will be subject to approvals from MOFCOM and CSRC with respect to any offering or a failure to maintain an offering. If MOFCOM and CSRC approvals are required in connection with our previous restructuring and this offering, our failure to obtain or delay in obtaining such approval could result in penalties imposed by MOFCOM, CSRC and other PRC regulatory agencies. These penalties could include fines and penalties on our operations in China, restriction or limitation on remitting dividends outside of China, and other forms of sanctions that may cause a material and adverse effect on our business, operations and financial conditions.

Notwithstanding those provisions, we are advised by our PRC counsel, Kang Da Law Firm, that MOFCOM and CSRC approvals are not required in the context of our previous restructuring, because our previous restructuring does not constitute a cross-border share swap contemplated by the M&A Rule. However, we cannot assure you that the relevant PRC government agencies, including MOFCOM and CSRC, would reach the same conclusion, and we still cannot rule out the possibility that MOFCOM and CSRC may deem our listing structure as circumventing the M&A Rule and Related Clarifications, in particular in consideration of the fact that our restructuring was completed through several steps. Please refer to the Company History section about our restructuring.



*PRC regulations also involve complex procedures for acquisitions conducted by foreign investors that could make it more difficult for us to grow through acquisitions.*

We may grow our business in part by acquiring other companies in the PRC. Complying with the requirements of the M&A Rule to complete such transactions could be time-consuming, and any required approval processes, including approval from MOFCOM, may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

*Our labor costs may increase due to the implementation of the new PRC Labor Contract Law.*

The PRC Labor Contract Law was adopted by the Standing Committee of the National People's Congress of PRC in June 2007 and became effective on January 1, 2008. The Implementation Rules of the PRC Labor Contract Law were passed by the PRC State Council in September 2008 and became effective that same month. The implementation of the new law and its Implementation Rules, particularly the following provisions, may increase our labor costs: (a) an employer shall make monetary compensation, which shall be based on the number of an employee's working years with the employer at the rate of one month's wage for each year, to the employee upon termination of an employment contract with certain exceptions (for example, in circumstances where the term of a fixed-term employment contract expires and the employee does not agree to renew the contract even though the conditions offered by the employer are the same as or better than those stipulated in the current contract); (b) the wages of an employee who is on probation may not be less than the lowest wage level for the same job with the employer or less than 80% of the wage agreed upon in the employment contract, and may not be less than the local minimum wage rate; (c) if an employee has been working for the employer for a consecutive period of not less than 10 years, or if a fixed-term employment contract with an employee was entered into on two consecutive occasions, generally the employer should enter into an open-ended employment contract with such employee, unless the employee requests a fixed-term employment contract; (d) if an employer fails, in violation of the related provisions, to enter into an open-ended employment contract with an employee, it shall in each month pay to the employee twice his wage, starting from the date on which an open-ended employment contract should have been entered into; (e) if an employer fails to enter into a written employment contract with an employee more than one month but less than one year after the date on which it started employing him, it shall in each month pay to the employee twice his wage; and (f) if an employer hires an employee whose employment contract with another employer has not yet been terminated or ended, causing the other employer to suffer a loss, the later hiring employer shall be jointly and severally liable with the employee for the compensation for such loss. Our labor costs may increase due to the implementation of the new PRC Labor Contract Law and the Implementation Rules of the PRC Labor Contract Law and our business and results of operations may be materially and adversely affected.

#### ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

#### ITEM 2. PROPERTIES

We currently lease three office spaces, one in Xi'an, one in Shanghai and one in Beijing. On February 1, 2010, we expanded and moved our leased office space in Xi'an within the Chang'an Metropolis Center where we previously occupied part of a floor in Tower B. Our leased space in Xi'an is now the 12<sup>th</sup> Floor of Tower A at Chang'an Metropolis Center, No. 88, Nanguanzheng Street, Xi'an, PRC. Our leased office space in Shanghai is located at Room 3163, Floor 31, Jinmao Plaza, No.88 Century Avenue, Pudong New District, Shanghai, PRC. Our leased office space

in Beijing is located at Apt 101, Unit 7, Building C, Fenghuahaojing, Xuanwu District, Beijing, PRC. Average monthly rent for all locations was \$20,000 in 2012 and \$23,155 in 2013.

### ITEM 3. LEGAL PROCEEDINGS

The Company is not a party to any legal proceedings that it believes will have a material adverse effect upon the conduct of its business or its financial position.

### ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## PART II

### ITEM 5. MARKET FOR COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND SMALL BUSINESS ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock is currently traded on the NASDAQ Global Market under the symbol "CREG." On March 19, 2014, the last reported sales price for our common stock was \$4.39 per share. As of March 18, 2014, there were 60,910,058 shares of our common stock outstanding held by approximately 2,726 shareholders of record.

