CHINA RECYCLING ENERGY CORP
Form 10-K
March 29, 2016

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, 2015

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.)

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

Registrant's telephone number, including area code: (011) 86-29-8765-1097

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

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

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 x

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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).Yesx 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, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “small reporting company” in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer ¨ Accelerated filer ¨

Non-accelerated filer ¨ Smaller reporting company x

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

The aggregate market value of the common stock issued and outstanding and held by non-affiliates of the registrant, based upon the closing sales price for the common stock on the NASDAQ Capital Market on June 30,2015, the last business day of the registrant’s most recently completed second fiscal quarter, was $68.96 million.

As of March 23, 2016, the registrant had 83,084,035 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the China Recycling Energy Corporation Proxy Statement regarding the 2015 Annual Meeting of Shareholders (the “Proxy Statement”) are incorporated into Part III of this Annual Report on Form 10-K.

CHINA RECYCLING ENERGY CORPORATION

FORM 10-K

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PART I

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

ITEM 1. BUSINESS

General

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

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

We provide a clean-technology and energy-efficient solution aimed at reducing the air pollution and energy shortage problems in China. Our projects capture industrial waste energy to produce low-cost electricity, enabling industrial manufacturers to reduce their energy costs, lower their operating costs, 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 twenty years, and then transfer the projects to the owners. The BOT model creates a win-win solution for both our customers and us. We provide the capital expenditure financing in exchange for attractive returns on each project; our customers can focus their capital resources on their core businesses, do not need to invest additional 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 12/F, Tower A, Chang An International Building, No. 88 Nan Guan Zheng Jie, Xi'an City, Shaanxi Province, China, and our telephone number at this location is +86-29-8769-1097.

Company Overview and History

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

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

Our Projects

We design, finance, construct, operate and eventually transfer waste energy recycling projects to meet the energy saving and recovery needs of our customers. Our waste energy recycling projects use the pressure, heat or gas, which is generated as a byproduct of a variety of industrial processes to create electricity. The residual energy from industrial processes, which was traditionally wasted, may be captured in a recovery process and utilized by our waste energy recycling projects to generate electricity 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 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 Autonomic Region. On July 19, 2013, Xi'an TCH formed a new company called Xi'an Zhonghong New Energy Technology Co., Ltd ("Zhonghong"). Xi'an TCH owns 90% of Zhonghong, which provides energy saving solutions and services, including constructing, selling and leasing energy saving systems and equipment to customers.

As of December 31, 2015 , Xi'an TCH, a wholly owned subsidiary of Shanghai TCH leases the following systems: (i) BMPG systems to Pucheng Phase I and II (15 and 11.9 year terms, respectively); (ii) BMPG systems to Shenqiu Phase I (11 year term); (iii) Shenqiu Phase II (9.5 year term); and (iv) WGPG systems to Boli Yida (15 year term). In addition, as of December 31, 2015, Erdos TCH leased power and steam generating systems from waste heat from metal refining to Erdos (five systems) for a term of twenty (20) years.

The Fund Management Company and the HYREF Fund

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

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

Erdos TCH – Joint Venture

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

Shanxi Datong Coal Group Power Generation Projects

In February 2011, Xi'an TCH entered into an agreement with Shanxi Datong Coal Group Steel Co., Ltd ("Shanxi Datong") to recycle gas and steam from groups of blast-furnaces and converters at Shanxi Datong's metal refining plants to generate power and pursuant to which Xi'an TCH agreed to install two 3MW TRT systems, one 15MW WGPG system and two 1MW steam power generation systems, with a total of 23MW power capacity for an estimated total investment of $28.6 million (RMB 180 million). In June 2013, the two 3MW BPRT power generation systems were completed. The lease term is thirty (30) years, during which time Shanxi Datong will pay a service fee to Xi'an TCH. The service fee is based on an average of 8,000 electricity-generating hours per year and $0.05 (RMB 0.33) per kilowatt hour ("kWh") for the first five (5) years from the completion of each power generation station. For each of the leases, at the 6th, 11th and 21st year anniversary of the date of the lease, the rates will change to RMB 0.3 kWh, 0.27 kWh and 0.25 kWh, respectively. On June 10, 2013, Xi'an TCH and Shanxi Datong entered into a supplemental agreement relating to the minimum service fee. The minimum service fee per month for the first five (5) years is $0.19 million (RMB 1.2 million), $0.18 million ($1.1 million) for the second five (5) years, $0.16 (RMB 1.0 million) for the following ten (10) years and $0.15 million (RMB 0.9 million) for the last ten (10) years. After thirty (30) years, the units will be transferred to Shanxi Datong at no additional charge. On May 26, 2015, the 15MW WGPG system was completed.

