SMARTHEAT INC.
Form 10-K/A
October 24, 2014

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K/A
(Amendment No. 1)

(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2013.

OR

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 001-34246

SMARTHEAT INC.
(Exact name of registrant as specified in its charter)

Nevada	98 -0514768
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

A-1, 10, Street 7
Shenyang Economic and Technological Development Zone
Shenyang, China 110141
(Address of principal executive offices)

Registrant's telephone number, including area code:
+86 (24) 2519-7699

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

Title of Each Class:
Common Stock, par value $0.001 per share

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 þ

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 þ

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, as amended ("Exchange Act") 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 þ 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes ¨ No þ

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 "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨	Accelerated filer ¨	Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company þ

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

The aggregate market value of voting common stock held by non-affiliates computed by reference to the price at which the common stock was last sold on June 30, 2013, was $0.50 per share. Accordingly, effective as of June 30, 2013, the registrant's aggregate market value was less than $50 million and the registrant qualifies for "smaller reporting company" status under Rule 12b-2 of the Exchange Act and is subject to the disclosure requirements and filing deadlines for smaller reporting companies.

As of April 4, 2014, there were 6,583,399 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

None.

EXPLANATORY NOTE

The purpose of this Amendment No. 1 to the Annual Report on Form 10-K of SmartHeat Inc. (the “Company”) for the year ended December 31, 2013, originally filed with the Securities and Exchange Commission on April 14, 2014 (the “Form 10-K”), is (1) to amend the Company’s Consolidated Financial Statements and related notes (the “2013 Financial Statements”) to recognize the loss that the Company is expected to incur on a proposed sale of the stock in certain subsidiaries of the Company as an asset impairment occurring in 2013 even though the conditions precedent to the closing of the sale have not been satisfied and (2) to make additional non-substantive revisions to the notes to the Financial Statements .

On September 18, 2014, the Company reported in further detail the background on the need to restate its Financial Statements on the Company in an Item 4.02 report on Form 8-K available at www.sec.gov.

This Amendment No. 1 to the Form 10-K speaks as of the original filing date of the Form 10-K, and except for the disclosures required to be disclosed in the Subsequent Events section of the Notes, does not reflect events that may have occurred subsequent to the original filing date, and does not, except as stated above, modify or update in any way disclosures made in the original Form 10-K.

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SMARTHEAT INC.

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NOTE ABOUT FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which include, but are not limited to, statements concerning our projected revenues, expenses, gross profit and income, mix of revenue, demand for our products, the benefits and potential applications for our products, the need for additional capital, our ability to obtain and successfully perform additional new contract awards and the related funding and profitability of such awards, the competitive nature of our business and markets and product qualification requirements of our customers. These forward-looking statements are based on our current expectations, estimates and projections about our industry, management's beliefs and certain assumptions made by us. Words such as "anticipates," "expects," "intends," "plans," "predicts," "potential," "believes," "seeks," "hopes," "estimates," "should," "may," "will," "with variations of these words or similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, our actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors. Such factors include, but are not limited to the following:

- our goals and strategies;
- our expansion plans;
- our future business development, financial conditions and results of operations;
- the expected growth of the market for PHE products, heat meters and heat pumps in China;
- our expectations regarding demand for our products;
- our expectations regarding keeping and strengthening our relationships with key customers;
- our ability to stay abreast of market trends and technological advances;
- our ability to protect our intellectual property rights effectively and not infringe on the intellectual property rights of others;
- our ability to attract and retain quality employees;
- our ability to pursue strategic acquisitions and alliances;
- competition in our industry in China;
- general economic and business conditions in the regions in which we sell our products;
- relevant government policies and regulations relating to our industry; and
- market acceptance of our products.

Additionally, this report contains statistical data that we obtained from various publicly available government publications and industry-specific third party reports. Statistical data in these publications also include projections based on a number of assumptions. The markets for PHEs, PHE Units, heat meters and heat pumps may not grow at the rates projected by market data, or at all. The failure of these markets to grow at the projected rates may have a

material adverse effect on our business and the market price of our common stock. In addition, the changing nature of our customers' industries results in uncertainties in any projections or estimates relating to the growth prospects or future condition of our market. Furthermore, if any one or more of the assumptions underlying the market data is later found to be incorrect, actual results may differ from the projections based on these assumptions.

Unless otherwise indicated, information in this report concerning economic conditions and our industry is based on information from independent industry analysts and publications, as well as our estimates. Except where otherwise noted, our estimates are derived from publicly available information released by third party sources, as well as data from our internal research, and are based on such data and our knowledge of our industry, which we believe to be reasonable. None of the market data from independent industry publications cited in this report was prepared on our or our affiliates' behalf.

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Additional information on the various risks and uncertainties potentially affecting our operating results are discussed in this report and other documents we file with the Securities and Exchange Commission, or the SEC, or upon written request to our corporate secretary at: A-1, 10, Street 7, Shenyang Economic and Technological Development Zone, Shenyang, China 110141. We undertake no obligation to revise or update publicly any forward-looking statements for any reason, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on these forward-looking statements.

As used in this report, “SmartHeat,” “Company,” “we,” “our” and similar terms refer to SmartHeat Inc., unless the context indicates otherwise.

Our functional currency is the U.S. Dollar, or USD, while the functional currency of our subsidiaries in China are denominated in Chinese Yuan Renminbi, or RMB, the national currency of the People’s Republic of China, which we refer to as the PRC or China, and the functional currency of our subsidiary in Germany is denominated in Euros, or EUR. The functional currencies of our foreign operations are translated into USD for balance sheet accounts using the current exchange rates in effect as of the balance sheet date and for revenue and expense accounts using the average exchange rate during the fiscal year. See Note 2 of the consolidated financial statements included herein.

Effective February 7, 2012, we implemented a one-for-ten reverse stock split of our common stock. Unless otherwise indicated, all share amounts and per share prices in this Annual Report on Form 10-K were retroactively adjusted to reflect the effect of this reverse stock split. See Note 1 of the consolidated financial statements included herein.

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PART I

Item 1. Business

General

We are a U.S. holding company with no material assets other than the ownership interests of our foreign subsidiaries that design, manufacture and sell PHEs and related systems in the People's Republic of China ("PRC") and Germany. A PHE is a device that transfers heat from one fluid to another fluid across large metal plates. PHE products are used in the industrial, residential and commercial sectors to make energy use more efficient and to reduce pollution by reducing the need for coal fired boilers. Our subsidiaries design, manufacture, sell and service PHEs, PHE Units, which combine PHEs with various pumps, temperature sensors, valves and automated control systems, heat meters and heat pumps for use in commercial and residential buildings. They also design, manufacture and sell spiral heat exchangers and tube heat exchangers. Their products and related systems are an increasingly important element in providing a clean technology solution to energy consumption and air pollution problems in China and are commonly used in a wide variety of industrial processes where heat transfer is required. Common applications include energy conversion for heating, ventilation and air conditioning ("HVAC"), and industrial use in petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing. Our subsidiaries sell their products under the SmartHeat and Taiyu brand names and also sell PHEs under the Sondex brand name as an authorized dealer of Sondex PHEs in China .

Our History

We were incorporated in the State of Nevada on August 4, 2006, under the name Pacific Goldrim Resources, Inc., as an exploration stage corporation with minimal operations, to engage in the exploration for silver, lead and zinc. On April 14, 2008, we changed our name to SmartHeat Inc. and entered into a Share Exchange Agreement (the "Share Exchange Agreement"), to acquire Shenyang Taiyu Machinery & Electronic Equipment Co., Ltd., subsequently renamed SmartHeat Taiyu (Shenyang) Energy Technology Co., Ltd. ("Taiyu"), a privately held Sino-foreign joint venture company formed under the laws of the PRC on July 24, 2002, and engaged in the design, manufacture, sale and service of PHE products in China. The Share Exchange Agreement was entered into by SmartHeat, Taiyu and the shareholders of Taiyu. At the closing of the Share Exchange Agreement, all of the equitable and legal rights, title and interests in and to Taiyu's share capital of Yuan 25,000,000 were exchanged for 1,850,000 shares of SmartHeat common stock (the "Share Exchange"). We received PRC government approval on May 28, 2008, of our subscription for 71.6% of the registered capital of Taiyu, and approval on June 3, 2009, of the transfer of the remaining 28.4% ownership of Taiyu from the original joint venture shareholders who had received shares of our common stock in the Share Exchange. As a result of the Share Exchange and subsequent transactions contemplated by the Share Exchange Agreement, and receipt of the above PRC government approvals, Taiyu became our wholly foreign-owned enterprise, or WFOE.

Prior to our acquisition of Taiyu, we had no interest in any property, but had the right to conduct exploration activities on 13 mineral title cells covering 27,027 hectares (66,785 acres) in the Slocan Mining Division of southeastern British Columbia, Canada. In connection with the acquisition of Taiyu, we transferred all of our pre-closing assets and liabilities (other than the obligation to pay a $10,000 fee to our audit firm) to a wholly owned subsidiary, PGR Holdings, Inc., a Nevada corporation ("SplitCo"), under the terms of an Agreement of Conveyance, Transfer and Assignment of Assets and Assumption of Obligations dated April 14, 2008. We sold all of the outstanding capital stock of SplitCo to Jason Schlombs, our former director and officer and one of our major shareholders, pursuant to a Stock Purchase Agreement dated April 14, 2008, in exchange for the return of his 250,000 shares of our common stock to us for cancellation.

As an expansion of our business following our acquisition of Taiyu, we acquired and established strategic subsidiaries in China and Germany. On September 25, 2008, we acquired SanDeKe Co., Ltd., or SanDeKe, a Shanghai-based manufacturer of PHEs. On June 16, 2009, we completed an asset purchase transaction with Siping Beifang Heat Exchanger Manufacture Co., Ltd., or Siping Beifang, to set up a new manufacturing facility under our newly incorporated subsidiary, SmartHeat Siping Beifang Energy Technology Co., Ltd., or SmartHeat Siping. On August 14, 2009, we formed Beijing SmartHeat Jinhui Energy Technology Co., Ltd., or Jinhui, a joint venture in Beijing of which we own 52%, to provide consulting services and expand our sales of PHEs into new industries and regions of China. On April 7, 2010, we formed SmartHeat (China) Investment Co., Ltd., or SmartHeat Investment, as an investment holding company in Shenyang for our investment in and establishment of new companies and businesses in China. On April 12, 2010, SmartHeat Investment formed SmartHeat (Shenyang) Energy Equipment Co., Ltd., or SmartHeat Energy, as its wholly owned subsidiary for the research, development, manufacturing and sales of energy products. On May 6, 2010, we formed SmartHeat (Shanghai) Trading Co., Ltd., or SmartHeat Trading, through a nominee, Cleantech Holdings Inc., a British Virgin Islands company, or Cleantech Holdings, to market and expand sales of our branded products in China. Effective as of November 9, 2011, we terminated the nominee-owner relationship and acquired direct control over SmartHeat Trading. On December 2, 2010, we formed Hohhot Ruicheng Technology Co., Ltd., or Ruicheng, a joint venture in Hohhot City, China, for the design and manufacture of heat meters, of which we acquired 51% of the equity interest on January 7, 2011. On March 1, 2011, we entered into a purchase agreement to acquire 95% of the equity interests in Shenyang Bingchuan Refrigerating Machine Limited Company, a Shenyang-based state-owned heat pump manufacturer and designer subsequently renamed SmartHeat (Shenyang) Heat Pump Technology Co., Ltd., or SmartHeat Pump. On November 1, 2011, we increased the registered capital of SmartHeat Pump and thereby increased our ownership percentage to 98.8%. On March 3, 2011, we completed the acquisition of Gustrower Warmepumpen GmbH, subsequently renamed SmartHeat Deutschland GmbH, or SmartHeat Germany, a designer and manufacturer of high efficiency heat pumps in Germany, to extend our clean technology heating solutions into the rapidly growing heat pump markets in Europe and China. We subsequently transferred ownership of SmartHeat Germany to SmartHeat Pump. On April 10, 2012, we established a new joint venture named Urumchi XinRui Technology Limited Liability Company (“XinRui”), of which we own 46%.

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Our Business Segments

On August 23, 2013, the Company formed two new wholly-owned subsidiaries in the state of Nevada, Heat HP, Inc.("Heat HP") and Heat PHE, Inc. ("Heat PHE"), in order to reorganize the Company's ownership structure over its subsidiaries. On August 23, 2013, the Company entered into an assignment agreement ("Assignment Agreement")with each of Heat HP and Heat PHE which effected the reorganization. The reorganization was performed so the Company's subsidiaries would be organized along their respective operating segments with Heat HP holding those subsidiaries that operated in the heat pumps and related products segment and Heat PHE holding those subsidiaries that operated in the plate heating equipment, meters and related products segment. The Company initially presented its financial results for the quarter ended March 31, 2013, in accordance with these operating segments and has continued segment reporting since that time.

Under the Assignment Agreement with Heat HP, the Company agreed to transfer, and in the case of indirectly owned subsidiaries, cause to be transferred, to Heat HP the following subsidiaries of the Company:

Heat HP
SmartHeat (China) Investment Co., Ltd.
SmartHeat (Shenyang) Heat Pump Technology Co., Ltd.
SmartHeat Deutschland GmbH
SmartHeat (Shanghai) Trading Co., Ltd.
Beijing SmartHeat Jinhui Energy Technology Co., Ltd.

Under the Assignment Agreement with Heat PHE, the Company agreed to transfer, and in the case of indirectly owned subsidiaries, cause to be transferred, to Heat PHE the following subsidiaries of the Company:

Heat PHE
SmartHeat Taiyu (Shenyang) Energy Technology Co., Ltd.
SanDeKe Co., Ltd.
SmartHeat (Shenyang) Energy Equipment Co., Ltd.
SmartHeat Siping Beifang Energy Technology Co., Ltd.
Hohhot Ruicheng Technology Co., Ltd.

For financial information regarding our business segments, see Note [2] of the Notes to Consolidated Financial Statements, included in Part II, Item [8] of this report.

Sale of Equity Interests

On December 30, 2013, the Company sold 40% of the Company's equity interests in SmartHeat Taiyu (Shenyang) Energy; SmartHeat Siping Beifang Energy Technology Co., Ltd.; SmartHeat (Shenyang) Energy Equipment Co. Ltd.; Hohot Ruicheng Technology Co., Ltd.; and Urumchi XinRui Technology Limited Liability Company (collectively,

the “Target Companies”). The purchase price was RMB 5,000,000. The Company retained an option to repurchase the equity interests of the Target Companies from the buyers at a purchase price of RMB 5,600,000 which terminated on February 28, 2014. The Company did not exercise its option to repurchase the equity interest, and, as a result, the purchasers have the option to purchase an additional 40% equity interest in the Target Companies for an additional purchase price of RMB 6,000,000 on or before March 31, 2014, which has been exercised and is subject to shareholders’ approval. If the sale is approved by the Company’s shareholders, the Company may require the purchasers to purchase the remaining 20% equity interest for a purchase price of RMB 2,500,000.

The buyers consisted of 25 natural P.R.C. citizens, including Wen Sha, Jun Wang and Xudong Wang, managers of the Company’s subsidiaries engaged in the PHE segment of its business, and Huajuan Ai and Yingkai Wang, the Company’s Corporate Secretary and Acting Chief Accountant, respectively. Huajuan Ai, Wen Sha, Jun Wang and Xudong Wang are also principals in Northtech Holdings Inc., the company that provided a credit line of $2.5 million to the Company.

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Our Corporate Structure

Our corporate structure as of the date of this report is set forth in the following diagram. SanDeKe and SmartHeat Investment are WFOEs authorized by their respective business licenses to operate our businesses in China. SmartHeat Deutschland GmbH is wholly owned by Heat HP Inc. We own 52% and 30.6%, respectively, of the equity interests in our PRC-based joint venture companies, Jinhui and Ruicheng. SmartHeat Energy is a wholly owned subsidiary of SmartHeat Investment. Taiyu owns 98.8% of the equity interests of SmartHeat Pump. Prior to November 9, 2011, we had no direct ownership interest in SmartHeat Trading; instead, we controlled and were entitled to 100% of the profit or loss of SmartHeat Trading under contractual arrangements. Effective as of November 9, 2011, we terminated the nominee-owner relationship and acquired direct control over SmartHeat Trading.

