CHINA RECYCLING ENERGY CORP
Form 10-K
April 16, 2019

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, 2018

Commission file number: 000-12536

China Recycling Energy Corporation

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation or organization)

90-0093373

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

4/F, Tower C

Rong Cheng Yun Gu Building

Keji 3rd Road, Yanta District

Xi An City, Shaan Xi Province	
China	**710075**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (011) 86-29-8765-1098

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

Title of each class	Name of each Exchange on which registered
Common Stock, $0.001 par value	NASDAQ Capital 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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit 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.

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

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company þ
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

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 Capital Market on June 29, 2018, the last business day of the registrant's most recently completed second fiscal quarter, was $8,708,154, which is less than $250,000,000.

As of April 12, 2019, the registrant had 13,747,226 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the China Recycling Energy Corporation Proxy Statement regarding the 2019 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 subsidiaries, Shanghai Yinghua Financial Leasing Co., Ltd. ("Yinghua") and Sifang Holdings Co., Ltd. ("Sifang"), and Sifang's 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 Zhongxun Energy Investment (Beijing) Co., Ltd ("Zhongxun") and Xi'an TCH's 90% and Shanghai TCH's 10% owned subsidiary Xi'an Zhonghong New Energy Technology Co., Ltd.

ITEM 1. BUSINESS

General

We are currently engaged 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 which 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.

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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, and extend the life of primary manufacturing equipment. 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 20 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 capitals 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 4/F, Tower C, Rong Cheng Yun Gu Building, Keji 3rd Road, Beilin District, Xi'an City, Shaanxi Province, China, and our telephone number at this location is +86-29-8769-1098.

Company Overview and History

The Company 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, again changed its name from China Digital Wireless, Inc. to its current name, China Recycling Energy Corporation. The Company, through its subsidiaries, provides energy saving solutions and services, including selling and leasing energy saving systems and equipment to customers, project investment, investment management, economic information consulting, technical services, financial leasing, purchase of financial leasing assets, disposal and repair of financial leasing assets, consulting and ensuring of financial leasing transactions in the Peoples Republic of China ("PRC").

Our business is primarily conducted through our wholly-owned subsidiaries, Yinghua and Sifeng, Sifeng's wholly-owned subsidiaries, Huahong and Shanghai TCH, Shanghai TCH's wholly-owned subsidiaries, Xi'an TCH, Xi'an TCH's wholly-owned subsidiary Erdos TCH and Xi'an TCH's 90% owned and Shanghai TCH's 10% owned subsidiary Xi'an Zhonghong New Energy Technology Co., Ltd., and Zhongxun. Shanghai TCH was established as a foreign investment enterprise in Shanghai under the laws of the PRC on May 25, 2004, and currently has registered capital of $29.80 million. Xi'an TCH was incorporated in Xi'an, Shaanxi Province under the laws of the PRC in November 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 owns 90% and Shanghai TCH owns 10% of Zhonghong. Zhonghong provides energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers. Zhongxun was incorporated in March 2014, and is a wholly-owned subsidiary of Xi'an TCH.

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 burning additional fuel and 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 in 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 Xi’an Zhonghong New Energy Technology Co., Ltd (“Zhonghong”). Xi’an TCH owns 90% and Shanghai TCH owns 10% 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, 2018, Shanghai TCH, through its subsidiaries, had sales or sales-type leases with the following parties: (i) Pucheng (for two biomass power generation (“BMPG”) systems); and (ii) Shenqiu (for two BMPG systems). In addition, as of December 31, 2018, Erdos TCH leased power and steam generating systems from waste heat from metal refining to Erdos (a total of five systems) and charges Erdos a leasing fee based on actual electricity generated.

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Erdos TCH – Joint Venture

On April 14, 2009, the Company formed Erdos TCH as a joint venture (the “JV” or “Erdos TCH”) 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 stockholder of Erdos TCH. 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. Erdos TCH currently has two power generation systems in Phase I with a total of 18 MW power capacity, and three power generation systems in Phase II with a total of 27 MW power capacity.

With the current economic conditions in China, the government has limited and reduced over capacity and production in the iron and steel industry, which has resulted in a sharp decrease of Erdos Metallurgy Co., Ltd’s production of ferrosilicon, its revenue and cash flows, and has made it difficult for Erdos to make the monthly minimum lease payment.

After considering the challenging economic conditions facing Erdos, and to maintain the long-term cooperative relationship between the parties, which we believe will continue to produce long-term benefits, on April 28, 2016, Erdos TCH and Erdos entered into a supplemental agreement, effective May 1, 2016. Under the supplemental agreement, Erdos TCH cancelled monthly minimum lease payments from Erdos, and agreed to charge Erdos based on actual electricity sold at RMB 0.30 / KWH, which such price will be adjusted annually based on prevailing market conditions.

The Company evaluated the modified terms for payments based on actual electricity sold as minimum lease payments as defined in ASC 840-10-25-4, since lease payments that depend on a factor directly related to the future use of the leased property are contingent rentals and, accordingly, are excluded from minimum lease payments in their entirety. The Company wrote off the net investment receivables of these leases at the lease modification date.

Pucheng Biomass Power Generation Projects

On June 29, 2010, Xi'an TCH entered into a Biomass Power Generation ("BMPG") Project Lease Agreement with PuchengXinHeng Yuan Biomass Power Generation Co., Ltd. ("Pucheng"), a limited liability company incorporated in China. Under this lease agreement, Xi'an TCH leased a set of 12MW BMPG systems to Pucheng at a minimum of $279,400 (RMB 1,900,000) per month for a term of 15 years. ("Pucheng Phase I").

On September 11, 2013, Xi'an TCH entered into a BMPG 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 12 MW BMPG systems with the completion of system transformation for a purchase price of RMB 100 million ($16.48 million) in the form of 8,766,547 shares of common stock of the Company at $1.87 per share. Also on September 11, 2013, Xi'an TCH also entered into a BMPG Project Lease Agreement with Pucheng (the "Pucheng Lease"). Under the Pucheng Lease, Xi'an TCH leases this same set of 12 MW BMPG system to Pucheng, and combines this lease with the lease for the 12 MW BMPG station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3.8 million ($0.63 million) per month (the "Pucheng Phase II Project"). The term for the consolidated lease is from September 2013 to June 2025. The lease agreement for the 12 MW station from Pucheng Phase I project terminated upon the effective date of the Pucheng Lease. The ownership of two 12 MW BMPG systems will transfer to Pucheng at no additional charge when the Pucheng Lease expires.

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Shenqiu Yuneng Biomass Power Generation 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 BMPG 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 BMPG systems (after Xi'an TCH converted the system for BMPG purposes). As consideration for the BMPG systems, Xi'an TCH paid Shenqiu $10.94 million (RMB 70 million) in cash in three installments within six months upon the transfer of ownership of the systems. By the end of 2012, all 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 12 MW BMPG systems to Shenqiu at a monthly rental rate of $286,000 (RMB 1.8 million) for 11 years. Upon expiration of the 2011 Shenqiu Lease, ownership of this system will transfer from Xi'an TCH to Shenqiu at no additional cost. In connection with the 2011 Shenqiu Lease, Shenqiu paid one 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 12 MW BMPG system. After the reformation, the generation capacity of the power plant increased to 24 MW. 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 BMPG Project Lease Agreement (the "2013 Shenqiu Lease"). Under the 2013 Shenqiu Lease, Xi'an TCH agreed to lease the second set of 12 MW BMPG 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 transfer from Xi'an TCH to Shenqiu at no additional cost.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, a resident of China, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an TCH will transfer two Biomass Power Generation Projects in Shenqiu ("Shenqiu Phase I and II Projects") to Mr. Bai for RMB 127,066,000 ($18.55 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng Enterprises Management Consulting Co. Ltd. ("Xi'an Hanneng") to Beijing Hongyuan Recycling Energy Investment Center, LLP (the "HYREF") as repayment for the loan made by Xi'an Zhonghong to HYREE as consideration for the transfer of the Shenqiu Phase I and II Projects (See Note 12). The transfer was completed on February 15, 2019.

Yida Coke Oven Gas Power Generation Projects

On June 28, 2014, Xi'an TCH entered into an Asset Transfer Agreement (the "Transfer Agreement") with Qitaihe City Boli Yida Coal Selection Co., Ltd. ("Yida"), a limited liability company incorporated in China. The Transfer Agreement provided for the sale to Xi'an TCH of a 15 MW coke oven WGPG station, which was converted from a 15 MW coal gangue power generation station from Yida. As consideration for the Transfer Asset, Xi'an TCH paid Yida RMB 115 million ($18.69 million) in the form of the common stock shares of the Company at the average closing price per share of the Stock for the 10 trading days prior to the closing date of the transaction (the "Shares"). The exchange rate between US Dollar and Chinese RMB in connection with the stock issuance was the rate equal to the middle rate published by the People's Bank of China on the closing date of the assets transfer.

On June 28, 2014, Xi'an TCH also entered into a Coke Oven Gas Power Generation Project Lease Agreement (the "Lease Agreement") with Yida. Under the Lease Agreement, Xi'an TCH leased the Transfer Asset to Yida for RMB 3 million ($0.49 million) per month, and the term of the lease is from June 28, 2014 to June 27, 2029. Yida will also provide an RMB 3 million ($0.49 million) security deposit (without interest) for the lease. Xi'an TCH will transfer the Transfer Asset back to Yida at no cost at the end of the lease term.

On June 22, 2016, Xi'an TCH entered into a Coal Oven Gas Power Generation Project Repurchase Agreement (the "Repurchase Agreement") with Yida. Under the Repurchase Agreement, Xi'an TCH agreed to transfer to Yida all the project assets for RMB 112,000,000 ($16.89 million) (the "Transfer Price") with Yida's retention of ownership of the Shares. Yida agreed to make the following payments: (i) the outstanding monthly leasing fees for April and May 2016 of RMB 6,000,000 ($0.90 million) to Xi'an TCH within 5 business days from the execution of the Repurchase Agreement; (ii) a payment of RMB 50,000,000 ($7.54 million) of the Transfer Price to Xi'an TCH within 5 business days from the execution of the Repurchase Agreement; and (iii) a payment of the remaining RMB 62,000,000 ($9.35 million) of the Transfer Price to Xi'an TCH within 15 business days from the execution of the Repurchase Agreement. Under the Repurchase Agreement, ownership of the project assets was transferred from Xi'an TCH to Yida within 3 business days after Xi'an TCH received the full Transfer Price and the outstanding monthly leasing fees. In July 2016, the Company received the full payment of the Transfer Price and title to the system was transferred at that time. The Company recorded a $0.42 million loss from this transaction in 2016.

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 ($1.45 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 is the general partner of Beijing Hongyuan Recycling Energy Investment Center, LLP (the "HYREF Fund"), a limited liability partnership established 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 amount of RMB 460 million ($77 million) was 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 years from the date of its establishment, expiring on July 18, 2019. The term is four years from the date of contribution for the preferred limited partner, and four years from the date of contribution for the ordinary limited partner. The size of the HYREF Fund is RMB 460 million ($76.66 million). The HYREF Fund was formed for the purpose of investing in Xi'an Zhonghong New Energy Technology Co., Ltd., a then 90% owned subsidiary of Xi'an TCH, for the construction of two coke dry quenching ("CDQ") waste heat power generation ("WHPG") stations with Jiangsu Tianyu Energy and Chemical Group Co., Ltd. ("Tianyu") and one CDQ WHPG station with Boxing County Chengli Gas Supply Co., Ltd. ("Chengli").

Chengli Waste Heat Power Generation Projects

On July 19, 2013, Xi'an TCH formed a new company, "Xi'an Zhonghong New Energy Technology Co., Ltd." ("Zhonghong"), with registered capital of RMB 30 million ($4.85 million). Xi'an TCH paid RMB 27 million ($4.37 million) and owns 90% of Zhonghong. Zhonghong is engaged to provide energy saving solution and services, including constructing, selling and leasing energy saving systems and equipment to customers. On December 29, 2018, Shanghai TCH entered into a Share Transfer Agreement with HYREF, pursuant to which HYREF agreed to transfer its 10% ownership in Xi'an Zhonghong to Shanghai TCH for consideration of RMB 3 million ($0.44 million). The transfer was completed on January 22, 2019.

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of CDQ and CDQ WHPG 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 agreed to design, build and maintain a 25 MW CDQ system and a CDQ

WHPG system to supply power to Chengli, and Chengli agreed to 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 WHPG system at no cost to Zhonghong. The term of these Agreements is 20 years. The watt hours generated by the Chengli Project will be charged at RMB 0.42 ($0.068) per KWH (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 was completed in the second quarter of 2015 and the project successfully completed commissioning tests in the first quarter of 2017. The Chengli Project is now operational, however, due to intensifying environmental protection, the local environmental authorities required the project owner constructing CDQ sewage treatment to complete supporting works, which were completed and passed through acceptance inspection during the quarter ended September 30, 2018. However, the owner of Chengli Project changed from Chengli to Shandong Boxing Shengli Technology Company Ltd. ("Shengli"). This change resulted from transfer of the equity ownership of Chengli to Shengli (a private company). Chengli, a 100% state-owned enterprise that is 100% owned by the local Power Supply Bureau, is not allowed to carry out the tertiary industry, and Shengli, the new owner, is not entitled to the high on-grid prices, and thus demanded a renegotiation of the settlement terms for the project. At present, the Company is negotiating with the new project owner on the lease term, settlement method and settlement price, but no agreement has been reached.

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

On December 29, 2018, Xi’an Zhonghong, Xi’an TCH, the “HYREF”, Guohua Ku, and Mr. Chonggong Bai entered into a CDQ WHPG Station Fixed Assets Transfer Agreement, pursuant to which Xi’an Zhonghong will transfer Chengli CDQ WHPG station as the repayment of loan at RMB 188,639,400 ($27.54 million) to HYREF. Xi’an Zhonghong, Xi’an TCH, Guohua Ku and Chonggong Bai also agreed to buy back the CDQ WHPG Station when conditions under the Buy Back Agreement are met (see Note 12). The transfer was completed on January 22, 2019.

Tianyu Waste Heat Power Generation Project

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the “Tianyu Agreement”) for Energy Management of CDQ and CDQ WHPG 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 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 fee of RMB 0.534 ($0.087) per KWH (excluding tax). The operating time will be based upon an average 8,000 hours annually for each of Xuzhou Tian’an and Xuzhou Huayu. 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. Because of the overcapacity and pollution of the iron and steel and related industries, the government has imposed production limitations for the energy-intensive enterprises with heavy pollution, including Xuzhou Tian’an. Xuzhou Tian’an has slowed the construction process for its dry quenching production line which caused the delay of our project. The construction of the Xuzhou Tian’an Project is anticipated to be completed by the second quarter of 2019. Xuzhou Tian’an will provide the land for the CDQ and CDQ WHPG systems for free. Xuzhou Tian’an has also guaranteed that it will purchase all of the power generated by the CDQ WHPG systems. The Xuzhou Huayu Project is currently on hold due to a conflict between Xuzhou Huayu Coking Co., Ltd. and local residents on certain pollution-related issues. The local government has acted in its capacity to coordinate the resolution of this issue. The local residents were requested to move from the hygienic buffer zone of the project location with compensatory payments from the government. Xuzhou Huayu was required to stop production and implement technical innovations to mitigate pollution discharge including sewage treatment, dust collection, noise control, and recycling of coal gas. Currently, some local residents have moved. Xuzhou Huayu has completed the implementation of the technical innovations of sewage treatment, dust collection, and noise control, and the Company is waiting for local governmental agencies to approve these technical innovations so that we can resume construction. Due to the stricter administration of environmental protection policies and recent increase of environmental protections for the coking industry in Xuzhou, all local coking, as well as steel iron enterprises, are facing a similar situation of suspended production while rectifying technologies and procedures. The Company expects to receive governmental acceptance and approval and to resume construction in the second quarter of 2019.

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On July 22, 2013, Xi'an Zhonghong New Energy Technology Co., Ltd. entered into an EPC General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project (the "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 and 25 MW CDQ WHPG 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 and CDQ WHPG 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 ($66.67 million), 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.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an Zhonghong will transfer a CDQ WHPG station (under construction) located in Xuzhou City for Xuzhou Huayu Coking Co., Ltd. ("Xuzhou Huayu Project") to Mr. Bai for RMB 120,000,000 ($17.52 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng, to the "HYREF" as repayment for the loan made by Xi'an Zhonghong to HYREF as consideration for the transfer of the Xuzhou Huayu Project (see Note 12). The transfer was completed on February 15, 2019.

Zhongtai Waste Heat Power Generation Energy Management Cooperative Agreement

On December 6, 2013, Xi'an TCH entered into a CDQ and WHPG Energy Management Cooperative Agreement (the "Zhongtai Agreement") with Xuzhou Zhongtai Energy Technology Co., Ltd. ("Zhongtai"), a limited liability company incorporated in Jiangsu Province, China.

Pursuant to the Zhongtai Agreement, Xi'an TCH will design, build and maintain a 150 ton per hour CDQ system and a 25 MW CDQ WHPG system (the "Project") and sell the power to Zhongtai, and Xi'an TCH will also build a furnace to generate steam from the waste heat of the smoke pipeline and sell the steam to Zhongtai.

The construction period of the Project is expected to be 18 months from the date when conditions are ready for construction to begin. Zhongtai will start to pay an energy saving fee from the date when the WHPG station passes the required 72-hour test run. The term of payment is 20 years. For the first 10 years of the term, Zhongtai shall pay an energy saving fee at RMB 0.534 ($0.089) per KWH (including value added tax) for the power generated from the system. For the second 10 years of the term, Zhongtai shall pay an energy saving fee at RMB 0.402 ($0.067) per KWH (including value added tax). During the term of the contract the energy saving fee shall be adjusted at the same percentage as the change of local grid electricity price. Zhongtai shall also pay an energy saving service fee for the steam supplied by Xi'an TCH at RMB 100 ($16.67) per ton (including value added tax). Zhongtai and its parent company will provide guarantees to ensure Zhongtai will fulfill its obligations under the Agreement. Upon the completion of the term, Xi'an TCH will transfer the systems to Zhongtai at RMB 1 ($0.16). Zhongtai shall provide waste heat to the systems for no less than 8,000 hours per year and waste gas volume no less than 150,000 Nm3 per hour with a temperature no less than 950°C. If these requirements are not met, the term of the Zhongtai Agreement will be extended accordingly. If Zhongtai wants to terminate the Zhongtai Agreement early, it shall provide Xi’an TCH a 60 day notice and pay the termination fee and compensation for the damages to Xi’an TCH according to the following formula: (i) if it is less than five years into the term when Zhongtai requests termination, Zhongtai shall pay: Xi’an TCH’s total investment amount plus Xi’an TCH’s annual investment return times five years minus the years in which the system has already operated; or (ii) if it is more than five years into the term when Zhongtai requests the termination, Zhongtai shall pay Xi’an TCH’s total investment amount minus total amortization cost (the amortization period is 10 years).

On March 14, 2016, Xi’an TCH entered into a Xuzhou Zhongtai CDQ and Waste Heat Power Generation System Transfer Agreement (the “Transfer Agreement”) with Zhongtai and Xi’an Huaxin New Energy Co., Ltd., a limited liability company incorporated in China (the “Contractor”).

The Transfer Agreement provides for the sale to Zhongtai of all the assets of the Project under construction from Xi’an TCH. Additionally, Xi’an TCH will transfer to Zhongtai the Engineering, Procurement and Construction (“EPC”) Contract for the Project, which Xi’an TCH had entered into with the Contractor in connection with the Project. As consideration for the transfer of the Project, Zhongtai is to pay to Xi’an TCH an aggregate purchase price of RMB 167,360,000 ($25.75 million and the “Transfer Price”), on the following schedule: (i) RMB 50,000,000 ($7.69 million) of the Transfer Price was paid within 20 business days from the execution of the Transfer Agreement; (ii) RMB 30,000,000 ($4.32 million) of the Transfer Price was paid within 20 business days upon the completion of the construction of the Project but not later than July 30, 2016; and (iii) RMB 87,360,000 ($13.45 million) of the Transfer Price was to be paid before July 30, 2017. The temporary ownership of the Project was transferred from Xi’an TCH to Zhongtai after the Xi’an TCH received the first payment of RMB 50,000,000, and the full ownership of the Project is to be officially transferred to Zhongtai upon full payment of the Transfer Price. The Zhongtai Agreement is to be terminated and Xi’an TCH will agree not to pursue any breach of contract liability against the Zhongtai under the Zhongtai Agreement when Zhongtai fully pays the Transfer Price according to the terms of the Transfer Agreement. If the Transfer Price is not fully paid on time pursuant to the Transfer Agreement, the Transfer Agreement automatically terminates and Xi’an TCH retains ownership of the Project, and both parties would continue to possess their respective rights and obligations according to the Zhongtai Agreement and assume the liabilities for breach of the Zhongtai Agreement. Xuzhou Taifa Special Steel Technology Co., Ltd. (“Xuzhou Taifa”) has guaranteed the payments by Zhongtai. The Company recorded a $2.82 million loss from this transaction in 2016. In 2016, Xi’an TCH received the first payment of $7.70 million and the second payment of $4.32 million. However, the Company received a repayment commitment letter from Zhongtai on February 23, 2018, in which Zhongtai committed to pay the remaining payment of RMB 87,360,000 ($13.45 million) no later than the end of July 2018; in July 2018, Zhongtai and the Company reached a further oral agreement to extend the repayment term of RMB 87,360,000 ($13.45 million) by another two to three months. In August 2018, the Company received $1,070,000 from Zhongtai; as of December 31, 2018, the Company had receivables from Zhongtai for $11.66 million (with bad debt allowance of $3.50 million). On January 23, 2019, Zhongtai provided an acknowledgement letter to the Company stating they expect to repay the remaining balance of $11.66 million by the end of 2019 once they resume normal production.

Formation of Zhongxun

On March 24, 2014, Xi'an TCH incorporated a new subsidiary, Zhongxun Energy Investment (Beijing) Co., Ltd ("Zhongxun") with registered capital of $5,695,502 (RMB 35,000,000), to be paid no later than October 1, 2028. Zhongxun is 100% owned by Xi'an TCH and is mainly engaged in project investment, investment management, economic information consulting, and technical services. Zhongxun has not yet commenced operations as of the date of this report.