The table below provides information with respect to the Company's quarterly stock prices during 2013 and 2012:

	2013				2012			
	4Q	3Q	2Q	1Q	4Q	3Q	2Q	1Q
High	\$4.6	\$3.19	\$1.17	\$1.13	\$1.21	\$1.20	\$3.30	\$1.34
Low	1.79	1.14	0.917	1.06	0.80	0.78	0.91	1.12

### ***Dividend Policy***

We did not pay any cash dividends on our common stock in 2012 or 2013. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain future earnings, if any, to finance operations and the expansion of our business.

### ***Recent Sales of Unregistered Securities***

As disclosed on a Form 8-K, filed September 16, 2013, on September 5, 2013, Xi'an TCH, our wholly owned subsidiary entered into a Biomass Power Generation Asset Transfer Agreement (the "Transfer Agreement") with Pucheng Xin Heng Yuan Biomass Power Generation Corporation (the "Seller"), a limited liability company incorporated in China. The Transfer Agreement provides for the sale to Xi'an TCH of a set of 12,000 KW biomass power generation systems (the "Transfer Assets") from the Seller. As consideration for the biomass power generation system, Xi'an TCH paid to the Seller RMB 100,000, 000 (approximately \$16,393,443) in the form of the common stock shares of the Company at the price of \$1.87 per share with a total of 8,766,547 shares (the "Shares"). The exchange rate between U.S. Dollar and Chinese RMB in connection with the stock issuance is 1:6.1. The Company filed a Form S-3 Registration Statement to register the resale of the Shares for the Seller

The issuance was made in reliance on an exemption from the registration requirements of the Securities Act of 1933, as amended (the "Act") for the private placement of our securities pursuant to Regulation S of the Securities Act.

### ***Issuer Purchases of Equity Securities***

There were no common stock purchases by the Company during the quarter ended December 31, 2013.

***Equity Compensation Plan Information***

Information about our equity compensation plans at December 31, 2013 that were either approved or not approved by our shareholders is as follows:

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders		\$	
Equity compensation plans not approved by security holders	-	\$ -	
	0	\$ 0	0

ITEM 6. SELECTED FINANCIAL DATA.

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

**Note Regarding Forward-Looking Statements**

*This annual report on Form 10-K and other reports filed by the Company from time to time with the SEC (collectively the "Filings") contain or may contain forward-looking statements and information that are based upon beliefs of, and information currently available to, Company's management as well as estimates and assumptions made by Company's management. Readers are cautioned not to place undue reliance on these forward-looking statements, which are only predictions and speak only as of the date hereof. When used in the filings, the words "anticipate", "believe", "estimate", "expect", "future", "intend", "plan", or the negative of these terms and similar expressions as they relate to the Company or Company's management identify forward-looking statements. Such statements reflect the current view of Company with respect to future events and are subject to risks, uncertainties, assumptions, and other factors (including the risks contained in Item 1A. "Risk Factors" and the section "results of operations" below). Should one or more of these risks or uncertainties materialize, or should the underlying assumptions prove incorrect, actual results may differ significantly from those anticipated, believed, estimated, expected, intended, or planned.*

*Although the Company believes that the expectations reflected in the forward-looking statements are based on reasonable assumptions, the Company cannot guarantee future results, levels of activity, performance, or achievements. Except as required by applicable law, including the securities laws of the United States, the Company does not intend to update any of the forward-looking statements to conform these statements to actual results. Readers are urged to carefully review and consider the various disclosures made throughout the entirety of this annual report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations, and prospects.*

*Our financial statements are prepared in US Dollars and in accordance with accounting principles generally accepted in the United States. See "Foreign Currency Translation and Comprehensive Income (Loss)" below for information concerning the exchange rates at which Renminbi ("RMB") were translated into US Dollars ("USD") at various pertinent dates and for pertinent periods.*

## **OVERVIEW OF BUSINESS BACKGROUND**

China Recycling Energy Corporation (the “Company” or “CREG”) was incorporated on May 8, 1980 as Boulder Brewing Company under the laws of the State of Colorado. On September 6, 2001, the Company changed its state of incorporation to the State of Nevada. In 2004, the Company changed its name from Boulder Brewing Company to China Digital Wireless, Inc. and on March 8, 2007, the Company again changed its name from China Digital Wireless, Inc. to its current name, China Recycling Energy Corporation. The Company, through its subsidiaries, sells and leases energy saving systems and equipment to its customers. Typically, the Company transfers ownership of the waste energy recycling power generating projects to its customers at the end of each sales-type lease and finances its customers for the cost of the projects as described below.