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*On August 23, 2013, SmartHeat entered into Assignments agreements with each of Heat HP and Heat PHE in order to reorganize the structure of its subsidiaries. Under the Assignment Agreements SmartHeat agreed to be transfer, and in the case of indirectly owned subsidiaries, cause to be transferred, certain subsidiaries to each of Heat HP and Heat PHE. Further, under the Assignment Agreements, the SmartHeat agreed to cause its directly and indirectly owned subsidiaries to record these transfers with the applicable government agency in the People's Rpublic of China, and in the case of SmartHeat Germany, in Germany. The restructured entity is reflected above after giving effect to the sale of 40% of the Company's ownership interests in SmartHeat Taiyu (Shenyang) Energy; SmartHeat Siping Beifang Energy Technology Co., Ltd.; SmartHeat (Shenyang) Energy Equipment Co. Ltd.; Hohot Ruicheng Technology Co., Ltd.; and Urumchi XinRui Technology Limited Liability Company on December 31, 2014.

(1) We hold through 98.8% of the equity interest in SmartHeat Pump, with the remaining 1.2% of the equity interest held by Shenyang Economic and Technological Development Zone State-owned Assets Management Co., Ltd.

(2) We control 52% of Jinhui pursuant to a joint venture agreement entered into with the minority owner, Beijing Jun Tai Heng Rui Investment Consultancy Co. Ltd.

(3) We control 30.6% of Ruicheng pursuant to a joint venture agreement entered into with the minority owners, Hohhot Chengfa Heating Co. Ltd. and Beijing Taiyu Huineng Machinery and Electronic Equipment Co. Ltd. and our sale of 40% of our equity interests to the Chinese buying group.

Our Offices

Our principal offices are located at A-1, 10, Street 7, Shenyang Economic and Technological Development Zone, Shenyang, China 110141. Our telephone number is +86 (24) 2519-7699. Our website is www.smartheatinc.com. Copies of our annual, quarterly and current reports and any amendments thereto filed with or furnished to the SEC are available free of charge through our website as soon as reasonably practicable after such reports are available on the SEC website at www.sec.gov. Furthermore, a copy of this Annual Report is located at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. We make available free of charge on our website our Code of Conduct and the charters of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee.

Recent Developments

In response to inflationary concerns, the PRC government tightened fiscal policies beginning in 2011 that contributed to a general slowdown in many sectors of China's economy and restricted bank lending practices. Historically, approximately 40% of our subsidiaries' customers, representing the majority of their total sales, consist of state-owned enterprises in China. Many of these customers, the majority of who are real estate developers, encountered difficulties in 2011 in obtaining grants from the PRC government and faced an extended bank loan application process, both of which typically are used to finance the purchase of our subsidaries' products. These conditions continued into 2013. Accordingly, the continued deflationary policy of the PRC government still affects the rate of growth of our sales of PHEs and PHE Units as certain state-owned enterprises deferred bidding for new projects because of their working capital difficulties or abandoned existing projects. The decline in new projects among state-owned enterprises and increased peer competition contributed to a decline in sales of PHEs and PHE Units in 2011 and 2012. Our subsidiaries also canceled contracts in 2011 with certain of these state-owned customers that were unable to make payments or that had requested adjustments to their payment terms in response to their financial difficulties. Although these events caused a decrease in sales in 2011 and 2012, a portion of the canceled PHE and PHE Unit orders were reinstated in the year ended 2012 and we expect that additional orders and contracts that were canceled or partially delayed will be performed in early 2014, reducing the impact of the drop in our sales over the long

term. Furthermore, the PRC government remains committed to the construction of affordable housing projects and emission-reduction and energy-saving policies, which we believe will continue to drive demand for our subsidiaries' heat transfer products.

In the second quarter of 2012, we replaced our senior management and certain members of our Board of Directors as part of a broad restructuring plan. Jun Wang, our former Chief Executive Officer, Xudong Wang our former Vice President of Strategy and Development and Wen Sha, our former Vice President of Marketing, all resigned from their respective positions with us, but retained their positions with our subsidiaries. Zhijuan Guo, our former Chief Financial Officer, resigned from all of her positions with us and our subsidiaries. We appointed Oliver Bialowons and Michael Wilhelm to serve as our President and Chief Financial Officer, respectively. Mr. Bialowons was also appointed to our Board of Directors, in addition to Kenneth Scipta, who filled the vacancy left by Arnold Staloff, our former Audit Committee Chairman. We also hired Nimbus Restructuring Manager LLC ("Nimbus") to act as our restructuring advisor.

On July 27, 2102, we entered into a secured, revolving credit facility under the terms of a Credit and Security Agreement (the "Credit Agreement") with Northtech Holdings, Inc., a British Virgin Islands business corporation ("Northtech") owned by Jun Wang, Xudong Wang, Wen Sha and Jane Ai. As amended on December 21, 2012 and again on August 23, 2013, the Credit Agreement provides for borrowings of up to $2,500,000 with any amounts borrowed maturing on April 30, 2014. Borrowings under the Credit Agreement are secured by 55% of the equity interest in each of our wholly or directly-owned subsidiaries and are repayable, at our option, in shares of our common stock. On December 21, 2012, we elected to repay $1,301,300 of the $1,384,455 outstanding under the Credit Agreement with 1,300,000 restricted shares of our common stock, approximately 22.67% of our total issued and outstanding shares of Common Stock, as authorized by the Credit Agreement and approved by our shareholders. On August 23, 2013 the Credit Agreement was amended to decrease the interest rate to 10% annually, compounded quarterly and payable annually, effective January 1, 2013. The Company paid Northtech a fee of 100,000 restricted shares as consideration for the amendment and delivered 55% of its shares in Heat HP and Heat PHE as security.

On May 30, 2012, after the announcement of our initial restructuring actions and our proposed entry into the Credit Agreement referred to above, NASDAQ halted trading in our common stock pending a request for additional information with respect to these matters. We provided NASDAQ with additional information and clarification as requested, but on August 23, 2012, we received a notice from NASDAQ's Listing Qualifications Department (the "Staff"), which stated that "the Staff has determined to apply more stringent criteria," to the Company, accordingly, to delist the Company's securities pursuant to the Staff's broad discretionary authority under Listing Rule 5101. The Staff in its letter stated that it has concerns "regarding the Company's solvency, viability, operational structure and suitability for listing." In accordance with NASDAQ's applicable procedures, we appealed NASDAQ's delisting determination by appearing before a NASDAQ Hearings Panel, or the Panel, at an oral hearing that took place on October 11, 2012. On November 7, 2012, we received notice that the Panel affirmed the delisting determination made by NASDAQ and that effective as of November 9, 2012; shares of our common stock would be suspended from trading on the NASDAQ Stock Market. We appealed the Panel's decision through a further appeal process with the NASDAQ Listing and Hearing Review Council on November 19, 2012. This appeal was denied on February 25, 2013. The Company has appealed the decision with the Securities and Exchange Commission.

Our restructuring actions undertaken in 2012, including: the replacement of senior management; the retention of Nimbus; the execution of the Credit Agreement; and the potential issuance of shares under the Credit Agreement, were all approved by our shareholders at our 2012 Annual Meeting held on December 11, 2012.

On February 23, 2013, Michael Wilhelm resigned from his position as our Chief Financial Officer due to being "named personally in a groundless shareholder suit, where the alleged (unproven) actions in question are alleged to have taken place long before his involvement with the company." Mr. Wilhelm was added as a defendant to the class action lawsuit filed against the Company, its directors, and certain of its former officers, originally captioned Steven Leshinsky v. James Wang, et. al, now captioned Stream Sicav, Dharanedra Rai et al. v. James Jun Wang, Smartheat Inc. et al., in an amended complaint filed by the Rosen Law Firm on January 28, 2012. We have had difficulty in retaining a suitable replacement for Mr. Wilhelm due to this class action lawsuit. The status of the class action and the Company's response is detailed further under Item 3, "Legal Proceedings."

In the interim, and so as to have a principal accounting officer that could sign the certifications under Sections 302(a) and 906 of the Sarbanes Oxley Act of 2002 necessary to complete and file this Annual Report on Form 10K, we appointed Yangkai Wang as our Acting Chief Accountant on June 7, 2013. While Mr. Yingkai Wang has served as a financial manager to our subsidiaries since 2007, he has limited relevant education and training in U.S. GAAP and related SEC rules and regulations.

On June 25, 2013, the Board of Directors of the Company authorized the Company to commence a market canvass for additional sources of financing aside from the Credit Agreement. Pursuant to Board authorization, the Company began

soliciting stalking horse proposals for purchase of all or part of, or joint venture investment in or with, the Company or one or more of its directly or indirectly owned subsidiaries. The Company selected a stalking horse proposal and the Company attempted to solicit competing bids. On October 10, 2013, the Company entered into the Equity Interest Purchase Agreement as contemplated by the stalking horse process and approved by the Company's Board. A definitive restructuring proposal was submitted to the Company's stockholders for an advisory vote at the Company's Annual Meeting on December 10, 2013 and was approved by a majority of the Company's stockholders. As discussed in the preceding section, on December 30, 2013, the Company completed the sale of 40% of its ownership in certain subsidiaries. On March 27, 2014, we received notice that the buyers exercised their option to purchase an additional 40% interest in such subsidiaries.

Products

Our subsidiaries design, manufacture, sell and service heat transfer products and systems including PHEs, PHE Units, heat meters and heat pumps. Their products are an increasingly important element in providing a solution to energy consumption and air pollution problems in China. Their products are used in the industrial, residential and commercial markets to make energy use more efficient and to reduce pollution by reducing the need for coal-fired boilers.

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PHEs

A PHE is a device that transfers heat from one fluid to another fluid across large metal plates. Heat exchangers were invented in the mid-1920's to control pressure and temperature during industrial production. Later innovations in heat transfer technology, including the development of PHEs, led to higher heat recovery rates, lower fuel consumption and reduced related pollution. In a PHE, steam, hot water or other heated fluid from an industrial process flows into the PHE from one location and cool fluid flows in from another source. As the hot and cold fluids move in opposite directions through the PHE, the hot fluid cools as it transfers heat to the cool fluid, which absorbs the heat and gets warmer. In addition to more efficient heat transfer, PHEs offer a more compact design, ease of maintenance and the ability to adjust performance simply by adding or removing plates. This flexibility makes PHEs a preferred solution and translates into lower expenditures on installation and equipment purchases. Our subsidiaries currently focus on the Chinese market, but also have sales in Germany.

PHE

PHEs consist of a set of plates made of stainless steel, titanium and nickel alloy that are sealed by gaskets and then bolted together in a large metal frame. Plates come in a variety of sizes and wave patterns, and have large heat transfer surfaces and have high thermal conductivity. The quantity and size of the plates used, along with the total size of the PHE, vary according to particular application requirements. Among the primary advantages of PHEs compared to traditional shell-and-tube heat exchangers are their efficiency, compact design and ease of customization. PHEs have larger heat transfer surface areas than traditional heat exchangers, resulting in greater thermal conductivity and higher heat transfer coefficient. As a result, despite its smaller size, a PHE can transfer the same amount of heat as a traditional shell-and-tube heat exchanger. Furthermore, PHEs can be installed as replacements for traditional heat exchangers in existing installations because of their compact design in addition in new buildings and facilities.

In addition to manufacturing their own PHEs, they import finished stainless steel plates from Sondex and assemble customized PHEs and PHE Units based on client specifications. All designs of PHEs and PHE Units are done in-house by engineers utilizing software and proprietary in-house Computer-aided design ("CAD") software. Our subsidiaries sources plates from Sondex and from our Siping Beifang subsidiary, which manufactures plates, tubes, and gaskets, for the manufacture of PHE and PHE Units. The plates our subsidiaries produce provide solutions for a market segment with strong demand for PHE products that are priced 10%-15% lower than PHE products manufactured with Sondex plates. PHEs accounted for 11% and 47% of our sales in 2013 and 2012, respectively.

PHE Units

Taiyu commenced designing, manufacturing and selling PHE Units in May 2003. PHE Units integrate PHEs with various pumps, temperature sensors, valves and automated control systems to form a "unit." While PHE Units are used in a variety of industrial processes, our subsidiaries have developed an expertise in designing and integrating PHE Units for HVAC systems in residential and commercial buildings. Often PHE Units are used along with other units to form a "PHE network" installed in a local district heating system. The production and sale of PHE Units have been central to our historical growth. PHE Units require a comparatively higher level of technical skill and knowledge of the applications in which they are used. As a result, PHE Units are generally sold at a higher selling price. Our subsidiaries' PHE Units are designed by in-house by system engineers employing customized CAD software. PHE Units accounted for 8% and 39% of our sales in 2013 and 2012, respectively.

PHE Unit

Heat Meters

While heating companies in many Western countries have long used meters to measure customer heat usage and invoice customers, residents and commercial customers in China typically are billed based on the square footage of utilized space. Heat meters provide heat consumption information to users and measure the volume of heat used in commercial and residential facilities. As an important revenue gauge for utilities, the calibration of meters in many countries is regulated by government agencies and subject to local or national guidelines. In response to rising energy costs and the increased sensitivity to environmental issues, the PRC government and local utility companies made the use of heat meters compulsory in China. As of July 2003, heat meters were required nationally by law for new construction installed with central heating, and the requirement was extended in April 2008 by the Energy Conservation Law, Article 38, to cover existing buildings being retrofitted.

Heat Meter

Using established relationships with provincial governments and utility companies throughout China, Taiyu introduced our patented heat meters to the market during the second quarter of 2006. Our subsidiaries will continue to work with national and local government entities to establish a national heating standard in China and become an active leader in China's heat meter market. Sales to date have been small relative to our PHE and PHE Unit product lines. Heat meters accounted for 79% and 7% of our sales in 2013 and 2012, respectively.

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Heat Pumps

Heat pump systems provide heating, cooling and hot water for residential and commercial buildings and process heat for industrial applications by moving heat between two locations using small amounts of electricity. In a typical system, heat pumps draw heat from outside air or ground to warm the inside of a home or office building. Many heat pumps have reversible cycles, too, using the same system to cool the inside of a building by transferring heat outside. Heat pumps replace conventional energy sources such as oil, gas and coal with the energy stored in water, soil and air or heat recovered from wastewater or exhaust air. By transferring heat between locations, rather than burning fuel to create a heat source, heat pumps are extremely efficient energy transfer systems. Commercial users install heat pump systems not only to reduce energy consumption but also carbon dioxide, or CO2, emissions, a trend that is encouraged by policymakers in China. The advantages of heat pumps in terms of energy efficiency, operating cost, CO2 emission reduction and their ability to provide heating and cooling in one machine has made them the leading energy source for new buildings in Germany and Austria, and has replaced conventional fossil fuel based technology in these countries to a large degree. As the PRC government continues to focus on emissions reduction and energy conservation, we believe there are significant opportunities for strong incremental growth in the rapidly growing heat pump market in China. We also anticipate expanding sales of heat pumps manufactured in China under EU design standards to the European market. Heat pumps accounted for 2% and 8% of our sales in 2013 and 2012, respectively.

Heat Pump

Our Industry

Heat transfer technology was introduced to China in the 1960’s from Russia, mainly for applications in the petroleum industry. Today, heat exchangers are used in a wide range of industrial processes, including energy, such as conventional and nuclear power plants, HVAC, petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing. Heat transfer equipment also is employed in new energy applications such as wind, solar, biomass and waste disposal. Our subsidiaries serve the utility and industrial sectors throughout China, selling PHEs, PHE Units and related accessories principally to the petrochemical, power plant, HVAC, chemical and metallurgy industries. Our subsidiaries sell heat meters and heat pumps principally to participants in HVAC sector. They also offer after-sales services, including maintenance, repair and supplying spare parts, on all their products.

We believe there are social, economic, environmental and regulatory factors that will drive demand for environmentally friendly solutions over the long-term. These include:

Environmental Conditions in China. According to the report entitled “The Cost of Pollution in China,” published in 2007 by the World Bank, the combined health and non-health cost of air and water pollution in China amounts to an estimated $100 billion a year. Moreover, the report found that air pollution in China, especially in large cities, is leading to higher incidences of lung diseases, cancer, and respiratory problems. According to a report commissioned by the Energy Foundation published in 2008, these problems are directly attributable to the fact that 80% of China’s carbon dioxide emissions come from burning coal.

Growing Demand for Heating Water. China provides heating water to households in most of its northern provinces from centralized heating systems. As cities grow in these provinces along with the emerging middle class, so does the demand to expand this supply into new cities, industrial parks and other provinces. Heating water in China is generated by local power plants that pump emitted hot water through a closed loop system to sub-stations, which then pump the water through a network of pipes to households up to 50 kilometers from the local station. These systems of heating stations and sub-stations utilize numerous PHEs and PHE Units for the dual purpose of providing cooling systems for power plants and heat sources for residents and factories.