Due to the change of its strategic plan, Datong notified Xi'an TCH that it would not be able to fulfill its obligations under the Cooperative Agreement and requested to repurchase the two 3MW BPRT systems and one 15MW WGPG system (the "Systems") from Xi'an TCH and terminate the Cooperative Agreement and its supplemental agreement. On

May 29, 2015, Xi'an TCH entered into a Repurchase Agreement for the Recycling Economy Project with Shanxi Datong (the "Repurchase Agreement"). Under the Repurchase Agreement, Shanxi Datong was to repurchase the Systems from Xi'an TCH and pay outstanding energy saving service fees of RMB 1.2 million ($193,548) to Xi'an TCH within five working days from the execution of the Repurchase Agreement. The Systems were to be transferred to Shanxi Datong for a total price of RMB 250 million ($40.32 million) with RMB 100 million for two BPRT systems and RMB 150 million for one WGPG system. As of June 30, 2015, Xi'an TCH received the payment in full and the systems were transferred. The outstanding balance of net investment receivable at the date of transfer was $13.37 million. The Company recorded $2.98 million gain from two BPRT systems as non-operating income and $3.02 million gain from the WGPG system as gross profit from the sale.

Shenqiu Yuneng Biomass Power Generation ("BMPG") Projects

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

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

Pucheng Biomass Power Generation ("BMPG") Projects

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

power generation station of Pucheng Phase I project, under a single lease to Pucheng for RMB 3,800,000 million ($0.63 million) per month (the “Pucheng Phase II Project”). The term for the combined lease is from September 2013 to June 2025, and the lease agreement for the 12MW station from Pucheng Phase I project terminated upon the execution of the Pucheng Lease on September 1, 2013. The ownership of two 12 MW BMPG systems will be transferred to Pucheng at no additional charge when the Pucheng Lease expires.

Jitie Power Generation Projects

In May 2013, Xi’an TCH entered into a Furnace Gas Waste Heat Power Generation Cooperative Agreement (the "Cooperative Agreement") with Sinosteel Jilin Ferroalloys Co., Ltd. (“Jitie”) to build furnace gas waste heat power generation systems for electricity generation from recycled heat and steam from groups of ferroalloy furnaces and electric furnaces (the “Jitie Project”). According to the contract, Xi’an TCH will install a 7.5 MW and a 3 MW turbine power generation system with a total of 10.5 MW power capacity for an estimated total investment of $9.71 million (RMB 60 million). The lease term is twenty-four (24) years. During the term of this lease, Jitie will pay a service fee to Xi’an TCH based on the actual generating capacity with a minimum service fee per month of $300,000 (RMB 1.8 million). Xi’an TCH will be responsible for the systems operation and will own the power generation systems. In December 2013, the Jitie Project was completed and began operations. In December, 2014, Sinosteel Group entered into an equity transfer agreement with Liaoning ZhongZe Group for the transfer of ownership of Jitie, pursuant to which Liaoning Zhongze Group became the controlling shareholder of Jitie. After the transfer, Jitie adopted a new strategic plan that would repurchase all out-sourced supporting facilities of Jitie including waste heat power generation projects. Jitie recently notified Xi’an TCH that it would not be able to fulfil its obligations under the Cooperative Agreement and requested to repurchase the Jitie Project from Xi’an TCH and terminate Cooperative Agreement.

On June 18, 2015, Xi’an TCH entered into a Repurchase Agreement for Waste Heat Power Generation Project (the “Repurchase Agreement”) with Jitie.