### *Our Subsidiaries*

Our business is primarily conducted through our wholly-owned subsidiary, Sifang Holdings, its wholly-owned subsidiaries, Huahong New Energy Technology Co., Ltd. (“Huahong”) and Shanghai TCH, Shanghai TCH’s wholly-owned subsidiaries, Xi’an TCH Energy Technology Company, Ltd (“Xi’an TCH”), Xi’an TCH’s wholly-owned subsidiary Erdos TCH Energy Saving Development Co., Ltd (“Erdos TCH”) and Xi’an TCH’s 90% owned subsidiary Xi’an Zhonghong New Energy Technology Co., Ltd. Zhonghong is engaged to provide energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers.

The Company's organizational chart is as follows:

*Shanghai TCH and its Subsidiaries*

Shanghai TCH was established as a foreign investment enterprise in Shanghai under the laws of the PRC on May 25, 2004 and has a registered capital of \$29.80 million. Xi'an TCH was incorporated in Xi'an, Shaanxi Province under the laws of the PRC on November 8, 2007. In February 2009, Huahong was incorporated in Xi'an, Shaanxi province. Erdos TCH was incorporated in April 2009 in Erdos, Inner Mongolia Autonomous Region. On July 19, 2013, Xi'an TCH formed a new company called Xi'an Zhonghong New Energy Technology Co., Ltd ("Zhonghong"). Xi'an TCH owns 90% of Zhonghong, which provides energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers.

As of December 31, 2013, Shanghai TCH had sales or sales-type leases with the following parties: (i) Zhangzhi (for one top gas recovery turbine ("TRT") system); (ii) Jing Yang Shengwei (for one cement waste heat power generator ("CHPG") system); (iii) Erdos (for five recycling waste heat power generating systems); (iv) Zhongbao (for one waste heat power generation ("WHPG") system); (v) Sinosteel Jilin Ferroalloys Co., Ltd. (for one waste heat power generation system ("WHPG")); (vi) Pucheng (for two biomass power generation ("BMPG") systems); (vii) Shenqiu (for two biomass power generation ("BMPG") systems); and (viii) Shanxi Datong Coal Group Steel Co., Ltd (for two TRT systems).

*The Fund Management Company and the HYREF Fund*

On June 25, 2013, Xi'an TCH and Hongyuan Huifu Venture Capital Co. Ltd ("Hongyuan Huifu") jointly established Hongyuan Recycling Energy Investment Management Beijing Co., Ltd (the "Fund Management Company") with registered capital of RMB 10 million. Xi'an TCH made an initial capital contribution of RMB 4 million (\$650,000) and has a 40% ownership interest in the Fund Management Company. With respect to the Fund Management Company, voting rights and dividend rights are allocated 80% and 20% between Hongyuan Huifu and Xi'an TCH, respectively.



The Fund Management Company serves as the general partner of Beijing Hongyuan Recycling Energy Investment Center, LLP (the “HYREF Fund”), a limited liability partnership established on July 18, 2013 in Beijing. The Fund Management Company made an initial capital contribution of RMB 5 million (\$830,000) to the HYREF Fund. An initial total amount of RMB 460 million (\$75 million) has been fully subscribed by all partners for the HYREF Fund. The HYREF Fund has three limited partners: (1) China Orient Asset Management Co., Ltd., which made an initial capital contribution of RMB 280 million (\$46.67 million) to the HYREF Fund and is a preferred limited partner; (2) Hongyuan Huifu, which made an initial capital contribution of RMB 100 million (\$16.67 million) to the HYREF Fund and is an ordinary limited partner; and (3) the Company’s wholly-owned subsidiary, Xi’an TCH, which made an initial capital contribution of RMB 75 million (\$12.5 million) to the HYREF Fund and is a secondary limited partner. The term of the HYREF Fund’s partnership is six (6) years from the date of its establishment, expiring on July 18, 2019. The term is three (3) years from the date of contribution for the preferred limited partner, or four (4) years from the date of contribution for the ordinary limited partner. The total size of the HYREF Fund is RMB 460 million (approximately \$76.66 million). The HYREF Fund was formed for the purpose of investing in Xi’an Zhonghong New Energy Technology Co., Ltd., a 90% owned subsidiary of Xi’an TCH, for the construction of two coke dry quenching (“CDQ”) waste heat power generation stations with Jiangsu Tianyu Energy and Chemical Group Co., Ltd. (“Tianyu”) and one CDQ waste heat power generation station with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”).