Heightened Environmental Awareness. The PRC government's 12th Five-Year Plan continues to address environmental concerns and emphasize clean energy sources as part of the process towards ensuring sustainable growth in China. The Plan maintains long-term plans to cut CO2 output per unit of Gross Domestic Product, or GDP, by at least 40% by 2020 from 2005 levels. Furthermore, the Plan sets forth clear energy and CO2 emissions targets to help ensure energy policies are implemented with defined carbon goals. The implementation of PHEs and PHE Units in new construction facilities, and as replacements for legacy shell-and-tube heat exchangers, can help meet these goals because of the increased energy efficiency of these products.

Urbanization. According to a 2011 national sample survey conducted by the National Bureau of Statistics of China, over 51% of China's population lived in urban settings in 2011. Additionally, according to the National Bureau of Statistics of China, 15 cities near and around our sales and service centers have a population of more than five million. Eight of these cities are among the world's fastest growing, increasing at an estimated annual rate of 2.3% or more according to the CIA World Factbook. China's urbanization has lead to new infrastructure development and existing infrastructure improvements that require ongoing investment in heating solutions.

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Emerging Wealth. The rapidly expanding middle class in China demands access to quality heating during the winter months. This demand is often met by using hot water supplied from a power station and district heating network that utilizes a system of PHEs and PHE Units.

Our Competitive Strengths

The market for heat transfer products and systems in China is highly competitive, with multiple overseas and domestic producers and no established leader in the fragmented and diverse end markets. We believe our subsidiaries have the following competitive strengths:

Provider of Key Elements Used to Improve Energy Efficiencies and Reduce Coal Pollution. Our subsidiaries offer a full line of PHEs, PHE Units, heat meters and heat pumps. The primary advantages of plate heat exchanger technology, compared to traditional shell-and-tube heat exchanger technology, are efficiency, compact design and ease of customization. PHEs have larger heat transfer surface areas and therefore also have greater thermal conductivity. As a result, PHEs can transfer the same amount of heat as a traditional shell-and-tube heat exchanger, but with the benefit of a smaller size unit.

Quality Engineering, Research and Development. Our subsidiaries emphasize efficiency, durability and quality engineering in all of their products. All of their products utilize the latest technologies, and their designs are created using advanced software systems. Our subsidiaries have 17 registered patents in China for PHE-related products and heat meters. To maintain their competitive edge in the marketplace and keep pace with new technologies, they fund research and development on an ongoing basis to find improved efficiencies in design, cost and energy capture. Research and development costs for 2012 and 2013 were $1.53 million and $1.42 million, respectively. Our subsidiaries plan to continue to invest in research and development to identify new industry applications for PHEs, improve and expand product lines, develop multifunctional PHE Units and modify PHE designs to meet current market demand.

Strong Technical Support. The selection of PHEs and PHE Units requires technical knowledge regarding the operating temperature, pressure, corrosivity, viscosity and purity of the fluid used as well as the pressure loss within the system. Our subsidiaries’ design software enables them to provide high quality and timely technical support to ensure their customers receive the right equipment for each project. They also provide a streamlined and error-free installation process to minimize project complications.

Production and Control Systems for Efficient Pricing and Streamlined Manufacturing. Our subsidiaries’ CAD systems are integrated with real-time enterprise resource planning, or ERP, and finance systems. This platform allows field salespeople to input orders, obtain draft models, access quotes and confirm delivery dates within minutes. The platform also enables inventory and production personnel to accurately schedule and reduce lead production times.

Focus on Quality. Our manufacturing subsidiaries have a PRC National Safety Certification for PHE products, and are an ISO 9001 and ISO 14001 certified manufacturer, which together recognize development and implementation procedures that demonstrate the ability to consistently manufacture products meeting customer specifications, environmental standards and applicable statutory and regulatory requirements.

First-Rate Customer Service and Reliable Product Delivery. We believe that the employees of our subsidiaries provide first-rate customer service, technical expertise and product knowledge to streamline the selection, design and installation processes. Our subsidiaries provide after-sales service principally through local service centers and deliver products on time to meet tight project deadlines.

Diversified End Markets and Customers. PHEs and PHE Units are broadly used across a variety of industrial end markets including the energy, such as conventional and nuclear power plants, HVAC, petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing. Our subsidiaries also benefit from a diverse customer mix, with no individual customer accounting for greater than 42% of sales in 2013 or 2012. This diversification of end markets and customer base helps to insulate us from sales volatility that would occur if we concentrated in specific industries. The majority of our subsidiaries' customers are state-owned utilities, engineering and construction companies and industrial companies.

Experienced Personnel. The managers of our subsidiaries have extensive business and industry experience. Jun Wang, the general manger of our subsidiaries, was the founder of Taiyu in 2002 and previously was a sales manager for Honeywell International Inc. from 1996 to 1999 and a sales manager for Alfa Laval from 1994 to 1996. Mr. Wang obtained his master's degree in Engineering from Tsinghua University in 1989. Wen Sha, our subsidiaries' Vice President of Marketing, has extensive sales experience and industry contacts. Prior to joining us as a regional sales manager in 2005, he served as the general manager of Nanjing Hui Dun Ltd. and as sales director of APV Accessen in Shanghai, a leading international PHE firm. Feng Chen, Ph.D., our subsidiaries' Chief Technology Officer, joined us in 2008 as part of our SanDeKe acquisition. Prior to founding SanDeKe, he served in a leading engineering position in China with Alfa Laval. Mr. Harald Kumpfert, the general manager of our heat pump business, is an experienced German engineering and marketing professional that has been working and living in China for more than 15 years. Prior to joining our subsidiaries he was the sales director of Siemens China and Honeywell China. Mr. Xu Wen Ke, the sales manager of our heat pump business,s used to be the sales director of Haier China, a large manufacturer of air conditioners.

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Growth Strategy

Our subsidiaries plan to expand into new distribution channels in China, further penetrating the many market segments throughout China for PHEs, PHE Units and related accessories, and expand sales of heat pumps in both China and Europe.

Continue Organic Growth Initiatives. We believe that the current PHE and related systems markets in China are fragmented and represent excellent opportunities for our subsidiaries to gain additional market share from their competitors. We expanded our business lines in recent years through strategic acquisitions and establishment of subsidiaries, including the acquisitions of SanDeKe, Siping Beifang, SmartHeat Pump and SmartHeat Germany. Each acquisition and new subsidiary has accelerated our strategic plans by: (i) adding manufacturing capacity; (ii) broadening our product offerings to include multiple heat exchange systems; (iii) facilitating access into new geographic regions throughout China; (iv) enhancing our engineering capabilities; and (v) helping us enter new and higher growth end markets both in China and Europe. Our subsidiaries intend to continue to market their brands to expand into new distribution channels, improve the quality of their products through their engineering capabilities and leverage their quality customer service and reliable product delivery to gain incremental business with their existing customers.

Pursue High Growth End Markets in China. Our subsidiaries target their sales efforts on a number of high growth end markets in China, such as the nuclear power, petrochemical and shipbuilding industries. They currently have a presence in these segments but believe there are significant opportunities to improve their market share by leveraging their premium product quality and high quality service. Their solutions are commonly used in many of these industries and customers continue to assess the cost savings and positive environmental attributes of PHEs.

Promote Heat Meters. In response to rising energy costs and an increased focus on energy efficiency, the PRC government and local utility companies made the use of heat meters compulsory in China. In July 2003, heat meters were required nationally by law for new buildings installed with central heating; this requirement was extended in April 2008 by the Energy Conservation Law, Article 38, to cover existing buildings being retrofitted. Our subsidiaries continue to work with the General Administration of Quality Supervision and Quarantine, an administrative organ established under the PRC’s State Council, to establish national heating standards in China. They also intend to leverage their brand names and reputation in the PHE market to gain market share.

Expand Heat Pump Sales. Heat pump systems are a rapidly growing market in China and the leading energy source for new buildings in Germany and Austria. Heat pumps have replaced conventional fossil fuel based technology to a large degree in these European countries for heating, cooling and hot water for residential and commercial buildings. As the PRC government continues to focus on emissions reduction and energy conservation, we believe there are significant opportunities for strong incremental growth in the residential and commercial markets in China. We anticipate our subsidiaries will expand sales of our heat pumps manufactured in China under EU design standards to the European market because our heat pump business has expanded its sales network.

Production

Our subsidiaries currently operate five manufacturing facilities in China, including our Taiyu plant in Shenyang, which is our principal manufacturing facility, and our SanDeKe, Siping Beifang, Ruicheng and SmartHeat Pump plants, and one manufacturing facility for heat pumps in Germany. Our manufacturing facilities, in the aggregate, currently have the capacity to produce approximately 2,000 PHEs, 900 PHE Units, 12,000 heat meters and 400 heat pumps monthly. Our operations in China generally operate on an 8-hour shift, with the exception of the high season from May to November, during which we may operate for 11-12 hours per day. Production is driven by orders from clients and typically is scheduled on a just-in-time delivery basis.

Marketing

Since initiating operations, our subsidiaries have emphasized the development of the SmartHeat and Taiyu brands in China, which are recognized and associated with quality production and first-rate service. Our subsidiaries have long-standing positive relationships with local governments in Beijing, Shenyang, Urumqi, Shandong, Jiangsu and Shanghai, and formed new relationships with local governments in Yingkou, Qingdao, Jiamusi and Harbin. Our subsidiaries regularly appear at industry trade shows, attending HVAC trade fairs in Shanghai and environmental protection forums in China. They also maintain positive relationships with local utilities, oil refiners, steel producers and food and beverage companies. Marketing costs generally are funded through working capital and expensed as incurred.

Suppliers

Plates and components together constituted approximately 42% of our raw material purchases in 2013 and 2012. Plates for PHEs and PHE Units are manufactured in our subsidiaries' facilities and also are purchased from Sondex under the terms of Taiyu's Sondex authorized dealer arrangement. While Taiyu is an authorized dealer of Sondex products, annual or quarterly purchasing prices are not fixed and fluctuate according to Sondex's most recent pricing list. Sondex plate purchases accounted for approximately 4% of our total annual raw material purchases in 2013.

Components generally include pumps, valves, pipes and electronic meters purchased from a number of premium international and domestic suppliers who have been certified to meet our quality specifications. Representative component suppliers include Siemens, Wilo A.G. and Honeywell, as well as others. Our subsidiaries typically maintain a relatively small inventory of component parts for resale.

Customers

Our subsidiaries sell both directly through their sales force and through a network of national distributors located throughout China. All of their work is performed based on written contracts with customers and there are no oral contracts. Their customer base consists primarily of state-owned enterprises diversified across a number of end markets in China, such as real estate development, with one customer accounting for 10% of our sales in 2013 but no other customer accounting for more than 10% of our sales in 2013.

Intellectual Property

Our subsidiaries use the SmartHeat and Taiyu brand names on their products in China and the SmartHeat brand on their heat pumps in Europe. They have registered trademarks for their brand names with the China Trademark Bureau, which expire in 2020. We believe our subsidiaries' brand names are recognized in China's heating industry for quality and efficiency. In addition, we have registered and maintain numerous internet domain names related to our business, including "smartheatinc.com." Collectively, the trademarks and domain names that we and our subsidiaries hold are of material importance to us. We have 6 new registered patents in China in 2013 related to our products. We have altogether 23 registered patents in China related to our products, of which 4 expire in 2015, 2 in 2017, 2 in 2018, 5 in 2021, 4 in 2022 and 6 in 2023. We intend to apply for additional patents in China to protect our core product designs.

Research and Development

To maintain our subsidiaries' competitive edge in the marketplace and keep pace with new technologies, we believe it is important to devote resources to ongoing research and development to find improved efficiencies in design, cost and energy capture. Research and development costs for 2013 and 2012 were $1.42 million and $1.53 million, respectively. Our subsidiaries plan to continue to invest in research and development to identify new industry applications for PHEs, improve and expand product lines, develop multifunctional PHE Units and modify PHE designs to meet current market demand.

Competition

Our subsidiaries compete principally in the domestic China market. We believe their competitive advantages lie in superior engineering and design skills, the longevity and efficiency of the components they use, their ability to vertically integrate their manufacturing process, their just-in-time delivery and their reliable after-sales provided through local service centers. We also believe our subsidiaries' position as a PRC-based producer of PHEs and PHE Units in a marketplace previously dominated by foreign manufacturers creates an advantage when seeking new customers. They receive contracts for their products through bidding processes and negotiations directly with customers.

Our subsidiaries' principal competitors in the domestic China market for PHEs include Alfa Laval, APV, Tranter, Accessen, Lanshi and Juyuan, and foreign producers hold an approximately 50% market share. We believe the quality of our subsidiaries' PHEs is equal to those sold by Alfa Laval, as are their prices. In comparison with other domestic producers, our subsidiaries' prices for PHEs are approximately 10%-15% higher, reflecting a premium we believe attributable to the quality of their products and after-sales services.

The market for heat meters is extremely fragmented with multiple overseas and domestic producers and no established leader. Our subsidiaries continue to seek to become a leading supplier of heat meters in China.

We expanded into the heat pump market in China and Europe with our acquisitions of SmartHeat Pump and SmartHeat Germany in 2011. The markets for heat pumps in these markets are highly fragmented. These subsidiaries intend to focus on the middle high-end market for heat pumps in China, competing on price and customization capabilities with foreign and joint venture producers by leveraging their domestic manufacturing and engineering skills and advanced technology from SmartHeat Germany.

Seasonality

Our subsidiaries typically experience stronger sales in the third and fourth calendar quarters, which is the start of fall and winter in China. Our quarterly revenues may fluctuate significantly due to the seasonal nature of central heating services in China, where the equipment used in residential buildings must be delivered and installed prior to the beginning of the heating season in late fall. We believe that as our subsidiaries expand their presence into other industries and sectors, this seasonality will be partially mitigated.

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Governmental and Environmental Regulation

Product and Business Regulations

Our business and company registrations are in compliance in all material respects with the laws and regulations of their respective governing municipal and provincial authorities. Our subsidiaries and manufacturing facilities in China are subject to the national and local laws of the PRC. Other than as described following, our subsidiaries are not subject to any other government regulations that would require them to obtain a special license or approval from the PRC government to operate their business or manufacturing facilities in China.

Our subsidiaries' PHEs and PHE Units are not subject to material regulation by the PRC government or other national agencies. They have obtained PRC National Safety Certification for PHE products and are ISO 9001 quality management certified, which together recognizes their commitment to safety and quality in the manufacturing processes. Although not required for the production and sale of PHE products in China, the PRC National Safety Certification is of critical importance in choosing a PHE provider for companies in industries utilizing high temperatures or pressure in their production processes.

Manufacture and sale of heat meters and heat pumps in China require licenses issued by the PRC government. Our subsidiaries that manufacture these products received these licenses in 2005 and 2008, respectively, and continue to maintain them through renewals. The Safety Bureau overseeing heat meter and heat pump production conducts site visits and inspections of documents on a periodic basis to verify adherence to PRC manufacturing standards. Additionally, due to rising energy costs and the increased sensitivity to environmental issues, PRC government and local utility companies have made the use of heat meters compulsory in China. As of July 2003, heat meters were required nationally by law for new construction installed with central heating and. In April 2008, the Energy Conservation Law, Article 38, extended the requirement to cover retrofitted buildings. SmartHeat Germany is not required to maintain any license for the manufacture and sale of heat pumps in Germany. The European Commission has promulgated standards, such as EN 378 Safety and Environmental Requirements, for heat pumps and products sold in the European Union must carry CE marking, indicating conformity with such requirements. We believe that SmartHeat Germany's heat pumps sold in Europe comply with all currently applicable standards.