Formation of Yinghua

On February 11, 2015, the Company incorporated a new subsidiary, Shanghai Yinghua Financial Leasing Co., Ltd ("Yinghua") with registered capital of $30,000,000, to be paid within 10 years from the date the business license is issued. Yinghua is 100% owned by the Company and is mainly engaged in financial leasing, purchase of financial leasing assets, disposal and repair of financial leasing assets, consulting and ensuring of financial leasing transactions, and related factoring business. Yinghua has not yet commenced operations as of the date of this report.

Summary of Sales-Type Lease at December 31, 2018

Status at December 31, 2018

As of December 31, 2018, Xi'an TCH leases the following systems: (i) BMPG systems to Pucheng Phase I and II (15 and 11 year terms, respectively); (ii) BMPG systems to Shenqiu Phase I (11-year term); and (iii) Shenqiu Phase II (9.5-year term). Shenqiu Phase I and Phase II was transferred to Mr. Chonggong Bai on February 15, 2019 (see Note 12).

Asset Repurchase Agreement

During the years ended December 31, 2018 and 2017, the Company entered into or completed the following Asset Repurchase Agreements:

On November 16, 2015, Xi'an TCH entered into a Transfer Agreement of CDQ and a CDQ WHPG system with Rongfeng and Xi'an Huaxin New Energy Co., Ltd., a limited liability company incorporated in China ("Xi'an Huaxin"). The Transfer Agreement provided for the sale to Rongfeng of the CDQ Waste Heat Power Generation Project (the "Project") from Xi'an TCH. Additionally, Xi'an TCH agreed to transfer to Rongfeng the Engineering, Procurement and Construction ("EPC") Contract for the CDQ Waste Heat Power Generation Project which Xi'an TCH had entered into with Xi'an Huaxin in connection with the Project. As consideration for the transfer of the Project, Rongfeng will pay to Xi'an TCH an aggregate purchase price of RMB 165,200,000 ($25.45 million), whereby (a) RMB 65,200,000 ($10.05 million) will be paid by Rongfeng to Xi'an TCH within 20 business days after the Transfer Agreement is signed, (b) RMB 50,000,000 ($7.70 million) will be paid by Rongfeng to Xi'an TCH within 20 business days after the Project is completed, but no later than March 31, 2016 and (c) RMB 50,000,000 ($7.70 million) will be paid by Rongfeng to Xi'an TCH no later than September 30, 2016. Mr. Cheng Li, the largest stockholder of Rongfeng, has personally guaranteed the payments. The ownership of the Project was conditionally transferred to Rongfeng within 3 business days following the initial payment of RMB 65,200,000 ($10.05 million) by Rongfeng to Xi'an TCH and the full ownership of the Project has been officially transferred to Rongfeng after it completes the entire payment pursuant to the Transfer Agreement. The Company recorded a $3.78 million loss from this transaction in 2015. The Company received full payment of $25.45 million in 2016.

In March 2016, Xi'an TCH entered into a Transfer Agreement of CDQ and a CDQ WHPG system with Zhongtai and Xi'an Huaxin (the "Transfer Agreement"). Under the Transfer Agreement, Xi'an TCH agreed to transfer to Zhongtai all of the assets associated with the CDQ Waste Heat Power Generation Project (the "Project"), which is under construction pursuant to the Zhongtai Agreement. Xi'an Huaxin will continue to construct and complete the Project and Xi'an TCH agreed to transfer all its rights and obligation under the "EPC" Contract to Zhongtai. As consideration for the transfer of the Project, Zhongtai agreed to pay to Xi'an TCH an aggregate transfer price of RMB 167,360,000 ($25.77 million) including payments of: (i) RMB 152,360,000 ($23.46 million) for the construction of the Project; and (ii) RMB 15,000,000 ($2.31 million) as payment for partial loan interest accrued during the construction period. Those amounts have been, or will be, paid by Zhongtai to Xi'an TCH according to the following schedule: (a) RMB 50,000,000 ($7.70 million) was paid within 20 business days after the Transfer Agreement was signed; (b) RMB 30,000,000 ($4.32 million) will be paid within 20 business days after the Project is completed, but no later than July 30, 2016; and (c) RMB 87,360,000 ($13.45 million) will be paid no later than July 30, 2017. Xuzhou Taifa Special Steel Technology Co., Ltd. ("Xuzhou Taifa") has guaranteed the payments from Zhongtai to Xi'an TCH. The ownership of the Project was conditionally transferred to Zhongtai following the initial payment of RMB 50,000,000 ($7.70 million) by Zhongtai to Xi'an TCH and the full ownership of the Project will be officially transferred to Zhongtai after it completes all payments pursuant to the Transfer Agreement. Xi'an TCH received the first payment of $7.70 million and the second payment of $4.32 million in 2016. The Company recorded a $2.82 million loss from this transaction. As of the date of this report, the Company has not yet received the remaining payment of RMB 87,360,000 ($13.45 million). However, the Company received a repayment commitment letter from Zhongtai on February 23, 2018, in which Zhongtai committed to pay the remaining payment of RMB 87,360,000 ($13.45 million) no later than the end of July 2018. In July 2018, Zhongtai and the Company reached a further oral agreement to extend the repayment term of RMB 87,360,000 ($13.45 million) by another two to three months. In August 2018, the Company received $1,070,000 from Zhongtai. As of December 31, 2018, the Company had receivables from Zhongtai for $11.66 million (with bad debt allowance of $3.50 million). On January 23, 2019, Zhongtai provided an acknowledgement letter to the Company stating they expect to repay the remaining balance of $11.66 million by the end of 2019 once they resume normal production.

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. On September 12, 2013, the State Council has released the Action Plan for Air Pollution Prevention and Control. The action plan has proposed that in five years, China will witness the overall improvement of air quality and dramatic drop of seriously polluted days. China will strive to gradually eliminate the seriously polluted weather and notably better the national air quality in another five years or longer.

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.

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 13th five year period (2016-2020), 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 13th Five Year Plan (2016-2020).

The 13th Five-Year Plan (2016-2020) covers a crucial period in China's economic and social development. Environmental protection and low-carbon development will be one of the top priority considerations during this period. The government, private enterprises and the public sector will seek to jointly implement the strictest environmental protection system to realize environmental improvement, control carbon emissions, honor climate commitments and deeply participate into global climate governance. China aims to hit the CO_2 emissions peak by around 2030 and reduce CO_2 emissions per unit of the GDP by 60 percent to 65 percent from the 2005 level on or before 2030.

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.

Trends in Industries We Principally Service

Iron, Steel and Nonferrous Metal Industry

As the biggest iron and steel producer in the world and one of the highest CO2 emission sectors, China’s iron and steel industry is undergoing a low-carbon transition accompanied by remarkable technological progress and investment adjustment, in response to the macroeconomic climate and policy intervention.

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

Maintain Core Verticals to Increase Market Share in China

We focus on waste-to-energy projects for specific verticals, such as steel, cement, nonferrous metal and coal mining. We plan to continue our 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.

Expand to New Business of Energy Storage with Future High Growth Potentials

We are in the process of transforming into an energy storage integrated solution provider. We plan to pursue disciplined and targeted expansion strategies for market areas that we currently do not serve. We are actively seeking and exploring opportunities to apply energy storage technologies to new industries or segments with high growth potential, including industrial and commercial complexes, large scale photovoltaic (PV) and wind power stations, remote islands without electricity, and smart energy cities with multi-energy supplies. By supporting and motivating all kinds of the electric power market to participant in resource development and utilization of demand response, we plan to provide services including peak shaving with compensation and frequency modulation. We intend to gradually form motor load performance for peak and low-hours, which will account for about 3% of the annual maximum power load on the demand side and to ensure the electricity supply and demand balance for situations of non-severe power shortages.

User-side energy storage is the outlet of distributed (and renewable) energy power output with high viscosity, high assets resale value, and stable cash flow income. Resource integration layout in 2020 will form an ecological chain of supply-transmission-distribution-consumption by integrating power generation assets that have high efficiency and low valuation. In this system, energy storage will play an important role to realize long distance transmission, reduce transmission loss, enhance the stability of the power supply, and provide users with multiple energy pricing mechanisms and comprehensive service. With the large-scale operation of energy storage projects in China and the Asia-pacific region, technology will gradually be improved and prices will decrease, which will provide the opportunity for vertical integration with teams in the industry that have a long time experience in the energy storage industry and technical reserves.

Continually Enhance Research and Development Efforts

We plan to devote resources to research and development in order to enhance our waste-to-energy design and engineering capabilities. We anticipate that our in-house design and engineering team will 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 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 five 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 five 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 20 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 five 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.

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.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 that we have a strong position and support in equipment supply and installation, which benefits 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 existing customers operate in 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 two 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 100% of revenue in 2018 and 2017.

Seasonality

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

Intellectual Property Rights

Service Marks

The USPTO has also approved CREG and our logo for the trademark in the U.S.

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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

We believe that our research and development (“R&D”) 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 R&D 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 R&D teams of these universities on integrated utilization of waste heat, gas and pressure to energy.

Government and Environmental Management System

We hold all licenses that the various levels of Chinese government require for our operations.

Competition

In the past, waste energy recycling projects have been installed mainly 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 WGPG 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, 2018, we had 20 employees:

Management:	5 *Employees*
Administration:	2 *Employees*
Marketing:	1 *Employees*
Accounting & Finance:	6 *Employees*
Project Officer:	6 *Employees*

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 Securities and Exchange Commission ("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. 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;
- announcements by our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- 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;
- 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 Capital 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 Capital 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.

On June 19, 2015, the Company was notified by The NASDAQ Stock Market (the “NASDAQ”) that the Company was not in compliance with the $1.00 minimum closing bid price requirement under the NASDAQ Listing Rules (the “Minimum Closing Bid Price”) and the Company was afforded 180 calendar days, or until December 16, 2015, to regain compliance with the requirement of Minimum Closing Bid Price. The Company did not regain compliance with the minimum $1.00 bid price per share by December 16, 2015. On December 7, 2015, the Company transferred the listing of its securities from The NASDAQ Global Market to The Nasdaq Capital Market (the “Capital Market”). On December 17, 2015, the Company received a letter from NASDAQ indicating that NASDAQ determined that the Company is eligible for an additional 180 calendar day period, or until June 13, 2016 (the “Second Compliance Period”), to regain compliance. NASDAQ’s determination was based on the Company meeting the continued listing requirement for market value of publicly held shares and all other applicable requirements for initial listing on the Capital Market with the exception of the bid price requirement, and the Company’s written notice to NASDAQ of its intention to cure the deficiency during the Second Compliance Period by effecting a reverse stock split, if necessary.

On May 24, 2016, the Company filed with the Nevada Secretary of State's office a Certificate of Change, by which the Company authorized and approved a 1-for-10 reverse stock split of the Company's authorized shares of common stock from 200,000,000 shares to 20,000,000 shares, accompanied by a corresponding decrease in the Company's issued and outstanding shares of common stock (the "Reverse Stock Split"). The common stock continues to have a par value of $0.001. The Certificate of Change became effective on May 25, 2016, and the Reverse Stock Split became effective for trading purposes at the market opening on May 26, 2016, at which time the Company's common stock began trading on the Nasdaq Capital Market on a split-adjusted basis under the symbol "CREG." The CUSIP number for the Company's common stock post-Reverse Stock Split is 168913200.

Risks Related to Our Business Operations

In recent years, the growth of Chinese economy has experienced slowdown, 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, the business climate has changed and growth of private enterprise in the PRC have slowed down. 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 government approval 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.

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 through 2018, global market and economic conditions have been disrupted and volatile. Concerns over slowdown of Chinese economy, geopolitical issues, the availability and cost of credit, 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 slow growth of global economy 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 slowdown 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, China's total electricity consumption in 2018 was 6.84 trillion kilowatt-hours, up 8.5 percent year on year, the highest growth rate since 2012. 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.

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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.

Increases in income tax rates, changes in income tax laws or disagreements with tax authorities could adversely affect our business, financial condition or results of operations.

We are subject to income taxes in the United States and in certain foreign jurisdictions in which we operate. Increases in income tax rates or other changes in income tax laws that apply to our business could reduce our after-tax income from such jurisdiction and could adversely affect our business, financial condition or results of operations. Our operations outside the United States generate a significant portion of our income. In addition, the United States and many of the other countries in which our products are distributed or sold, including countries in which we have significant operations, have recently made or are actively considering changes to existing tax laws. For example, the Tax Cuts and Jobs Act (the "TCJ Act") was recently signed into law in the United States. The changes in the TCJ Act are broad and complex and we are continuing to examine the impact the TCJ Act may have on our business and financial results. This provisional expense is subject to change, possibly materially, due to, among other things, changes in estimates, interpretations and assumptions we have made, changes in Internal Revenue Service (IRS) interpretations, the issuance of new guidance, legislative actions, changes in accounting standards or related interpretations in response to the TCJ Act and future actions by states within the United States that have not yet adopted state-level laws similar to the TCJ Act.

Additional changes in the U.S. tax regime or in how U.S. multinational corporations are taxed on foreign earnings, including changes in how existing tax laws are interpreted or enforced, could adversely affect our business, financial condition or results of operations.

We are also subject to regular reviews, examinations and audits by the IRS and other taxing authorities with respect to income and non-income based taxes both within and outside the United States. Economic and political pressures to increase tax revenues in jurisdictions in which we operate, or the adoption of new or reformed tax legislation or regulation, may make resolving tax disputes more difficult and the final resolution of tax audits and any related litigation could differ from our historical provisions and accruals, resulting in an adverse impact on our business, financial condition or results of operations. In addition, in connection with the Organization for Economic Co-operation and Development Base Erosion and Profit Shifting project, companies are required to disclose more information to tax authorities on operations around the world, which may lead to greater audit scrutiny of profits earned in various countries.

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;

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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 US 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 US Dollars, has historically been set by the People's Bank of China. On March 17, 2014, the PRC government changed its policy of pegging the value of the RMB to the US 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 2% each day. Since the adoption of this new policy, the value of the RMB against the US Dollar has fluctuated on a daily basis within narrow ranges, but overall has strengthened against the US 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 US Dollar. Appreciation or depreciation in the value of the RMB relative to the US Dollar would affect our financial results reported in US 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 US Dollars for the purpose of making payments for dividends on our common stock or for other business purposes, appreciation of the US Dollar against the RMB would have a negative effect on the US 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) may need to 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 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 Incentive 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 US 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 US 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 US 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.

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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 US. 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 US. 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 US courts judgments on the civil liability provisions of the US 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 US 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 US.

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 State Administration of Foreign Exchange of China (“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.

On July 14, 2014, SAFE promulgated the Circular Relating to Foreign Exchange Administration of Offshore Investment, Financing and Return Investment by Domestic Residents Utilizing Special Purpose Vehicles (Circular 37). Replacing an earlier circular published by SAFE in 2005 (Circular 75), Circular 37 further simplifies the registration process for Chinese residents seeking the round-trip investment transactions where Chinese companies (Domestic Entities) are re-organized to create an offshore holding company (the SPV) that will control the Domestic Entities and seek offshore financing. Also, for the first time overseas investments by Chinese individuals are formally legalized under Circular 37.

We are committed to complying, and to ensuring that our shareholders, who are PRC residents, comply with the SAFE Circular 37 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 37 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 37 or other related regulations. Failure by any such shareholders or beneficial owners to comply with SAFE Circular 37 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, 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, 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, Shaanxi Yan Tan Law Firm, 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/her 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/her, it shall in each month pay to the employee twice his/her 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 two office spaces, one in Xi’an and one in Shanghai. On December 1, 2017, we moved our leased office space in Xi’an from 12th Floor, Tower A, Chang’an Metropolis Center, No. 88, Nanguanzheng Street, Xi’an, PRC, to 4/F, Block C, Rong Cheng Yun Gu Building, Keji 3rd Road, Xi’an, PRC. Our leased office space in Shanghai is located at Room 3163, No. 88 Century Avenue, Pilot Free Trade Zone, Shanghai, PRC. The average monthly rent for our office locations was $7,100 in 2018 and $17,887 in 2017.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We are not currently a party to any material legal proceedings, and to our knowledge none is threatened. There can be no assurance that future legal proceedings arising in the ordinary course of business or otherwise will not have a material adverse effect on our financial position, results of operations or cash flows.

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 Capital Market under the symbol “CREG.” On April 12, 2019, the last reported sales price for our common stock was $0.94 per share. As of April 12, 2019, there were 13,747,226 shares of our common stock outstanding held by approximately 2,720 shareholders of record.

On May 24, 2016, the Company filed a Certificate of Change with the Secretary of State of Nevada with an effective date of May 25, 2016, at which time the Company affected a 1-for-10 reverse stock split of the Company’s authorized shares of common stock, par value $0.001 (the “Common Stock”), accompanied by a corresponding decrease in the Company’s issued and outstanding shares of Common Stock (the “Reverse Stock Split”). The Company rounded up to the next full share of the Company’s Common Stock any fractional shares resulting from the Reverse Stock Split. All share prices and share amounts described herein give effect to the Reverse Stock Split, and the Reverse Stock Split was retroactively stated for the periods covered by the financial statements included herein.

The table below provides information with respect to the Company’s quarterly stock prices during 2018 and 2017:

	2018				***2017***			
	4Q	***3Q***	***2Q***	***1Q***	***4Q***	***3Q***	***2Q***	***1Q***
High	1.60	1.64	2.38	3.19	$5.85	$1.37	$1.70	$1.87
Low	0.59	1.13	1.38	1.42	$1.00	$1.00	$1.28	$1.48

Dividend Policy

We did not pay any cash dividends on our common stock in 2018 or 2017. 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

The Company did not make any sales of unregistered securities during the fiscal year ended December 31, 2018 that were not previously disclosed in a quarterly report on Form 10-Q or a current report on Form 8-K.

Issuer Purchases of Equity Securities

There were no common stock purchases by the Company during 2018.

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Equity Compensation Plan Information

Information about our equity compensation plans at December 31, 2018 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	4,000	$ 10.20	1,242,261
Equity compensation plans not approved by security holders	-	$ -	-
Total	4,000	$ 10.20	1,242,261

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 "may", "will", "should", "would", "anticipate", "believe", "estimate", "expect", "future", "intend", "plan", or the negative of *these terms and similar expressions as they relate to 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 statements in the section "results of operations" below), and any businesses that Company may acquire. 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 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 annual report, which attempts 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 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 in the People's Republic of China ("PRC"). 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 provides financing to its customers for the cost of the projects as described below.

The Company is in the process of transforming and expanding into an energy storage integrated solution provider. We plan to pursue disciplined and targeted expansion strategies for market areas that we currently do not serve. We are actively seeking and exploring opportunities to apply energy storage technologies to new industries or segments with high growth potential, including industrial and commercial complexes, large scale photovoltaic (PV) and wind power stations, remote islands without electricity, and smart energy cities with multi-energy supplies. By supporting and motivating all kinds of the electric power market to participate in resource development and utilization of demand response, we plan to provide services including peak shaving with compensation and frequency modulation. We intend to gradually form motor load performance for peak and low-hours, which will account for about 3% of the annual maximum power load on the demand side and to ensure the electricity supply and demand balance for situations of non-severe power shortages.

Our Subsidiaries

Our business is primarily conducted through our wholly-owned subsidiaries, Sifang Holdings Co., Ltd. ("Sifang") and Shanghai Yinghua Financial Leasing Co., Ltd ("Yinghua"); Sifang's wholly-owned subsidiaries, Huahong New Energy Technology Co., Ltd. ("Huahong") and Shanghai TCH Energy Tech Co., Ltd. ("Shanghai TCH"); Shanghai TCH's wholly-owned subsidiary, Xi'an TCH Energy Technology Company, Ltd ("Xi'an TCH"), Xi'an TCH's wholly-owned subsidiaries, Erdos TCH Energy Saving Development Co., Ltd ("Erdos TCH") and Zhongxun Energy Investment (Beijing) Co., Ltd ("Zhongxun"); and Xi'an TCH's 90% and Shanghai TCH's 10% owned subsidiary, Xi'an Zhonghong New Energy Technology Co., Ltd. ("Zhonghong"). Zhonghong provides energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers, project investment, investment management, economic information consulting, technical services, financial leasing, purchase of financial leasing assets, disposal and repair of financial leasing assets, consulting and ensuring of financial leasing transactions.

The Company's organizational chart as of December 31, 2018 is as follows:

CREG Legal Structure

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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 Xi'an Zhonghong New Energy Technology Co., Ltd ("Zhonghong"). Xi'an TCH owns 90% and Shanghai TCH owns 10% 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, 2018, Shanghai TCH, through its subsidiaries, had sales or sales-type leases with the following parties: (i) Pucheng (for two biomass power generation ("BMPG") systems); and (ii) Shenqiu (for two BMPG 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 Beijing Hongyuan Recycling Energy Investment Management Company Ltd. (the "Fund Management Company") with registered capital of RMB 10 million ($1.45 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 is the general partner of Beijing Hongyuan Recycling Energy Investment Center, LLP (the "HYREF Fund"), a limited liability partnership established July 18, 2013 in Beijing. The Fund Management Company made an initial capital contribution of RMB 5 million ($830,000) to the HYREF Fund. RMB 460 million ($77 million) was 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. In addition, Xi'an TCH and HongyuanHuifu formed Beijing Hongyuan Recycling Energy Investment Management Company Ltd. to manage this Fund and also subscribed in the amount of RMB 5 million ($830,000) from the Fund. The term of the HYREF Fund's partnership is six years from the date of its establishment, expiring on July 18, 2019. The term is four years from the date of contribution for the preferred limited partner, and four years from the date of contribution for the ordinary limited partner. The size of the HYREF Fund is RMB 460 million ($77 million). The HYREF Fund was formed for the purpose of investing in Xi'an Zhonghong New Energy Technology Co., Ltd., a then 90% owned subsidiary of Xi'an TCH, for the construction of two coke dry quenching ("CDQ") waste heat power generation ("WHPG") stations with Jiangsu Tianyu Energy and

Chemical Group Co., Ltd. (“Tianyu”) and one CDQ WHPG station with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”).

On December 29, 2018, Xi’an TCH entered into a Share Transfer Agreement with Hongyuan Huifu, pursuant to which Xi’an TCH agreed to transfer its 40% ownership in the Fund Management Company to Hongyuan Huifu for consideration of RMB 3,453,867.31 ($0.53 million). The transfer was completed on January 22, 2019.