#### *Erdos TCH – Joint Venture*

On April 14, 2009, the Company formed Erdos TCH as a joint venture (the “JV”) with Erdos Metallurgy Co., Ltd. (“Erdos”) to recycle waste heat from Erdos’ metal refining plants to generate power and steam to be sold back to Erdos. The JV has a term of 20 years with a total investment for the project estimated at \$79 million (RMB 500 million) and an initial investment of \$17.55 million (RMB 120 million). Erdos contributed 7% of the total investment for the project, and Xi’an TCH contributed 93%. According to Xi’an TCH and Erdos’ agreement on profit distribution, Xi’an TCH and Erdos will receive 80% and 20%, respectively, of the profit from the JV until Xi’an TCH receives the complete return of its investment. Xi’an TCH and Erdos will then receive 60% and 40%, respectively, of the profit from the JV. On June 15, 2013, Xi’an TCH and Erdos entered into a share transfer agreement, pursuant to which Erdos transferred and sold its 7% ownership interest in the JV to Xi’an TCH for \$1.29 million (RMB 8 million), plus certain accumulated profits as described below. Xi’an TCH paid the \$1.29 million in July 2013 and, as a result, became the sole shareholder of the JV. In addition, Xi’an TCH is required to pay Erdos accumulated profits from inception up to June 30, 2013 in accordance with the supplementary agreement entered on August 6, 2013. In August 2013, Xi’an TCH paid 20% of the accumulated profit (calculated under PRC GAAP) of \$226,000 to Erdos. The JV currently has two power generation systems in Phase I with a total of 18MW power capacity, and three power generation systems in Phase II with a total of 27MW power capacity.

#### *Shanxi Datong Coal Group Power Generation Projects*

In February 2011, Xi’an TCH entered into an agreement with Shanxi Datong Coal Group Steel Co., Ltd (“Shanxi Datong”) to recycle gas and steam from groups of blast-furnaces and converters at Shanxi Datong’s metal refining plants to generate power and pursuant to which Xi’an TCH agreed to install two 3MW TRT systems, one 15MW

WGPG system and two 1MW steam power generation systems, with a total of 23MW power capacity for an estimated total investment of \$28.6 million (RMB 180 million). In June 2013, the two 3MW BPRT power generation systems were completed. The lease term is thirty (30) years, during which time Shanxi Datong will pay a service fee to Xi'an TCH. The service fee is based on an average of 8,000 electricity-generating hours per year and \$0.05 (RMB 0.33) per kilowatt hour ("kWh") for the first five (5) years from the completion of each power generation station. For each of the leases, at the 6th, 11th and 21st year anniversary of the date of the lease, the rates will change to RMB 0.3 kWh, 0.27 kWh and 0.25 kWh, respectively. On June 10, 2013, Xi'an TCH and Shanxi Datong entered into a supplemental agreement relating to the minimum service fee. The minimum service fee per month for the first five (5) years is \$0.19 million (RMB 1.2 million), \$0.18 million (\$1.1 million) for the second five (5) years, \$0.16 (RMB 1.0 million) for the following ten (10) years and \$0.15 million (RMB 0.9 million) for the last ten (10) years. After thirty (30) years, the units will be transferred to Shanxi Datong at no additional charge.

As of December 31, 2013, the Company had construction in progress of \$17.01 million for the remaining Shanxi Datong Coal Group Power Generation project and is committed to paying an additional \$3.77 million. The Company expects to complete the Shanxi Datong project by June 2014.

*Shenqiu Yuneng Biomass Power Generation (“BMPG”) Projects*

On May 25, 2011, Xi’an TCH entered into a Letter of Intent with Shenqiu YuNeng Thermal Power Co., Ltd. (“Shenqiu”) to reconstruct and transform a Thermal Power Generation System owned by Shenqiu into a 75T/H Biomass Power Generation System for \$3.57 million (RMB 22.5 million). The project commenced in June 2011 and was completed in the third quarter of 2011. On September 28, 2011, Xi’an TCH entered into a Biomass Power Generation Asset Transfer Agreement with Shenqiu (the “Shenqiu Transfer Agreement”). Pursuant to the Shenqiu Transfer Agreement, Shenqiu sold Xi’an TCH a set of 12 MW biomass power generation systems (after Xi’an TCH converted the system for biomass power generation purposes). As consideration for the biomass power generation systems, Xi’an TCH agreed to pay Shenqiu \$10,937,500 (RMB 70 million) in cash in three installments within six (6) months upon the transfer of ownership of the systems. By the end of 2012, all of the consideration was paid. On September 28, 2011, Xi’an TCH and Shenqiu also entered into a Biomass Power Generation Project Lease Agreement (the “2011 Shenqiu Lease”). Under the 2011 Shenqiu Lease, Xi’an TCH agreed to lease a set of 12MW biomass power generation systems to Shenqiu at a monthly rental rate of \$286,000 (RMB 1,800,000) for eleven (11) years. Upon expiration of the 2011 Shenqiu Lease, ownership of this system will be transferred from Xi’an TCH to Shenqiu at no additional cost. In connection with the 2011 Shenqiu Lease, Shenqiu paid one (1) month’s rent as a security deposit to Xi’an TCH, in addition to providing personal guarantees.