Environmental Regulations

Our subsidiaries' manufacturing facilities in China are subject to the national environmental regulations of the PRC as well as local laws regarding pollutant discharge, air, water and noise pollution, including the Environmental Protection Law of the PRC, the Environmental Impact Appraisal Law of the PRC, the Law of the PRC on the Prevention and Control of Water Pollution, the Law of the PRC on Prevention and Control of Environmental Pollution Caused by Solid Waste, the Law of the PRC on Prevention and Control of Air Pollution and the Law of the PRC on Prevention and Control of Environmental Noise Pollution. The Environmental Protection Law of the PRC sets out the legal framework for environmental protection in the PRC. The Ministry of Environmental Protection of the PRC, or the MEP, is primarily responsible for the supervision and administration of environmental protection work nationwide and formulating national waste discharge limits and standards. Local environmental protection authorities at the county level and above are responsible for environmental protection in their jurisdictions. Companies that discharge contaminants must report and register with the MEP or the relevant local environmental protection authorities. Companies discharging contaminants in excess of the discharge limits prescribed by the central or local authorities must pay discharge fees for the excess in accordance with applicable regulations and are also responsible for the treatment of the excessive discharge. Companies that directly or indirectly discharge industrial wastewater into the water or are required by law to obtain the pollutant discharge permit before discharging wastewater or sewage shall also obtain the pollutant discharge permit.

Our subsidiaries in China have received PRC government certification of their operating facilities in China indicating that their businesses are in material compliance with the relevant PRC environmental laws and regulations. Our manufacturing subsidiaries are ISO 9001 quality management and ISO 14001 environmental management systems certified, which together recognize their development and implementation of procedures that demonstrate an ability to consistently manufacture products meeting customer specifications, environmental standards and applicable statutory and regulatory requirements. Our subsidiaries' production processes mainly generate noise, wastewater and solid wastes. They currently do not incur any material costs in connection with their compliance with the applicable PRC environmental laws as our manufacturing processes generate minimal discharge. Furthermore, the cost of maintaining compliance has not, and we believe, in the future, will not, have a material adverse effect on our business, consolidated results of operations and consolidated financial condition.

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Labor Protection Regulations

The Labor Contract Law of the PRC, effective on January 1, 2008, governs the establishment of employment relationships between employers and employees, and the conclusion, performance, termination of and the amendment to employment contracts. To establish an employment relationship, a written employment contract must be signed by the employer and employee. In the event that no written employment contract was signed at the time of establishment of an employment relationship, a written employment contract must be signed within one month after the date on which the employer first engaged the employee. The Labor Contract Law also imposes greater liabilities on employers and significantly affects the cost of an employer's decision to reduce its workforce. Further, it requires that certain terminations be based upon seniority and not merit. We believe that our subsidiaries in the PRC are in material compliance with the requirements of this law.

On June 29, 2002, the Work Safety Law of the PRC was adopted by the Standing Committee of the 9th National People's Congress and came into effect on November 1, 2002, as amended on August 27, 2009. The Work Safety Law provides general work safety requirements for entities engaging in manufacturing and business activities within the PRC. We believe our PRC subsidiaries are in material compliance with all applicable laws and regulations related to work safety.

Foreign Currency Regulations

The principal regulations governing foreign currency exchange in China are the Foreign Exchange Administration Regulations promulgated by the State Council, as amended on August 5, 2008, or the Foreign Exchange Regulations. Under the Foreign Exchange Regulations, the RMB, the national currency of the PRC, is freely convertible for current account items, including the distribution of dividends, interest payments, trade and service-related foreign exchange transactions, but not for capital account items, such as direct investments, loans, repatriation of investments and investments in securities outside of China, unless the prior approval of the State Administration of Foreign Exchange, or the SAFE, is obtained and prior registration with the SAFE is made.

On October 21, 2005, the SAFE issued Circular 75, the Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Corporate Financing and Roundtrip Investment through Offshore Special Purpose Vehicles, which became effective as of November 1, 2005. Please refer to "Risk Factors – Risks Related to Business in China – PRC regulations relating to the registration requirements for PRC resident shareholders owning shares in offshore companies may subject our PRC resident shareholders to personal liability and limit our ability to acquire companies in China or to inject capital into our operating subsidiaries in China, limit our subsidiaries' ability to distribute profits to us or otherwise materially and adversely affect our business" for a discussion of Circular 75.

On August 29, 2008, the SAFE promulgated Circular 142, the Notice on Perfecting Practices Concerning Foreign Exchange Settlement Regarding the Capital Contribution by Foreign-invested Enterprises, regulating the conversion by a foreign-invested company of foreign currency into RMB by restricting how the converted RMB may be used. Please refer to "Risk Factors – Risks Related to Business in China – Restrictions on currency exchange may limit our ability to receive and use our revenues effectively" for a discussion of Circular 142.

Dividend Distribution

Our ability to pay dividends is affected by the complex currency and capital transfer regulations in China that restrict the payment of dividends to us by our PRC subsidiaries. PRC regulations currently permit payment of dividends only out of accumulated profits as determined in accordance with accounting standards and regulations in China. Our PRC subsidiaries also are required to set aside at least 10% of net income after taxes based on PRC accounting standards each year to statutory surplus reserves until the cumulative amount of such reserves reaches 50% of registered capital.

These reserves are not distributable as cash dividends. Our PRC subsidiaries also may allocate a portion of their after-tax profits to their staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation. If any of our subsidiaries incur debt, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us.

Employees

We do not have direct employees. However, as of December 31, 2013, our subsidiaries had 569 full time employees and 46 seasonal employees in China and Germany, among which 432 employees work in PHE segment while 183 employees work in HP segment. Our subsidiaries maintain strong ties with their employees and staff and retention is stable. Employee contracts in China adhere to both state and provincial employment regulations and all social security regulations. All compensation, including social insurance, is paid in a timely manner to authorities and employees. There have been no disputes to date and there are no collective bargaining agreements.

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Item 1A. Risk Factors

Our business and an investment in our securities are subject to a variety of risks. The following risk factors describe the most significant events, facts or circumstances that could have a material adverse effect upon our business, financial condition, results of operations, ability to implement our business plan, and the market price for our securities. Many of these events are outside of our control. If any of these risks actually occurs, our business, financial condition or results of operation may be materially adversely affected. In such case, the trading price of our common stock could decline and investors in our common stock could lose all or part of their investment.

Risks Related to Our Business

We are a holding company that depends on cash flow from our wholly owned subsidiaries to meet our obligations, and any inability of our subsidiaries to pay us dividends or make other payments to us when needed could disrupt or have a negative impact on our business.

After our acquisition of Taiyu in 2008, we became a holding company with no material assets other than the ownership interests of our subsidiaries through which we conduct operations. We rely on dividends paid by our subsidiaries for our cash needs, including the funds necessary to pay dividends and other cash distributions to our shareholders, to service any debt we may incur and to pay our operating expenses. China has currency and capital transfer regulations that require us to comply with complex regulations for the movement of capital. PRC regulations currently permit payment of dividends only out of accumulated profits as determined in accordance with accounting standards and regulations in China. Our PRC subsidiaries also are required to set aside at least 10% of net income after taxes based on PRC accounting standards each year to statutory surplus reserves until the cumulative amount of such reserves reaches 50% of registered capital. These reserves are not distributable as cash dividends. Our PRC subsidiaries also may allocate a portion of their after-tax profits to their staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation. Furthermore, if any of our subsidiaries incur debt, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us. Accordingly, if our subsidiaries are unable to pay us dividends and make other payments to us when needed because of regulatory restrictions or otherwise, we may be materially and adversely limited in our ability to make investments or acquisitions that could be beneficial to our business, pay dividends or otherwise fund and conduct our business.

Our subsidiaries have generated losses from operations in the fiscal years ended December 31, 2012 and 2011. As such, our subsidiaries have been unable to remit funds to us for the payment of our obligations. To fulfill our need for short-term financing, on July 27, 2012, we executed a Credit Agreement with Northtech, which, as amended, provides us with a $2,500,000 revolving line of credit with amounts borrowed due April 30, 2014. We believe this line of credit will be sufficient to satisfy our operating costs through mid 2014.

We are also pursuing other options, including restructuring operations at the subsidiary level to regain profitability and entering into management and services agreements with our subsidiaries, subject to the approval of regulatory agencies in China. However, we cannot provide any assurances that these measures will be adequate to satisfy our liquidity needs, and if we are not able to obtain sufficient funds from our subsidiaries to pay our obligations as they come due, our business could be negatively impacted.

We face risks associated with a purported securities class action lawsuit, which if successful, could have a material adverse effect on our results of operations and could harm our reputation.

On August 31, 2012, a putative class action lawsuit, Steven Leshinsky v. James Wang, et. al., which purported to allege federal securities law claims against the Company and certain of its former offers and directors, was filed in the United States District Court for the Southern District of New York. Thereafter, two plaintiffs filed competing motions

to be appointed lead plaintiff in the proceeding. A lead plaintiff was appointed and an amended complaint was filed on January 28, 2013, by the Rosen Law Firm. The amended complaint included Oliver Bialowons, our President, and Michael Wilhelm, our former Chief Financial Officer, as defendants in the proceeding though they were not officers of the Company during the alleged class period. A second amended complaint was filed on April 8, 2013, under the caption Stream Sicav, Dharanendra Rai et al. v. James Jun Wang , Smartheat, Inc. et al., removing Messrs. Wilhelm and Bialowons as defendants. The second amended complaint alleges two counts against the Company, both for violations of the federal securities laws arising from alleged insider sales or management sales of securities and alleged false disclosures relating to those sales. On May 8, 2013, we filed a motion to dismiss the second amended complaint on the grounds that the plaintiffs did not, in fact, allege that a member of our senior management team had sold their shares. On March 17, 2014 the court, denied, the lead plaintiff's motion for class certification, without prejudice to move again for such certification pending (1) the resolution of Halliburton Co. v. Erica P. John Fund, Inc., No. 13-317 (U.S. 2014)by the Supreme Court of the United States regarding the viability of the efficient market theory andthe plaintiffs' claim that reliance, and therefore injury, can be determined on a classwide basis and(2) defendants' compliance with their discovery obligations. Any adverse decision in this action, requiring us to pay substantial damages to the plaintiffs could result in a material adverse effect on our results of operations and could harm our reputation. We believe this lawsuit is frivolous and without merit and will contest it vigorously. Please see Item 3 "Legal Proceedings" for additional information with respect to this matter.

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The markets served by our subsidiaries are subject to seasonality and cyclical demand, which could harm our business and make it difficult to project long-term performance.

Demand for our subsidiaries' products depends in part upon the level of capital and maintenance expenditures of their customers and end users. These expenditures historically have been cyclical in nature and vulnerable to economic downturns. Decreased capital and maintenance spending by our subsidiaries' customers could have a material adverse effect on the demand for their products and our business, financial condition and results of operations. In particular, an economic slowdown in the domestic China economy may result in reduced orders for PHEs from the steel processing and petrochemical sectors and lower orders for PHE Units from the HVAC sector. In response to inflationary concerns, the PRC government instituted tightened fiscal policies in 2011 that contributed to a general slowdown in many sectors of China's economy and restricted bank lending practices. Accordingly, many state-owned enterprises in China, including real estate developers, encountered difficulties in 2011 and 2012 in obtaining grants from the PRC government and faced an extended bank loan application process, both of which typically are used to finance the purchase of our subsidiaries' products. If the PRC government continues its deflationary policies and efforts to stabilize economic growth in China, such disruptions may continue to adversely impact the capital needs of our subsidiaries' customers, which, in turn, could adversely affect our results of operations, cash flows and financial condition. Additionally, the historically cyclical nature of the demand for our subsidiaries' products limits our ability to make accurate long-term predictions about our performance, however.

Furthermore, sales of heat exchangers and related systems may fluctuate significantly due to the seasonal nature of central heating services in the PRC because the equipment used in residential buildings must be delivered and installed prior to the beginning of the heating season in late fall, which occurs during the third and fourth calendar quarters in China. To date, our subsidiaries have not been adversely affected by these seasonality trends and, given the current demand visibility, we do not currently foresee weakening in the demand for their products going forward in the next year. However, the seasonality of our subsidiaries' business may result in significant operational challenges to their production and inventory control functions.

Our subsidiaries' accounts receivables remain outstanding for a significant period of time, which has a negative impact on our cash flow and liquidity.

Our subsidiaries' agreements with their customers generally provide that 30% of the purchase price is due upon the placement of an order, 30% upon delivery and 30% upon installation and acceptance of the equipment after customer testing. As a common practice in the heating manufacturing business in China, payment of the final 10% of the purchase price is due no later than the termination date of the standard warranty period, which ranges from 3 to 24 months from the acceptance date. Due to the slowdown of the Chinese economy and tightened monetary policy, and in order to attract and retain customers, the Company's subsidiaries have been forced to adjust their contract terms to permit for more flexible and longer payment terms.

We record revenue and corresponding accounts receivable when products are delivered to customers, and for PHE Units, when customer acceptance occurs following delivery. Payments received prior to product delivery, or customer acceptance for PHE Units, are recorded as unearned revenue. Our subsidiaries may experience payment delays from time to time, which historically have ranged from 1 to 3 months from the due date. While these payment delays are common in the heating manufacturing industry in China, such delays cause capital to be tied up in receivables, which may result in pressure on our cash flows and liquidity. In 2013, we had accounts receivable turnover of 1.94, with days sales outstanding of 186 and inventory turnover of 0.61. In 2012, we had accounts receivable turnover of 1.21, with days sales outstanding of 303 and inventory turnover of 0.58. The low accounts receivable turnover and high days outstanding in 2013 is due to an unexpected abandonment of projects, cancelation of orders and delays in the performance of PHE and PHE Unit contracts from certain state-owned customers due to the tightened fiscal policy in China during 2012. The low inventory turnover in 2013 was due to increased raw materials inventory on hand for the

readiness of the high production season during the second half of 2013 and increased finished goods inventory resulting from orders that have been delayed or canceled in 2013. While historically collections have been reasonably assured, delays in collections and the significant period of time our subsidiaries' accounts receivable remain outstanding may negatively impact our cash flow and liquidity.

Our subsidiaries acquire most components for the manufacture of their products from a limited number of suppliers, and if they are unable to obtain these components, they would experience manufacturing delays and our financial results could be adversely affected.

Our subsidiaries acquire most of the components for the manufacture of their products from a limited number of suppliers. To manufacture their products, these components must be available when needed, at the right level of quality and at the right price. If they are unable to obtain these components accordingly, they would experience delays in manufacturing their products and our financial results could be adversely affected. Suppliers of some of these components require our subsidiaries to place orders with significant lead-time to assure supply in accordance with their requirements. Certain of these suppliers are currently the sole source of one or more components upon which our subsidiaries are dependent and alternative sources would not be available for those components unless our subsidiaries were to redesign their products. Other components could be obtained from alternate suppliers without redesign, but only at higher prices than our subsidiaries currently pay or for delivery later than required by their production schedule. Our subsidiaries maintain a relatively small inventory of component parts for resale and their parts services business would suffer if the supply of replacement parts was reduced or terminated by their suppliers. If suppliers are not able to provide these critical components on the dates and at the prices scheduled, our subsidiaries may not be able to manufacture their products promptly and cost-effectively to meet customer orders, which could harm their credibility and the market acceptance and sales of their products.

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Our subsidiaries are a major purchaser of certain goods and raw materials that they use in the manufacturing process of their products, and price changes for the commodities they depend on may adversely affect our profitability.

Our profitability depends upon the margin between the cost to our subsidiaries of certain goods used in the manufacturing process, such as plates, pumps, water tanks, sensors, controlling systems and other raw materials, as well as their fabrication costs associated with converting such goods and raw materials compared to the selling price of their products, and the overall supply of raw materials. Our subsidiaries have experienced and anticipate continued fluctuation in raw material costs as a result of world economic conditions, such as the price of stainless steel used to produce plates for their PHEs and PHE Units. Our subsidiaries monitor the commodities markets for pricing trends and changes, but do not engage in hedging transactions to protect against raw material fluctuations. Instead, our subsidiaries attempt to mitigate the short-term risks of price swings by purchasing raw materials in advance based on production needs and projected sales. However, they may not be able to pass all increases in raw material costs and ancillary acquisition costs associated with taking possession of the raw materials through to their customers. Although they are currently able to obtain adequate supplies of raw materials, it is impossible to predict future availability or cost. With the rapid growth of China’s economy, the demand for certain raw materials is great while the supply may be more limited. This may affect our subsidiaries ability to secure the necessary raw materials in a cost-effective manner for production of their products at the volume of purchase orders that they anticipate receiving. The inability to offset price increases of raw materials by sufficient product price increases, and an inability to obtain raw materials, would have a material adverse effect on our consolidated financial condition, results of operations and cash flows.

Our subsidiaries may experience material disruptions to their manufacturing operations in China that could result in material delays, quality control issues, increased costs and loss of business opportunities, which may negatively impact our sales and financial results.