Erdos TCH – Joint Venture

On April 14, 2009, the Company formed Erdos TCH as a joint venture (the “JV” or “Erdos TCH”) 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 stockholder of Erdos TCH. 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. Erdos TCH currently has two power generation systems in Phase I with a total of 18 MW power capacity, and three power generation systems in Phase II with a total of 27 MW power capacity.

With the current economic conditions in China, the government has limited and reduced over-capacity and production in the iron and steel industry, which has resulted in a sharp decrease of Erdos Metallurgy Co., Ltd's production of ferrosilicon, its revenue and cash flows, and has made it difficult for Erdos to make the monthly minimum lease payment.

After considering the challenging economic conditions facing Erdos, and to maintain the long-term cooperative relationship between the parties, which we believe will continue to produce long-term benefits, on April 28, 2016, Erdos TCH and Erdos entered into a supplemental agreement, effective May 1, 2016. Under the supplemental agreement, Erdos TCH cancelled monthly minimum lease payments from Erdos, and agreed to charge Erdos based on actual electricity sold at RMB 0.30 / KWH, which such price will be adjusted annually based on prevailing market conditions.

The Company evaluated the modified terms for payments based on actual electricity sold as minimum lease payments as defined in ASC 840-10-25-4, since lease payments that depend on a factor directly related to the future use of the leased property are contingent rentals and, accordingly, are excluded from minimum lease payments in their entirety. The Company wrote off the net investment receivables of these leases at the lease modification date.

Shenqiu Yuneng Biomass Power Generation 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 BMPG 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 BMPG systems (after Xi'an TCH converted the system for BMPG purposes). As consideration for the BMPG systems, Xi'an TCH paid Shenqiu $10.94 million (RMB 70 million) in cash in three installments within six 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 12 MW BMPG systems to Shenqiu at a monthly rental rate of $286,000 (RMB 1.8 million) for 11 years. Upon expiration of the 2011 Shenqiu Lease, ownership of this system will transfer from Xi'an TCH to Shenqiu at no additional cost. In connection with the 2011 Shenqiu Lease, Shenqiu paid one 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 12 MW BMPG system. After the reformation, the generation capacity of the power plant increased to 24 MW. 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 BMPG Project Lease Agreement (the "2013 Shenqiu Lease"). Under the 2013 Shenqiu Lease, Xi'an TCH agreed to lease the second set of 12 MW BMPG 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 transfer from Xi'an TCH to Shenqiu at no additional cost.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, a resident of China, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an TCH will transfer two Biomass Power Generation Projects in Shenqiu ("Shenqiu Phase I and II Projects") to Mr. Bai for RMB 127,066,000 ($18.55 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng Enterprises Management Consulting Co. Ltd. ("Xi'an Hanneng") to Beijing Hongyuan Recycling Energy Investment Center, LLP (the "HYREF") as repayment for the loan made by Xi'an Zhonghong to HYREE as consideration for the transfer of the Shenqiu Phase I and II Projects (See Note 12). The transfer was completed on February 15, 2019.

Pucheng Biomass Power Generation Projects

On June 29, 2010, Xi'an TCH entered into a Biomass Power Generation ("BMPG") Project Lease Agreement with Pucheng XinHengYuan Biomass Power Generation Co., Ltd. ("Pucheng"), a limited liability company incorporated in China. Under this lease agreement, Xi'an TCH leased a set of 12MW BMPG systems to Pucheng at a minimum of $279,400 (RMB 1,900,000) per month for a term of 15 years ("Pucheng Phase I").

On September 11, 2013, Xi'an TCH entered into a BMPG 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 12 MW BMPG systems with the completion of system transformation for a purchase price of RMB 100 million ($16.48 million) in the form of 8,766,547 shares of common stock of the Company at $1.87 per share. Also on September 11, 2013, Xi'an TCH also entered into a BMPG Project Lease Agreement with Pucheng (the "Pucheng Lease"). Under the Pucheng Lease, Xi'an TCH leases this same set of 12 MW BMPG system to Pucheng, and combines this lease with the lease for the 12 MW BMPG station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3.8 million ($0.63 million) per month (the "Pucheng Phase II Project"). The term for the consolidated lease is from September 2013 to June 2025. The lease agreement for the 12 MW station from Pucheng Phase I project terminated upon the effective date of the Pucheng Lease. The ownership of two 12 MW BMPG systems will transfer to Pucheng at no additional charge when the Pucheng Lease expires.

Chengli Waste Heat Power Generation Projects

On July 19, 2013, Xi'an TCH formed a new company, "Xi'an Zhonghong New Energy Technology Co., Ltd." ("Zhonghong"), with registered capital of RMB 30 million ($4.85 million). Xi'an TCH paid RMB 27 million ($4.37 million) and owns 90% of Zhonghong. Zhonghong is engaged to provide energy saving solution and services, including constructing, selling and leasing energy saving systems and equipment to customers. On December 29, 2018, Shanghai TCH entered into a Share Transfer Agreement with HYREF, pursuant to which HYREF agreed to transfer its 10% ownership in Xi'an Zhonghong to Shanghai TCH for consideration of RMB 3 million ($0.44 million). The transfer was completed on January 22, 2019.

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of CDQ and CDQ WHPG 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 agreed to design, build and maintain a 25 MW CDQ system and a CDQ WHPG system to supply power to Chengli, and Chengli agreed to 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 WHPG system at no cost to Zhonghong. The term of these Agreements is 20 years. The watt hours generated by the Chengli Project will be charged at RMB 0.42 ($0.068) per KWH (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 was completed in the second quarter of 2015 and the project successfully completed commissioning tests in the first quarter of 2017. The Chengli Project is now operational, however, due to intensifying environmental protection, the local environmental authorities required the project owner constructing CDQ sewage treatment to complete supporting works, which were completed and passed through acceptance inspection during the quarter ended September 30, 2018. However, the owner of Chengli Project changed from Chengli to Shandong Boxing Shengli Technology Company Ltd. ("Shengli"). This change resulted from transfer of the equity ownership of Chengli to Shengli (a private company). Chengli, a 100% state-owned enterprise that is 100% owned by the local Power Supply Bureau, is not allowed to carry out the tertiary industry, and Shengli, the new owner, is not entitled to the high on-grid prices, and thus demanded a renegotiation of the settlement terms for the project. At present, the Company is negotiating with the new project owner on the lease term, settlement method and settlement price, but no agreement has been reached.

On July 22, 2013, Zhonghong entered into an Engineering, Procurement and Construction ("EPC") General Contractor Agreement for the Boxing County Chengli Gas Supply Co., Ltd. CDQ Power Generation Project (the "Chengli Project") with Xi'an Huaxin New Energy Co., Ltd. ("Huaxin"). Zhonghong, as the owner of the Chengli Project, contracted EPC services for a CDQ system and a 25 MW CDQ WHPG 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 Chengli Project and ensure the CDQ system and CDQ WHPG system for Chengli meet the inspection and acceptance requirements and work normally. The Chengli Project is a turn-key project in which Huaxin is responsible for monitoring the quality, safety, duration and cost of the Chengli Project. The total contract price is RMB 200 million ($33.34 million), which includes all materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety costs.

On December 29, 2018, Xi'an Zhonghong, Xi'an TCH, the "HYREF", Guohua Ku, and Mr. Chonggong Bai entered into a CDQ WHPG Station Fixed Assets Transfer Agreement, pursuant to which Xi'an Zhonghong will transfer Chengli CDQ WHPG station as the repayment of loan at RMB 188,639,400 ($27.54 million) to HYREF. Xi'an Zhonghong, Xi'an TCH, Guohua Ku and Chonggong Bai also agreed to buy back the CDQ WHPG Station when conditions under the Buy Back Agreement are met (see Note 12). The transfer was completed on January 22, 2019.

Tianyu Waste Heat Power Generation Project

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the "Tianyu Agreement") for Energy Management of CDQ and CDQ WHPG 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 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 fee of RMB 0.534 ($0.087) per KWH (excluding tax). The operating time will be based upon an average 8,000 hours annually for each of Xuzhou Tian'an and Xuzhou Huayu. 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. Because of the overcapacity and pollution of the iron and steel and related industries, the government has imposed production limitations for the energy-intensive enterprises with heavy pollution, including Xuzhou Tian'an. Xuzhou Tian'an has slowed the construction process for its dry quenching production line which caused the delay of our project. The construction of the Xuzhou Tian'an Project is anticipated to be completed by the second quarter of 2019. Xuzhou Tian'an will provide the land for the CDQ and CDQ WHPG systems for free. Xuzhou Tian'an has also guaranteed that it will purchase all of the power generated by the CDQ WHPG systems. The Xuzhou Huayu Project is currently on hold due to a conflict between Xuzhou Huayu Coking Co., Ltd. and local residents on certain pollution-related issues. The local government has acted in its capacity to coordinate the resolution of this issue. The local residents were requested to move from the hygienic buffer zone of the project location with compensatory payments from the government. Xuzhou Huayu was required to stop production and implement technical innovations to mitigate pollution discharge including sewage treatment, dust collection, noise control, and recycling of coal gas. Currently, some local residents have moved. Xuzhou Huayu has completed the implementation of the technical innovations of sewage treatment, dust collection, and noise control, and the Company is waiting for local governmental agencies to approve these technical innovations so that we can resume construction. Due to the stricter administration of environmental protection policies and recent increase of environmental protections for the coking industry in Xuzhou, all local coking, as well as steel iron enterprises, are facing a similar situation of suspended production while rectifying technologies and procedures. The Company expects to receive governmental acceptance and approval and to resume construction in the second quarter of 2019.

On July 22, 2013, Xi'an Zhonghong New Energy Technology Co., Ltd. entered into an EPC General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project (the "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 and 25 MW CDQ WHPG 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 and CDQ WHPG 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 ($66.67 million), 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.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an Zhonghong will transfer a CDQ WHPG station (under construction) located in Xuzhou City for Xuzhou Huayu Coking Co., Ltd. ("Xuzhou Huayu Project") to Mr. Bai for RMB 120,000,000 ($17.52 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng, to the "HYREF" as repayment for the loan made by Xi'an Zhonghong to HYREF as consideration for the transfer of the Xuzhou Huayu Project (see Note 12). The transfer was completed on February 15, 2019.

Zhongtai WHPG Energy Management Cooperative Agreement

On December 6, 2013, Xi'an TCH entered into a CDQ and WHPG Energy Management Cooperative Agreement (the "Zhongtai Agreement") with Xuzhou Zhongtai Energy Technology Co., Ltd. ("Zhongtai"), a limited liability company incorporated in Jiangsu Province, China.

Pursuant to the Zhongtai Agreement, Xi'an TCH will design, build and maintain a 150 ton per hour CDQ system and a 25 MW CDQ WHPG system (the "Project") and sell the power to Zhongtai, and Xi'an TCH will also build a furnace to generate steam from the waste heat of the smoke pipeline and sell the steam to Zhongtai.

The construction period of the Project is expected to be 18 months from the date when conditions are ready for construction to begin. Zhongtai will start to pay an energy saving fee from the date when the WHPG station passes the required 72-hour test run. The term of payment is 20 years. For the first 10 years of the term, Zhongtai shall pay an energy saving fee at RMB 0.534 ($0.089) per KWH (including value added tax) for the power generated from the system. For the second 10 years of the term, Zhongtai shall pay an energy saving fee at RMB 0.402 ($0.067) per KWH (including value added tax). During the term of the contract the energy saving fee shall be adjusted at the same percentage as the change of local grid electricity price. Zhongtai shall also pay an energy saving service fee for the steam supplied by Xi'an TCH at RMB 100 ($16.67) per ton (including value added tax). Zhongtai and its parent company will provide guarantees to ensure Zhongtai will fulfill its obligations under the Agreement. Upon the completion of the term, Xi'an TCH will transfer the systems to Zhongtai at RMB 1 ($0.16). Zhongtai shall provide waste heat to the systems for no less than 8,000 hours per year and waste gas volume no less than 150,000 Nm3 per hour with a temperature no less than 950°C. If these requirements are not met, the term of the Zhongtai Agreement will be extended accordingly. If Zhongtai wants to terminate the Zhongtai Agreement early, it shall provide Xi'an TCH a 60 day notice and pay the termination fee and compensation for the damages to Xi'an TCH according to the following formula: (i) if it is less than five years into the term when Zhongtai requests termination, Zhongtai shall pay: Xi'an TCH's total investment amount plus Xi'an TCH's annual investment return times five years minus the years in which the system has already operated; or (ii) if it is more than five years into the term when Zhongtai requests the termination, Zhongtai shall pay Xi'an TCH's total investment amount minus total amortization cost (the amortization period is 10 years).

On March 14, 2016, Xi'an TCH entered into a Xuzhou Zhongtai CDQ and Waste Heat Power Generation System Transfer Agreement (the "Transfer Agreement") with Zhongtai and Xi'an Huaxin New Energy Co., Ltd., a limited liability company incorporated in China (the "Contractor").

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The Transfer Agreement provides for the sale to Zhongtai of all the assets of the Project under construction from Xi'an TCH. Additionally, Xi'an TCH will transfer to Zhongtai the Engineering, Procurement and Construction ("EPC") Contract for the Project, which Xi'an TCH had entered into with the Contractor in connection with the Project. As consideration for the transfer of the Project, Zhongtai is to pay to Xi'an TCH an aggregate purchase price of RMB 167,360,000 ($25.75 million and the "Transfer Price"), on the following schedule: (i) RMB 50,000,000 ($7.69 million) of the Transfer Price was paid within 20 business days from the execution of the Transfer Agreement; (ii) RMB 30,000,000 ($4.32 million) of the Transfer Price was paid within 20 business days upon the completion of the construction of the Project but not later than July 30, 2016; and (iii) RMB 87,360,000 ($13.45 million) of the Transfer Price was to be paid before July 30, 2017. The temporary ownership of the Project was transferred from Xi'an TCH to Zhongtai after the Xi'an TCH received the first payment of RMB 50,000,000, and the full ownership of the Project is to be officially transferred to Zhongtai upon full payment of the Transfer Price. The Zhongtai Agreement is to be terminated and Xi'an TCH will agree not to pursue any breach of contract liability against the Zhongtai under the Zhongtai Agreement when Zhongtai fully pays the Transfer Price according to the terms of the Transfer Agreement. If the Transfer Price is not fully paid on time pursuant to the Transfer Agreement, the Transfer Agreement automatically terminates and Xi'an TCH retains ownership of the Project, and both parties would continue to possess their respective rights and obligations according to the Zhongtai Agreement and assume the liabilities for breach of the Zhongtai Agreement. Xuzhou Taifa Special Steel Technology Co., Ltd. ("Xuzhou Taifa") has guaranteed the payments by Zhongtai. The Company recorded a $2.82 million loss from this transaction in 2016. In 2016, Xi'an TCH had received the first payment of $7.70 million and the second payment of $4.32 million. However, the Company received a repayment commitment letter from Zhongtai on February 23, 2018, in which Zhongtai committed to pay the remaining payment of RMB 87,360,000 ($13.45 million) no later than the end of July 2018; in July 2018, Zhongtai and the Company reached a further oral agreement to extend the repayment term of RMB 87,360,000 ($13.45 million) by another two to three months. In August 2018, the Company received $1,070,000 from Zhongtai; as of December 31, 2018, the Company had receivables from Zhongtai for $11.66 million (with bad debt allowance of $3.50 million). On January 23, 2019, Zhongtai provided an acknowledgement letter to the Company stating they expect to repay the remaining balance of $11.66 million by the end of 2019 once they resume the normal production.

Related Party Transactions

As of December 31, 2018, the Company had $41,168 in advances from the Company's management, which bear no interest, are unsecured, and are payable upon demand.

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 ("CFS"), which were prepared in accordance with accounting principles generally accepted in the United States of America ("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 CFS, 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 CFS were prepared in accordance with US GAAP and pursuant to the rules and regulations of the SEC for financial statements.

Basis of Consolidation

The CFS include the accounts of CREG and, its subsidiary, Sifang Holdings and Yinghua; 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, Zhonghong, and Zhongxun. 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, 2018. All significant inter-company accounts and transactions were eliminated in consolidation.

Use of Estimates

In preparing the CFS, 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.

Accounts Receivable

As of December 31, 2018, the Company had accounts receivable of $15,252,162 from the sales of CDQ and a CDQ WHPG system to Zhongtai and accounts receivable of Erdos TCH for the electricity sold, and the Company had bad debt allowance of $3,496,911 for Zhongtai.

Interest Receivable on Sales Type Leases

As of December 31, 2018, the interest receivable on sales type leases was $9,336,140, mainly representing recognized but not yet collected interest income for the Pucheng and Shenqiu systems.

The Company maintains reserves for potential credit losses on receivables. Management reviews the composition of receivables and analyzes historical bad debts, customer concentrations, customer credit worthiness, current economic trends and changes in customer payment patterns to evaluate the adequacy of these reserves. Based on an evaluation of the collectability of such receivables, as of December 31, 2018, the Company had bad debt allowance for net investment receivable of $29,276,658 for the Pucheng and Shenqiu systems.

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 “Accounting for Leases”, codified in Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 840 and its various amendments and interpretations. The Company constructs and leases 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 RMB. For financial reporting purposes, RMB figures were translated into 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 "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, 2018 and 2017

The following table sets forth the results of our operations for the periods indicated as a percentage of net sales. Certain columns may not add due to rounding.

	2018	% of Sales	2017	% of Sales
Sales	$4,888,016	100 %	$6,489,504	100 %
Sales of systems	-	- %	-	- %
Contingent rental income	4,888,016	100 %	6,489,504	100 %
Cost of sales		- %	-	- %
Cost of systems and contingent rental income		- %	-	- %
Gross profit	4,888,016	100 %	6,489,504	100 %
Interest income on sales-type leases	3,312,465	68 %	6,610,169	102 %
Total operating income	8,200,481	168 %	13,099,673	202 %
Total operating expenses	(66,188,920)	(1,354)%	(7,293,226)	(112)%
Income (loss) from operations	(57,988,439)	(1,186)%	5,806,447	90 %
Total non-operating expenses, net	(8,584,658)	(176)%	(5,436,669)	(84)%
Income (loss) before income tax	(66,573,097)	(1,362)%	369,778	6 %
Income tax expense	2,627,458	54 %	8,039,476	124 %

Less: loss attributable to noncontrolling interest	(3,203,657)	(66)%	(327,147)	(5)%
Net loss attributable to China Recycling Energy Corp	$(65,996,898)	(1,350)%	$(7,342,551)	(113)%

SALES. Total sales for the years ended December 31, 2018 and 2017 were $4,888,016 and $6,489,504, respectively. The sales were from the electricity sold in Erdos TCH.

COST OF SALES. Cost of sales (“COS”) for the years ended December 31, 2018 and 2017 were $0. We did not sell any new system in the years ended December 31, 2018 and 2017.

GROSS PROFIT. Gross income for the years ended December 31, 2018 and 2017 were $4,888,016 and $6,489,504, gross margin of 100% and 100%, respectively.

INTEREST INCOME ON SALES-TYPE LEASES. Interest income on sales-type leases for the year ended December 31, 2018 was $3.31 million, a $3.30 million decrease from $6.61 million for the year ended December 31, 2017. During the years ended December 31, 2018 and 2017, interest income was derived from the following four sales-type leases:

i. Two BMPG systems to Pucheng Phase I and II (15 and 11.9 years, respectively);

ii. One BMPG system to Shenqiu Phase I (11 years);

iii. One BMPG system to Shenqiu Phase II (9.5 years);

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The decreased interest income was due to suspension of Pucheng systems, and the Company stopped accruing interest income since April 2018, which was impacted by China's environmental protection policies, the operation was not yet resumed as of today.

OPERATING EXPENSES. Operating expenses consisted of general and administrative expenses, bad debt expense and asset impairment loss totaling $66,188,920 for the year ended December 31, 2018, compared to $7,293,226 for the year ended December 31, 2017, an increase of $58,895,694 or 808%. The increase was mainly due to increased bad debt expense of $32.21 million and increased asset impairment loss of $28.43 million. We had bad debt expense of $3.62 million for the Zhongtai system, $6.59 million for the Shenqiu systems and $22.00 million for the Pucheng systems. In addition, we recorded asset impairment loss of $6.53 million for Xuzhou Huayu, $13.78 million for Xuzhou Tian'an, and $8.12 million for Chengli.

NET NON-OPERATING EXPENSES. Net non-operating expenses consisted of non-sales-type lease interest income, interest expenses and miscellaneous expenses. For the year ended December 31, 2018, net non-operating expense was $8.58 million compared to net non-operating expense of $5.44 million for the year ended December 31, 2017. For the year ended December 31, 2018, we had $153,532 interest income but the amount was offset by $8.74 million interest expense. For the year ended December 31, 2017, we had $143,606 interest income but the amounts were offset by a $5.56 million interest expense on loans. The increase in interest expense in 2018 was due to $2.43 million penalty interest on past due entrusted loan amount.

INCOME TAX EXPENSE. Income tax expense was $2.63 million for the year ended December 31, 2018, compared with $8.04 million for the year ended December 31, 2017. The consolidated effective income tax rate for the years ended December 31, 2018 and 2017 were (4.0)% and 2,174%, respectively. The decrease in income tax expense for the years ended December 31, 2018 was due to increased taxable loss, while in 2017, we had $7.61 million tax expense from recording the estimated one-time transition tax on post-1986 foreign unremitted earnings under the Tax Cut and Jobs Act.

NET LOSS. Net loss for the year ended December 31, 2018 was $65,996,898 compared to $7,342,551 for the year ended December 31, 2017, an increase of loss of $58,654,347. This increase in net loss was mainly due to the decreased interest income on sales-type leases and increased bad debt expense and increased asset impairment loss in the year ended December 31, 2018 as described above.

Liquidity and Capital Resources

Comparison of years Ended December 31, 2018 and 2017

As of December 31, 2018, the Company had cash and equivalents of $53.22 million, other current assets of $22.70 million, current liabilities of $76.74 million, working capital deficit of $0.81 million, a current ratio of 0.99:1 and a liability-to-equity ratio of 1.06:1.