On October 8, 2012, Xi’an TCH entered into a Letter of Intent for technical reformation of Shenqiu Project Phase II with Shenqiu for technical reformation to enlarge the capacity of the Shenqiu Project Phase I (the “Shenqiu Phase II Project”). The technical reformation involved the construction of another 12MW biomass power generation system. After the reformation, the generation capacity of the power plant increased to 24MW. The project commenced on October 25, 2012 and was completed during the first quarter of 2013. The total cost of the project was \$11.1 million (RMB 68 million). On March 30, 2013, Xi’an TCH and Shenqiu entered into a Biomass Power Generation Project Lease Agreement (the “2013 Shenqiu Lease”). Under the 2013 Shenqiu Lease, Xi’an TCH agreed to lease the second set of 12MW biomass power generation systems to Shenqiu for \$239,000 (RMB 1.5 million) per month for 9.5 years. When the 2013 Shenqiu Lease expires, ownership of this system will be transferred from Xi’an TCH to Shenqiu at no additional cost.

*Pucheng Biomass Power Generation (“BMPG”) Projects*

On September 5, 2013, Xi’an TCH entered into a Biomass Power Generation Asset Transfer Agreement (the “Pucheng Transfer Agreement”) with Pucheng Xin Heng Yuan Biomass Power Generation Corporation (“Pucheng”), a limited liability company incorporated in China. The Pucheng Transfer Agreement provided for the sale by Pucheng to Xi’an TCH of a set of 12MW biomass power generation systems with completion of system transformation for a purchase price of RMB 100,000,000 (\$16.48 million) in the form of 8,766,547 shares of common stock of the Company at the price of \$1.87 per share. Also on September 5, 2013, Xi’an TCH also entered into a Biomass Power Generation Project Lease Agreement with Pucheng (the “Pucheng Lease”). Under the Pucheng Lease, Xi’an TCH will lease this same set of 12MW biomass power generation system to Pucheng, and combine this lease with the lease for the 12MW biomass power generation station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3,800,000 million

(\$0.63 million) per month (the “Pucheng Phase II Project”). The term for the combined lease is from September 2013 to June 2025, and the lease agreement for the 12MW station from Pucheng Phase I project terminated upon the execution of the Pucheng Lease on September 1, 2013. The ownership of two 12 MW BMPG systems will be transferred to Pucheng at no additional charge when the Pucheng Lease expires.

*Jitie Power Generation Projects*

In May 2013, Xi’an TCH signed a contract with Sinosteel Jilin Ferroalloys Co., Ltd. (“Jitie”) to build furnace gas waste heat power generation systems for electricity generation from recycled heat and steam from groups of ferroalloy furnaces and electric furnaces (the “Jitie Project”). According to the contract, Xi’an TCH will install a 7.5 MW and a 3 MW turbine power generation system with a total of 10.5 MW power capacity for an estimated total investment of \$9.71 million (RMB 60 million). The lease term is twenty-four (24) years. During the term of this lease, Jitie will pay a service fee to Xi’an TCH based on the actual generating capacity with a minimum service fee per month of \$300,000 (RMB 1.8 million). Xi’an TCH will be responsible for the systems operation and will own the power generation systems. In December 2013, the Jitie Project was completed and began operations.

*Chengli Waste Heat Power Generation (“WHPG”) Projects*

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of Coke Dry Quenching (CDQ) and CDQ Waste Heat Power Generation Project with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”). The parties entered into a supplement agreement on July 26, 2013. Pursuant to these agreements, Zhonghong will design, build and maintain a 25 MW CDQ system and a CDQ waste heat power generation system to supply power to Chengli, and Chengli will pay energy saving fees (the “Chengli Project”). Chengli will contract the operation of the system to a third party contractor that is mutually agreed to by Zhonghong. In addition, Chengli will provide the land for the CDQ system and CDQ waste heat power generation system at no cost to Zhonghong. The term of the Agreements is for twenty (20) years. The first 800 million watt hours generated by the Chengli Project will be charged at RMB 0.42 (\$0.068) per kilowatt hour (excluding tax); thereafter, the energy saving fee will be RMB 0.20 (\$0.036) per kilowatt hour (excluding tax). The operating time shall be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Chengli, then time charged shall be 8,000 hours a year, and if it is less than 8,000 hours due to a reason attributable to Zhonghong, then it shall be charged at actual operating hours. The construction of the Chengli Project is anticipated to be completed twelve (12) months from the date the parties enter into a Technical Agreement. When operations begin, Chengli shall ensure its coking production line works properly and that working hours for the CDQ system are at least 8,000 hours per year, and Zhonghong shall ensure that working hours and the CDQ waste heat power generation system will be at least 7,200 hours per year.