Under the Repurchase Agreement, Xi’an TCH and Jitie agree: (i) Jitie repurchases the Jitie Project from Xi’an TCH and terminates the Cooperative Agreement; (ii) Jitie shall pay outstanding energy saving service fees of RMB 1.8 million (approximately $294,599) to Xi’an TCH within 5 working days from the execution of the Repurchase Agreement on June 18, 2015 (the “Effective Date”); (iii) the Jitie Project shall be transferred to Jitie for a total price of RMB 90 million (approximately $14,729,951, the “Repurchase Price”), and Jitie shall pay RMB 45 million within 5 working days from the Effective Date and pay another RMB 45 million within 15 working days from the Effective Date; (iv) the ownership of the Jitie Project shall be transferred to Jitie when it timely pays in full the Repurchase Price and the parties have completed the on-site assets transfer process and confirmed the actual Jitie Project transfer; (v) Xi'an TCH shall not pursue any breach of contract liability against Jitie under the Cooperative Agreement if Jitie pays in full the Repurchase Price on time; (vi) the Cooperative Agreement will be terminated when Jitie pays in full the Repurchase Price according to the requirements of the Repurchase Agreement; and (vii) if the Repurchase Price is not fully paid on time pursuant to the Repurchase Agreement, the Repurchase Agreement shall be terminated automatically and Xi'an TCH shall retain the ownership of the Jitie Project.

As of December 31, 2015, Xi’an TCH had received the payment in full and the systems were transferred.

Qitaihe City Boli Yida Coal Selection Co., Ltd. Coal Oven Gas Power Generation Project

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. (the “Seller”), a limited liability company incorporated in China.

The Transfer Agreement provides for the sale to Xi’an TCH of a 15 MW coke oven gas power generation station which has been converted from a 15 MW coal gangue power generation station (the "Transfer Asset") from the Seller. As consideration for the Transfer Asset, Xi’an TCH will pay to the Seller RMB 115,000, 000 (approximately $18,690,677) 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 U.S. Dollar and Chinese RMB in connection with the stock issuance is the rate equal to the middle rate published by the People’s Bank of China on the closing date of the assets transfer. The Company will file a Form S-3 Registration Statement to register the resale of the Shares for the Seller.

On June 28, 2014, Xi'an TCH also entered into a Coal Oven Gas Power Generation Project Lease Agreement (the "Lease Agreement") with the Seller. Under the Lease Agreement, Xi'an TCH will lease the Transfer Asset to the Seller for RMB 3,000,000 ($487,583) per month, and the term of the lease is from June 28, 2014 to June 27, 2029. The Seller will also provide a RMB 3,000,000 security deposit (without interest) for the lease . Xi'an TCH will transfer the Transfer Asset back to the Seller at no cost at the end of the term of the lease.

Chengli Waste Heat Power Generation ("WHPG") Projects

On July 24, 2013, Zhonghong entered into a Cooperative Agreement of Coke Dry Quenching ("CDQ") and CDQ Waste Heat Power Generation Project with Boxing County Chengli Gas Supply Co., Ltd. ("Chengli"). The parties entered into a supplemental agreement on July 26, 2013. Pursuant to these agreements, Zhonghong will design, build and maintain a 25 MW CDQ system and a CDQ waste heat power generation system to supply power to Chengli, and Chengli will pay energy saving fees (the "Chengli Project"). Chengli will contract the operation of the system to a third party contractor that is mutually agreed to by Zhonghong. In addition, Chengli will provide the land for the CDQ system and CDQ waste heat power generation system at no cost to Zhonghong. The term of the Agreements is for twenty (20) years. The first 800 million watt hours generated by the Chengli Project will be charged at RMB 0.42 ($0.068) per kilowatt hour (excluding tax); thereafter, the energy saving fee will be RMB 0.20 ($0.036) per kilowatt hour (excluding tax). The operating time shall be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Chengli, then time charged shall be 8,000 hours a year, and if it is less than 8,000 hours due to a reason attributable to Zhonghong, then it shall be charged at actual operating hours. The construction of the Chengli Project was completed in the second quarter of 2015 and the project is currently under commissioning tests which we expect to be completed in the second quarter of 2016. When operations begin, Chengli shall ensure its coking production line works properly and that working hours for the CDQ system are at least 8,000 hours per year, and Zhonghong shall ensure that working hours and the CDQ waste heat power generation system will be at least 7,200 hours per year.