The following is a summary of cash provided by or used in each of the indicated types of activities during the years ended December 31, 2018 and 2017:

	2018	2017
Cash provided by (used in):		
Operating Activities	$2,168,285	$(285,103)
Financing Activities	3,689,190	(740,542)

Net cash provided by operating activities was $2.17 million during the year ended December 31, 2018, compared to $0.29 million cash used in operating activities in the year ended December 31, 2017. The increase in net cash inflow in the year ended December 31, 2018 was mainly due to an increase in cash inflow on prepaid expense by $710,608, an increase in cash inflow on accounts payable by $1,034,135, and an increase in cash inflow on accrued liabilities and other payables by $552,509.

Net cash provided by investing activities was $0 for the years ended December 31, 2018 and 2017.

Net cash provided by financing activities was $3.69 million compared to net cash used in financing activities for $0.74 million during the years ended December 31, 2018 and 2017, respectively. The cash inflow in the year ended December 31, 2018 came from the proceeds from issuance of convertible note payable of $1.00 million and proceeds from issuance of common stock of $2.69 million. The cash outflow in the year ended December 31, 2017 came from the repayment of bank loans in the amount of $0.74 million.

We do not believe inflation has had or will have a significant negative impact on our results of operations in 2019.

Transfers of Cash to and from Our Subsidiaries

The PRC has currency and capital transfer regulations that require us to comply with certain requirements for the movement of capital. The Company is able to transfer cash (US Dollars) to its PRC subsidiaries through: (i) an investment (by increasing the Company’s registered capital in a PRC subsidiary), or (ii) a stockholder loan. Except as described below, the Company’s subsidiaries in the PRC have not transferred any earnings or cash to the Company to date. The Company’s business is primarily conducted through its subsidiaries. The Company is a holding company and its material assets consist solely of the ownership interests held in its PRC subsidiaries. The Company relies on dividends paid by its subsidiaries for its working capital and cash needs, including the funds necessary: (i) to pay dividends or cash distributions to its stockholders, (ii) to service any debt obligations and (iii) to pay operating expenses. As a result of PRC laws and regulations (noted below) that require annual appropriations of 10% of after-tax income to be set aside in a general reserve fund prior to payment of dividends, the Company’s PRC subsidiaries are restricted in that respect, as well as in others respects noted below, in their ability to transfer a portion of their net assets to the Company as a dividend.

With respect to transferring cash from the Company to its subsidiaries, increasing the Company’s registered capital in a PRC subsidiary requires the filing of the local commerce department, while a stockholder loan requires a filing with the state administration of foreign exchange or its local bureau.

With respect to the payment of dividends, we note the following:

1. PRC regulations currently permit the payment of dividends only out of accumulated profits, as determined in accordance with accounting standards and PRC regulations (an in-depth description of the PRC regulations is set forth below);

2. Our PRC subsidiaries are required to set aside, at a minimum, 10% of their net income after taxes, based on PRC accounting standards, each year as statutory surplus reserves until the cumulative amount of such reserves reaches 50% of their registered capital;

3. Such reserves may not be distributed as cash dividends;

4. Our PRC subsidiaries may also allocate a portion of their after-tax profits to fund their staff welfare and bonus funds; except in the event of a liquidation, these funds may also not be distributed to stockholders; the Company does not participate in a Common Welfare Fund;

5. The incurrence of debt, specifically the instruments governing such debt, may restrict a subsidiary's ability to pay stockholder dividends or make other cash distributions; and

6. The Company is subject to covenants and consent requirements.

If, for the reasons noted above, our subsidiaries are unable to pay stockholder dividends and/or make other cash payments to the Company when needed, the Company's ability to conduct operations, make investments, engage in acquisitions, or undertake other activities requiring working capital may be materially and adversely affected. However, our operations and business, including investment and/or acquisitions by our subsidiaries within China, will not be affected as long as the capital is not transferred in or out of the PRC.

PRC Regulations

In accordance with PRC regulations on Enterprises with Foreign Investment and their articles of association, a foreign-invested enterprise (“FIE”) established in the PRC is required to provide statutory reserves, which are appropriated from net profit, as reported in the FIE’s PRC statutory accounts. A FIE is required to allocate at least 10% of its annual after-tax profit to the surplus reserve until such reserve has reached 50% of its respective registered capital (based on the FIE’s PRC statutory accounts). The aforementioned reserves may only be used for specific purposes and may not be distributed as cash dividends. Until such contribution of capital is satisfied, the FIE is not allowed to repatriate profits to its stockholders, unless approved by the State Administration of Foreign Exchange. After satisfaction of this requirement, the remaining funds may be appropriated at the discretion of the FIE’s board of directors. Our subsidiary, Shanghai TCH, qualifies as a FIE and is therefore subject to the above-mandated regulations on distributable profits.

Additionally, in accordance with PRC corporate law, a domestic enterprise is required to maintain a surplus reserve of at least 10% of its annual after-tax profit until such reserve has reached 50% of its respective registered capital based on the enterprise’s PRC statutory accounts. The aforementioned reserves can only be used for specific purposes and may not be distributed as cash dividends. Xi’an TCH, Huahong, and Erdos TCH were established as domestic enterprises; therefore, each is subject to the above-mentioned restrictions on distributable profits.

As a result of PRC laws and regulations that require annual appropriations of 10% of after-tax income to be set aside, prior to payment of dividends, in a general reserve fund, the Company’s PRC subsidiaries are restricted in their ability to transfer a portion of their net assets to the Company as a dividend or otherwise.

Chart of the Company’s Statutory Reserve

Pursuant to PRC corporate law, effective January 1, 2006, the Company is required to maintain a statutory reserve by appropriating from its after-tax profit before declaration or payment of dividends. The statutory reserve represents restricted retained earnings. Our restricted and unrestricted retained earnings under US GAAP are set forth below:

	As of **December 31, 2018**	**December 31, 2017**
Unrestricted retained earnings (accumulated deficit)	$(37,675,202)	$ 28,321,696
Restricted retained earnings (surplus reserve fund)	14,525,712	14,525,712
Total retained earnings (accumulated deficit)	$(23,149,490)	$ 42,847,408

Off-Balance Sheet Arrangements

We have not entered into any other financial guarantees or other commitments to guarantee the payment obligations of any third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as stockholders’ equity or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or research and development services with us.

Contractual Obligations

The Company’s contractual obligations as of December 31, 2018 are as follows:

Contractual Obligation	1 year or less	More than 1 year	**See Note (for details)**
Convertible note	$-	$1,070,000	15
Entrusted loan	48,373,936	-	12
Total	$48,373,936	$1,070,000	

The Company believes it has a stable cash inflow each month and a sufficient channel to commercial institutions to obtain any loans that may be necessary to meet its working capital needs. Historically, we have been able to obtain loans or otherwise achieve our financing objectives due to the Chinese government’s support for energy-saving businesses with stable cash inflows, good credit ratings and history. The Company does not believe it will have difficulties related to the repayment of its outstanding short-term loans.

Commitments

Xuzhou Tian’an and Xuzhou Huayu CDQ Power Generation Projects

On July 19, 2013, Zhonghong entered into a Cooperative Agreement for Energy Management of CDQ and CDQ WHPG 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 and CDQ WHPG systems for two subsidiaries of Tianyu: one is for and will be located at Xuzhou Tian’an Chemical Co., Ltd and one set is for and will be located at Xuzhou Huayu Coking Co., Ltd. (the “Tianyu Project”). Upon the completion of the Tianyu Project, Zhonghong will charge Tianyu an energy saving service fee of RMB 0.534 ($0.088) per KWH (excluding tax). The operating time shall be based upon an average 8,000 hours annually for each of Tian’an and Huayu. If the operating time for each of Tian’an and Huayu is less than 8,000 hours a year due to the reason attributable to Tianyu, then time charged shall be 8,000 hours a year for each of Tian’an and Huayu. Xuzhou Tian’an and Huayu will provide the land for the CDQ and CDQ WHPG systems for free. Xuzhou Tian’an and Huayu also guarantee that they 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 an EPC General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project (the "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 and 25 MW CDQ WHPG 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 and CDQ WHPG 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 ($66.67 million) of which RMB 200 million ($28.83 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 is not limited to all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety matters. As of December 31, 2018, Zhonghong had paid $17.48 million (or $23.78 million if including capitalized interest) for the Huayu project and $25.09 million (or $38.38 million if including capitalized interest) for the Tian'an project and is committed to pay an additional $11.66 million for the Huayu project and $4.04 million for the Tian'an project.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an Zhonghong will Xuzhou Huayu Project to Mr. Bai for RMB 120,000,000 ($17.52 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng, to "HYREF" as repayment for the loan made by Xi'an Zhonghong to HYREF as consideration for the transfer of the Xuzhou Huayu Project (see Note 12). The transfer was completed on February 15, 2019.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

China Recycling Energy Corporation

Opinion on the financial statements

We audited the accompanying balance sheets of China Recycling Energy Corporation (“the Company”) as of December 31, 2018 and 2017, and the related statements of operations, stockholders’ deficit, and cash flows for each of the two years in the period ended December 31, 2018 and the related notes (collectively referred to as “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and cash flows for each of the two years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis of Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company's auditor since 2014. The financial statements from 2008 to 2013 were audited by a related firm.

MJF & Associates, APC

Los Angeles, CA

April 15, 2019

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CHINA RECYCLING ENERGY CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

AS OF DECEMBER 31, 2018 AND 2017

	2018	**2017**
ASSETS		
CURRENT ASSETS		
Cash and equivalents	$53,223,142	$49,830,243
Notes receivable	-	979,462
Accounts receivable	11,755,251	15,858,804
Current portion of investment in sales-type leases, net	-	11,531,745
Interest receivable on sales type leases	9,336,140	9,619,278
Prepaid expenses	32,395	739,423
Other receivables	1,574,376	1,169,660
Total current assets	75,921,304	89,728,615
NON-CURRENT ASSETS		
Investment in sales-type leases, net	24,962,056	46,110,374
Long term investment	475,635	514,896
Long term deposit	15,971	16,775
Property and equipment, net	27,495,049	11,957
Construction in progress	42,582,177	95,165,973
Total non-current assets	95,530,888	141,819,975
TOTAL ASSETS	**$171,452,192**	**$231,548,590**
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	$5,591,876	$3,229,163
Taxes payable	3,636,559	2,423,780
Accrued liabilities and other payables	1,617,997	1,618,316
Due to related parties	41,168	43,623
Loans payable – current	-	-
Interest payable on entrusted loans	17,473,492	8,131,256
Current portion of entrusted loan payable	48,373,936	50,825,375
Total current liabilities	76,735,028	66,271,513
NONCURRENT LIABILITIES		
Convertible note payable, net of unamortized OID and debt issuing costs	1,031,849	-
Accrued interest on convertible note	40,572	-

Income tax payable	6,390,625	6,998,625
Deferred tax liability, net	3,040,346	2,157,414
Refundable deposit from customers for systems leasing	1,034,503	1,086,591
Entrusted loan payable	-	-
Total noncurrent liabilities	11,537,895	10,242,630
Total liabilities	88,272,923	76,514,143
CONTINGENCIES AND COMMITMENTS		
STOCKHOLDERS' EQUITY		
Common stock, $0.001 par value; 20,000,000 shares authorized, 10,295,280 and 8,310,198 shares issued and outstanding	10,295	8,310
Additional paid in capital	114,484,018	111,796,813
Statutory reserve	14,525,712	14,525,712
Accumulated other comprehensive income (loss)	(4,620,930)	860,553
Retained earnings (Accumulated deficit)	(37,675,202)	28,321,696
Total Company stockholders' equity	86,723,893	155,513,084
Noncontrolling interest	(3,544,624)	(478,637)
Total equity	83,179,269	155,034,447
TOTAL LIABILITIES AND EQUITY	**$171,452,192**	**$231,548,590**

The accompanying notes are an integral part of these consolidated financial statements.

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CHINA RECYCLING ENERGY CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (LOSS)

	YEARS ENDED DECEMBER 31, 2018	2017
Revenue		
Contingent rental income	$4,888,016	$6,489,504
Interest income on sales-type leases	3,312,465	6,610,169
Total operating income	8,200,481	13,099,673
Operating expenses		
Bad debt expense	32,210,656	1,744,717
Asset impairment loss on fixed assets and construction in progress	28,429,789	-
General and administrative	5,548,475	5,548,509
Total operating expenses	66,188,920	7,293,226
Income (loss) from operations	(57,988,439)	5,806,447
Non-operating income (expenses)		
Interest income	153,532	143,606
Interest expense	(8,738,148)	(5,564,473)
Other expenses	(42)	(15,802)
Total non-operating expenses, net	(8,584,658)	(5,436,669)
Income (loss) before income tax	(66,573,097)	369,778
Income tax expense	2,627,458	8,039,476
Loss before noncontrolling interest	(69,200,555)	(7,669,698)
Less: loss attributable to noncontrolling interest	(3,203,657)	(327,147)
Net loss attributable to China Recycling Energy Corporation	(65,996,898)	(7,342,551)
Other comprehensive items		
Foreign currency translation gain (loss) attributable to China Recycling Energy Corporation	(5,481,483)	9,275,654
Foreign currency translation gain (loss) attributable to noncontrolling interest	137,670	(19,059)
Comprehensive income (loss) attributable to China Recycling Energy Corporation	$(71,478,381)	$1,933,103

Comprehensive loss attributable to noncontrolling interest	$(3,065,987)	$(346,206)
Basic weighted average shares outstanding	8,658,267	8,310,198
Diluted weighted average shares outstanding	8,705,895	8,310,353
Basic loss per share	$(7.62)	$(0.88)
Diluted loss per share	$(7.62)	$(0.88)

The accompanying notes are an integral part of these consolidated financial statements.

CHINA RECYCLING ENERGY CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEARS ENDED DECEMBER 31, 2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Loss including noncontrolling interest	$(69,200,555)	$(7,669,698)
Adjustments to reconcile loss including noncontrolling interest to net cash provided by (used in) operating activities:		
Depreciation	2,041	1,332
Amortization of OID and debt issuing costs of convertible note	16,589	-
Bad debt expense	32,210,656	1,744,717
Asset impairment loss	28,429,789	-
Stock option expense	-	7,647
Investment income (loss)	(469)	176,481
Changes in deferred tax	1,022,985	(1,061,548)
Changes in assets and liabilities:		
Interest receivable on sales type leases	(184,591)	(4,561,000)
Collection of principal on sales type leases	2,444,151	1,305,124
Prepaid expenses	696,525	(14,083)
Other receivables	(461,789)	(509,529)
Accounts receivables	(159,283)	(2,408,924)
Notes receivable	967,144	(947,894)
Construction in progress	(7,130,851)	(3,233,251)
Accounts payable	2,611,011	1,576,876
Taxes payable	717,487	8,128,237
Interest payable on entrusted loan	10,093,477	7,638,951
Accrued liabilities and other payables	93,968	(458,541)
Net cash provided by (used in) operating activities	2,168,285	(285,103)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Repayment of loans	-	(740,542)
Proceeds from issuance of common stock	2,689,190	-
Convertible note payable	1,000,000	-
Net cash provided by (used in) financing activities	3,689,190	(740,542)
EFFECT OF EXCHANGE RATE CHANGE ON CASH AND EQUIVALENTS	(2,464,576)	3,103,535
NET INCREASE IN CASH AND EQUIVALENTS	3,392,899	2,077,890
CASH AND EQUIVALENTS, BEGINNING OF YEAR	49,830,243	47,752,353
CASH AND EQUIVALENTS, END OF YEAR	$53,223,142	$49,830,243

Supplemental cash flow data:		
Income tax paid	$1,160,017	$1,815,010
Interest paid	$-	$14,614

The accompanying notes are an integral part of these consolidated financial statements.

CHINA RECYCLING ENERGY CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

YEARS ENDED DECEMBER 31, 2018 AND 2017

	Common stock		**Paid in**	**Statutory**	**Other comprehensive**	**Retained earnings (accumulated**		**Nonc**
	Shares	**Amount**	**capital**	**reserves**	**income (loss)**	**deficit)**	**Total**	**intere**
Balance at January 1, 2017	8,310,198	$8,310	$111,789,166	$14,296,223	$(8,415,101)	$35,893,736	$153,572,334	$(132
Net loss for year	-	-	-	-	-	(7,342,551)	(7,342,551)	(327
Stock options issued	-	-	7,647	-	-	-	7,647	-
Transfer to statutory reserves	-	-	-	229,489	-	(229,489)	-	-
Foreign currency translation gain	-	-	-	-	9,275,654	-	9,275,654	(19,(
Balance at December 31, 2017	8,310,198	8,310	111,796,813	14,525,712	860,553	28,321,696	155,513,084	(478
Net loss for year	-	-	-	-	-	(65,996,898)	(65,996,898)	(3,20
Issuance of common stock	1,985,082	1,985	2,687,205	-	-	-	2,689,190	-
Foreign currency translation loss	-	-	-	-	(5,481,483)	-	(5,481,483)	137,
Balance at December 31, 2018	10,295,280	$10,295	$114,484,018	$14,525,712	$(4,620,930)	$(37,675,202)	$86,723,893	$(3,54

The accompanying notes are an integral part of these consolidated financial statements.

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CHINA RECYCLING ENERGY CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND DECEMBER 31, 2017

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

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 Nevada. In 2004, the Company changed its name from Boulder Brewing Company to China Digital Wireless, Inc. and on March 8, 2007, again changed its name from China Digital Wireless, Inc. to its current name, China Recycling Energy Corporation. The Company, through its subsidiaries, provides energy saving solutions and services, including selling and leasing energy saving systems and equipment to customers, project investment, investment management, economic information consulting, technical services, financial leasing, purchase of financial leasing assets, disposal and repair of financial leasing assets, and consulting and ensuring of financial leasing transactions in the Peoples Republic of China (“PRC”).

Erdos TCH – Joint Venture

On April 14, 2009, the Company formed 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 name of the JV was Inner Mongolia Erdos TCH Energy Saving Development Co., Ltd. (“Erdos TCH”) with a term of 20 years. Total investment for the project was estimated at $79 million (RMB 500 million) with an initial investment of $17.55 million (RMB 120 million). Erdos contributed 7% of the total investment of the project, and Xi’an TCH Energy Technology Co., Ltd. (“Xi’an TCH”) contributed 93%. According to the parties’ 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 a 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 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 stockholder of the JV. In addition, Xi’an TCH paid Erdos accumulated profits from inception up to June 30, 2013 in accordance with a supplementary agreement entered into 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. Erdos TCH currently has two power generation systems in Phase I with a total of 18 MW power capacity, and three power generation systems in Phase II with a total of 27 MW power capacity. On April 28, 2016, Erdos TCH and Erdos entered into a supplemental agreement, effective May 1, 2016, whereby Erdos TCH cancelled monthly minimum lease payments from Erdos, and now charges Erdos based on actual electricity sold at RMB 0.30 / KWH. The selling price of each KWH is determined annually based on prevailing market conditions. The Company evaluated the modified terms for payments based on actual electricity sold as minimum lease payments as defined in ASC 840-10-25-4, since lease payments that depend on a factor directly related to the future use of the leased property are contingent rentals and, accordingly, are excluded from minimum lease payments in their entirety. The Company wrote off the net investment receivables of these leases at the lease modification date.

In addition, Erdos TCH has 30% ownership in DaTangShiDai (BinZhou) Energy Savings Technology Co., Ltd. (“BinZhou Energy Savings”), 30% ownership in DaTangShiDai DaTong Recycling Energy Technology Co., Ltd. (“DaTong Recycling Energy”), and 40% ownership in DaTang ShiDai TianYu XuZhou Recycling Energy Technology Co, Ltd. (“TianYu XuZhou Recycling Energy”). These companies were incorporated in 2012 but had no any operations since then nor any registered capital contribution was made.

Pucheng Biomass Power Generation Projects

On June 29, 2010, Xi’an TCH entered into a Biomass Power Generation (“BMPG”) Project Lease Agreement with Pucheng XinHengYuan Biomass Power Generation Co., Ltd. (“Pucheng”), a limited liability company incorporated in China. Under this lease agreement, Xi’an TCH leased a set of 12 MW BMPG systems to Pucheng at a minimum of $279,400 (RMB 1,900,000) per month for 15 years (“Pucheng Phase I”).

On September 11, 2013, Xi'an TCH entered into a BMPG Asset Transfer Agreement (the "Pucheng Transfer Agreement") with Pucheng. The Pucheng Transfer Agreement provided for the sale by Pucheng to Xi'an TCH of a set of 12 MW BMPG systems with completion of system transformation for RMB 100 million ($16.48 million) in the form of 8,766,547 shares of common stock of the Company at $1.87 per share. These shares were issued to Pucheng on October 29, 2013. Also on September 11, 2013, Xi'an TCH entered into a BMPG Project Lease Agreement with Pucheng (the "Pucheng Lease"). Under the Pucheng Lease, Xi'an TCH leases this same set of 12 MW BMPG systems to Pucheng, and combined this lease with the lease for the 12 MW BMPG station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3.8 million ($0.63 million) per month (the "Pucheng Phase II Project"). The term for the combined lease is from September 2013 to June 2025. The lease agreement for the 12 MW station from the Pucheng Phase I project terminated upon the effective date of the Pucheng Lease. The ownership of the two 12 MW BMPG systems will transfer to Pucheng at no additional charge when the Pucheng Lease expires.

Shenqiu Yuneng Biomass Power Generation 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 BMPG 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 BMPG 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 BMPG systems (after Xi'an TCH converted the system for BMPG purposes). As consideration for the BMPG systems, Xi'an TCH agreed to pay Shenqiu $10,937,500 (RMB 70 million) in cash in three installments within six months, upon the transfer of ownership of the systems. By the end of 2012, all the consideration was paid. On September 28, 2011, Xi'an TCH and Shenqiu also entered into a BMPG Project Lease Agreement (the "2011 Shenqiu Lease"). Under the 2011 Shenqiu Lease, Xi'an TCH agreed to lease a set of 12 MW BMPG systems to Shenqiu at a monthly rental rate of $286,000 (RMB 1,800,000) for 11 years. Upon expiration of the 2011 Shenqiu Lease, ownership of this system will transfer from Xi'an TCH to Shenqiu at no additional cost. In connection with the 2011 Shenqiu Lease, Shenqiu paid one 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 12 MW BMPG system. After the reformation, the generation capacity of the power plant increased to 24 MW. 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 BMPG Project Lease Agreement (the "2013 Shenqiu Lease"). Under the 2013 Shenqiu Lease, Xi'an TCH agreed to lease the second set of 12 MW BMPG 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 transfer from Xi'an TCH to Shenqiu at no additional cost.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, a resident of China, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an TCH will transfer two Biomass Power Generation Projects in Shenqiu ("Shenqiu Phase I and II Projects") to Mr. Bai for RMB 127,066,000 ($18.55 million).

Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng Enterprises Management Consulting Co. Ltd. ("Xi'an Hanneng") to Beijing Hongyuan Recycling Energy Investment Center, LLP (the "HYREF") as repayment for the loan made by Xi'an Zhonghong to HYREE as consideration for the transfer of the Shenqiu Phase I and II Projects (See Note 12). The transfer was completed on February 15, 2019.

The Fund Management Company

On June 25, 2013, Xi'an TCH and HongyuanHuifu Venture Capital Co. Ltd. ("HongyuanHuifu") jointly established Beijing Hongyuan Recycling Energy Investment Management Company Ltd. (the "Fund Management Company") with registered capital of RMB 10 million ($1.45 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 HongyuanHuifu and Xi'an TCH, respectively.

The Fund Management Company is 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. RMB 460 million ($77 million) was 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) HongyuanHuifu, 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. In addition, Xi’an TCH and HongyuanHuifu formed Beijing Hongyuan Recycling Energy Investment Management Company Ltd. to manage this Fund, which also subscribed in the amount of RMB 5 million ($830,000) from the Fund. The term of the HYREF Fund’s partnership is six years from the date of its establishment, expiring July 18, 2019. The term is four years from the date of contribution for the preferred limited partner, and four years from the date of contribution for the ordinary limited partner. The total size of the HYREF Fund is RMB 460 million ($77 million). The HYREF Fund was formed for the purpose of investing in Xi’an Zhonghong New Energy Technology Co., Ltd., a then 90% owned subsidiary of Xi’an TCH, for the construction of two coke dry quenching (“CDQ”) WHPG stations with Jiangsu Tianyu Energy and Chemical Group Co., Ltd. (“Tianyu”) and one CDQ WHPG station with Boxing County Chengli Gas Supply Co., Ltd. (“Chengli”).

On December 29, 2018, Xi’an TCH entered into a Share Transfer Agreement with Hongyuan Huifu, pursuant to which Xi’an TCH agreed to transfer its 40% ownership in the Fund Management Company to Hongyuan Huifu for consideration of RMB 3,453,867.31 ($0.53 million). The transfer was completed on January 22, 2019. The Company does not have any ownership in the Fund Management Company after this transaction.

Chengli Waste Heat Power Generation Projects

On July 19, 2013, Xi’an TCH formed a new company, “Xi’an Zhonghong New Energy Technology Co., Ltd.” (“Zhonghong”), with registered capital of RMB 30 million ($4.85 million). Xi’an TCH paid RMB 27 million ($4.37 million) and owns 90% of Zhonghong. Zhonghong is engaged to provide energy saving solution and services, including constructing, selling and leasing energy saving systems and equipment to customers. On December 29, 2018, Shanghai TCH entered into a Share Transfer Agreement with HYREF, pursuant to which HYREF agreed to transfer its 10% ownership in Xi’an Zhonghong to Shanghai TCH for consideration of RMB 3 million ($0.44 million). The transfer was completed on January 22, 2019. The Company owns 100% of Xi’an Zhonghong after the transaction.

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of CDQ and CDQ WHPG 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 WHPG 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, as mutually agreed upon by Zhonghong. In addition, Chengli will provide the land for the CDQ WHPG systems at no cost to Zhonghong. The term of the Agreements is 20 years. The watt hours generated by the Chengli Project will be charged at RMB 0.42 ($0.068) 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 was completed in the second quarter of 2015 and the project successfully completed commissioning tests in the first quarter of 2017. The Chengli Project is now operational, however, due to intensifying environmental protection, the local environmental authorities required the project owner constructing CDQ sewage treatment to complete supporting works, which were completed and passed through acceptance inspection during the quarter ended September 30, 2018. However, the owner of Chengli Project changed from Chengli to Shandong Boxing Shengli Technology Company Ltd. (“Shengli”). This change resulted from transfer of the equity ownership of Chengli to Shengli (a private company). Chengli, as a state-owned enterprise that is 100% owned by the local Power Supply Bureau, is not allowed to carry out the tertiary industry, and Shengli, the new owner, is not entitled to the high on-grid prices, and thus demanded a renegotiation of the settlement terms for the project. At present, the Company is negotiating with the new project owner on the lease term, settlement method and settlement price, but no agreement has been reached.

On July 22, 2013, Zhonghong entered into an Engineering, Procurement and Construction ("EPC") General Contractor Agreement for the Boxing County Chengli Gas Supply Co., Ltd. CDQ Power Generation Project (the "Chengli Project") with Xi'an Huaxin New Energy Co., Ltd. ("Huaxin"). Zhonghong, as the owner of the Chengli Project, contracted EPC services for a CDQ system and a 25 MW CDQ WHPG 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 and CDQ WHPG systems for Chengli meet the inspection and acceptance requirements and work normally. The Chengli Project is a turn-key project in which Huaxin is responsible for monitoring the quality, safety, duration and cost of the Chengli Project. The total contract price is RMB 200 million ($33.34 million), which includes all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety costs.

On December 29, 2018, Xi'an Zhonghong, Xi'an TCH, the "HYREF", Guohua Ku, and Mr. Chonggong Bai entered into a CDQ WHPG Station Fixed Assets Transfer Agreement, pursuant to which Xi'an Zhonghong will transfer Chengli CDQ WHPG station as the repayment of loan at RMB 188,639,400 ($27.54 million) to HYREF. Xi'an Zhonghong, Xi'an TCH, Guohua Ku and Chonggong Bai also agreed to buy back the CDQ WHPG Station when conditions under the Buy Back Agreement are met (see Note 12). The transfer was completed on January 22, 2019.

Tianyu Waste Heat Power Generation Project

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the "Tianyu Agreement") for Energy Management of CDQ and CDQ WHPG Projects 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 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 for each of Xuzhou Tian'an and Xuzhou Huayu. 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. Because of overcapacity and pollution of the iron and steel and related industries, the Chinese government has imposed production limitations for the energy-intensive enterprises with heavy pollution, including Xuzhou Tian'an. Xuzhou Tian'an has slowed the construction process for its dry quenching production line which caused the delay of our project. The term of the Tianyu Agreement is 20 years. The construction of the Xuzhou Tian'an Project is anticipated to be completed by the second quarter of 2019. Xuzhou Tian'an will provide the land for the CDQ and CDQ WHPG systems for free. Xuzhou Tian'an has also guaranteed that it will purchase all the power generated by the CDQ WHPG systems. The Xuzhou Huayu Project is currently on hold due to a conflict between Xuzhou Huayu Coking Co., Ltd. and local residents on certain pollution-related issues. The local government has acted in its capacity to coordinate the resolution of this issue. The local residents were requested to move from the hygienic buffer zone of the project location, with compensatory payments from the government. Xuzhou Huayu was required to stop production and implement technical innovations to mitigate pollution discharge including sewage treatment, dust collection, noise control, and recycling of coal gas. Currently, some local residents have moved. Xuzhou Huayu has completed the implementation of the technical innovations of sewage treatment, dust collection, and noise control, and the Company is waiting for local governmental agencies to approve these technical innovations. Due to the stricter administration of environmental protection policies and recent increase of environmental protections for the coking industry in Xuzhou, all local coking, as well as steel iron enterprises, are facing similar situations of suspended production while rectifying technologies and procedures. The Company expects to receive governmental acceptance and approval and to resume construction in the second quarter of 2019.

On July 22, 2013, Zhonghong entered into an EPC General Contractor Agreement for the Tianyu Project with Xi'an Huaxin New Energy Co., Ltd. ("Huaxin"). Zhonghong, as the owner of the Tianyu Project, contracted EPC services for two CDQ systems and two 25 MW CDQ WHPG systems for Tianyu to Huaxin. Huaxin will provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary services to complete the Tianyu Project and ensure the CDQ and CDQ WHPG systems for Tianyu meet the inspection and acceptance requirements and work normally. The Tianyu Project is a turn-key project in which Huaxin is responsible for monitoring the quality, safety, duration and cost of the project. The total contract price is RMB 400 million ($66.68 million), which includes all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety costs.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, entered into a Projects Transfer Agreement (the "Agreement"), pursuant to which Xi'an Zhonghong will transfer a CDQ WHPG station (under construction) located in Xuzhou City for Xuzhou Huayu Coking Co., Ltd. ("Xuzhou Huayu Project") to Mr. Bai for RMB 120,000,000 ($17.52 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng, to HYREF as repayment for the loan made by Xi'an Zhonghong to HYREF as consideration for the transfer of the Xuzhou Huayu Project (see Note 12). The transfer was completed on February 15, 2019.

Zhongtai Waste Heat Power Generation Energy Management Cooperative Agreement

On December 6, 2013, Xi'an TCH entered into a CDQ and WHPG Energy Management Cooperative Agreement (the "Zhongtai Agreement") with Xuzhou Zhongtai Energy Technology Co., Ltd. ("Zhongtai"), a limited liability company incorporated in Jiangsu Province, China.

Pursuant to the Zhongtai Agreement, Xi'an TCH will design, build and maintain a 150 ton per hour CDQ system and a 25 MW CDQ WHPG system and sell the power to Zhongtai, and Xi'an TCH will also build a furnace to generate steam from the smoke pipeline's waste heat and sell the steam to Zhongtai.

The construction period of the Project is expected to be 18 months from the date when conditions are ready for construction to begin. Zhongtai will start to pay an energy saving service fee from the date when the WHPG station passes the required 72-hour test run. The payment term is 20 years. For the first 10 years, Zhongtai shall pay an energy saving fee at RMB 0.534 ($0.089) per kilowatt hour (KWH) (including value added tax) for the power generated from the system. For the second 10 years, Zhongtai shall pay an energy saving fee at RMB 0.402 ($0.067) per KWH (including value added tax). During the term of the contract the energy saving fee shall be adjusted at the same percentage as the change of local grid electricity price. Zhongtai shall also pay an energy saving fee for the steam supplied by Xi'an TCH at RMB 100 ($16.67) per ton (including value added tax). Zhongtai and its parent company will provide guarantees to ensure Zhongtai will fulfill its obligations under the Agreement. Upon the completion of the term, Xi'an TCH will transfer the systems to Zhongtai for RMB 1 ($0.16). Zhongtai shall provide waste heat to the systems for no less than 8,000 hours per year and waste gas volume no less than 150,000 Normal Meter Cubed (Nm3) per hour, with a temperature no less than 950°C. If these requirements are not met, the term of the Agreement will be extended accordingly. If Zhongtai wants to terminate the Zhongtai Agreement early, it shall provide Xi'an TCH with a 60 day notice and pay the termination fee and compensation for the damages to Xi'an TCH according to the following formula: (1) if it is less than five years into the term when Zhongtai requests termination, Zhongtai shall pay: Xi'an TCH's total investment amount plus Xi'an TCH's annual investment return times five years minus the years in which the system has already operated; or 2) if it is more than five years into the term when Zhongtai requests the termination, Zhongtai shall pay: Xi'an TCH's total investment amount minus total amortization cost (the amortization period is 10 years).

In March 2016, Xi'an TCH entered into a Transfer Agreement of CDQ and a CDQ WHPG system with Zhongtai and Xi'an Huaxin (the "Transfer Agreement"). Under the Transfer Agreement, Xi'an TCH agreed to transfer to Zhongtai all of the assets associated with the CDQ Waste Heat Power Generation Project (the "Project"), which is under construction pursuant to the Zhongtai Agreement. Additionally, Xi'an TCH agreed to transfer to Zhongtai the Engineering, Procurement and Construction ("EPC") Contract for the CDQ Waste Heat Power Generation Project which Xi'an TCH had entered into with Xi'an Huaxin in connection with the Project. Xi'an Huaxin will continue to construct and complete the Project and Xi'an TCH agreed to transfer all its rights and obligation under the EPC Contract to Zhongtai. As consideration for the transfer of the Project, Zhongtai agreed to pay to Xi'an TCH an aggregate transfer price of RMB 167,360,000 ($25.77 million) including payments of: (i) RMB 152,360,000 ($23.46 million) for the construction of the Project; and (ii) RMB 15,000,000 ($2.31 million) as payment for partial loan interest accrued during the construction period. Those amounts have been, or will be, paid by Zhongtai to Xi'an TCH according to the following schedule: (a) RMB 50,000,000 ($7.70 million) was to be paid within 20 business days after the Transfer Agreement was signed; (b) RMB 30,000,000 ($4.32 million) was to be paid within 20 business days after the Project is completed, but no later than July 30, 2016; and (c) RMB 87,360,000 ($13.45 million) was to be paid no later than July 30, 2017. Xuzhou Taifa Special Steel Technology Co., Ltd. ("Xuzhou Taifa") guaranteed the payments from Zhongtai to Xi'an TCH. The ownership of the Project was conditionally transferred to Zhongtai following the initial payment of RMB 50,000,000 ($7.70 million) by Zhongtai to Xi'an TCH and the full ownership of the Project will be officially transferred to Zhongtai after it completes all payments pursuant to the Transfer Agreement. The Company recorded a $2.82 million loss from this transaction in 2016. In 2016, Xi'an TCH had received the first payment of $7.70 million and the second payment of $4.32 million. However, the Company received a repayment commitment letter from Zhongtai on February 23, 2018, in which Zhongtai committed to pay the remaining payment of RMB 87,360,000 ($13.45 million) no later than the end of July 2018; in July 2018, Zhongtai and the Company reached a further oral agreement to extend the repayment term of RMB 87,360,000 ($13.45 million) by another two to three months. In August 2018, the Company received $1,070,000 from Zhongtai; as of December 31, 2018, the Company had receivable from Zhongtai for $11.66 million (with bad debt allowance of $3.50 million). Zhongtai provided an acknowledgement letter to the Company stating they expect to repay the remaining balance of $11.66 million by the end of 2019 once they resume normal production.

Formation of Zhongxun

On March 24, 2014, Xi'an TCH incorporated a subsidiary, Zhongxun Energy Investment (Beijing) Co., Ltd. ("Zhongxun") with registered capital of $5,695,502 (RMB 35,000,000), which must be contributed before October 1, 2028. Zhongxun is 100% owned by Xi'an TCH and will be mainly engaged in project investment, investment management, economic information consulting, and technical services. Zhongxun has not yet commenced operations as of the date of this report.

Formation of Yinghua

On February 11, 2015, the Company incorporated a subsidiary, Shanghai Yinghua Financial Leasing Co., Ltd. ("Yinghua") with registered capital of $30,000,000, to be paid within 10 years from the date the business license is issued. Yinghua is 100% owned by the Company and will be mainly engaged in financial leasing, purchase of financial leasing assets, disposal and repair of financial leasing assets, consulting and ensuring of financial leasing transactions, and related factoring business. Yinghua has not yet commenced operations as of the date of this report.

Formation of ShengYa Energy

On July 1, 2016, Xi'an Zhonghong incorporated a subsidiary, Xi'an ShengYa Energy Co., Ltd. ("ShengYa Energy") with registered capital of $29.42 million (RMB 200,000,000), ShengYa Energy has not yet commenced operations nor has any capital contribution been made as of the date of this report.

Summary of Sales-Type Lease at December 31, 2018

As of December 31, 2018, Xi'an TCH leases the following systems: (i) BMPG systems to Pucheng Phase I and II (15 and 11-year terms, respectively); (ii) BMPG systems to Shenqiu Phase I (11-year term); and (iii) Shenqiu Phase II (9.5-year term). Shenqiu Phase I and Phase II was transferred to Mr. Chonggong Bai on February 15, 2019 (see Note 12).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The financial statements included herein were prepared by the Company, pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). The information furnished herein reflects all adjustments (consisting of normal recurring accruals and adjustments) that are, in the opinion of management, necessary to fairly present the operating results for the respective periods. Certain information and footnote disclosures normally present in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP") were omitted pursuant to such rules and regulations.

Basis of Consolidation

The consolidated financial statements ("CFS") include the accounts of CREG and its subsidiaries, Shanghai Yinghua Financial Leasing Co., Ltd. ("Yinghua") and Sifang Holdings, Sifang Holdings' wholly owned subsidiaries, Huahong New Energy Technology Co., Ltd. ("Huahong") and Shanghai TCH Energy Tech Co., Ltd. ("Shanghai TCH"), Shanghai TCH's wholly-owned subsidiary, Xi'an TCH Energy Tech Co., Ltd. ("Xi'an TCH") and Xi'an TCH's subsidiaries, Erdos TCH Energy Saving Development Co., Ltd ("Erdos TCH"), 100% owned by Xi'an TCH (See note 1), Zhonghong, 90% owned by Xi'an TCH, and Zhongxun, 100% owned by Xi'an TCH. Substantially all the Company's revenues are derived from the operations of Shanghai TCH and its subsidiaries, which represent substantially all the Company's consolidated assets and liabilities as of December 31, 2018 and 2017, respectively. All significant inter-company accounts and transactions were eliminated in consolidation.

Use of Estimates

In preparing these CFS in accordance with US GAAP, 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 period reported. Actual results may differ from these estimates.

Revenue Recognition

Sales-type Leasing and Related Revenue Recognition

The Company constructs and 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 the lease. The investment in these projects is recorded as investment in sales-type leases in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 840*, "Lease*s*,"* and its various amendments and interpretations. The Company finances construction of waste energy recycling power generating projects. The sales and cost of sales are recognized at the inception of the lease. The investment in sales-type leases consists of the sum of the minimum lease payments receivable less unearned interest income and estimated executory cost. Minimum lease payments are part of the lease agreement between the Company (as the lessor) and the customer (as the lessee). The discount rate implicit in the lease is used to calculate the present value of minimum lease payments. The minimum lease payments consist of the gross lease payments net of executory costs and contingent rentals, if any. Unearned interest is amortized to income over the lease term to produce a constant periodic rate of return on net investment in the lease. While revenue is recognized at the inception of the lease, the cash flow from the sales-type lease occurs over the course of the lease, which results in interest income and reduction of receivables. Revenue is recognized net of sales tax.

Contingent Rental Income

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

Cash and Equivalents

Cash and equivalents include cash on hand, demand deposits placed with banks or other financial institutions and all highly liquid investments with an original maturity of three months or less as of the purchase date of such investments.

Accounts Receivable

As of December 31, 2018, the Company had accounts receivable of $15,252,162 (from the sales of CDQ and a CDQ WHPG system to Zhongtai, and accounts receivable of Erdos TCH for electricity sold). As of December 31, 2017, the Company had accounts receivable of $15,858,804 (from the sales of CDQ and a CDQ WHPG system to Zhongtai, and accounts receivable of Erdos TCH for electricity sold). As of December 31, 2018, the Company had bad debt allowance of $3,496,911 for Zhongtai due to not making the payment as scheduled.

Interest Receivable on Sales Type Leases

As of December 31, 2018, the interest receivable on sales type leases was $9,336,140, mainly from recognized but not yet collected interest income for the Pucheng and Shenqiu systems. As of December 31, 2017, the interest receivable on sales type leases was $9,619,278. As of April 1, 2018, the Company stopped accruing interest receivable on the Pucheng lease as the Pucheng lease was at least one year overdue in its payments.

The Company maintains reserves for potential credit losses on receivables. Management reviews the composition of receivables and analyzes historical bad debts, customer concentrations, customer credit worthiness, current economic trends and changes in customer payment patterns to evaluate the adequacy of these reserves. As of December 31, 2018, the Company had bad debt allowance for net investment receivable of $29,276,658 ($7,274,872 for the Shenqiu systems and $22,001,786 for the Pucheng systems) due to lessees' tight working capital and continuous delay in making the payment. As of December 31, 2017, the Company had bad debt allowance for net investment receivable of $1,802,822 for the Pucheng and Shenqiu systems.

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 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.

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Expenditures for maintenance and repairs are expensed as incurred; additions, renewals and betterments are capitalized. When property and equipment are retired or otherwise disposed of, the related cost and accumulated depreciation are removed from the respective accounts, and any gain or loss is included in operations. Depreciation of property and equipment is provided using the straight-line method over the estimated lives as follows:

Building	20 years
Vehicles	2 - 5 years
Office and Other Equipment	2 - 5 years
Software	2 - 3 years

Impairment of Long-lived Assets

In accordance with FASB ASC Topic 360, *"Property, Plant, and Equipment*," the Company reviews its long-lived assets, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable. If the total expected undiscounted future net cash flows are less than the carrying amount of the asset, a loss is recognized for the difference between the fair value and carrying amount of the asset. The Company recorded asset impairment loss of $28,429,789 for three projects for the year ended December 31, 2018, as described below.

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai entered into a Projects Transfer Agreement for Xi'an Zhonghong to transfer the Xuzhou Huayu Project to Mr. Bai for RMB 120,000,000 ($17.52 million), which transfer price was considered as the fair value of the project. The Company compared the carrying value and fair value of the Huayu project, and recorded asset impairment loss of $6,528,120 for the project.

On December 29, 2018, Xi'an Zhonghong, Xi'an TCH, the "HYREF", Guohua Ku, and Mr. Chonggong Bai entered into a CDQ WHPG Station Fixed Assets Transfer Agreement for Xi'an Zhonghong to transfer Chengli CDQ WHPG station as the repayment of a loan for RMB 188,639,400 ($27.54 million) to HYREF. The transfer price was considered the fair value of the system. The Company compared the carrying value and fair value of the Chengli system, and recorded asset impairment loss of $8,124,968 for the system.

As of December 31, 2018, the progress of the Xuzhou Tian'an project is slow due to strict environmental protection policies, and management intends to transfer the project. The Company anticipated the transfer price to be around RMB 172,250,000.00 ($25.15 million), and believed it to be the fair market value of the project. The Company compared the carrying value and fair value of the Xian'an project, and recorded asset impairment loss of $13,776,701 for the project.

Notes Payable – Banker's Acceptances

The Company endorses banker's acceptances that are issued from a bank to vendors as payment for its obligations. Most of the banker's acceptances have maturity dates of less than six months following their issuance.

Cost of Sales

Cost of sales consists primarily of the direct material of the power generating system and expenses incurred directly for project construction for sales-type leasing and sales tax and additions for contingent rental income.