Our subsidiaries rely on our manufacturing facilities in China to operate our business and produce our products. While they seek to operate their facilities in compliance with applicable rules and regulations and take measures to minimize the risks of disruption at their facilities, a material disruption at one of our subsidiaries’ manufacturing facilities could prevent them from meeting customer demand, reduce their sales and negatively impact our financial results. Any of their manufacturing facilities, or any of their machines within an otherwise operational facility, could cease operations unexpectedly due to a number of events, including: prolonged power failures; equipment failures; disruptions in the transportation infrastructure including roads, bridges, railroad tracks; fires, floods, earthquakes or other catastrophes; and other operational problems. Any such material disruption may prevent our subsidiaries from shipping their products on a timely basis, reduce their sales and market share and negatively impact our financial results.

Our subsidiaries may not be able to obtain regulatory approvals for their products, which could result in a decrease in clients and revenue, unexpected expenses and loss of market share.

Some of our subsidiaries products are subject to PRC and international regulations related to the heating manufacturing industry. Manufacturers of heat meters and heat pumps in China require licenses issued by the PRC government to produce and sell these products in the domestic market. The Safety Bureau overseeing heat meter and heat pump production conducts site visits and inspections of documents on a periodic basis to verify adherence to the standards. PHEs and PHE Units are not subject to material regulation by the PRC government or other national agencies, but many purchasers of these products in industries utilizing high temperatures or pressure in the production process prefer to source from manufactures that have obtained a PRC National Safety Certification for their PHE products. The European Commission has promulgated standards, such as EN 378 Safety and Environmental Requirements, for heat pumps and products sold in the European Union must carry CE marking, indicating conformity with such requirements. As of December 31, 2013, our subsidiaries had no regulatory approvals pending for our products or that we need to obtain to conduct our business. Our subsidiaries received licenses to manufacture and sell heat meters and heat pumps in China in 2005 and 2008, respectively, which are continuing to be maintained through

renewals. Our subsidiaries seek to manufacture all products to customer specifications and believe that their products meet all currently applicable national test standards. Any failure to manufacture and deliver products in compliance with all applicable standards and regulations for the markets in which our subsidiaries' products are distributed may subject them to fines, penalties or business interruptions and could result in a decrease in clients or loss of market share. In addition, new or revised standards and regulations applicable to our subsidiaries' products could require them to redesign existing and planned products, acquire new manufacturing equipment or incur other significant expenses. If our subsidiaries are not able to obtain regulatory approvals for our products based on the applicable standards and regulations, it could have material and adverse effects on our business, financial condition and prospects.

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We cannot be certain that our subsidiaries' product innovations will continue or that their technology will continue to satisfy the changing needs of their customers, which could result in a decrease in clients and revenue, unexpected expenses and loss of market share.

We believe that our subsidiaries' past performance has been based on, and that their future success will depend, in part, upon their ability to continue to improve their existing products through product innovation and to develop, market and produce new products. We cannot assure you our subsidiaries will be successful in introducing, marketing and producing any new products or product innovations, or that they will develop and introduce in a timely manner innovations to their existing products which satisfy customer needs or achieve market acceptance. Our subsidiaries' failure to develop new products and introduce them successfully and in a timely manner could harm our ability to grow our business and could have a material adverse effect on our business, results of operations and financial condition.

As with any technology, including the technology of our subsidiaries' current and proposed products, there are risks that the technology may not successfully address all of customers' needs. While our subsidiaries have already established successful relationships with their customers, customers needs may change or vary. This may affect the ability of our subsidiaries' present or proposed products to address all of their customers' ultimate technology needs in an economically feasible manner. Our success depends upon their ability to anticipate and respond in a timely manner to changes in the heating manufacturing industry. If they fail to identify and respond to these changes, their sales could decline and they could lose clients and market share, any of which could materially harm our business. Furthermore, if they are unable to continue to meet their clients' needs with their current product lines, they may be required to redesign existing and planned products, acquire new manufacturing equipment or incur other significant expenses.

Our subsidiaries may not be able to keep pace with rapid technological changes and competition in their industry, which could adversely impact our business, revenues and operations.

Our subsidiaries believe they have hired or engaged personnel and outside consultants who have the experience and ability necessary to help them keep pace with advances in technology in the heating manufacturing industry. While they continue to seek out and develop "next generation" technology through their research and development efforts, there is no guarantee that they will be able to keep pace with technological developments and market demands in an evolving industry and market. In addition, our subsidiaries' industry is highly competitive. Although we believe they have developed strategic relationships that will assist them to best penetrate the domestic China market, they face competition from other manufacturers of products similar to their products. Some of our competitors' advantages over our subsidiaries in the areas of products, marketing and services include: substantially greater revenues and financial resources; stronger brand names and consumer recognition; the capacity to leverage marketing expenditures across a broader portfolio of products; pre-existing relationships with potential customers; more resources to make acquisitions; lower labor and development costs; and broader geographic presence. Furthermore, our subsidiaries may experience delays in bringing new products to market, due to design, manufacturing or distribution problems. Any such delays could adversely affect their ability to compete effectively and may adversely affect their relationship with their customers. If our subsidiaries are unable to keep pace with the rapid technological changes and competition in their industry and market, our business, revenues and operations could be adversely impacted.

Our subsidiaries products may contain defects, which if subject to product liability and warranty claims, could adversely affect our subsidiaries reputation and cause us to incur significant costs.

Due to the high pressures and temperatures at which many of our subsidiaries' products are used, and the fact that some of their products are relied upon by customers or end users in their facilities or operations, or are manufactured for relatively broad consumer use, our subsidiaries face an inherent risk of exposure to claims in the event that the

failure, use or misuse of our products results, or is alleged to result, in bodily injury, property damage or economic loss. We believe our subsidiaries meet or exceed existing professional specification standards recognized or required in the industries in which they operate. Despite testing, however, defects may be found in our subsidiaries' existing or new products. If they deliver products with defects, their credibility and the market acceptance and sales of their products could be harmed. Any such defects could cause them to undertake a product recall program, which would result in significant return and exchange costs, re-engineering costs, divert the attention of their engineering personnel from product development efforts and cause significant problems with customer relations and business reputation. Our subsidiaries have been subject to product liability and warranty claims in the past, none of which has had a material adverse effect on our financial condition or results of operations, and our subsidiaries may be subject to claims in the future. Although our subsidiaries currently maintain product liability coverage, which our subsidiaries believe is adequate for the continued operation of their business, such insurance may become difficult to obtain or may become unobtainable in the future on terms acceptable to our subsidiaries and may not cover warranty claims. A successful product liability claim or series of claims against our subsidiaries, including one or more consumer claims purporting to constitute class actions, in excess of our subsidiaries insurance coverage or a significant warranty claim or series of claims against our subsidiaries could materially decrease our liquidity and impair our financial condition.

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Our subsidiaries could be subject to environmental liabilities in China, which could result in them incurring significant remediation costs, fines and loss of our business license.

As is the case with manufacturers of similar products, our subsidiaries use certain hazardous substances in our operations in China. Currently, their business is subject to the Environmental Protection Law of the PRC as well as other national and local laws in China regarding pollutant discharge, air, water and noise pollution. Although we believe our subsidiaries are in compliance in all material respects with the applicable PRC environmental laws and regulations, if it is determined that they are in violation of these regulations, they could be subject to financial penalties as well as the loss of their business license. Furthermore, if the national or local government in China adopts more stringent environmental regulations, our subsidiaries may incur significant costs in complying with such regulations. If our subsidiaries fail to comply with present or future environmental regulations, they may be required to pay substantial fines and remediation costs, suspend production or cease operations and may be subject to adverse publicity. Our subsidiaries currently do not incur any material costs in connection with their compliance with the applicable PRC environmental laws. However, the risk of environmental liability and charges associated with maintaining compliance with PRC environmental laws is inherent in the nature of their business, and there is no assurance that material environmental liabilities and compliance charges will not arise in the future.

Our subsidiaries insurance coverage in China may be inadequate to protect them from potential losses.

The insurance industry in China is in its early stage of development and the business interruption insurance and the product liability insurance available currently in China offers limited coverage compared to that offered in many other countries, especially in the U.S. Any business disruption or natural disaster could result in substantial costs and a diversion of resources, which would have a material and adverse effect on our business and results of operations. Our subsidiaries in China, particularly their production facilities in Shenyang, involve risks and hazards that could result in damage to, or destruction of, property and machinery, personal injury, business interruption and possible legal liability. Our subsidiaries currently carry property and casualty insurance for their buildings, plant and equipment, but we cannot assure you that the coverage will be adequate to fully replace damage to any of the foregoing. Should any natural catastrophes such as earthquakes, floods or any acts of terrorism occur where our subsidiaries' primary operations are located and most of their employees are based, or elsewhere, our subsidiaries might suffer not only significant property damage, but also loss of revenues due to interruptions in their business operations. Our subsidiaries are unable to acquire product liability insurance in China because it is not currently available for their product lines, but our German subsidiary does maintain product liability coverage in that we believe is adequate for the continued operation of our business in Europe, but such insurance may become difficult to obtain or may become unobtainable in the future on terms acceptable to us and may not cover warranty claims. A successful product liability claim or series of claims against any of our subsidiaries, including one or more consumer claims purporting to constitute class actions, in excess of our subsidiaries' insurance coverage or a significant warranty claim or series of claims against us could materially decrease our liquidity and impair our financial condition. The occurrence of a significant event for which our subsidiaries are not fully insured or indemnified, or the failure of a party to meet its underwriting or indemnification obligations, could materially and adversely affect our operations and financial condition. Moreover, no assurance can be given that our subsidiaries will be able to maintain adequate insurance in the future at rates they consider reasonable.

If our subsidiaries lose their key personnel or are unable to attract and retain additional qualified personnel, the quality of their services may decline and our business may be adversely impacted.

Our subsidiaries rely heavily on the expertise, experience and continued services of their management, including our former Chairman, President and Chief Executive Officer, Jun Wang, who is now solely general manager of our subsidiaries in China. Loss of his services could adversely affect our subsidiaries ability to achieve their business objectives. Mr. Wang is a key factor in our subsidiaries success at developing and introducing new products and

establishing new customer relationships because of his industry experience and reputation. The continued development of our subsidiaries' business depends upon his continued employment. Our subsidiary Taiyu has entered into an employment agreement with Mr. Wang, which contains provisions prohibiting competition with our subsidiaries should he leave their employ.

We believe our future success will depend upon our subsidiaries' ability to retain Mr. Wang and other key employees and their ability to attract and retain other skilled personnel. The rapid growth of the economy in China has caused intense competition for qualified personnel. We cannot guarantee that any employee will remain employed by our subsidiaries for any period of time or that they will be able to attract, train or retain qualified personnel in the future. Such loss of personnel could have a material adverse effect on our business and company. Qualified employees periodically are in great demand and may be unavailable in the time frame required to satisfy our subsidiaries' customers' requirements. There is no assurance our subsidiaries will be able to attract and retain sufficient numbers of highly skilled employees in the future. The loss of personnel or our subsidiaries inability to hire or retain sufficient personnel at competitive rates could impair the growth of their business.

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Our subsidiaries' bank accounts in China are not insured or protected against loss, and the failure of any bank in which our subsidiaries deposit funds could affect their ability to continue in business.

Our subsidiaries maintain their cash in China with various national banks in China. These cash accounts are not insured or otherwise protected against loss. Should any bank holding our cash deposits become insolvent, or if our subsidiaries are otherwise unable to withdraw funds, they would lose the cash on deposit with that particular bank. Depending upon the amount of cash our subsidiaries maintain in a bank that fails, their inability to have access to such cash deposits could impair their operations, and, if they are not able to access funds to pay their suppliers, employees and other creditors, they may be unable to continue in business.

We may need additional capital to execute our business plan and fund operations and may not be able to obtain such capital on acceptable terms or at all.

In connection with the ongoing development and expansion of our business, we may incur significant expenses. We believe that we can increase our sales and net income by implementing a growth strategy that focuses on increasing sales of our subsidiaries' products in China by targeting high growth end markets and expanding sales of heat pumps in China and Europe. Management anticipates that our existing capital resources and proceeds from amounts borrowed under our Credit Agreement with Northtech will satisfy the liquidity requirements of our business until the middle of 2014. However, if available funds are not sufficient to meet our current operating expenses, our plans include pursuing alternative financing arrangements, including bank loans based on our good credit rating or funds raised through offerings of our equity or debt, if and when we determine such offerings are required. Our ability to obtain additional capital on acceptable terms or at all is subject to a variety of uncertainties, including:

- investors' perceptions of, and demand for, companies in our industry;
- investors' perceptions of, and demand for, companies operating in China;
- conditions of the U.S. and other capital markets in which we may seek to raise funds;
- our future results of operations, financial condition and cash flows;
- governmental regulation of foreign investment in companies in particular countries;
- economic, political and other conditions in the U.S., China and other countries; and
- governmental policies relating to foreign currency borrowings.

There is no assurance we will be successful in locating a suitable financing transaction in a timely fashion or at all. In addition, there is no assurance we will obtain the capital we require by any other means. Future financings through equity investments are likely to be dilutive to our existing shareholders. Also, the terms of securities we may issue in future capital transactions may be more favorable for our new investors. Newly-issued securities may include preferences or superior voting rights, be combined with the issuance of warrants or other derivative securities, or be the issuances of incentive awards under equity employee incentive plans, which may have additional dilutive effects. Furthermore, we may incur substantial costs in pursuing future capital and financing, including investment banking fees, legal fees, accounting fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we may issue, such as convertible notes and warrants, which will adversely impact our financial condition.

If we cannot raise additional funds on favorable terms or at all, we may not be able to carry out all or parts of our strategy to maintain our growth and competitiveness or to fund our subsidiaries' operations. If the amount of capital we are able to raise from financing activities, together with our revenues from operations, is not sufficient to satisfy our capital needs, even to the extent that we reduce our operations accordingly, we may be required to cease operations.

Our subsidiaries may not be able to protect their technology and other proprietary rights adequately, which could adversely affect their competitive position and reduce the value of their products and brands, and litigation to protect their intellectual property rights may be costly.

Our subsidiaries attempt to strengthen and differentiate their product lines by developing new and innovative product designs and functionality. As a result, their patents, trademarks and other intellectual property rights are important assets to their business. Our success will depend in part on our subsidiaries ability to obtain and protect their products, methods, processes and other technologies, to preserve their trade secrets and to operate without infringing on the proprietary rights of third parties in China and abroad. Despite our subsidiaries' efforts to preserve their intellectual property rights, any of the following occurrences may reduce the value of their intellectual property:

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- Issued patents and trademarks may not provide our subsidiaries with any competitive advantages;

- Our subsidiaries' efforts to protect their proprietary rights may not be effective in preventing misappropriation of their intellectual property;

- Our subsidiaries' efforts may not prevent the development and design by others of products or technologies similar to or competitive with, or superior to those they develop; or

- Another party may obtain a blocking patent and our subsidiaries would need to either obtain a license or design around the patent in order to continue to offer the contested feature or service in their products.

Effective protection of our subsidiaries intellectual property rights may be unavailable or limited in China or certain other countries. Policing the unauthorized use of our subsidiaries proprietary technology can be difficult and expensive. Litigation might be necessary to protect their intellectual property rights, which may be costly and may divert management's attention away from their core business. Furthermore, there is no guarantee that litigation would result in an outcome favorable to our subsidiaries. If our subsidiaries are unable to protect their proprietary rights adequately, it would have a negative impact on our operations.

Our subsidiaries may be subject to claims that we have infringed the proprietary rights of others, which could require them to obtain a license or change their designs.

Although our subsidiaries do not believe any of their products infringe upon the proprietary rights of others, there is no assurance that infringement or invalidity claims, or claims for indemnification resulting from infringement claims, will not be asserted or prosecuted against them or that any such assertions or prosecutions will not have a material adverse effect on their business. Regardless of whether any such claims are valid or can be asserted successfully, defending against such claims could cause our subsidiaries to incur significant costs and could divert resources away from other activities. In addition, assertion of infringement claims could result in injunctions that prevent our subsidiaries from distributing their products. If any claims or actions are asserted against them, our subsidiaries may seek to obtain a license to the intellectual property rights that are in dispute. Such a license may not be available on reasonable terms, or at all, which could force our subsidiaries to change their designs.

If we fail to maintain an effective system of internal controls, we may not be able to report our financial results accurately. Any inability to report and file our financial results accurately and timely could harm our business and adversely affect the trading price of our common stock.