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

The following projects are under construction:

Tianyu Waste Heat Power Generation ("WHPG") Project

On July 19, 2013, Zhonghong entered into a Cooperative Agreement (the "Tianyu Agreement") for Energy Management of CDQ and CDQ Waste Heat Power Generation Project with Jiangsu Tianyu Energy and Chemical Group Co., Ltd ("Tianyu"). Pursuant to the Tianyu Agreement, Zhonghong will design, build, operate and maintain two sets of 25 MW CDQ systems and CDQ WHPG systems for two subsidiaries of Tianyu – Xuzhou Tian'an Chemical Co., Ltd. ("Xuzhou Tian'an") and Xuzhou Huayu Coking Co., Ltd. ("Xuzhou Huayu") – to be located at Xuzhou Tian'an and Xuzhou Huayu's respective locations (the "Tianyu Project"). Upon completion of the Tianyu Project, Zhonghong will charge Tianyu an energy saving service fee of RMB 0.534 ($0.087) per kilowatt hour (excluding tax). The operating time will be based upon an average 8,000 hours annually. If the operating time is less than 8,000 hours per year due to a reason attributable to Tianyu, then time charged will be 8,000 hours a year. The construction of the Tianyu Project is anticipated to be completed between the middle of 2016 and the end of 2016Tianyu will provide the land for the CDQ systems and CDQ waste heat power generation systems for free. Tianyu also guarantees that it will purchase all of the power generated by the CDQ WHPG systems.

On July 22, 2013, Xi'an Zhonghong New Energy Technology Co., Ltd. entered into an EPC General Contractor Agreement for the Xuzhou Tianyu Group CDQ Power Generation Project with Xi'an Huaxin New Energy Co., Ltd. ("Huaxin"). Zhonghong as the owner of the Project contracted EPC for the two sets of CDQ systems and 25 MW CDQ waste heat power generation systems for Tianyu to Huaxin—one for Xuzhou Tian'an and one for Xuzhou Huayu. Huaxin shall provide construction, equipment procurement, transportation, installation and adjustment, test run, construction engineering management and other necessary works to complete the Project and ensure the CDQ systems and CDQ waste heat power generation systems for Tianyu meet the inspection and acceptance requirements and work normally. The project is a turn-key project and Huaxin is responsible for the quality, safety, duration and cost of the Project. The total contract price is RMB 400 million ($66.67) of which RMB 200 million ($33.34 million) is for the Xuzhou Tian'an system and RMB 200 million is for the Xuzhou Huayu system. The price is a cover-all price which includes

but not limited to all the materials, equipment, labor, transportation, electricity, water, waste disposal, machinery and safety matters.

Zhongtai Waste Heat Power Generation Energy Management Cooperative Agreement

On December 6, 2013, Xi'an entered into a CDQ and Waste Heat Power Generation 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 eighteen (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 term of payment is for twenty (20) years. For the first ten (10) years of the term, Zhongtai shall pay an energy saving service fee at RMB 0.534 ($0.089) per kilowatt hour (including value added tax) for the power generated from the system. For the second ten (10) years of the term, Zhongtai shall pay an energy saving service fee at RMB 0.402 ($0.067) per kilowatt hour (including value added tax). During the term of the contract the energy saving service 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 Zhongtai 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 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: 1) if it is less than five (5) 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 (5) years minus the years in which the system has already operated); or 2) if it is more than five (5) 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 ten (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 of all the assets of the Project under construction to Zhongtai 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 shall pay to Xi'an TCH an aggregate purchase price of RMB 167,360,000 (approximately $25,747,692 and the "Transfer Price"), whereby (a) RMB 50,000,000 (approximately $7,692,308) of the Transfer Price is to be paid within 20 working days from the execution of the Transfer Agreement; (b) RMB 30,000,000 (approximately $4,615,385) of the Transfer Price is to be paid within 20 working days upon the completion of the construction of the Project but no later than July 30, 2016; and (c) RMB 87,360,000 (approximately $13,440,000) of the Transfer Price is to be paid before July 30, 2017. The temporary ownership of the Project is to be transferred from Xi'an TCH to Zhongtai within 3 working days after the first payment of RMB 50,000,000 is made to Xi'an TCH and the full ownership of the Project is to be finally transferred to Zhongtai upon Zhongtai's payment of the full Transfer Price. The Zhongtai Agreement will thereafter be terminated and Xi'an TCH has agreed to not pursue any breach of contract liability against the Zhongtai under the Zhongta Agreement after Zhongtai pays the entire

Transfer Price according to the requirement of the Transfer Agreement. If the Transfer Price is not fully paid pursuant to the Transfer Agreement, the Transfer Agreement shall automatically terminate and Xi'an TCH shall retain the ownership of the Project and both parties will continue to possess their respective rights and obligations according to the Zhongtai Agreement and assume the liabilities for breach of the Zhongtai Agreement.