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Income Taxes

Income taxes are accounted for using an asset and liability method. Under this method, deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each period end based on enacted tax laws and statutory tax rates, applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

The Company follows ASC Topic 740, which prescribes a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC Topic 740 also provides guidance on recognition of income tax assets and liabilities, classification of current and deferred income tax assets and liabilities, accounting for interest and penalties associated with tax positions, accounting for income taxes in interim periods, and income tax disclosures.

Under the provisions of ASC Topic 740, when tax returns are filed, it is likely that some positions taken would be sustained upon examination by the taxing authorities, while others are subject to uncertainty about the merits of the position taken or the amount of the position that would be ultimately sustained. The benefit of a tax position is recognized in the financial statements in the period during which, based on all available evidence, management believes it is more likely than not that the position will be sustained upon examination, including the resolution of appeals or litigation processes, if any. Tax positions taken are not offset or aggregated with other positions. Tax positions that meet the more-likely-than-not recognition threshold are measured as the largest amount of tax benefit that is more than 50 percent likely of being realized upon settlement with the applicable taxing authority. The portion of the benefits associated with tax positions taken that exceeds the amount measured as described above is reflected as a liability for unrecognized tax benefits in the accompanying balance sheets along with any associated interest and penalties that would be payable to the taxing authorities upon examination.

CREG is subject to U.S. corporate income taxes on its taxable income at a rate of up to 21% for taxable years beginning after December 31, 2017 and U.S. corporate income tax on its taxable income of up to 35% for prior tax years. On December 22, 2017, the Tax Cut and Jobs Act (“Tax Act”) was signed into law. The Tax Act introduced a broad range of tax reform measures that significantly changed the federal income tax laws. The provisions of the Tax Act that may have significant impact on the Company, including the permanent reduction of the corporate income tax rate from 35% to 21% effective for tax years including or commencing on January 1, 2018, one-time transition tax on post-1986 foreign unremitted earnings, provision for Global Intangible Low Tax Income (“GILTI”), deduction for Foreign Derived Intangible Income (“FDII”), repeal of the corporate alternative minimum tax, limitation of various business deductions, and modification of the maximum deduction of net operating loss with no carryback but indefinite carryforward provision. Many provisions in the Tax Act are generally effective in tax years beginning after December 31, 2017. Taxpayers may elect to pay the one-time transition tax over eight years, or in a single lump-sum payment.

To the extent that portions of its U.S. taxable income, such as Subpart F income or GILTI, are determined to be from sources outside of the U.S., subject to certain limitations, the Company may be able to claim foreign tax credits to offset its U.S. income tax liabilities. Any remaining liabilities are accrued in the Company's consolidated statements of comprehensive income and estimated tax payments are made when required by U.S. law.

The Act also created new taxes on certain foreign-sourced earnings such as global intangible low-taxed income ("GILTI") under IRC Section 951A, which is effective for the Company for tax years beginning after January 1, 2018. For the year ended December 31, 2018, the Company has calculated its best estimate of the impact of the GILTI in its income tax provision in accordance with its understanding of the Act and guidance available as of the date of this filing.

Noncontrolling Interests

The Company follows FASB ASC Topic 810, *"Consolidation,"* which established new standards governing the accounting for and reporting of noncontrolling interests ("NCIs") in partially owned consolidated subsidiaries and the loss of control of subsidiaries. Certain provisions of this standard indicate, among other things, that NCIs (previously referred to as minority interests) be treated as a separate component of equity, not as a liability (as was previously the case), that increases and decreases in the parent's ownership interest that leave control intact be treated as equity transactions rather than as step acquisitions or dilution gains or losses, and that losses of a partially-owned consolidated subsidiary be allocated to NCIs even when such allocation might result in a deficit balance.

The net income (loss) attributed to NCIs was separately designated in the accompanying statements of income and comprehensive income (loss). Losses attributable to NCIs in a subsidiary may exceed an NCI's interests in the subsidiary's equity. The excess attributable to NCIs is attributed to those interests. NCIs shall continue to be attributed their share of losses even if that attribution results in a deficit NCI balance.

Statement of Cash Flows

In accordance with FASB ASC Topic 230, *"Statement of Cash Flows,"* cash flows from the Company's operations are calculated based upon the local currencies. As a result, amounts related to assets and liabilities reported on the statement of cash flows may not necessarily agree with changes in the corresponding balances on the balance sheet.

Fair Value of Financial Instruments

For certain of the Company's financial instruments, including cash and equivalents, restricted cash, accounts receivable, other receivables, accounts payable, accrued liabilities and short-term debts, the carrying amounts approximate their fair values due to their short maturities. Receivables on sales-type leases are based on interest rates implicit in the lease.

FASB ASC Topic 820, *"Fair Value Measurements and Disclosures,"* requires disclosure of the fair value ("FV") of financial instruments held by the Company. FASB ASC Topic 825, *"Financial Instruments,"* defines FV, and establishes a three-level valuation hierarchy for disclosures of FV measurement that enhances disclosure requirements for FV measures. The carrying amounts reported in the consolidated balance sheets for receivables and current liabilities each qualify as financial instruments and are a reasonable estimate of their FV because of the short period of time between the origination of such instruments and their expected realization and their current market rate of interest. The three levels of valuation hierarchy are defined as follows:

Level 1 inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 inputs to the valuation methodology are unobservable and significant to FV measurement.

The Company analyzes all financial instruments with features of both liabilities and equity under ASC 480, *"Distinguishing Liabilities from Equity,"* and ASC 815, *"Derivatives and Hedging."*

As of December 31, 2018 and December 31, 2017, the Company did not have any long-term debt obligations; and the Company did not identify any assets or liabilities that are required to be presented on the balance sheet at FV.

Stock-Based Compensation

The Company accounts for its stock-based compensation in accordance with FASB ASC Topic 718 *"Compensation—Stock Compensation,"* and FASB ASC Topic 505, "*Equity."* The Company recognizes in its statement of operations FV at the grant date for stock options and other equity-based compensation issued to employees and non-employees.

Basic and Diluted Earnings per Share

The Company presents net income (loss) per share ("EPS") in accordance with FASB ASC Topic 260, *"Earning Per Share."* Accordingly, basic income (loss) per share is computed by dividing income (loss) available to common stockholders by the weighted average number of shares outstanding, without consideration for common stock equivalents. Diluted EPS is computed by dividing the net income by the weighted-average number of common shares outstanding as well as common share equivalents outstanding for the period determined using the treasury-stock method for stock options and warrants and the if-converted method for convertible notes. The Company made an accounting policy election to use the if-converted method for convertible securities that are eligible to receive common stock dividends, if declared. Diluted EPS reflect the potential dilution that could occur based on the exercise of stock options or warrants or conversion of convertible securities using the if-converted method.

The following table presents a reconciliation of basic and diluted EPS for the year ended December 31, 2018 and 2017:

	Years Ended December 31, 2018	2017
Net loss	$(65,996,898)	$(7,342,551)
Weighted average shares outstanding – basic	8,658,267	8,310,198
Effect of dilutive securities:		
Warrants granted	47,628	-
Options granted	-	155
Weighted average shares outstanding – diluted	8,705,895	8,310,353
Loss per share – basic	$(7.62)	$(0.88)
Loss per share – diluted *	$(7.62)	$(0.88)

* The basic and diluted loss per share are the same due to antidilutive options and warrants resulting from the Company's net loss.

Foreign Currency Translation and Comprehensive Income (Loss)

The Company's functional currency is the Renminbi ("RMB"). For financial reporting purposes, RMB were translated into United States Dollars ("USD" or "$") as the reporting currency. Assets and liabilities are translated at the exchange rate in effect at 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 resulting from foreign currency transactions are included in income. There was no significant fluctuation in the exchange rate for the conversion of RMB to USD after the balance sheet date.

The Company follows FASB ASC Topic 220, *"Comprehensive Income."* 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.

Segment Reporting

FASB ASC Topic 280, *"Segment Reporting,"* requires use of the "management approach" model for segment reporting. The management approach model is based on the way a company's management organizes segments within the company for making operating decisions and assessing performance. Reportable segments are based on products and services, geography, legal structure, management structure, or any other manner in which management disaggregates a company. FASB ASC Topic 280 has no effect on the Company's CFS as substantially all of the Company's operations are conducted in one industry segment. All of the Company's assets are located in the PRC.

New Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02, Leases (Topic 842). The guidance in ASU 2016-02 supersedes the lease recognition requirements in ASC Topic 840, Leases (FAS 13). ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both financing and operating leases, along with additional qualitative and quantitative disclosures. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company is currently evaluating the effect this standard will have on its CFS.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments-Credit Losses (Topic 326), which requires entities to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early application will be permitted for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the standard will have on its CFS and related disclosures.

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its FV, not to exceed the carrying amount of goodwill. The guidance should be adopted on a prospective basis for the annual or any interim goodwill impairment tests beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact of adopting this standard on its CFS.

In June 2018, the FASB issued ASU 2018-07, "Compensation — Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting," which expands the scope of ASC 718 to include share-based payment transactions for acquiring goods and services from non-employees. An entity should apply the requirements of ASC 718 to non-employee awards except for specific guidance on inputs to an option pricing model and the attribution of cost. The amendments specify that ASC 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards. The new guidance is effective for SEC filers for fiscal years, and interim reporting periods within those fiscal years, beginning after December 15, 2019 (i.e., January 1, 2020, for calendar year entities). Early adoption is permitted. The Company is evaluating the effects of the adoption of this guidance and currently believes that it will impact the accounting of the share-based awards granted to non-employees.

In August 2018, the SEC issued Release No. 33-10532 that amends and clarifies certain financial reporting requirements. The principal change to our financial reporting will be the inclusion of the annual disclosure requirement of changes in stockholders' equity in Rule 3-04 of Regulation S-X to interim periods. We will adopt this new rule beginning with its financial reporting for the quarter ending March 31, 2019. Upon adoption, the Company will include its Consolidated Statements of Stockholders' Equity with each quarterly filing on Form 10-Q.

Other recent accounting pronouncements issued by the FASB, including its Emerging Issues Task Force, the American Institute of Certified Public Accountants, and the SEC did not or are not believed by management to have a material impact on the Company's present or future CFS.

3. NOTES RECEIVABLE – BANK ACCEPTANCE

As of December 31, 2018 and 2017, the Company had outstanding notes receivable on-hand of $0 and $979,462, respectively, representing the commercial notes (also called bank acceptances) that were issued by customers to Erdos TCH and were honored by the applicable bank. Erdos TCH may hold a bank acceptance until the maturity for the full payment, have the bank acceptance cashed out from the bank at a discount at an earlier date, or transfer the bank acceptance to its vendors in lieu of payment.

4. INVESTMENT IN SALES-TYPE LEASES, NET

Under sales-type leases, Xi'an TCH leases the following systems: (i) BMPG systems to Pucheng Phase I and II (15 and 11 year terms, respectively); (ii) BMPG systems to Shenqiu Phase I (11-year term); and (iii) BMPG systems to Shenqiu Phase II (9.5-year term). The components of the net investment in sales-type leases as of December 31, 2018 and 2017 are as follows:

	2018	2017
Total future minimum lease payments receivable	$88,661,266	$99,155,214
Less: executory cost	(5,687,704)	(6,360,901)
Less: unearned interest	(19,398,707)	(23,730,094)
Less: realized interest income but not yet received	(9,336,141)	(9,619,278)
Less: allowance for net investment receivable	(29,276,658)	(1,802,822)
Investment in sales-type leases, net	24,962,056	57,642,119
Current portion	-	11,531,745
Noncurrent portion	$24,962,056	$46,110,374

As of December 31, 2018, the future minimum rentals to be received on non-cancelable sales-type leases by year are as follows:

2019	$36,251,311
2020	12,414,034
2021	12,414,034
2022	10,971,558
2023	6,644,132
Thereafter	9,966,197
Total	$88,661,266

5. PREPAID EXPENSES

Prepaid expenses mainly consisted of prepayment for office rental and decorations, taxes, and consulting fees for the Company's HYREF fund completed in July 2013. Before the HYREF Fund released the money to Zhonghong, Xi'an TCH paid 2% of the funds raised for Zhonghong, i.e. RMB 8.2 million ($1.2 million) to the Fund Management Company as a consulting fee, and shall pay such 2% on the amount of funds actually contributed as an annual management fee on every 365-day anniversary thereafter until Zhonghong fully repays the loan and the HYREF Fund no longer has an ownership interest in Zhonghong. The Company had $0.71 million prepaid consulting expenses as of December 31, 2017, respectively. The Company had $32,395 and $34,026 prepaid taxes as of December 31, 2018 and 2017, respectively.

6. OTHER RECEIVABLES

As of December 31, 2018, other receivables mainly consisted of (i) advances to third parties of $7,285, bearing no interest, payable upon demand, and tax and maintenance cost receivable of 1,528,368 for Xi'an TCH. As of December 31, 2017, other receivables mainly consisted of an advance to a third party of $7,652, bearing no interest, payable upon demand, and tax and maintenance cost receivable of 1,155,670 for Xi'an TCH.

7. LONG TERM INVESTMENT

On June 25, 2013, Xi'an TCH with HongyuanHuifu Venture Capital Co. Ltd ("HongyuanHuifu") jointly established Beijing Hongyuan Recycling Energy Investment Management Company Ltd. (the "Fund Management Company") with registered capital of RMB 10 million ($1.6 million), to manage a fund that will be used for financing CDQ WHPG projects. Xi'an TCH made an initial capital contribution of RMB 4 million ($0.65 million) and has a 40% ownership interest in the Fund Management Company. Voting rights and dividend rights are allocated between HongyuanHuifu and Xi'an TCH at 80% and 20%, respectively. The Company accounted for this investment using the equity method. The Company recorded $469 and $(176,481) equity-based investment income (loss) during the years ended December 31, 2018 and 2017, respectively.

On July 18, 2013, the HYREF Fund was established as a limited liability partnership in Beijing. Pursuant to the Partnership Agreement, the HYREF Fund has a general partner, the Fund Management Company, which made an initial capital contribution of RMB 5 million ($0.83 million) to 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) and is a preferred limited partner, (2) HongyuanHuifu, which made an initial capital contribution of RMB 100 million ($16.67 million) and is an ordinary limited partner and (3) the Company's wholly-owned subsidiary, Xian TCH, which made an initial capital contribution of RMB 75 million ($10.81 million) and is a secondary limited partner. The term of the HYREF Fund's partnership is six years from the date of its establishment, July 18, 2013. The current term for (x) the preferred limited partner is four years from the date of its contribution and (y) the ordinary limited partner is four years from the date of its contribution. Unless otherwise approved by the general partner (the Fund Management Company), upon the expiration of their respective terms, each partner shall exit from the partnership automatically. The total size of the HYREF Fund is RMB 460 million ($77 million), and the purpose of the HYREF Fund is to invest in Zhonghong for constructing 3 new CDQ WHPG projects. Xi'an TCH owns 16.3% of the HYREF Fund. The Company accounted for this investment using the cost method. The Company netted off the investment of RMB 75 million ($10.81 million) by Xi'an TCH with the entrusted loan payable of the HYREF Fund.

On December 29, 2018, Xi'an TCH entered into a Share Transfer Agreement with Hongyuan Huifu, pursuant to which Xi'an TCH agreed to transfer its 40% ownership in the Fund Management Company to Hongyuan Huifu for consideration of RMB 3,453,867.31 ($0.53 million). The transfer was completed on January 22, 2019. The Company had approximately $79,000 loss from the sale of a 40% equity interest in Fund Management Company.

8. CONSTRUCTION IN PROGRESS

Construction in progress was for constructing power generation systems. As of December 31, 2018 and 2017, the Company's construction in progress included:

	2018	2017
Xuzhou Huayu	$23,778,899	$24,976,178
Xuzhou Tian'an	38,380,969	37,814,637
Boxing County Chengli	-	32,375,158
Less: assets impairment allowance	(19,577,691)	-
Total	$42,582,177	$95,165,973

As of December 31, 2018, the Company was committed to pay an additional $11.66 million for the Xuzhou Huayu project; however, on February 15, 2019, Zhonghong transferred Xuzhou Huayu Project to Mr. Bai for RMB 120,000,000 ($17.52 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng, to the "HYREF" as repayment for the loan made by Xi'an Zhonghong to HYREE as consideration for the transfer of the Xuzhou Huayu Project (see Note 12).

As of December 31, 2018, the Company was committed to pay an additional $4.04 million for the Xuzhou Tian'an project.

The Chengli project finished construction, and was transferred to the Company's fixed assets at a cost of $35.24 million and ready to be put into operation as of December 31, 2018; the owner of the Chengli Project changed from Chengli to Shandong Boxing Shengli Technology Company Ltd. ("Shengli") in 2018. On January 22, 2019, Xi'an Zhonghong, transferred Chengli CDQ WHPG station as the repayment of loan at RMB 188,639,400 ($27.54 million) to HYREF (see Note 12).

9. TAXES PAYABLE

Taxes payable consisted of the following as of December 31, 2018 and 2017:

	2018	2017
Income – current	$1,718,051	$1,097,768
VAT	1,666,695	1,145,363
Other	251,813	180,649
Total – current	3,636,559	2,423,780
Income – noncurrent	$6,390,625	$6,998,625

Income tax payable was approximately $8.11 million at December 31, 2018, including $1.21 million current and $6.39 million noncurrent was from recording the estimated one-time transition tax on post-1986 foreign unremitted earnings under the Tax Cut and Jobs Act signed on December 22, 2017. An election is available for the U.S. shareholders of a foreign company to pay the tax liability in installments over a period of eight years with 8% of net tax liability in the first five years, 15% in the sixth year, 20% in the seventh year, and 25% in the eighth year. The Company made such election.

10. ACCRUED LIABILITIES AND OTHER PAYABLES

Accrued liabilities and other payables consisted of the following as of December 31, 2018 and 2017:

	2018	2017
Employee training, labor union expenditure and social insurance payable	$844,997	$852,316
Consulting, auditing, and legal expenses	488,052	480,057
Accrued payroll and welfare	261,152	261,793
Other	23,796	24,150
Total	$1,617,997	$1,618,316

11. DEFERRED TAX LIABILITY, NET

Deferred tax assets resulted from asset impairment loss which was temporarily non-tax deductible for tax purposes but expensed in accordance with US GAAP, interest income in sales-type leases which was recognized as income for tax purposes but not for book purpose as it did not meet revenue recognition in accordance with US GAAP, accrued employee social insurance that can be deducted for tax purposes in the future, and the difference between tax and accounting basis of cost of fixed assets which was capitalized for tax purposes and expensed as part of cost of systems in accordance with US GAAP. Deferred tax liability arose from the difference between tax and accounting basis of net investment in sales-type leases.

As of December 31, 2018 and 2017, deferred tax liability consisted of the following:

	2018	2017
Deferred tax asset — current (accrual of employee social insurance)	$186,779	$189,617
Deferred tax liability — current (net investment in sales-type leases)	(1,639,057)	(1,520,537)
Deferred tax liability, net of current deferred tax asset	$(1,452,278)	$(1,330,920)
Deferred tax asset — noncurrent (depreciation of fixed assets)	$6,176,064	$7,675,645
Deferred tax asset — noncurrent (asset impairment loss)	15,003,497	450,706
Deferred tax asset — noncurrent (capitalized interest on CIP)	2,531,120	2,574,749
Deferred tax asset---noncurrent (interest income in sales-type leases)	658,307	-
Deferred tax asset---noncurrent (US NOL)	3,114,083	14,321,617
Deferred tax asset---noncurrent (PRC NOL)	1,617,861	-
Less: valuation allowance on deferred tax assets	(21,353,059)	(14,321,617)
Deferred tax assets --- noncurrent, net	7,747,873	10,701,100
Deferred tax liability — noncurrent (net investment in sales-type leases)	(9,335,941)	(11,527,594)
Deferred tax liability, net of noncurrent deferred tax assets	$(1,588,068)	$(826,494)
Total Deferred tax liability, noncurrent per ASU 2015-17	$(3,040,346)	$(2,157,414)

12. LOANS PAYABLE

Entrusted Loan Payable (HYREF Loan)

The HYREF (Beijing Hongyuan Recycling Energy Investment Center, LLP) established in July 2013 with a total fund size of RMB 460 million ($77 million) invests in Xi'an Zhonghong for Zhonghong's three new CDQ WHPG projects. The HYREF Fund invested RMB 3 million ($0.5 million) as an equity investment and RMB 457 million ($74.5 million) as a debt investment in Xi'an Zhonghong; in return for such investments, the HYREF Fund will receive interest from Zhonghong for the HYREF Fund's debt investment. The RMB 457 million ($74.5 million) was released to Zhonghong through an entrusted bank, which is also the supervising bank for the use of the loan. The loan was deposited in a bank account at the Supervising Bank (the Industrial Bank Xi'an Branch) and is jointly supervised by Zhonghong and the Fund Management Company. Project spending shall be verified by the Fund Management Company to confirm that it is in accordance with the project schedule before the funds are released. All the operating accounts of Zhonghong have been opened with the branches of the Supervising Bank, and the Supervising Bank has the right to monitor all bank accounts opened by Zhonghong. The entrusted bank will charge 0.1% of the loan amount as a service fee and will not take any lending risk. The loan was collateralized by the accounts receivable and the fixed assets of Shenqiu Phase I and II power generation systems; the accounts receivable and fixed assets of Zhonghong's three CDQ WHPG systems; and a 27 million RMB capital contribution made by Xi'an TCH. Repayment of the loan (principal and interest) was also jointly and severally guaranteed by Xi'an TCH and the Chairman and CEO of the Company. In the fourth quarter of 2015, three power stations of Erdos TCH were pledged to Industrial Bank as an additional guarantee for the loan lent to Zhonghong's three CDQ WHPG systems. In 2016, two additional power stations of Erdos TCH and Pucheng Phase I and II systems were pledged to Industrial Bank as an additional guarantee along with Xi'an TCH's equity in Zhonghong.

The loan agreement provides that Zhonghong shall also maintain a certain capital level in its account with the Supervising Bank to make sure it has sufficient funds to make interest payments when they are due:

During the first three years from the first release of the loan, the balance in its account shall be no less than RMB 7.14 million ($1.19 million) on the 20th day of the second month of each quarter and no less than RMB 14.28 million ($2.38 million) on the 14th day of the last month of each quarter;

During the fourth year from the first release of the loan, the balance in its account shall be no less than RMB 1.92 million ($0.32 million) on the 20th day of the second month of each quarter and no less than RMB 3.85 million ($0.64 million) on the 14th day of the last month of each quarter; and

During the fifth year from the first release of the loan, the balance in its account shall be no less than RMB 96,300 ($16,050) on the 20th day of the second month of each quarter and no less than RMB 192,500 ($32,080) on the 14th day of the last month of each quarter.