On July 22, 2013, Zhonghong entered into a EPC (Engineering, Procurement and Construction) General Contractor Agreement for the Boxing County Chengli Gas Supply Co., Ltd. CDQ Power Generation Project (the “Huaxin Project”) with Xi’an Huaxin New Energy Co., Ltd. (“Huaxin”). Zhonghong, as the owner of the Huaxin Project, contracted engineering, procurement and construction services for a CDQ system and a 25 MW CDQ waste heat power generation system for Chengli to Huaxin. Huaxin shall provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary services to complete the Huaxin Project and ensure the CDQ system and CDQ waste heat power generation system for Chengli meet the inspection and acceptance requirements and work normally. The Huaxin Project is a turn-key project where Huaxin is responsible for monitoring the quality, safety, duration and cost of the project. The total contract price is RMB 200 million (approximately \$33.34 million), which includes all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety costs.

*Tianyu Waste Heat Power Generation (“WHPG”) Project*

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the “Tianyu Agreement”) for Energy Management of Coke Dry Quenching (CDQ) and CDQ Waste Heat Power Generation Project with Jiangsu Tianyu Energy and Chemical Group Co., Ltd (“Tianyu”). Pursuant to the Tianyu Agreement, Zhonghong will design, build, operate and maintain two sets of 25 MW CDQ systems and CDQ WHPG systems for two subsidiaries of Tianyu – Xuzhou Tian’an Chemical Co., Ltd (“Xuzhou Tian’an”) and Xuzhou Huayu Coking Co., Ltd (“Xuzhou Huayu”) – to be located at Xuzhou Tian’an and Xuzhou Huayu’s respective locations (the “Tianyu Project”). Upon completion of the Tianyu Project, Zhonghong will charge Tianyu an energy saving service fee of RMB 0.534 (\$0.087) per kilowatt hour (excluding tax).

The operating time will be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Tianyu, then time charged will be 8,000 hours a year. The construction of the Tianyu Project is anticipated to be completed in fourteen (14) months from the date the parties enter into a Technical Agreement. Tianyu will provide the land for the CDQ systems and CDQ waste heat power generation systems for free. Tianyu also guarantees that it will purchase all of the power generated by the CDQ WHPG systems.

On July 22, 2013, Xi'an Zhonghong New Energy Technology Co., Ltd. entered into a EPC (Engineering, Procurement and Construction) General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project with Xi'an Huaxin New Energy Co., Ltd. ("Huaxin"). Zhonghong as the owner of the Project contracted EPC for the two sets of CDQ systems and 25 MW CDQ waste heat power generation systems for Tianyu to Huaxin—one for Xuzhou Tian'an and one for Xuzhou Huayu. Huaxin shall provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary works to complete the Project and ensure the CDQ systems and CDQ waste heat power generation systems for Tianyu meet the inspection and acceptance requirements and work normally. The project is a turn-key project and Huaxin is responsible for the quality, safety, duration and cost of the Project. The total contract price is RMB 400 million (approximately \$66.67) of which RMB 200 million (\$33.34 million) is for the Xuzhou Tian'an system and RMB 200 million is for the Xuzhou Huayu system. The price is a cover-all price which includes but not limited to all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety matters.

## **Related Party Transactions**

The JV sold all power generation stations through sales-type leases to Erdos, the non-controlling interest holder of the JV, and Erdos sold all its ownership shares in the JV to Xi'an TCH on June 15, 2013. As a result, Erdos is no longer a related party of the Company.

## **Critical Accounting Policies and Estimates**

Our management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which were prepared in accordance with US GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported net sales and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and assumptions. We base our estimates on historical experience and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements, we believe the following accounting policies are the most critical to assist you in fully understanding and evaluating this management discussion and analysis.

## **Basis of Presentation**

These accompanying consolidated financial statements were prepared in accordance with US GAAP and pursuant to the rules and regulations of the SEC for financial statements.

## **Basis of Consolidation**

The consolidated financial statements include the accounts of CREG and, its subsidiary, Sifang Holdings; Sifang Holdings' wholly-owned subsidiaries, Huahong and Shanghai TCH; Shanghai TCH's wholly-owned subsidiary Xi'an TCH; and Xi'an TCH's subsidiaries, Erdos TCH and Zhonghong. Substantially all of the Company's revenues are

derived from the operations of Shanghai TCH and its subsidiaries, which represent substantially all of the Company's consolidated assets and liabilities as of December 31, 2013 and 2012, respectively. All significant inter-company accounts and transactions were eliminated in consolidation.