Rongfeng CDQ Power Generation Energy Management Cooperative Agreement

On December 12, 2013, Xi’an TCH entered into a CDQ Power Generation Energy Management Cooperative Agreement (the "Cooperative Agreement")with Tangshan Rongfeng Iron & Steel Co., Ltd. (the “Rongfeng Agreement”), a limited liability company incorporated in Hebei Province, China.

Pursuant to the Rongfeng Agreement, Xi'an TCH will design, build and maintain a CDQ system and a CDQ WHPG system and sell the power to Rongfeng. The construction period of the Project is expected to be eighteen (18) months after the Agreement takes effect and from the date when conditions are ready for construction to begin.

Rongfeng will start to pay an energy saving service fee from the date when the WHPG station passes the required 72 hour test run. The term of payment is for twenty (20) years. For the first ten (10) years of the term, Rongfeng shall pay an energy saving service fee at RMB 0.582 ($0.095) per kilowatt hour (including tax) for the power generated from the system. For the second ten (10) years of the term, Rongfeng shall pay an energy saving service fee at RMB 0.432 ($0.071) per kWh (including tax). During the term of the contract the energy saving service fee shall be adjusted at the same percentage as the change of local grid electricity price. Rongfeng and its parent company will provide guarantees to ensure Rongfeng will fulfill its obligations under the Rongfeng Agreement. Upon the completion of the term, Xi'an TCH will transfer the systems to Rongfeng at RMB 1. Rongfeng shall provide waste heat to the systems for no less than 8,000 hours per year with a temperature no less than 950°C. If these requirements are not met, the term of the Agreement will be extended accordingly. If Rongfeng wants to terminate the 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: 1) if it is less than five (5) years (including five (5) years) into the term when Rongfeng requests termination, Rongfeng shall pay: Xi'an TCH's total investment amount plus Xi'an TCH's average annual investment return times (five (5) years minus the years of which the system has already operated); 2) if it is more than five (5) years into the term when Rongfeng requests the termination, Rongfeng shall pay: Xi'an TCH's total investment amount minus total amortization cost (the amortization period is ten (10) years).

On November 16, 2015, Xi'an TCH entered into a Transfer Agreement of CDQ & Waste Heat Power Generation Project (the "Transfer Agreement") with Rongfeng 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 Rongfeng of the CDQ Waste Heat Power Generation Project (the "Project") from Xi'an TCH. Additionally, Xi'an TCH is 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 the Contractor in connection with the Project. As consideration for the transfer of the Project, Rongfeng is to pay to Xi'an TCH an aggregate purchase price of RMB 165,200,000 (approximately $25,934,066 and the "Transfer Price"), whereby (a) RMB 65,200,000 is to be paid by Rongfeng to Xi'an TCH within 20 business days after the Transfer Agreement is signed, (b) RMB 50,000,000 is to 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 is to be paid by Rongfeng to Xi'an TCH no later than September 30, 2016. Mr. Cheng Li, the largest shareholder of Rongfeng, personally guaranteed the payments. The ownership of the Project is to be conditionally possessed by Rongfeng within 3 business days following the initial payment of RMB 65,200,000 by Rongfeng to Xi'an TCH and the full ownership of the Project is to be officially transferred to Rongfeng after it makes all payments pursuant to the Transfer Agreement. The Cooperative Agreement is to be terminated when Rongfeng has paid all amounts payable to Xi'an TCH pursuant to the Transfer Agreement and Xi'an TCH is to agree not to pursue any breach of contract liability against Rongfeng under the Cooperative Agreement when Rongfeng pays in full the Transfer Price. If the Transfer Price is not fully paid pursuant to the Transfer Agreement, the Transfer Agreement automatically terminates and Xi'an TCH is to retain the

ownership of the Project and both parties will continue to possess their respective rights and obligations according to Cooperative Agreement and assume the liabilities for breach of the Cooperative Agreement. As of December 31, 2015, Xi'an TCH received the first payment of $10.05 million.

Baoliyuan CDQ Power Generation Energy Management Cooperative Agreement

On March 26, 2014, Xi'an TCH entered into a CDQ Waste Heat Recycling Project Energy Management Cooperative Agreement with Tangshan Baoliyuan Coking Co., Ltd. ("Baoliyuan"), a limited liability company incorporated in Hebei Province, China.