The term of this loan is for 60 months from July 31, 2013 to July 30, 2018. On August 6, 2016, Zhonghong was required to repay principal of RMB 280 million ($42.22 million); on August 6, 2017, Zhonghong was initially supposed to repay principal of RMB 100 million ($16.27 million) and on July 30, 2018, Zhonghong was initially supposed to repay the remainder of RMB 77 million ($12.52 million). The interest rate is 12.5%. During the term, Zhonghong shall maintain a minimal funding level and capital level in its designated account with the Supervising Bank to make sure it has sufficient funds to make principal payments when they are due. Notwithstanding the requirements, the HYREF Fund and Supervising Bank verbally notified Zhonghong from the beginning that it was unlikely that they would enforce these requirements for the purpose of the efficient utilization of working capital. As of December 31, 2018, the entrusted loan payable had an outstanding balance of $59.29 million, of which, $10.92 million was from the investment of Xi’an TCH; accordingly, the Company netted the loan payable of $10.92 million with the long-term investment to the HYREF Fund made by Xi’an TCH. For the year ended December 31, 2018, the Company recorded interest expense of $5.19 million on this loan and $2.43 million penalty interest on past due loan, and capitalized $2.38 million interest to construction in progress. The Company had paid RMB 50 million ($7.54 million) of the RMB 280 million ($42.22 million), and on August 5, 2016, the Company entered into a supplemental agreement with the lender to extend the due date of the remaining RMB 230 million ($34.68 million) of the original RMB 280 million ($45.54 million) to August 6, 2017. During the year ended December 31, 2017, the Company negotiated with the lender again to further extend the remaining loan balance of RMB 230 million ($34.68 million), RMB 100 million ($16.27 million), and RMB 77 million ($12.52 million) (which included investment from Xi’an TCH of RMB 75 million and was netted off with the entrusted loan payable of the HYREF Fund in the balance sheet). The lender has tentatively agreed to extend the remaining loan balance until August 2019 with an adjusted annual interest rate of 9%, subject to the final approval from its headquarters. The headquarters did not approve the extension proposal with an adjusted annual interest rate of 9%; however, the Company worked out with the lender on an alternative repayment proposal on December 29, 2018 as described below. As of December 31, 2018, the interest payable for this loan was $17.47 million.

As of December 31, 2018, the future minimum repayment of all the loans including the entrusted loan to be made annually is as follows:

2019	$48,373,936
Total	$48,373,936

Repayment of HYREF loan

1. Transfer of Chengli project as partial repayment

On December 29, 2018, Xi'an Zhonghong, Xi'an TCH, the HYREF, Guohua Ku, and Chonggong Bai entered into a CDQ WHPG Station Fixed Assets Transfer Agreement, pursuant to which Xi'an Zhonghong will transfer Chengli CDQ WHPG station as the repayment of loan at RMB 188,639,400 ($27.54 million) to HYREF. Xi'an Zhonghong, Xi'an TCH, Guohua Ku and Chonggong Bai also agreed to buy back the Chengli CDQ WHPG Station when conditions under the Buy Back Agreement are met.

On January 22, 2019, Xi'an Zhonghong, completed the transfer of Chengli CDQ WHPG station to HYREF as the repayment of a loan for RMB 188,639,400 ($27.54 million) owed to HYREF. Xi'an TCH is a secondary limited partner of HYREF. The consideration of the CDQ WHPG station is determined by the parties based upon the appraisal report issued by Zhonglian Assets Appraisal Group (Shaanxi) Co., Ltd. as of August 15, 2018.

2. Buy Bank Agreement

On December 29, 2018, Xi'an TCH, Xi'an Zhonghong, HYREF, Guohua Ku, Chonggong Bai and Xi'an Hanneng Enterprises Management Consulting Co. Ltd. ("Xi'an Hanneng") entered into a Buy Back Agreement.

Pursuant to the Buy Back Agreement, Xi'an TCH, Xi'an Zhonghong, Guohua Ku and Chonggong Bai (the "Buyers") jointly and severally agreed to buy back all outstanding capital equity of Xi'an Hanneng which was transferred to HYREF by Chonggong Bai (see 5 below), and a CDQ WHPG station in Boxing County which was transferred to HYREF by Xi'an Zhonghong. The buy-back price for the Xi'an Hanneng's equity will be the higher of (i) the market price of the equity shares at the time of buy-back; or (ii) the original transfer price of the equity shares plus bank interest. HYREF may request that the Buyers buy back the equity shares of Xi'an Hanneng and/or the CDQ WHPG station if one of the following conditions is met: (i) HYREF holds the equity shares of Xi'an Hanneng until December 31, 2021; (ii) Xi'an Huaxin New Energy Co., Ltd., a subsidiary of Xi'an Hanneng is delisted from The National Equities Exchange And Quotations Co., Ltd., a Chinese over-the-counter trading system (the "NEEQ"); (iii) Xi'an Huaxin New Energy, or any of the Buyers or its affiliates has a credit problem, including not being able to issue an auditor report or standard auditor report or any control person or executive of the Buyers is involved in crimes and is under prosecution or has other material credit problems, to HYREF's reasonable belief; (iv) if Xi'an Zhonghong fails to timely make repayment on principal or interest of the loan agreement, its supplemental agreement or extension agreement; (v) the Buyers or any party to the Debt Repayment Agreement materially breaches the Debt Repayment Agreement or its related transaction documents, including but not limited to the Share Transfer Agreement, the Pledged Assets Transfer Agreement, the Entrusted Loan Agreement and their guarantee agreements and supplemental agreements.

3. Xi'an TCH transferred 40% ownership in the Fund Management Company to Hongyuan Huifu for partial payment of financial advisory fee

On December 29, 2018, Xi'an TCH entered into a Share Transfer Agreement with Hongyuan Huifu Venture Capital Co. Ltd ("Hongyuan Huifu"), pursuant to which Xi'an TCH agreed to transfer its 40% ownership in Hongyuan Recycling Energy Investment Management Beijing Co., Ltd. (the "Fund Management Company") to Hongyuan Huifu for consideration of RMB 3,453,867 ($504,000) (the "Fund Management Company Transfer Price"). On January 22, 2019, Xi'an TCH completed the 40% ownership transfer transaction.

On December 29, 2018, Xi'an TCH, Hongyuan Huifu and Fund Management Company entered into a supplemental agreement to the Share Transfer Agreement. Xi'an TCH owes the Fund Management Company RMB 18,306,667 ($2,672,000) in financial advisory fees, and the parties agreed that the Fund Management Company Transfer Price could be used to off-set the outstanding financial advisory fees. Upon the completion of this transaction, the Fund Management Company will owe RMB 3,453,867 to Hongyuan Huifu, and Xi'an TCH will owe RMB 14,852,800 ($2,168,000) to the Fund Management Company.

4. HYREF Fund transferred 10% ownership in Xi'an Zhonghong to Shanghai TCH

On December 29, 2018, Shanghai TCH entered into a Share Transfer Agreement with HYREF, pursuant to which HYREF agreed to transfer its 10% ownership in Xi'an Zhonghong to Shanghai TCH for consideration of RMB 3 million ($437,956). On January 22, 2019, Hongyuan Huifu completed the transfer of its 10% ownership in Xi'an Zhonghong o Shanghai TCH.

5. Transfer of Xuzhou Huayu Project and Shenqiu Phase I & II project to Mr. Bai for partial repayment of HYREF loan

On January 4, 2019, Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, a resident of China, entered into a Projects Transfer Agreement, pursuant to which Xi'an Zhonghong will transfer a CDQ WHPG station (under construction) located in Xuzhou City for Xuzhou Huayu Coking Co., Ltd. ("Xuzhou Huayu Project") to Mr. Bai for RMB 120,000,000 ($17.52 million) and Xi'an TCH will transfer two Biomass Power Generation Projects in Shenqiu ("Shenqiu Phase I and II Projects") to Mr. Bai for RMB 127,066,000 ($18.55 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng Enterprises Management Consulting Co. Ltd. ("Xi'an Hanneng") to the HYREF as repayment for the RMB 247,066,000 ($36.07 million) loan made by Xi'an Zhonghong to HYREF as consideration for the transfer of the Xuzhou Huayu Project and Shenqiu Phase I and II Projects.

On February 15, 2019, Xi'an Zhonghong completed the transfer of Xuzhou Huayu Project to Mr. Chonggong Bai for RMB 120,000,000 (US$17.52 million) and Xi'an TCH completed the transfer of Shenqiu Phase I and II Projects to Mr. Bai for RMB 127,066,000 ($18.55 million). Mr. Bai agreed to transfer all the equity shares of his wholly owned company, Xi'an Hanneng to HYREF as repayment by Xi'an Zhonghong for the RMB 247,066,000 ($36.07 million) loan to HYREE as consideration for the transfer of the Xuzhou Huayu Project and Shenqiu Phase I and II Projects.

13. REFUNDABLE DEPOSITS FROM CUSTOMERS FOR SYSTEMS LEASING

As of December 31, 2018 and 2017, the balance of refundable deposits from customers for systems leasing for Pucheng and Shenqiu was $1,034,503 and $1,086,591, respectively.

14. RELATED PARTY TRANSACTIONS

As of December 31, 2018 and 2017, the Company had $41,168 and $43,623, respectively, in advances from the Company's management, which bear no interest, are unsecured, and are payable upon demand.

15. CONVERTIBLE NOTE PAYABLE, NET

On July 11, 2018, the Company entered into a Securities Purchase Agreement with a Purchaser, pursuant to which the Company sold and issued to the Purchaser a Convertible Promissory Note of $1,070,000. The Purchaser purchased the Note with an original issue discount ("OID") of $50,000, and the Company paid to the Purchaser $20,000 for fees and costs incurred by Purchaser in connection with the consummation of the Purchase Agreement.

The Note bears interest at 8%. All outstanding principal and accrued interest on the Note will become due and payable on July 11, 2020, subject to a potential one-year extension during which interest would not accrue. The Company's obligations under the Note may be prepaid at any time, provided that in such circumstance the Company would pay 125% of any amounts outstanding under the Note and being prepaid. Amounts outstanding under the Note may be converted at any time, at the Lender's option, into shares of the Company's common stock at a conversion price of $3.00 per share, subject to certain adjustments. During the term of the Note, the Company shall not, without the prior written consent of the Purchaser, enter into or effect certain fundamental business transactions. The Purchaser has the option to redeem the Note at any time after the six month anniversary of the date when the purchase price is delivered to the Company ("Purchase Price Date") in the amounts of up to 50% of the amount outstanding during the nine month period after Purchase Price Date or any percentage of the amount outstanding under the Note at any time after the nine month anniversary of Purchase Price Date, with such redemption amounts paid in cash or shares of the Company's common stock, or a combination thereof, at the Company's election.

As of December 31, 2018, the Company had $1,031,849 convertible note payable, net of unamortized OID and unamortized debt issuing cost; and the Company had $40,572 accrued interest on this convertible note. During the year ended December 31, 2018, the Company amortized OID of $11,849 and loan issuing cost of $4,740.

16. SHARES ISSUED FOR EQUITY FINANCING

On October 29, 2018, China Recycling Energy Corporation entered into Securities Purchase Agreements with certain purchasers, pursuant to which the Company will offer to the Purchasers, in a registered direct offering, an aggregate of 1,985,082 shares of the Company's common stock. The Shares will be sold to the Purchasers at $1.375 per share, for gross proceeds to the Company of approximately $2.75 million, before deducting fees to the placement agent and other estimated offering expenses payable by the Company.

In a concurrent private placement, the Company is also issuing to the each of the Purchasers a warrant ("Investor Warrants") to purchase one (1) share of the Company's Common Stock for each Share purchased under the Purchase Agreement, pursuant to that certain Common Stock Purchase Warrant, by and between the Company and each Purchaser, for a purchase price of $0.125 per Warrant and gross proceeds to the Company of approximately $250,000, before deducting fees to the placement agent and other estimated offering expenses payable by the Company. The

Warrants will be exercisable on the date of issuance at an initial exercise price of $1.3725 per share and will expire on the five and a half year anniversary of the date of issuance.

H.C. Wainwright & Co., LLC is acting as the Company's exclusive placement agent in connection with the offerings under the Purchase Agreement and will receive a fee equal to 7.0% of the gross proceeds received by the Company from the offerings, up to $75,000 for certain expenses and warrants to purchase the Company's Common Stock in an amount equal to 7% of the Company's Shares sold to the Purchasers in the offerings, or 138,956 shares of Common Stock, on substantially the same terms as the Warrants, with an initial exercise price of $1.875 per share and expiration date of October 29, 2023 (the "Placement Agent Warrants").

The warrants issued in this private placement are classified as equity instruments. The Company accounted for the warrants issued in the private placement based on the fair value method under ASC Topic 505, and the fair value of the warrants was calculated using the Black-Scholes model under the following assumptions: estimated life of 5.5 years for Investor Warrants and 5 years for Placement Agent Warrants, volatility of 98%, risk-free interest rate of 2.91% and dividend yield of 0%. The fair value of the warrants issued to investors at grant date was $2,499,238, and the fair value of the warrants issued to the placement agent at grant date was $161,027.

Following is a summary of the warrant activity for the year ended December 31, 2018:

	Number of Warrants	Average Exercise Price	Weighted Average Remaining Contractual Term in Years
Granted	2,124,038	$ 1.41	5.47
Exercised	-	-	-
Forfeited	-	-	-
Expired	-	-	-
Outstanding at December 31, 2018	2,124,038	$ 1.41	5.29
Exercisable at December 31, 2018	2,124,038	$ 1.41	5.29

17. NONCONTROLLING INTEREST

On July 15, 2013, Xi'an TCH and HYREF Fund jointly established Xi'an Zhonghong New Energy Technology ("Zhonghong") with registered capital of RMB 30 million ($4.88 million), to manage new projects. Xi'an TCH paid RMB 27 million ($4.37 million) as its contribution of the registered capital to Zhonghong. Xi'an TCH owns 90% of Zhonghong while HYREF Fund owns 10% of Zhonghong as a non-controlling interest of Zhonghong.

In addition, the HYREF Fund was 16.3% owned by Xi'an TCH and 1.1% owned by the Fund Management Company, and the Fund Management Company was 40% owned by Xi'an TCH as described in Note 7, which resulted in an additional indirect ownership of Xi'an TCH in Zhonghong of 1.7%; accordingly, the ultimate non-controlling interest (HYREF Fund) in Zhonghong became 8.3%. During the years ended December 31, 2018, the Company had losses of $3,203,657 and $327,147 that were attributable to the noncontrolling interest, respectively.

On December 29, 2018, Shanghai TCH entered into a Share Transfer Agreement with HYREF, pursuant to which HYREF agreed to transfer its 10% ownership in Xi'an Zhonghong to Shanghai TCH for RMB 3 million ($437,956). On January 22, 2019, HYREF completed the transfer of its 10% ownership in Xi'an Zhonghong to Shanghai TCH. The Company had approximately $3.98 million loss from the purchase of a 10% equity interest in Xi'an Zhonghong.

18. INCOME TAX

The Company's Chinese subsidiaries are governed by the Income Tax Law of the PRC concerning privately-run enterprises, which are generally subject to tax at 25% on income reported in the statutory financial statements after appropriate tax adjustments. Under Chinese tax law, the tax treatment of finance and sales-type leases is similar to US GAAP. However, the local tax bureau continues to treat CREG sales-type leases as operating leases. Accordingly, the Company recorded deferred income taxes.

The Company's subsidiaries generate all of their income from their PRC operations. All of the Company's Chinese subsidiaries' effective income tax rate for 2018 and 2017 was 25%. Yinghua, Shanghai TCH, Xi'an TCH, Huahong, Zhonghong and Erdos TCH file separate income tax returns.

There is no income tax for companies domiciled in the Cayman Islands. Accordingly, the Company's CFS do not present any income tax provisions related to Cayman Islands tax jurisdiction, where Sifang Holding is domiciled.

The US parent company, China Recycling Energy Corporation, is taxed in the US and, as of December 31, 2018, had net operating loss ("NOL") carry forwards for income taxes of $14.83 million, which may be available to reduce future years' taxable income as NOLs can be carried forward up to 20 years from the year the loss is incurred. Our management believes the realization of benefits from these losses may be uncertain due to the US parent company's continuing operating losses. Accordingly, a 100% deferred tax asset valuation allowance was provided.

As of December 31, 2018, the Company's PRC subsidiaries had $6.47 million NOL that can be carried forward to offset future taxable income for five years from the year the loss is incurred. The NOL was mostly from Zhonghong, Zhonghong has not yet generated any sales yet; accordingly, the Company recorded a 100% deferred tax valuation allowance for PRC NOL.

The following table reconciles the U.S. statutory rates to the Company's effective tax rate for the years ended December 31, 2018 and 2017, respectively:

	2018	2017
U.S. statutory rates	(21.0)%	34.0 %
Tax rate difference – current provision	(4.0)%	(13.5)%
Other	(0.1)%	- %
Tax rate change for future deferred tax items	- %	30.6 %
Prior periods income tax adjustment per income tax return filed	- %	(4.2)%
Section 965 one-time transition tax	- %	2,046.7 %
Permanent differences	- %	1.0 %
Valuation allowance on PRC NOL	28.9 %	63.2 %
Valuation allowance on US NOL	0.2 %	16.3 %
Tax per financial statements	4.0 %	2,174.1 %

The provision for income taxes expense for the years ended December 31, 2018 and 2017 consisted of the following:

	2018	2017
Income tax expense – current	$1,604,473	$9,101,026
Income tax expense (benefit) – deferred	1,022,985	(1,061,548)
Total income tax expense	$2,627,428	$8,039,476

On December 22, 2017, the Tax Cut and Jobs Act ("Tax Act") was signed into law in the United States. The Tax Act introduced a broad range of tax reform measures that significantly change the federal income tax laws. The provisions of the Tax Act that may have significant impact on the Company include the permanent reduction of the corporate income tax rate from 35% to 21% effective for tax years including or commencing on January 1, 2018, a one-time transition tax on post-1986 foreign unremitted earnings, the provision for Global Intangible Low Tax Income ("GILTI"), the deduction for Foreign Derived Intangible Income ("FDII"), the repeal of corporate alternative minimum tax, the limitation of various business deductions, and the modification of the maximum deduction of net operating loss with no carryback but indefinite carryforward provision. Many provisions in the Tax Act are generally effective in tax years beginning after December 31, 2017.

In 2017 the Company reflected the provisional income tax effects of the Tax Act under Accounting Standards Codification Topic 740, Income Taxes, and had approximately $7.61 million tax expense from recording the estimated one-time transition tax on post-1986 foreign unremitted earnings.

19. STOCK-BASED COMPENSATION PLAN

Options to Employees

On June 19, 2015, the stockholders of the Company approved the China Recycling Energy Corporation Omnibus Equity Plan (the "Plan") at its annual meeting. The total shares of common stock authorized for issuance during the term of the Plan is 12,462,605 (prior to the 10:1 Reverse Stock Split). The Plan was effective immediately upon the adoption by the Board of Directors on April 24, 2015, subject to stockholder approval, and will terminate on the earliest to occur of (i) the 10th anniversary of the Plan's effective date, or (ii) the date on which all shares available for issuance under the Plan shall have been issued as fully-vested shares. The stockholders approved the Plan at their annual meeting on June 19, 2015.

On April 27, 2017, the Board approved the grant to the Company's CFO of an option to purchase 5,000 shares of the Company's common stock at $1.61 per share, with a term of 10 years. The option vested immediately upon the grant.

The FV of the stock option granted is estimated on the date of the grant using the Black-Scholes option pricing model ("BSOPM"). The BSOPM has assumptions for risk free interest rates, dividends, stock volatility and expected life of an option grant. The risk-free interest rate is based upon market yields for United States Treasury debt securities at a maturity near the term remaining on the option. Dividend rates are based on the Company's dividend history. The stock volatility factor is based on the historical volatility of the Company's stock price. The expected life of an option grant is based on management's estimate as no options have been exercised in the Plan to date. The FV of the option granted to employees is recognized as compensation expense over the vesting period of the stock option award. The FV of the options was calculated using the following assumptions: estimated life of ten years, volatility of 124%, risk free interest rate of 2.30%, and dividend yield of 0%. The FV of the 5,000 stock options was $7,647 at the grant date.

The Company recorded $0 and $7,647 compensation expense for stock options to employees during years ended December 31, 2018 and 2017, respectively.

Options to Independent Directors

On March 31, 2015, the Board appointed Mr. Cangsang Huang as a member of the Company's Board of Directors to fill a vacancy. In connection with the appointment, the Board authorized the Company to provide Mr. Huang with (i) compensation of $2,000 per month and (ii) an option to purchase 40,000 shares of the Company's Common Stock, par value $0.001, at an exercise price of $1.02 per share (prior to the 10:1 Reverse Stock Split effective May 25, 2016), which was equal to the closing price per share of the Company's Common Stock on March 31, 2015. Such options were only valid and exercisable upon stockholder approval. The options to Mr. Huang were not voted upon at the Company's annual stockholder's meeting on June 19, 2015 and were cancelled automatically. However, the Company's Plan adopted by the Board on April 24, 2015 for providing equity awards to employees, directors and consultants was approved at the annual stockholder's meeting; accordingly, the Compensation Committee of the Board of Directors approved a grant of 40,000 options (prior to the 10:1 Reverse Stock Split) to Mr. Huang at an exercise price of $1.02 per share under the Plan, which vested immediately on the date of grant, which was on October 10, 2015. The options may be exercised within five years of the date of the grant. The FV of the options was calculated using the following assumptions, estimated life of five years, volatility of 82%, risk free interest rate of 1.37%, and dividend yield of 0%. The FV of the 40,000 stock options was $26,528 at the grant date.