We are required to establish and maintain internal controls over financial reporting, disclosure controls and procedures and to comply with other requirements of the Sarbanes-Oxley Act and the rules promulgated by the SEC. Our management, including our President and Acting Chief Accountant, cannot guarantee our internal controls and disclosure controls will prevent all possible errors. Because of the inherent limitations in all control systems, no system of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the possibility that judgments in decision-making can be faulty and subject to simple error or mistake. Furthermore, controls can be circumvented by individual acts of some persons, by collusion of two or more persons, or by management override of the controls. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, a control may become inadequate because of changes in conditions or the degree of compliance with policies or procedures may deteriorate. Because of inherent limitations in a cost-effective control system, misstatements due to error or fraud

may occur and may not be detected. Our inability or failure to report and file our financial results accurately and timely could harm our business and the trading price of our common stock.

Our management carried out an evaluation of the effectiveness of our internal control over financial reporting and concluded that our internal control over financial reporting was not effective as of December 31, 2013, because of one identified material weakness in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented, or detected and corrected on a timely basis. The material weakness identified relates to the lack of sufficient internal accounting personnel with appropriate levels of knowledge, experience and training in generally accepted accounting principles in the U.S., or U.S. GAAP, for the preparation of financial statements in accordance with U.S. GAAP. Furthermore, our management concluded that, as of December 31, 2013 our disclosure controls and procedures were not effective because of this identified material weakness in our internal control over financial reporting. See "Item 9A. Controls and Procedures." Our Board of Directors and management are evaluating remediation measures that we will undertake to address this material weakness and will continue this evaluation in order to implement a comprehensive remediation plan. Until such time as we hire qualified accounting staff or train our current accounting staff with the requisite U.S. GAAP experience, however, it is unlikely we will be able to remediate this material weakness in our internal control over financial reporting.

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Our accounting personnel who are primarily responsible for the preparation and supervision of the preparation of our financial statements under U.S. GAAP have limited relevant education and training in U.S. GAAP and SEC rules and regulations pertaining to financial reporting, which could impact our ability to prepare our financial statements and convert our books and records to U.S. GAAP.

Our operations principally are in China and we have maintained our books and records in accordance with generally accepted accounting principles in the PRC, or PRC GAAP. Our accounting personnel in the PRC who have the primary responsibilities of preparing and supervising the preparation of financial statements under U.S. GAAP have limited relevant education and training in U.S. GAAP and related SEC rules and regulations. As such, they may be unable to identify potential accounting and disclosure issues that may arise upon the conversion of our books and records from PRC GAAP to U.S. GAAP, which could affect our ability to prepare our financial statements in accordance with U.S. GAAP. We have taken steps to ensure that our financial statements are prepared in accordance with U.S. GAAP, including our hiring of a U.S. accounting firm to work with our PRC accounting personnel and management to convert our books and records to U.S. GAAP and prepare our financial statements. However, the measures we have taken may not be sufficient to mitigate the foregoing risks associated with the limited education and training of our accounting personnel in U.S. GAAP and related SEC rules and regulations.

Risks Related to Doing Business in China

Changes in China's political and economic policies could have a material adverse effect on the overall economic growth of China, which could reduce the demand for our subsidiaries' products and adversely affect our business.

Substantially all of our manufacturing and productive assets are located in China and a significant percentage of our revenue is derived from our operations in China. Accordingly, our results of operations and prospects are subject to the economic, political and legal developments in China. While China's economy has experienced significant growth in the past twenty years, such 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 may have a negative effect on us. For example, our operating results and financial condition may be adversely affected by PRC government control over capital investments or changes in tax regulations. In recent years, the PRC government has implemented measures emphasizing the utilization of market forces for economic reform and the reduction of state ownership of productive assets, and the establishment of corporate governance in business enterprises; however, a substantial portion of productive assets in China are still owned by the PRC government. In addition, the PRC government continues to play a significant role in regulating industry development by imposing industrial policies. It also exercises significant control over China's economic growth through the allocation of resources, the control of payment of foreign currency-denominated obligations, the setting of monetary policy, the control of the housing and real estate market and the provision of preferential treatment to particular industries or companies. Any adverse change in the economic conditions or government policies in China could have a material adverse effect on the overall economic growth and level of capital expenditures in China, which in turn could lead to reduced demand for our subsidiaries' products and consequently have a material adverse effect on our business. Furthermore, changes in policies, laws and regulations or in their interpretation or the imposition of confiscatory taxation, restrictions on currency conversion, restrictions or prohibitions on dividend payments to shareholders, or devaluations of currency could cause a decline in the price of our common stock.

We may have difficulty establishing adequate management, legal and financial controls in China, which could affect our ability to report our financial results accurately and timely.

Historically, China has not adopted an international style of management or financial reporting concepts and practices, nor modern banking, computer and other control systems. We may have difficulty in hiring and retaining a sufficient number of qualified employees to work in China. As a result of these factors, we may experience difficulty in

establishing management, legal and financial controls, collecting financial data and preparing financial statements, books of account and corporate records and instituting business practices for our subsidiaries in China that meet international standards.

If relations between the U.S. and China worsen, our business could be adversely affected and investors may be unwilling to hold or buy our stock and our stock price may decrease.

At various times during recent years, the U.S. and China have had significant disagreements over political and economic issues. Controversies may arise in the future between these two countries. Any political or trade controversies between the U.S. and China, whether or not directly related to our business, could reduce the price of our common stock.

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The nature and application of many laws of China create an uncertain environment for business operations and they could have a negative effect on our subsidiaries.

The legal system in China is a civil law system. Unlike the common law system, the civil law system is based on written statutes in which decided legal cases have little value as precedents. In 1979, China began to promulgate a comprehensive system of laws and has since introduced many laws and regulations to provide general guidance on economic and business practices in China and to regulate foreign investment. Progress has been made in the promulgation of laws and regulations dealing with economic and commercial matters, but these recently enacted laws and regulations may not cover all aspects of business activities in China sufficiently. In particular, because these laws and regulations are relatively new, the interpretation and enforcement of these laws and regulations involve uncertainties, which may limit legal protections available to our subsidiaries. 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, there may be certain instances when we may not be aware of our subsidiaries violation of these policies and rules until some time after such violation. In addition, any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

The PRC government has enacted some laws and regulations dealing with matters such as corporate organization and governance, foreign investment, commerce, taxation and trade. Our subsidiaries' ability to enforce commercial claims or to resolve commercial disputes under these laws and regulations is unpredictable, however, because the implementation, interpretation and enforcement of these laws and regulations is limited and, given their relative newness, involve uncertainties. For example, contracts governed by PRC law tend to contain less detail than those under U.S. law and generally are not as comprehensive in defining the rights and obligations of the contracting parties. Consequently, contracts in China are more vulnerable to disputes and legal challenges than those in the U.S. In addition, contract interpretation and enforcement in China is not as developed as in the U.S., and the result of any contract dispute is subject to significant uncertainties. Our subsidiaries currently are not subject to any contract dispute, but we cannot assure you that our subsidiaries will not be subject to future contract disputes with our suppliers, franchisees and other customers under contracts governed by PRC law, and if such disputes arise, we cannot assure you that our subsidiaries will prevail.

Furthermore, the political, governmental and judicial systems in China sometimes are impacted by corruption. There is no assurance our subsidiaries will be able to obtain recourse in any legal disputes with the suppliers, customers or other parties with whom they conduct business, if desired, through China's developing and sometimes corrupt judicial systems. Any rights our subsidiaries may have under PRC law to specific performance or to seek an injunction are severely limited, and without a means of recourse by virtue of the PRC legal system, our subsidiaries may be unable to prevent these situations from occurring. The occurrence of any such events could have a material adverse effect on our business, financial condition and results of operations.

It will be extremely difficult to acquire jurisdiction and enforce liabilities against our directors and assets based in China.

As several of our directors are citizens of the PRC, it may be difficult, if not impossible, to acquire jurisdiction over these persons in the event a lawsuit is initiated against us or our officers and directors by a shareholder or group of shareholders in the U.S. Also, because many of our operating subsidiaries and assets are located in China, it may be extremely difficult or impossible for individuals to access those assets to enforce judgments rendered against us or our directors or executive offices by U.S. courts. In addition, the courts in China may not permit the enforcement of judgments arising out of U.S. federal and state corporate, securities or similar laws. Accordingly, U.S. investors may not be able to enforce judgments against us for violation of U.S. securities laws.

Fluctuation of the Renminbi and Euro may affect our financial condition and the value of our securities.

Although we use the USD for financial reporting purposes, transactions effected by our subsidiaries in China are denominated in RMB and those by our subsidiary in Germany are denominated in EUR. The value of the RMB and EUR fluctuates and are subject to changes in the political and economic conditions in China and Europe, respectively. In particular, from June 2008 to June 2010, the RMB was pegged to the USD, but it has since been managed more flexibly. Because the PBOC regularly intervenes in the foreign exchange market to prevent significant short-term fluctuations in the exchange rate, the RMB may appreciate or depreciate significantly in value against the USD in the medium to long term. Moreover, it is possible that in the future the PRC authorities may lift restrictions on fluctuations in the RMB exchange rate and lessen intervention in the foreign exchange market.

Future movements in the exchange rate of the RMB could adversely affect our financial condition as substantially all of our operations and sales are transacted in RMB and we may suffer financial losses when transferring money raised outside of China into the country or paying vendors for services performed outside of China. Historically, we have not engaged in hedging activities to mitigate this risk of fluctuating exchange rates and have no current intention of doing so. Moreover, fluctuations in the exchange rate between the USD and RMB will affect our financial results reported in USD terms without giving effect to any underlying change in our business, financial condition or results of operations. The value of our common stock likewise will be affected by the foreign exchange rate between the USD and RMB, and between those currencies and other currencies in which our sales may be denominated. Fluctuations in the exchange rate will also affect the relative value of any dividend we may issue in the future that will be exchanged into USD and earnings from, and the value of, any USD-denominated investments we make in the future. For example, if we need to convert USD into RMB for our operational needs and the RMB appreciates against the USD at that time, our financial position, our business and the price of our common stock may be harmed. Conversely, if we decide to convert our RMB into USD for the purpose of declaring dividends on our common stock or for other business purposes and the USD appreciates against the RMB, the USD equivalent of our earnings from our subsidiaries in China would be reduced.

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PRC regulations relating to mergers, offshore companies and PRC shareholders, if applied to us, may limit our ability to operate our business as we see fit.

PRC regulations govern the process by which we may participate in an acquisition of assets or equity interests and may make loans and direct investments to our subsidiaries in China. Depending on the structure of the transaction, these regulations require involved parties to make a series of applications and supplemental applications to various government agencies. In some instances, the application process may require the presentation of economic data concerning a transaction, including appraisals of the target business and evaluations of the acquirer, which are designed to allow the government to assess the transaction. Government approvals will have expiration dates by which a transaction must be completed and reported to the government agencies. Compliance with the new regulations is likely to be more time consuming and expensive than in the past and the government can now exert more control over the combination of two businesses. Accordingly, due to PRC regulations, our ability to engage in business combination transactions in China through our PRC subsidiaries has become significantly more complicated, time consuming and expensive, and we may not be able to negotiate transactions that are acceptable to us or sufficiently protective of our interests. Furthermore, loans and capital contributions from an offshore holding company such as us to its subsidiaries in China are subject to PRC regulations and approval. For example, loans by us to our subsidiaries in China, which are foreign-invested enterprises, to finance their activities cannot exceed statutory limits and must be registered with the SAFE. Similarly, the PRC Ministry of Commerce, or MOFCOM, or its local counterpart must approve any capital contribution by us to our PRC subsidiaries. We cannot assure you that we will be able to obtain these government approvals on a timely basis, if at all, with respect to future loans or capital contributions by us to our subsidiaries.

Restrictions on currency exchange may limit our ability to receive and use our revenues effectively.

The RMB is currently convertible under the “current account,” which includes dividends, trade and service-related foreign exchange transactions, but not under the “capital account,” which includes foreign direct investment and loans. Currently, our subsidiaries in China may purchase foreign currencies for settlement of current account transactions, including payments of dividends to us, without the approval of the SAFE. However, the relevant PRC government authorities may limit or eliminate their ability to purchase foreign currencies in the future. Since a significant amount of our future revenues will be denominated in RMB, any existing and future restrictions on currency exchange may limit our ability to utilize revenues generated in RMB to fund our business activities outside China that are denominated in foreign currencies.

On August 29, 2008, the SAFE promulgated Circular 142, the Notice on Perfecting Practices Concerning Foreign Exchange Settlement Regarding the Capital Contribution by Foreign-invested Enterprises, to regulate the conversion by foreign-invested enterprises, or FIEs, of foreign currency into RMB by restricting how the converted RMB may be used. Circular 142 requires that RMB converted from the foreign currency-dominated capital of a FIE may only be used for purposes within the business scope approved by the applicable government authority and may not be used for equity investments within the PRC unless specifically provided for otherwise. In addition, the SAFE strengthened its oversight over the flow and use of RMB funds converted from the foreign currency-dominated capital of a FIE. The use of such RMB may not be changed without approval from the SAFE, and may not be used to repay RMB loans if the proceeds of such loans have not yet been used. These limitations could affect the ability of our subsidiaries in China to obtain foreign exchange through debt or equity financing.

If the China Securities Regulatory Commission, or CSRC, or another PRC regulatory agency determines that its approval is required in connection with our public offerings, we may become subject to penalties.

On August 8, 2006, six PRC regulatory agencies, including the CSRC, promulgated the Regulation on Mergers and Acquisitions of Domestic Companies by Foreign Investors, or the M&A Regulations, which became effective on

September 8, 2006. The M&A Regulations, among other things, have certain provisions that require offshore special purpose vehicles, or SPVs, formed for the purpose of acquiring PRC domestic companies and controlled by PRC individuals, to obtain the approval of the CSRC prior to listing their securities on an overseas stock exchange. We believe, based on the opinion of our PRC legal counsel, the Beijing Rondos Law Firm, that while the CSRC generally has jurisdiction over overseas listings of SPVs like us, CSRC's approval is not required for the offerings of our securities because our current corporate structure was established before the new regulation became effective. However, there remains some uncertainty as to how this regulation will be interpreted or implemented in the context of an overseas offering. If the CSRC or another PRC regulatory agency subsequently determines that its approval is required for our public offerings, we may face sanctions by the CSRC or another PRC regulatory agency. If this happens, these regulatory agencies may impose fines and penalties on our operations in the PRC, limit our operating privileges in the PRC, delay or restrict the repatriation of the proceeds from our public offerings into the PRC, restrict or prohibit payment or remittance of dividends by our PRC subsidiaries to us or take other actions that could have a material adverse effect on our business, financial condition, results of operations, reputation and prospects, as well as the trading price of our ordinary shares.

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We operate in the PRC through our operating entities whose foreign-investment status has been approved by the local offices of MOFCOM. If MOFCOM subsequently determines that such approval procedures have not been completely satisfied for our foreign-invested enterprises, we may lose the WFOE status of certain of our subsidiaries, which could negatively impact our business in China.

Our operating entities in the PRC have received approval from their respective local offices of MOFCOM as WFOEs and foreign-invested joint ventures. We believe we have satisfied all MOFCOM approval procedures for having obtained such status, but there may be conditions subsequent to complete and maintain such status. In particular, we believe that our acquisition of Taiyu, a privately held Sino-foreign joint venture company, in 2008 was not subject to the 2006 M&A Regulations but instead the 1997 Provisions on Changes in Equity Interest of Foreign Investment Enterprises, which do not require the approval of MOFCOM's central office in connection with the acquisition of interests in a foreign-invested entity operating in an industry not restricted or prohibited under PRC law. The meaning of many of the provisions of the M&A Regulations is still unclear, however, and PRC regulators have wide latitude in the enforcement of these and other relevant regulations. Consequently, the MOFCOM approval procedures or interpretations of its approval procedures may be different from our understanding or may change. If MOFCOM subsequently determines that we should have obtained the approval of MOFCOM's central office for our investments in any or all of our PRC foreign-invested subsidiaries, we may need to apply for a remedial approval or waiver of such approval requirements, and may be subject to certain administrative punishments or other sanctions from PRC regulatory agencies. As a result, if we lose the WFOE status of any of our PRC operating subsidiaries for any reason, there may be a material adverse effect on our business, financial condition, results of operations, reputation and prospects, as well as the trading price of our shares of common stock.

PRC regulations relating to the registration requirements for PRC resident shareholders owning shares in offshore companies may subject our PRC resident shareholders to personal liability and limit our ability to acquire companies in China or to inject capital into our operating subsidiaries in China, limit our subsidiaries' ability to distribute profits to us or otherwise materially and adversely affect our business.