### **Use of Estimates**

In preparing the consolidated financial statements, management makes estimates and assumptions that affect the reported amounts of assets and liabilities in the balance sheets as well as revenues and expenses during the year reported. Actual results may differ from these estimates.

### **Concentration of Credit Risk**

Cash includes cash on hand and demand deposits in accounts maintained within China. Balances at financial institutions within China are not covered by insurance. The Company has not experienced any losses in such accounts.



Certain other financial instruments, which subject the Company to concentration of credit risk, consist of accounts and other receivables. The Company does not require collateral or other security to support these receivables. The Company conducts periodic reviews of its customers' financial condition and customer payment practices to minimize collection risk on accounts receivable.

The operations of the Company are located in the PRC. Accordingly, the Company's business, financial condition and results of operations may be influenced by the political, economic and legal environments in the PRC.

## **Revenue Recognition**

### *Sales-type Leasing and Related Revenue Recognition*

The Company constructs and then leases waste energy recycling power generating projects to its customers. The Company typically transfers ownership of the waste energy recycling power generating projects to its customers at the end of each lease. Investment in these projects is recorded as investment in sales-type leases in accordance with Statement of Financial Accounting Standards ("SFAS") No. 13, "Accounting for Leases" (codified in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 840) and its various amendments and interpretations. The Company manufactures and constructs the waste energy recycling power generating projects and finances its customers for the costs of the projects. The sales and cost of sales are recognized at the time of sale or inception of the lease. The investment in sales-type leases consists of the sum of the total minimum lease payments receivable less unearned interest income and estimated executory cost. Unearned interest income is amortized to income over the lease term so as to produce a constant periodic rate of return on the net investment in the lease. While a portion of revenue is recognized at the inception of the lease, the cash flow from the sales-type lease occurs over the course of the lease. Revenue is net of the Value Added Tax.

### *Contingent Rental Income*

The Company records the income from actual electricity usage in addition to minimum lease payment of each project as contingent rental income in the period earned. Contingent rent is not part of minimum lease payments.

## **Foreign Currency Translation and Comprehensive Income (Loss)**

The Company's functional currency is the Renminbi ("RMB"). For financial reporting purposes, RMB figures were translated into United States dollars ("USD") as the reporting currency. Assets and liabilities are translated at the exchange rate in effect on the balance sheet date. Revenues and expenses are translated at the average rate of exchange prevailing during the reporting period. Translation adjustments arising from the use of different exchange rates from period to period are included as a component of stockholders' equity as "Accumulated other comprehensive income." Gains and losses from foreign currency transactions are included in income. There has been no significant fluctuation in exchange rate for the conversion of RMB to USD after the balance sheet date.

The Company uses SFAS 130 "Reporting Comprehensive Income" (codified in FASB ASC Topic 220). Comprehensive income is comprised of net income and all changes to the statements of stockholders' equity, except those due to investments by stockholders, changes in paid-in capital and distributions to stockholders.

**RESULTS OF OPERATIONS****Comparison of Years Ended December 31, 2013 and 2012**

The following table sets forth the results of our operations for the periods indicated as a percentage of net sales:

	2013		2012		
	\$	% of Sales	\$	% of Sales	
Sales	\$63,193,190	100 %	\$1,245,805	100 %	
Sales of systems	62,013,135	98 %	-		%
Contingent rental income	1,180,055	2 %	1,245,805	100 %	%
Cost of sales	47,847,313	76 %	-	-	%
Cost of systems	47,847,313	76 %	-	-	%
Gross profit	15,345,877	24 %	1,245,805	100 %	%
Interest income on sales-type lease	19,344,855	31 %	18,234,020	1,464 %	%
Total operating income	34,690,732	55 %	19,479,805	1,564 %	%
Total operating expenses	(4,160,742 )	(7 )%	(5,662,212 )	(455 )%	
Income from operations	30,529,990	48 %	13,817,613	1,109 %	%
Total non-operating expenses, net	(7,827,583 )	(12 )%	(7,672,856 )	(616 )%	
Income before income tax	22,702,407	36 %	6,144,757	493 %	%
Income tax expense	6,886,601	11 %	2,922,253	235 %	%
Less: net income (loss) attributable to non-controlling interest	186,270	0 %	(184,491 )	(15 )%	
Net income attributable to China Recycling Energy Corp	\$15,629,536	25 %	\$3,406,995	273 %	%