The following table summarizes option activity with respect to employees and independent directors, and the number of options reflects the 10:1 Reverse Stock Split effective May 25, 2016:

Number of Shares	Average Exercise Price per Share	Weighted Average Remaining

			Contractual Term in Years
Outstanding at January 1, 2017	4,000	$ 10.2	3.77
Exercisable at January 1, 2017	4,000	10.2	3.77
Granted	5,000	1.6	10
Exercised	-	-	-
Forfeited	-	-	-
Outstanding at December 31, 2017	9,000	5.4	6.41
Exercisable at December 31, 2017	9,000	5.4	6.41
Granted	-	-	-
Exercised	-	-	-
Forfeited	-	-	-
Outstanding at December 31, 2018	9,000	$ 5.4	5.41
Exercisable at December 31, 2018	9,000	$ 5.4	5.41

20. STATUTORY RESERVES

Pursuant to the corporate law of the PRC effective January 1, 2006, the Company is only required to maintain one statutory reserve by appropriating from its after-tax profit before declaration or payment of dividends. The statutory reserve represents restricted retained earnings.

Surplus Reserve Fund

The Company's Chinese subsidiaries are required to transfer 10% of their net income, as determined under PRC accounting rules and regulations, to a statutory surplus reserve fund until such reserve balance reaches 50% of the Company's registered capital.

The surplus reserve fund is non-distributable other than during liquidation and can be used to fund previous years' losses, if any, and may be utilized for business expansion or converted into share capital by issuing new shares to existing shareholders in proportion to their shareholding or by increasing the par value of the shares currently held by them, provided that the remaining reserve balance after such issue is not less than 25% of the registered capital.

The maximum statutory reserve amount has not been reached for any subsidiary. The table below discloses the statutory reserve amount in the currency type registered for each Chinese subsidiary as of December 31, 2018.

Name of Chinese Subsidiaries	**Registered Capital**	**Maximum Statutory Reserve Amount**	**Statutory reserve at December 31, 2018**
Shanghai TCH	$29,800,000	$14,900,000	¥ 6,564,303 ($1,003,859)
Xi'an TCH	¥202,000,000	¥101,000,000	¥ 69,359,820 ($10,606,984)
Erdos TCH	¥120,000,000	¥60,000,000	¥ 19,035,814 ($2,914,869)
Xi'an Zhonghong	¥30,000,000	¥15,000,000	Did not accrue yet due to accumulated deficit
Shaanxi Huahong	$2,500,300	$1,250,150	Did not accrue yet due to accumulated deficit
Zhongxun	¥35,000,000	¥17,500,000	Did not accrue yet due to accumulated deficit

Common Welfare Fund

The common welfare fund is a voluntary fund to which the Company can transfer 5% to 10% of its net income. This fund can only be utilized on capital items for the collective benefit of the Company's employees, such as construction of dormitories, cafeteria facilities, and other staff welfare facilities. This fund is non-distributable other than upon liquidation. The Company does not participate in this fund.

21. CONTINGENCIES

China maintains a "closed" capital account, meaning companies, banks, and individuals cannot move money in or out of the country except in accordance with strict rules. The People's Bank of China (PBOC) and State Administration of Foreign Exchange (SAFE) regulate the flow of foreign exchange in and out of the country. For inward or outward foreign currency transactions, the Company needs to make a timely declaration to the bank with sufficient supporting documents to declare the nature of the business transaction. The Company's sales, purchases and expense transactions are denominated in RMB and all of the Company's assets and liabilities are also denominated in RMB. The RMB is not freely convertible into foreign currencies under the current law. Remittances in currencies other than RMB may require certain supporting documentation in order to make the remittance.

The Company’s operations in the PRC are subject to specific considerations and significant risks not typically associated with companies in North America and Western Europe. These include risks associated with, among others, the political, economic and legal environments and foreign currency exchange. The Company’s results may be adversely affected by changes in governmental policies with respect to laws and regulations, anti-inflationary measures, currency conversion and remittance abroad, and rates and methods of taxation, among other things.

The Company sells electricity to its customers and receives commercial notes (bank acceptance) from them in lieu of payments for accounts receivable. The Company discounts the commercial notes with the bank or endorses the commercial notes to vendors for payment of their own obligations or to get cash from third parties. Most of the commercial notes have a maturity of less than six (6) months.

22. COMMITMENTS

Lease Commitment

On November 20, 2017, Xi’an TCH entered into a lease for its office with a term from December 1, 2017 through November 30, 2020. The monthly rent is RMB 36,536 ($5,600) with quarterly payment in advance.

On August 2, 2018, the Company entered into a lease for its office use in Beijing with a term from August 4, 2018 through August 3, 2020. The monthly rent is RMB 22,000 ($3,205) with quarterly payment in advance.

At December 31, 2018, the future annual rental payment is as follows:

December 31, 2019	$107,095
November 30, 2020	85,194

For the years ended December 31, 2018 and 2017, the rental expense of the Company was $83,394 and $197,143, respectively.

Construction Commitment

Refer to Note 1 for additional details related to lease commitments with Tianyu (and its subsidiaries Xuzhou Tian'an and Xuzhou Huayu), Note 8 for commitments on construction in progress.

23. SUBSEQUENT EVENTS

Convertible Notes / Promissory Notes

On January 31, 2019, the Company entered into a Securities Purchase Agreement with Iliad Research and Trading, L.P., a Utah limited partnership (the “Purchaser”), pursuant to which the Company sold and issued to the Purchaser a Convertible Promissory Note (the “Note”) in the amount of $1,050,000. The Purchaser purchased the Note with an original issue discount of $50,000. The Note was sold to the Purchaser pursuant to an exemption from registration under Regulation D, promulgated under the Securities Act of 1933, as amended. The Note bears interest at the rate of 8% per annum. All outstanding principal and accrued interest on the Note will become due and payable on January 30, 2021, subject to a potential one-year extension period during which interest would not accrue. The Company’s obligations under the Note may be prepaid at any time, provided that in such circumstance the Company would pay 125% of any amounts outstanding under the Note and being prepaid. Amounts outstanding under the Note may be converted at any time, at the Lender’s option, into shares of the Company’s common stock at a conversion price of $3.00 per share, subject to certain adjustments.

On February 27, 2019, the Company entered into a Securities Purchase Agreement with Iliad Research and Trading, L.P., a Utah limited partnership (the “Purchaser”), pursuant to which the Company sold and issued to the Purchaser a Convertible Promissory Note (the “Note”) in the amount of $1,050,000. The Purchaser purchased the Note with an original issue discount of $50,000. The Note was sold to the Purchaser pursuant to an exemption from registration under Regulation D, promulgated under the Securities Act of 1933, as amended. The Note bears interest at 8% per annum. All outstanding principal and accrued interest on the Note will become due and payable on February 26, 2021, subject to a potential one-year extension period during which interest would not accrue. The Company’s obligations under the Note may be prepaid at any time, provided that in such circumstance the Company would pay 125% of any amounts outstanding under the Note and being prepaid. Amounts outstanding under the Note may be converted at any time, at the Lender’s option, into shares of the Company’s common stock at a conversion price of $3.00 per share, subject to certain adjustments.

Pursuant to an Exchange Agreement dated April 14, 2019 (the “Exchange Agreement”), the Company and Iliad Research and Trading, L.P. agreed to exchange the above two Original Notes with two new promissory notes (the “Exchange Notes”). All outstanding principal and accrued interest on the Exchange Notes will become due and payable on January 31, 2021 and February 27, 2021, respectively. The Exchange Notes bore interest at the rate of 8% per annum and did not grant conversion options to the Purchaser. The Company’s obligations under the Exchange Notes could be prepaid at any time, provided that in such circumstance the Company would have paid 125% of any amounts outstanding under the Exchange Notes. Beginning on the date that is six (6) months from the issue date of the respective Original Notes (the “Issue Dates”) and at any time thereafter until the Exchange Notes are paid in full, Purchaser shall have the right to redeem up to $750,000 of the outstanding balance during months six to eight following the respective Issue Date and any amount thereafter.

Private Placement in February 2019

On February 13, 2019, China Recycling Energy Corporation entered into a Securities Purchase Agreement (the "Agreement") with Great Essential Investment, Ltd. a company incorporated in the British Virgin Islands (the "Purchaser"), pursuant to which the Company agreed to sell to the Purchaser in a private placement 1,600,000 shares (the "Shares") of the Company's common stock, par value $0.001 per share (the "Common Stock"), at $1.013 per share for $1,620,800 (the "Private Placement"). The Company shall file a registration statement for the registration of the Shares for their resale by the Purchaser within 100 days from the effective date of this Agreement. The Private Placement will be completed pursuant to the exemption from registration provided by Regulation S promulgated under the Securities Act of 1933, as amended.

Registered Direct Offering in April 2019

On April 15, 2019, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with certain purchasers, pursuant to which the Company will offer to the Purchasers, in a registered direct offering, an aggregate of 2,359,272 shares of common stock. The Shares will be sold to the Purchasers at a negotiated purchase price of $0.80 per share, for aggregate gross proceeds to the Company of $1,887,417, before deducting placement agent fees and other estimated offering expenses payable by the Company.

In a concurrent private placement, the Company is also issuing to the each of the Purchasers a warrant to purchase 0.75 of a share of the Company's Common Stock for each share purchased under the Purchase Agreement, or 1,769,454 warrants in the aggregate. The Warrants will be exercisable beginning on the six month anniversary of the date of issuance at an initial exercise price of $0.9365 per share and will expire on the five and one-half year anniversary of the date of issuance.

H.C. Wainwright & Co., LLC is acting as the Company's exclusive placement agent in connection with the offerings under the Purchase Agreement and will receive an aggregate cash fee equal to 7.0% of the gross proceeds received by the Company from the offerings, an aggregate of up to $75,000 for certain expenses, $10,000 for clearing expenses and warrants to purchase our Common Stock in an amount equal to 7% of our Shares sold to the Purchasers in the offerings, or 165,149 shares of Common Stock , on substantially the same terms as the Warrants, except that the Placement Agent Warrants shall have an initial exercise price of $1.00 per share, shall be exercisable commencing on the later of (i) six months of the issuance date or (ii) the date on which the Company increases the number of its authorized shares, and shall expire on April 15, 2024.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Disclosure Controls and Procedures

As of the end of the period covered by this report, we conducted an evaluation under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(f) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)). Based on this evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2018 our disclosure controls and procedures were effective to ensure that information required to be disclosed in our periodic reports filed or submitted under the Securities Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms, and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures will prevent or detect all errors and all fraud. Disclosure controls and procedures, no matter how well designed, operated and managed, can provide only reasonable assurance that the objectives of the disclosure controls and procedures are met. Because of the inherent limitations of disclosure controls and procedures, no evaluation of such disclosure controls and procedures can provide absolute assurance that all control issues and instances of fraud, if any, have been detected.

Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining a system of internal control over financial reporting (“ICFR”) (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations.

We conducted an assessment of the effectiveness of our system of ICFR as of December 31, 2018, the last day of our fiscal year. This assessment was based on criteria established in the framework *Internal Control—Integrated Framework,* issued by the Committee of Sponsoring Organizations of the Treadway Commission and included an evaluation of elements such as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. Based on our assessment, management has concluded that our internal control over financial reporting was effective as of the end of the fiscal year to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with US generally accepted accounting principles. We reviewed the results of management's assessment with the Audit Committee of our Board of Directors.

This annual report on Form 10-K does not include an attestation report of the Company's registered public accounting firm regarding ICFR. Management's report was not subject to attestation by the Company's registered public accounting firm.

Changes in internal control over financial reporting

With the participation of the Company's management, including its Chief Executive Officer and Chief Financial Officer, the Company also conducted an evaluation of the Company's ICFR to determine whether any changes occurred during the Company's fiscal year ended as of December 31, 2018, that have materially affected, or are reasonably likely to materially affect, the Company's ICFR. Based on such evaluation, management concluded that, as of the end of the period covered by this report, there have not been any changes in the Company's internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter to which this report relates that have materially affected, or are reasonably likely to materially affect, the Company's ICFR.

ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

The information required by Part III of this Annual Report on Form 10-K, pursuant to General Instruction G(3) of Form 10-K, will be set forth in the Company's definitive Proxy Statement to be filed pursuant to Regulation 14A relating to the Company's Annual Meeting of Shareholders and is incorporated herein by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Information regarding our directors and executive officers required by this Item will be set forth under the captions "Proposal 1 — Election of Directors," "Executive Officers," "Section 16(a) Beneficial Ownership Reporting Compliance" and "Information About Our Board of Directors and Corporate Governance" in the Company's definitive Proxy Statement and is incorporated by reference into this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION.

Information required by this Item will be set forth in the Company's definitive Proxy Statement under the captions "Information About Our Board of Directors and Corporate Governance," "Executive Compensation" and "Director Compensation" and is incorporated by reference into this Annual Report on Form 10-K.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS.

Information required by this Item will be set forth in the Company's definitive Proxy Statement under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" and is incorporated by reference into this Annual Report on Form 10-K.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

Information required by this Item will be set forth in the Company's definitive Proxy Statement under the captions "Certain Relationships and Related Party Transactions" and "Information About Our Board of Directors and Corporate Governance" and is incorporated by reference into this Annual Report on Form 10-K.

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ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

Information required by this Item will be set forth in the Company's definitive Proxy Statement under the caption "Information about Our Independent Registered Public Accounting Firm" and is incorporated by reference into this Annual Report on Form 10-K.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

(a) Financial Statements and Schedules

(1) The following Financial Statements are filed as a part of this report:

(i) Report of Independent Registered Public Accounting Firm.

(ii) Consolidated Balance Sheets as of December 31, 2018 and December 31, 2017.

(iii) Consolidated Statements of Income for the years ended December 31, 2018 and December 31, 2017.

(iv) Consolidated Statements of Shareholders' Equity for the years ended December 31, 2018 and December 31, 2017.

(v) Consolidated Statements of Cash Flows for the years ended December 31, 2018 and December 31, 2017.

(vi) Notes to Consolidated Financial Statements.

(2) All schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are inapplicable and, therefore, have been omitted.

(3) Exhibits. Please see the list of exhibits set forth on our Exhibit Index, which is incorporated herein by reference.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

China Recycling Energy Corporation

Date: April 16, 2019	By:	/s/ Guohua Ku Guohua Ku Chairman of the Board and Chief Executive Officer, Principal Executive Officer
Date: April 16, 2019	By:	/s/ Binfeng Gu Binfeng Gu Chief Financial Officer, Principal Financial Officer and Secretary

Pursuant to the requirements of the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on April 16, 2019.

Each person whose signature appears below constitutes and appoints Guohua Ku as his/her true and lawful attorney-in-fact and agent, acting alone, with full power of substitution and resubstitution, for him/her and in his/her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the US Securities and Exchange Commission, granting unto said attorney-in-fact and agent, acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all said attorney-in-fact and agent, acting alone, or his substitute, may lawfully do or cause to be done by virtue thereof.

Signature	**Title**
/s/ Guohua Ku Guohua Ku	Chairman of the Board of Directors and Chief Executive Officer
/s/ Binfeng Gu Binfeng Gu	Chief Financial Officer, Principal Financial Officer and Secretary

/s/ Xiaoping Guo	
Xiaoping Guo	Director
/s/ Geyun Wang	
Geyun Wang	Director
/s/ LuLu Sun	
LuLu Sun	Director
/s/ Xiaogang Zhu	
Xiaogang Zhu	Director

EXHIBIT INDEX

The following documents listed below that have been previously filed with the SEC (1934 Act File No. 000-12536 unless otherwise stated) are incorporated herein by reference:

Exhibit No.	Description
3.1	Articles of Incorporation (filed as Exhibit 3.05 to the Company's Form 10-KSB for the fiscal year ended December 31, 2001).
3.2	Fourth Amended and Restated Bylaws (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K dated November 25, 2009).
3.3	Certificate of Change (filed as Exhibit 3.6 to the Company's Current Report on Form 8-K dated May 24, 2016).
4.1	Common Stock Specimen (filed as Exhibit 4.1 to the Company's Registration Statement on Form SB-2 dated November 12, 2004; 1934 Act File No. 333-120431).
10.1	Supplementary Agreement by and between Inner Mongolia Erdos TCH Energy Saving Development Co., Ltd. and Inner Mongolia Erdos Metallurgy Co., Ltd., dated December 1, 2009 (filed as Exhibit 10.27 to the Company's Form 10-K for the year ended December 31, 2009).
10.2	Joint Operation Agreement by and between Xi'an TCH Energy Technology Co., Ltd., a wholly owned subsidiary of the Company, and Inner Mongolia Erdos Metallurgy Co., Ltd., dated January 20, 2009 (filed as Exhibit 10.1 to the Company's Form 10-Q for the quarterly period ended June 30, 2009).
10.3	Form of Independent Director Agreement. (filed as Exhibit 10.28 on the Company's Registration Statement on Form 10, filed on February 5, 2010).*
10.4	Employment Agreement between the Company and Guohua Ku (filed as Exhibit 10.29 on the Company's Registration Statement on Form 10, filed on February 5, 2010).*
10.5	Biomass Power Generation Asset Transfer Agreement (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated September 16, 2013).
10.6	Biomass Power Generation Project Lease Agreement (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K dated September 16, 2013).
10.7	Partnership Agreement of Beijing Hongyuan Recycling Energy Investment Center, LLP, dated July 18, 2013 (filed as Exhibit 10.1 to the Company's Form 10-Q for the quarterly period ended September 30, 2013).
10.8	EPC Contract for Boxing CDQ Waste Heat Power Generation Project, dated July 22, 2013, by and between Xi'an Zhonghong New Energy Technology Co., Ltd and Xi'an Huaxin New Energy Co., Ltd (filed as Exhibit 10.3 to the Company's Form 10-Q for the quarterly period ended September 30, 2013).

10.9	EPC Contract for CDQ Power Generation Project of Xuzhou Tianyu Group, dated July 22, 2013, by and between Xi'an Zhonghong New Energy Technology Co., Ltd and Xi'an H201uaxin New Energy Co., Ltd. (filed as Exhibit 10.4 to the Company's Form 10-Q for the quarterly period ended September 30, 2013).
10.10	Cooperation Agreement, dated July 22, 2013, by and between Xi'an Zhonghong New Energy Technology Co., Ltd. and Jiangsu Tianyu Energy and Chemical Group Co., Ltd (filed as Exhibit 10.5 to the Company's Form 10-Q for the quarterly period ended September 30, 2013).
10.11	Waste Heat Power Generation Energy Management Cooperative Agreement with Zhongtai (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated December 6, 2013).
10.12	CDQ Power Generation Energy Management Cooperative Agreement with Rongfeng (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated December 17, 2013).
10.13	China Recycling Energy Corporation Omnibus Equity Plan (Incorporated by reference from Appendix A to the Company's Definitive Schedule 14A filed on April 30, 2015)*.
10.14	Transfer Agreement of CDQ & Waste Heat Power Generation, dated November 16, 2015, by and between Xi'an TCH Energy Technology Co., Ltd and Tangshan Rongfeng Iron & Steel Co., Ltd. and Xi'an Huaxin New Energy Co., Ltd. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated November 20, 2015).
10.15	Xuzhou Zhongtai CDQ and Waste Heat Power Generation System Transfer Agreement, dated March 14, 2016, by Xi'an TCH Energy Technology Co., Ltd, Xuzhou Zhongtai Energy Technology Co., Ltd. and Xi'an Huaxin New Energy Co., Ltd. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 18, 2016).

10.16	Repurchase Agreement for Coking Coal Gas Power Generation Project, dated June 22, 2016, by and between Xi'an TCH Energy Technology Co., Ltd., and Qitaihe City Boli Yida Coal Selection Co., Ltd. (filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q dated August 15, 2016).
10.17	Securities Purchase Agreement by and between China Recycling Energy Corporation and Iliad Research and Trading, L.P., dated July 11, 2018 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated July 17, 2018).
10.18	Convertible Promissory Note, issued by China Recycling Energy Corporation to Iliad Research and Trading, L.P., dated July 11, 2018 (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K dated July 17, 2018).
10.19	Equity Purchase Agreement by and between Shanghai TCH Energy Technology Co., Ltd. and Jinhua Wang, dated September 30, 2018 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated September 30, 2018).
10.20	Agreement of Supplementary and Amendment by and between Shanghai TCH Energy Technology Co., Ltd. and Jinhua Wang, dated November 21, 2018 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated November 26, 2018).
10.21	CDQ WHPG Station Fixed Assets Transfer Agreement, dated December 29, 2018, by and among Xi'an Zhonghong, Xi'an TCH, the HYREF, Guohua Ku and Chonggong Bai. †
10.22	Buy-Back Agreement, dated December 29, 2018, by and among HYREF, Xi'an Zhonghong, Xi'an TCH, Guohua Ku, Chonggong Bai and Xi'an Hanneng. †
10.23	Equity Transfer Agreement, dated December 29, 2018, by and between Xi'an TCH and Hongyuan Huifu. †
10.24	Equity Transfer Agreement, dated December 29, 2018, by and between Shanghai TCH and HYREF. †
10.25	Supplementary Agreement of Equity Transfer Agreement, dated December 29, 2018, by and among Xi'an TCH, Hongyuan Huifu, and the Fund Management Company. †
10.26	Projects Transfer Agreement by and among Xi'an Zhonghong, Xi'an TCH, and Mr. Chonggong Bai, dated January 4, 2019. †
10.27	Securities Purchase Agreement by and between China Recycling Energy Corporation and Great Essential Investment, Ltd, dated February 13, 2019 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 19, 2019).
10.28	Termination of Equity Purchase Agreement and Supplementary Amendment Agreement by and between Shanghai TCH and Mr. Jihua Wang, dated March 29, 2019 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 19, 2019).
14.1	Code of Ethics (filed as Exhibit 14.1 to the Company's Current Report on Form 8-K dated December 2, 2009).
21.1	Subsidiaries†

23.1	Consent of Independent Registered Public Accounting Firm. †
23.2	Consent of Independent Registered Public Accounting Firm. †
31.1	Rule 13a-14(a)/15d-14(a) certification of the Chief Executive Officer. †
31.2	Rule 13a-14(a)/15d-14(a) certification of the Chief Financial Officer. †
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350. †
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350. †
101.INS	XBRL Instance Document †
101.SCH	XBRL Taxonomy Extension Schema Document †
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document †
101.LAB	XBRL Taxonomy Extension Label Linkbase Document †
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document †
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document †

* Management contract, compensatory plan or arrangement.

† Exhibits filed herewith.