The SAFE issued a public notice in October 2005, Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Corporate Financing and Roundtrip Investment through Offshore Special Purpose Vehicles, which we refer to as Circular 75, requiring PRC residents, including both legal persons and natural persons, to register with the competent local SAFE branch before establishing or controlling any company outside of China, referred to as an "offshore special purpose company," for the purpose of acquiring any assets of or equity interest in PRC companies and raising funds from overseas. In addition, any PRC resident who is the shareholder of an offshore special purpose company is required to amend his or her SAFE registration with the local SAFE branch, with respect to that offshore special purpose company in connection with any increase or decrease of capital, transfer of shares, merger, division, equity investment or creation of any security interest over any assets located in China. If any PRC resident who is the shareholder of an offshore special purpose company fails to comply with the SAFE registration requirements, the PRC subsidiaries of the offshore special purpose company may be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to their offshore parent company and the offshore parent company may be restricted in its ability to contribute additional capital into its PRC subsidiaries. Moreover, failure to comply with the SAFE registration requirements could result in liabilities under PRC laws for evasion of foreign exchange restrictions. Although we believe that our PRC subsidiaries are in compliance with these regulations, should these regulations or the interpretation of them by course or regulatory agencies change, we may not be able to pay dividends outside of China. We do not believe that we have incurred a liability because of noncompliance with Circular 75 under SAFE registration procedures, however. Accordingly, we cannot predict fully how Circular 75 will affect our business operations or future strategies because of ongoing uncertainty over how Circular 75 is interpreted and implemented, and how or whether SAFE will apply it to us.

We have requested our PRC resident beneficial owners, including our former Chairman and Chief Executive Officer, to make the necessary applications, filings and amendments as required under SAFE regulations in connection with their equity interests in us and our acquisitions of equity interests in our PRC subsidiaries. We cannot provide any assurances that all of our present or prospective direct or indirect PRC resident beneficial owners have or will comply fully with all applicable registrations or required approvals. The failure or inability of our PRC resident beneficial owners to comply with the applicable SAFE registration requirements may subject these beneficial owners or us to fines, legal sanctions and restrictions described above.

On March 28, 2007, SAFE promulgated the Operating Procedures for Foreign Exchange Administration of Domestic Individuals Participating in Employee Stock Ownership Plans and Stock Option Plans of Offshore Listed Companies, or Circular 78. Under Circular 78, PRC citizens granted stock options by an offshore listed company are required, through an agent in China or a PRC subsidiary of the offshore listed company, to register with SAFE and complete certain other procedures, including applications for foreign exchange purchase quotas and opening special bank accounts. Failure to comply with these regulations may subject us or our PRC employees that receive stock option grants from us to fines and legal sanctions imposed by SAFE or other PRC government authorities and may prevent us from further granting stock options under our equity incentive plans to our PRC-citizen employees in China. Such events could adversely affect our business operations.

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PRC labor laws may adversely affect our results of operations.

On June 29, 2007, the PRC government promulgated the Labor Contract Law of the PRC, effective on January 1, 2008, to govern the establishment of employment relationships between employers and employees, and the conclusion, performance, termination of and the amendment to employment contracts. The Labor Contract Law imposes greater liabilities on employers and significantly affects the cost of an employer's decision to reduce its workforce. Further, it requires that certain terminations be based upon seniority and not merit. In the event our subsidiaries decide to significantly change or decrease their workforce in China, the Labor Contract Law could adversely affect their ability to effect such changes in a manner that is most advantageous to our business or in a timely and cost-effective manner, thus materially and adversely affecting our financial condition and results of operations.

Under the Enterprise Income Tax Law, we may be classified as a "resident enterprise" of China. Such classification will likely result in unfavorable tax consequences to us and our non-PRC resident shareholders.

China passed the Enterprise Income Tax Law, or the EIT Law, and its implementing rules, both of which became effective on January 1, 2008. Under the EIT Law, an enterprise established outside of China with "de facto management bodies" within China is considered a "resident enterprise," meaning that it must be treated as a PRC domestic enterprise for enterprise income tax purposes. The implementing rules of the EIT Law define de facto management as "substantial and overall management and control over the production and operations, personnel, accounting, and properties" of the enterprise.

On April 22, 2009, the PRC State Administration of Taxation, or the SAT, issued the Notice Concerning Relevant Issues Regarding Cognizance of Chinese Investment Controlled Enterprises Incorporated Offshore as Resident Enterprises pursuant to Criteria of de facto Management Bodies, or the Notice, further interpreting the application of the EIT Law and its implementation regarding non-PRC enterprise or group controlled offshore entities. Pursuant to the Notice, an enterprise incorporated in an off-shore jurisdiction and controlled by a PRC enterprise or group will be classified as a "non-domestically incorporated resident enterprise" if: (i) its senior management in charge of daily operations reside or perform their duties mainly in China; (ii) its financial or personnel decisions are made or approved by bodies or persons in China; (iii) its substantial assets and properties, accounting books, corporate chops, board and shareholder minutes are kept in China; and (iv) at least half of its directors with voting rights or senior management often reside in China. A "resident enterprise" would be subject to an enterprise income tax rate of 25% on its worldwide income and must pay a withholding tax at a rate of 10% when paying dividends to its non-PRC shareholders. However, detailed measures on imposition of tax from non-domestically incorporated resident enterprises are not yet available. Therefore, it is unclear how tax authorities will determine tax residency based on the facts of each case.

We may be deemed to be a "resident enterprise" by PRC tax authorities. If the PRC tax authorities determine that we are a "resident enterprise" for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. First, we may be subject to the enterprise income tax at a rate of 25% on our worldwide taxable income as well as PRC enterprise income tax reporting obligations. In our case, this would mean that income such as interest on financing proceeds and non-China source income would be subject to PRC enterprise income tax at a rate of 25%. Second, although under the EIT Law and its implementing rules dividends paid to us from our PRC subsidiaries would qualify as "tax-exempt income," we cannot guarantee that such dividends will not be subject to a 10% withholding tax, as the PRC foreign exchange control authorities, which enforce the withholding tax, have not yet issued guidance with respect to the processing of outbound remittances to entities that are treated as "resident enterprises" for PRC enterprise income tax purposes. Finally, it is possible that future guidance issued with respect to the new "resident enterprise" classification could result in a situation in which a 10% withholding tax is imposed on dividends we pay to our non-PRC shareholders and with respect to gains derived by our non-PRC shareholders from

transferring our shares. If we were treated as a “resident enterprise” by PRC tax authorities, we would be subject to taxation in both the U.S. and China, and our PRC tax may not be creditable against our U.S. tax.

Dividends distributed from our PRC subsidiaries to our non-PRC resident shareholders would be subject to U.S. and PRC withholding taxes.

We are a Nevada holding company and substantially all of our income is derived from dividends we receive from our subsidiaries, including those in China. Pretax earnings of a foreign subsidiary are subject to U.S. taxation when effectively repatriated. We currently consider the undistributed earnings of our PRC subsidiaries to be invested indefinitely and, accordingly, record no deferred U.S. tax expense on such earnings. If our PRC subsidiaries were to distribute dividends to us, the dividends would be subject to U.S. and PRC withholding taxes. Before the EIT Law came into effect on January 1, 2008, dividends paid to foreign investors by FIEs, such as dividends paid to us by our subsidiaries in China, were exempt from PRC withholding tax. Pursuant to the EIT Law, dividends generated after January 1, 2008, and distributed to us by our subsidiaries in China are subject to withholding tax at a rate of 5%, provided that we are determined by the relevant PRC tax authorities to be a “non-resident enterprise” under the EIT Law and hold at least 25% of the equity interest of our subsidiaries. If we are determined to be a “resident enterprise,” we cannot guarantee that such dividends will not be subject to a 10% withholding tax, as the PRC foreign exchange control authorities, which enforce the withholding tax, have not yet issued guidance with respect to the processing of outbound remittances to entities that are treated as “resident enterprises” for PRC enterprise income tax purposes.

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The SAT promulgated “Notice on How to Understand and Determine the Beneficial Owners in Tax Agreement” on October 27, 2009, or SAT Circular 601, which provides guidance for determining whether a resident of a contracting state is the “beneficial owner” of an item of income under China’s tax treaties and tax arrangements. According to SAT Circular 601, a beneficial owner generally must be engaged in substantive business activities. An agent or conduit company will not be regarded as a beneficial owner and, therefore, will not qualify for treaty benefits. The agent or conduit company normally refers to a company that is registered in a jurisdiction other than China and merely meets the minimum legal requirements on organizational form and is not engaged in substantive operational activities for manufacturing, distribution or management. It is still unclear how SAT Circular 601 is implemented by SAT or its local counterparts in practice and whether we could be recognized as a “beneficial owner.” If we are deemed a non-resident enterprise but not qualified as a beneficial owner, we will not be entitled to a reduced 5% withholding tax and the 10% withholding tax would be imposed on any dividend income received from our subsidiaries in China. As a result, our net income would be reduced and our operating results would be adversely affected.

Tax laws and regulations in China are subject to revision, some of which may adversely affect our profitability, and the termination of certain preferential tax treatment for which our subsidiaries are eligible in China may adversely affect our net income.

The PRC corporate tax regime continues to undergo revision. Tax benefits that our subsidiaries presently enjoy may not be available to us in the wake of these changes, and our subsidiaries could incur tax obligations to the PRC government that are significantly higher than currently anticipated. These increased tax obligations could negatively affect our financial condition and our revenues, gross margins, profitability and results of operations may be adversely affected as a result.

Furthermore, certain tax exemptions that certain of our subsidiaries presently enjoy in China are scheduled to expire after 2013. Taiyu and SanDeKe are governed by the Income Tax Law of the PRC concerning privately run enterprises, which are generally subject to tax at a statutory rate of 25% on income reported in the statutory financial statements after appropriate tax adjustments. Taiyu has been classified as a high-tech enterprise eligible for certain tax benefits, including a preferential enterprise income tax rate of 15% through 2013. SanDeKe was entitled to a 50% discount on its income tax rate from 2010 through 2012, resulting in an income tax rate of 13% and 12% for 2012 and 2011, respectively. SanDeKe’s income tax rate increased to 25% in 2013. We plan to apply for renewal of these preferential tax benefits for Taiyu after 2013 and will apply in 2014. If these tax benefits enjoyed by Taiyu expire without renewal, however, our income tax expenses will increase, which will reduce our net income.

Our compliance with the Foreign Corrupt Practices Act may put our subsidiaries at a competitive disadvantage, while our failure to comply with the Foreign Corrupt Practices Act may result in substantial penalties.

We are required to comply with the United States Foreign Corrupt Practices Act, or the FCPA, which prohibits U.S. companies from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. Although we inform our subsidiaries’ personnel that such practices are illegal, we cannot assure you that our subsidiaries’ employees or other agents will not engage in such conduct for which we might be held responsible. If our subsidiaries’ employees or other agents are found to have engaged in such practices, we could suffer severe penalties. Non-U.S. companies, including some of our subsidiaries’ competitors, are not subject to the provisions of the FCPA. Corruption, extortion, bribery, pay-offs, theft and other fraudulent practices occur from time to time in mainland China. If our subsidiaries’ competitors engage in these practices, they may receive preferential treatment from personnel of some companies, giving our subsidiaries’ competitors an advantage in securing business or from government officials who might give them priority in obtaining new licenses, which would put our subsidiaries at a disadvantage.

Risks Related to Our Securities

The application of the "penny stock" rules could adversely affect the market price of our common stock and increase your transaction costs to sell those shares.

Our common stock may be subject to the "penny stock" rules adopted under Section 15(g) of the Exchange Act. The penny stock rules apply to issuers whose common stock does not trade on a national securities exchange and trades at less than $5.00 per share, or that have a tangible net worth of less than $5,000,000 ($2,000,000 if the company has been operating for three or more years). The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document prepared by the SEC that contains the following information:

- a description of the nature and level of risk in the market for penny stocks in both public offerings and secondary trading;
- a description of the broker's or dealer's duties to the customer and of the rights and remedies available to the customer with respect to violation to such duties or other requirements of securities laws;

- a brief, clear, narrative description of a dealer market, including "bid" and "ask" prices for penny stocks and the significance of the spread between the "bid" and "ask" prices;
- a toll-free telephone number for inquiries on disciplinary actions;
- definitions of any significant terms in the disclosure document or in the conduct of trading in penny stocks; and
- such other information and is in such form (including language, type, size and format), as the SEC shall require by rule or regulation.

Prior to effecting any transaction in a penny stock, the broker-dealer also must provide the customer with the following information:

- bid and offer quotations for the penny stock;
- compensation of the broker-dealer and our salesperson in the transaction;
- number of shares to which such bid and ask prices apply, or other comparable information relating to the depth and liquidity of the market for such stock; and
- monthly account statements showing the market value of each penny stock held in the customer's account.

The penny stock rules further require that, prior to a transaction in a penny stock not otherwise exempt from those rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written acknowledgment of the receipt of a risk disclosure statement, a written agreement to transactions involving penny stocks and a signed and dated copy of a written suitability statement.

Due to the requirements of the penny stock rules, many broker-dealers have decided not to trade penny stocks. As a result, the number of broker-dealers willing to act as market makers in such securities is limited. If we remain subject to the penny stock rules for any significant period, it could have an adverse effect on the market, if any, for our securities. Moreover, if our securities are subject to the penny stock rules, investors will find it more difficult to dispose of our securities.

The market price for our common stock may be volatile, which could make it more difficult or impossible for you to sell our common stock for a positive return on your investment.

The trading price of our common stock may fluctuate widely in response to various factors, some of which are beyond our control. These factors include, but are not limited to, our quarterly operating results or the operating results of other companies in our industry, announcements by us or our competitors of acquisitions, new products, product improvements, commercial relationships, intellectual property, legal, regulatory or other business developments and changes in financial estimates or recommendations by stock market analysts regarding us or our competitors. In addition, the stock market in general, and in particular the market for companies with substantial operations based in China, that became public by means of a reverse acquisition with a public shell company or that recently effected a reverse stock split, has experienced extreme price and volume fluctuations. This volatility has had a significant effect on the market prices of securities issued by many companies for reasons unrelated or disproportionate to their operating performance. These broad market fluctuations may have a material adverse effect on our stock price, regardless of our operating results. Further, the market for our common stock is limited and we cannot assure you that

a larger market will ever be developed or maintained. Market fluctuations and volatility, as well as general economic, market and political conditions, could reduce our market price. As a result, these factors may make it more difficult or impossible for you to sell our common stock for a positive return on your investment.

Our quarterly results may be volatile, which could materially affect the per share price of our common stock.

Our operating results have varied on a quarterly basis during our operating history and are likely to fluctuate significantly in the future. Many factors, including the risk factors incorporated by reference herein, could cause our revenues and operating results to vary significantly in the future. Many of these factors are outside of our control. Accordingly, we believe that quarter-to-quarter comparisons of our operating results are not necessarily meaningful. Investors should not rely on the results of one quarter as an indication of our future performance. If our results of operations in any quarter do not meet analysts' expectations, our stock price could materially decrease.

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Future sales of our stock could depress the market price of our common stock and cause our stock price to decline.

Future sales of shares of our common stock could adversely affect the prevailing market price of our stock. If our significant stockholders sell a large number of shares, or if we issue a large number of shares, the market price of our common stock could significantly decline. Moreover, the perception in the public market that our significant stockholders might sell shares of our common stock could depress the market for our shares. If such shareholders sell substantial amounts of our common stock in the public market, such sales could create a circumstance commonly referred to as an "overhang," in anticipation of which the market price of our common stock could fall. The existence of an overhang, whether or not sales have occurred or are occurring, also could make it more difficult for us to raise additional financing through the sale of equity or equity-related securities in the future at a time and price we deem reasonable or appropriate.

We may issue additional shares of our capital stock or debt securities to raise capital or complete acquisitions, which would reduce the equity interest of our stockholders.

Our Articles of Incorporation authorize the issuance of up to 75,000,000 shares of common stock, par value $0.001 per share. As of April 4, 2014, there were 68,416,601 authorized and unissued shares of our common stock available for future issuance, based on 6,583,399 shares of our common stock outstanding and our reservation of 2,400 shares of our common stock issuable upon exercise of outstanding options. Although we have no commitments as of the date of this report to issue our securities, we may issue a substantial number of additional shares of our common stock to complete a business combination, to raise capital or to repay outstanding debt obligation, including amounts we may borrow under the Credit Agreement with Northtech. The issuance of additional shares of our common stock may significantly reduce the equity interest of our existing stockholders and may adversely affect prevailing market prices for our common stock.