Pursuant to the Agreement, Xi'an TCH will design, build and maintain a CDQ system and a CDQ WHPG system and sell the power to Baoliyuan (the "CDQ Project") and Xi'an TCH will also build a high scale waste water treatment system for Baoliyuan and charge monthly payment for two years (the " Waste Water Treatment Project").

The construction period of the CDQ Project is expected to be fifteen (15) months from the effective date of the Agreement. Baoliyuan 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 for twenty (20) years and Baoliyuan shall pay an energy saving fee at RMB 0.7 ($0.114) per kilowatt hour (including tax) for the power generated from the system, from which Xi'an TCH shall take 92.86% and Baoliyuan shall take 7.14% as parties to share the energy saving benefits. 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. Baoliyuan shall provide guarantees to ensure it will fulfill its obligations under the Agreement. Upon the completion of the term, Xi'an TCH will transfer the systems to Baoliyuan at RMB 1.

Baoliyuan shall provide waste heat to the systems for no less than 8,000 hours per year and coking production shall reach 80% of its capacity. If these requirements are not met, the energy saving fee will be calculated according to such hours and capacity.

If Baoliyuan wants to terminate the 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: 1) if it is less than five (5) years (including five (5) years) into the term when Baoliyuan requests termination, Baoliyuan shall pay: Xi'an TCH's total investment amount plus Xi'an TCH's average annual investment return times (five (5) years minus the years of which the system has already operated); 2) if it is more than five (5) years into the term when Baoliyuan requests the termination, Baoliyuan shall pay: Xi'an TCH's total investment amount minus total amortization cost (the amortization period is twenty (20) years).

From the first month of the completion of Waste Water Treatment Project, Baoliyuan shall pay a fixed monthly fee for the waste water treatment system at RMB 1.05 million per month ($171,010) for the first twelve (12) months and RMB 940,000 per month ($153,094) for the next twelve (12) months.

The Baoliyuan project was cancelled in May 2015 because the project required blasting and leveling of a mountain and Baoliyuan could not obtain all the necessary permits for the construction from the local government due to the government's concern for the environment.

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. Specific targets are as follows: PM10 in cities at prefecture level or above declines by over 10% in 2017 compared with that in 2012 and premium air quality days increase year by year. The PM2.5 of the Beijing-Tianjin-Hebei, Yangtze Delta and Pearl River Delta areas drops by about 25%, 20% and 15% respectively and the annual PM2.5 in Beijing is controlled to within 60 micrograms per cubic meter.

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. On January 2013, the State Council released "Energy 'Twelfth Five-Year' Plan ". The Plan has proposed to focus on developing natural gas power generation. The total volume of gas power generating is expected to reach 56,000 MW, representing 16.2% growth rate compared with 2010. During the "Twelfth Five-Year" period, the newly constructed gas power generation station will reach 30,000 MW.

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

Stringent Environmental Standards and Increasing Government Supports

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

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

Source: China National Environmental Protection Plan in the 13th Five Years (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 that 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 CO2 emissions peak by around 2030 and reduce CO2 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

Focus on Core Verticals to Increase Market Share in China

We focus on waste-to-energy projects to specific verticals, such as steel, cement, nonferrous metal and coal mining. We plan to continue to focus on such core verticals and leverage our expertise to expand our market share. We intend to expand our waste-to-energy power generating capacity rapidly in order to meet the anticipated growth of demand in China's energy efficiency industrial applications and to gain market share. We continually identify potential customers

in our core verticals. Based on our existing contracts and signed MOUs, we are targeting to increase our in-operation power generating capacity from 108MW in 2015and 183MW in 2016, respectively.

Expand to New Verticals with Future High Growth Potentials

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

Increase Sales of Integrated Projects Targeting Large-Scale Customers

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

Continually Enhance Research and Development Efforts

In 2015 and 2014, we invested about $0.28 million and $0.60 million, respectively, in research and development. We plan to devote substantial resources to research and development in order to enhance our waste-to-energy design and engineering capabilities. Our in-house design and engineering team provide additional competitive advantages, including flexibility to quickly design and evaluate new technologies or applications in response to changing market trends.

Selectively Acquire Waste-to-Energy Power Plants

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

Our Business Models

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

BOT Model

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

"Build"

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

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

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

“Operate”

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