**SALES.** Total sales, including system sales and contingent rental income, for the year ended December 31, 2013 were \$63.19 million while total sales for the year ended December 31, 2012 were \$1.25 million, an increase of \$61.94 million as a result of increases in the sales of systems. Of the total sales, sales of systems for the year ended December 31, 2013 were \$62.01 million, as compared to \$0 for the year ended December 31, 2012, an increase of \$62.01 million. For the year ended December 31, 2013, Shenqiu Phase II project, Datong project, Pucheng Biomass Phase II project and Jitie project were completed and sold. In comparison, in the year ended December 31, 2012, none of the Company's power generation system were completed and sold. For the year ended December 31, 2013, the Company received contingent rental income of \$1.18 million from the usage of electricity in addition to the minimum lease payments, compared to \$1.25 million for the year ended December 31, 2012. For the sales-type lease, sales and cost of sales ("COS") are recorded at the time of the lease; in addition to sales revenue, our other major source of revenue is interest income from the sales-type leases.

**COST OF SALES.** COS for the year ended December 31, 2013 was \$47.85 million while our COS for the year ended December 31, 2012 was \$0, an increase of \$47.85 million. This increase was mainly due to the completion and sale of

the Shenqiu Phase II, Datong project, Pucheng Biomass Phase II project and Jitie project.

*GROSS PROFIT.* Gross profit was \$15.35 million for the year ended December 31, 2013 compared to \$1.25 million for the year ended December 31, 2012, a blended gross margin of 24% and 100% for the year ended December 31, 2013 and 2012, respectively, the decreased profit margin for the year ended December 31, 2013 was mainly due to the sale of projects for which profit margins ranged between 23% to 28% compared to no sale of any projects in 2012 except for sales of extra electricity which resulted in contingent rentals at hardly any cost.

*INTEREST INCOME ON SALES-TYPE LEASES.* Interest income on sales-type leases for the year ended December 31, 2013 was \$19.34 million, a \$1.11 million increase from \$18.23 million for the year ended December 31, 2012. During the year ended December 31, 2013, interest income was derived from the following fifteen (15) sales-type leases:

- i. One (1) TRT system to Zhangzhi (13 years);
- ii. Two (2) CHPG system to Jing Yang Shengwei (5 years);
- iii. Two (2) BMPG systems to Pucheng Phase I and II (15 and 10 years, respectively);
- iv. One (1) BMPG system to Shenqiu Phase I (11 years);
- v. One (1) BMPG system to Shenqiu Phase II (9.5 years);
- vi. Five (5) power and steam generating systems to Erdos (20 years);
- vii. One (1) WHPG system to Zhongbao (9 years);
- viii. One (1) WHPG system to Jitie (24 years);  
and
- ix. Two (2) TRT systems to Shanxi Datong (30 years).

In comparison, during the year ended December 31, 2012, interest income was derived from eleven (11) systems: one (1) TRT system, two (2) CHPG systems, two (2) systems for the Erdos Phase I project, three (3) systems for the Erdos Phase II project, one (1) BMPG system to Pucheng, one (1) BMPG system to Shenqiu, and one (1) WHPG system to Zhongbao.

*OPERATING EXPENSES.* Operating expenses consisted of selling, general and administrative expenses totaling \$4.16 million for the year ended December 31, 2013 as compared to \$5.66 million for the year ended December 31, 2012, a decrease of \$1.50 million or 27%. The decrease was mainly due to a \$2.97 million loss resulting from the termination of the Erdos TCH Phase III power generation project in 2012; however, the following expenses increased: (i) our consulting expenses, by \$0.62 million relating to the HYREF Fund raising, (ii) our legal and miscellaneous expenses, by \$0.56 million relating to HYREF Fund raising, and (iii) our salary and bonus expenses, by \$0.25 million resulting of additional projects put into operations in 2013.

*NON-OPERATING INCOME (EXPENSES).* Non-operating expenses consisted of non-sales-type lease interest income, interest expense, bank charges and miscellaneous expenses. For the year ended December 31, 2013, net non-operating expense was \$7.83 million compared to \$7.67 million for the year ended December 31, 2012. For the year ended December 31, 2013, we had \$6.72 million interest expense on loans and \$1.29 million one-time commission to the Fund Management Company for successfully initiating and completing the RMB 460 million financing for the Company. For the year ended December 31, 2012, we had \$9.25 million interest expense on loans and \$1.13 million non-cash income from changes in fair value of BCF of the convertible note from China Cinda, and \$349,300 net subsidy income from Xi'an City Science and Technology Bureau and Xi'an City Finance Bureau under the Xi'an Hi-Tech Industry Development Special Project Fund.

*INCOME TAX EXPENSE.* Income tax expense was \$6.89 million for the year ended December 31, 2013, an increase of \$3.97 million from \$2.92 million for the y