We have not paid dividends in the past and do not expect to pay dividends in the future. Any return on investment may be limited to the value of our common stock.

We have never paid cash dividends on our common stock and do not anticipate doing so in the foreseeable future. The payment of dividends on our common stock will depend on earnings, financial condition and other business and economic factors affecting it at such time as the Board of Directors may consider relevant. Furthermore, China has currency and capital transfer regulations that require us to comply with complex regulations for the movement of capital. See "Risks Related to Our Business – We are a holding company that depends on cash flow from our wholly owned subsidiaries to meet our obligations." Although our management believes that we are in compliance with these regulations, should these regulations or the interpretation of them by PRC courts or regulatory agencies change, we may not be able to pay dividends to our shareholders outside of China. Our management intends to follow a policy of retaining all of our earnings to finance the development and execution of our strategy and the expansion of our business. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if our stock price appreciates.

Provisions in the Nevada Revised Statutes and our Articles of Incorporation and Amended and Restated Bylaws could make it very difficult for you to bring any legal actions against our directors or officers for violations of their fiduciary duties or could require us to pay any amounts incurred by our directors or officers in any such actions.

Members of our Board of Directors and our officers will have no liability for breaches of their fiduciary duty of care as a director or officer, except in limited circumstances, pursuant to provisions in the Nevada Revised Statutes and our Articles of Incorporation and Amended and Restated Bylaws as authorized by the Nevada Revised Statutes. Specifically, Section 78.138 of the Nevada Revised Statutes provides that a director or officer is not individually liable to the company or its shareholders or creditors for any damages as a result of any act or failure to act in his or her

capacity as a director or officer unless it is proven that (1) the director's or officer's act or failure to act constituted a breach of his or her fiduciary duties as a director or officer and (2) his or her breach of those duties involved intentional misconduct, fraud or a knowing violation of law. This provision is intended to afford directors and officers protection against and to limit their potential liability for monetary damages resulting from suits alleging a breach of the duty of care by a director or officer. Accordingly, you may be unable to prevail in a legal action against our directors or officers even if they have breached their fiduciary duty of care. In addition, our Amended and Restated Bylaws allow us to indemnify our directors and officers from and against any and all costs, charges and expenses resulting from their acting in such capacities with us. This means that if you were able to enforce an action against our directors or officers, in all likelihood, we would be required to pay any expenses they incurred in defending the lawsuit and any judgment or settlement they otherwise would be required to pay. Accordingly, our indemnification obligations could divert needed financial resources and may adversely affect our business, financial condition, results of operations and cash flows, and adversely affect prevailing market prices for our common stock.

Item 1B. Unresolved Staff Comments

Not required.

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Item 2. Properties

Our headquarters and principal manufacturing facilities are located in the Shenyang Economic and Technological Development Zone, Shenyang City, Liaoning Province, PRC. We acquired land use rights in Shenyang by the municipal administration of state-owned land through 2055, on which we own two buildings, including our office headquarters and principal manufacturing facilities. Siping Beifang owns its manufacturing facilities and land use rights for three parcels of land in Siping through 2052, 2056 and 2060, respectively. SmartHeat Energy acquired land use rights in Shenyang that are valid through 2060. We temporarily halted construction on a factory project for SmartHeat Energy because we believe that economic and market conditions in China at this time make it unlikely for the factory to operate profitably if completed in 2013 as originally scheduled. SanDeKe, Ruicheng and SmartHeat Pump lease space for their business offices and manufacturing facilities. SmartHeat Germany owns manufacturing facilities and land in Güstrow, Germany. We have leased offices for our sales representatives in multiple PRC cities under short-term, renewable leases.

Properties owned or acquired by SmartHeat Taiyu (Shenyang) Energy Technology Co., Ltd, SanDeKe Co., Ltd, SmartHeat (Shenyang) Energy Equipment Co., Ltd, SmartHeat Siping Beifang Energy Technology Co., Ltd and Hohhot Ruicheng Technology Co., Ltd are used for Heat PHE; while properties owned or acquired by SmartHeat (Shenyang) Heat Pump Technology Co., Ltd and SmartHeat Deutschland GmbH are used for Heat HP. In general, our properties are well maintained, considered adequate and being utilized for their intended purposes.

Item 3. Legal Proceedings

We may become involved in various lawsuits and legal proceedings arising in the ordinary course of business. Litigation is subject to inherent uncertainties and an adverse result in these or other matters may arise from time to time that may have an adverse effect on our business, financial conditions or operating results. Aside from the proceeding described below, we are currently not aware of any such legal proceedings or claims that will have, individually or in the aggregate, a material adverse effect on our business, financial condition or operating results.

On August 31, 2012, a putative class action lawsuit, Steven Leshinsky v. James Wang, et. al., which purported to allege federal securities law claims against the Company and certain of its former offers and directors, was filed in the United States District Court for the Southern District of New York. Thereafter, two plaintiffs filed competing motions to be appointed lead plaintiff in the proceeding. A lead plaintiff was appointed and an amended complaint was filed on January 28, 2013, by the Rosen Law Firm. The amended complaint included Oliver Bialowons, our President, and Michael Wilhelm, our former Chief Financial Officer, as defendants in the proceeding though they were not officers of the Company during the alleged class period. A second amended complaint was filed on April 8, 2013, under the caption Stream Sicav, Dharanendra Rai et al. v. James Jun Wang , Smartheat, Inc. et al., removing Messrs. Wilhelm and Bialowons as defendants. The second amended complaint alleges two counts against the Company, both for violations of the federal securities laws arising from alleged insider sales or management sales of securities and alleged false disclosures relating to those sales. On May 8, 2013, we filed a motion to dismiss the second amended complaint on the grounds that the plaintiffs did not, in fact, allege that a member of our senior management team had sold their shares. . On March 17, 2014 the court, denied, the lead plaintiff's motion for class certification, without prejudice to move again for such certification pending (1) the resolution of Halliburton Co. v. Erica P. John Fund, Inc., No. 13-317 (U.S. 2014)by the Supreme Court of the United States regarding the viability of the efficient market theory andthe plaintiffs’ claim that reliance, and therefore injury, can be determined on a classwide basis and(2) defendants' compliance with their discovery obligations. In the event the motion to dismiss is not successful, we intend to vigorously defend this action, as we believe the allegations against us are without merit.

Item 4. Mine Safety Disclosures

Not applicable.

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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock has traded on the over the counter market since November 9, 2012. Previously, and prior to NASDAQ halting trading in our common stock, our common stock was listed on the NASDAQ Global Select Market under the symbol "HEAT" and had been trading on NASDAQ since January 29, 2009. The following table sets forth the range of the high and low sales prices of our common stock for each quarter in the years ended December 31, 2013 and 2012.

	2013		2012	
	High	Low	High	Low
First Quarter (through March 31)	$ 0.70	$ 0.30	$ 5.15	$ 0.32
Second Quarter (through June 30)	0.55	0.22	9.64	4.04
Third Quarter (through September 30)	0.60	0.21	4.04	4.04
Fourth Quarter (through December 31)	0.50	0.15	4.04	0.25

Holders of Record

On April 4, 2014, there were approximately 47 shareholders of record based on information provided by our transfer agent. Many of our shares of common stock are held in street or nominee name by brokers and other institutions on behalf of shareholders and we are unable to estimate the total number of shareholders represented by these record holders.

Dividend Policy

We have not paid and do not expect to declare or pay any cash dividends on our common stock in the foreseeable future, and we currently intend to retain future earnings, if any, to finance the expansion of our business. The decision whether to pay cash dividends on our common stock will be made by our Board of Directors, in their discretion, and will depend on our financial condition, operating results, capital requirements and other factors deemed relevant by our Board of Directors.

Our ability to pay dividends may be affected by the complex currency and capital transfer regulations in China that restrict the payment of dividends to us by our subsidiaries in China. PRC regulations currently permit payment of dividends only out of accumulated profits as determined in accordance with accounting standards and regulations in China. Our subsidiaries in China also are required to set aside at least 10% of net income after taxes based on PRC accounting standards each year to statutory surplus reserves until the cumulative amount of such reserves reaches 50% of registered capital. These reserves are not distributable as cash dividends. Our subsidiaries in China also may allocate a portion of their after-tax profits to their staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation. If any of our subsidiaries incur debt, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us.

In addition, Circular 75 requires PRC residents, including both legal persons and natural persons, to register with the competent local SAFE branch before establishing or controlling any company outside of China. If the PRC subsidiaries of an offshore parent company do not report the need for their PRC investors to register to the local SAFE authorities, they may be prohibited from distributing their profits and proceeds from any reduction in capital, share

transfer or liquidation to their offshore parent company. Although we believe that our subsidiaries in China are in compliance with these regulations, should these regulations or the interpretation of them by PRC courts or regulatory agencies change, we may not be able to pay dividends outside of China.

Item 6. Selected Financial Data

Not required.

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Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Safe Harbor Declaration

The comments made throughout this Annual Report should be read in conjunction with our Financial Statements and the Notes thereto, and other financial information appearing elsewhere in this document. In addition to historical information, the following discussion and other parts of this document contain certain forward-looking information. When used in this discussion, the words, "believes," "anticipates," "expects" and similar expressions are intended to identify forward-looking statements. Such statements are subject to certain risks and uncertainties, which could cause actual results to differ materially from projected results, due to a number of factors beyond our control. We do not undertake to publicly update or revise any of our forward-looking statements, even if experience or future changes show that the indicated results or events will not be realized. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Readers are also urged to carefully review and consider our discussions regarding the various factors that affect our business, which are described in this section and elsewhere in this report.

Overview

Through our subsidiaries we design, manufacture and sell clean technology plate heat exchangers ("PHE"), heat pumps ("HPs") and related systems marketed principally in the People's Republic of China ("PRC"). Our subsidiaries' products are used in the industrial, residential and commercial markets to improve energy utilization and efficiencies, and to reduce pollution by reducing the need for coal-fired boilers. Our subsidiaries design, manufacture, sell and service PHEs, PHE Units, which combine PHEs with various pumps, temperature sensors, valves and automated control systems in systems custom designed by our in-house engineers, heat meters and heat pumps for use in commercial and residential buildings. Our subsidiaries also design, manufacture and sell spiral heat exchangers and tube heat exchangers. Our subsidiaries' products and systems are an increasingly important element in providing a clean technology, mission-critical solution to energy consumption and air pollution problems in China and are commonly used in a wide variety of industrial processes where heat transfer is required. Common applications include energy conversion for heating, ventilation and air conditioning, or HVAC, and industrial use in petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing. Our subsidiaries sell their products under the SmartHeat and Taiyu brand names and also sell PHEs under the Sondex brand name as an authorized dealer of Sondex PHEs in China.

In addition, we offer HPs in China and in Germany under the Gustrower brand name. Our subsidiaries design and build HPs specific to customer specifications and particular operating conditions and are known for their high quality and efficiency. Our subsidiaries produce HPs in sizes that have applications in both the industrial and residential settings. We believe our subsidiaries' HPs reduce the cost of heating and cooling by using recycled air as a heat source thereby reducing heat loss promoting energy saving and efficiency.

We are a U.S. holding company with no material assets other than the ownership interests of our subsidiaries through which we design, manufacture and sell our clean technology PHEs, HPs and related systems. We were incorporated in the State of Nevada on August 4, 2006, under the name Pacific Goldrim Resources, Inc., as an exploration stage corporation with minimal operations to engage in the exploration for silver, lead and zinc. On April 14, 2008, we changed our name to SmartHeat Inc. and entered into a Share Exchange Agreement to acquire Shenyang Taiyu Machinery & Electronic Equipment Co., Ltd., subsequently renamed SmartHeat Taiyu (Shenyang) Energy Technology Co., Ltd., or Taiyu, a privately held Sino-foreign joint venture ("JV") company formed under the laws of the PRC on July 24, 2002, and engaged in the design, manufacture, sale and servicing of plate heat exchange products in China. The Share Exchange Agreement was entered into by SmartHeat, Taiyu and the shareholders of Taiyu. We received PRC government approval on May 28, 2008, of our subscription for 71.6% of the registered capital of Taiyu,

and approval on June 3, 2009, of the transfer of the remaining 28.4% ownership of Taiyu from the original JV shareholders who received shares of our common stock in the Share Exchange. As a result of the Share Exchange Agreement and subsequent transactions contemplated thereby, and receipt of the above PRC government approvals, Taiyu became our wholly foreign-owned enterprise, or WFOE.

As an expansion of our business following our acquisition of Taiyu, we acquired and established subsidiaries in China and Germany.

The following chart displays our subsidiaries according to which operating segment they operate in:

Plate Heat Exchangers (PHE)	Heat Pumps (HP)
SmartHeat Taiyu (Shenyang) Energy Technology Co., Ltd.	SmartHeat (China) Investment Co., Ltd.
SanDeKe Co., Ltd.	SmartHeat (Shenyang) Heat Pump Technology Co., Ltd.
SmartHeat (Shenyang) Energy Equipment Co., Ltd.	SmartHeat Deutschland GmbH
SmartHeat Siping Beifang Energy Technology Co., Ltd.	SmartHeat (Shanghai) Trading Co., Ltd.
Hohhot Ruicheng Technology Co., Ltd.	Beijing SmartHeat Jinhui Energy Technology Co., Ltd.
SmartHeat Heat Exchange Equipment Co.	

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Principal Factors Affecting Our Financial Performance

Our revenues are subject to fluctuations due to the timing of sales of high-value products, the impact of seasonal spending patterns, the timing and size of projects our customers perform, changes in overall spending levels in the industry, changes in PRC government fiscal policies, inflation in China and other unpredictable factors that may affect customer ordering patterns. Our revenues may fluctuate due to the seasonal nature of central heating services in the PRC because the equipment used in residential buildings must be delivered prior to the beginning of the heating season in late fall, which occurs during the third and fourth calendar quarters in China. We also anticipate decreased sales volume in the first calendar quarter compared to other quarters, as our customers generally install and test our products during this period, and are in the process of budgeting their new projects. Additionally, any significant delays in the commercial launch or any lack or delay of commercial acceptance of new products, unfavorable sales trends in existing product lines or impacts from the other factors mentioned above, could adversely affect our revenue growth or cause a decline in quarterly revenue.

In response to inflationary concerns, the PRC government tightened fiscal policies beginning in 2011 that contributed to a slowdown in many sectors of China's economy and restricted bank lending practices. China's economy grew at its slowest pace in three years according to the National Bureau of Statistics of China. This slow growth continued into 2013. Historically, approximately 40% of our customers, representing the majority of our total sales, consist of state-owned enterprises in China. Many of these customers, the majority of which are real estate developers, encountered difficulties in 2011 and 2012 in obtaining grants from the PRC government and faced an extended bank loan application process, both of which typically are used to finance the purchase of our products. These conditions continued into 2013. Accordingly, the continued deflationary policy of the PRC government affected the number of new sales of our PHEs and PHE Units as certain state-owned enterprises deferred bidding for new projects because of their working capital difficulties or abandoned existing projects. The decline in new projects among state-owned enterprises and increased peer competition contributed to a decline in sales of our PHEs and PHE Units in 2011, 2012 and 2013. We also canceled contracts in 2011 with certain of these state-owned customers that were unable to make payments or that had requested adjustments to their payment terms in response to their financial difficulties. Although these events caused a decrease in our sales in 2011, 2012 and into 2013, a portion of the canceled PHE and PHE Unit orders were reinstated in 2012, and additional orders and contracts that were canceled or partially delayed are performed in 2013, which reduced the impact of the drop in our sales over the long term. Furthermore, the PRC government remains committed to the construction of affordable housing projects and emission-reduction and energy-saving policies, which we believe will continue to drive demand for our clean technology heat transfer products.

Our revenues also may fluctuate significantly due to material costs, which normally account for approximately 69-72% of our cost of sales. We experienced and anticipate continued fluctuation in raw material costs as a result of world economic conditions, such as the price of stainless steel used to produce plates, our PHEs and PHE Units. We monitor the commodities markets for pricing trends and changes, but do not engage in hedging to protect against raw material fluctuations. Instead, we attempt to mitigate the short-term risks of price swings by purchasing raw materials in advance based on production needs and projected sales. We typically experience stronger sales during the second half of the year, which is the start of fall and winter in China, during which we historically generate the majority of our revenue. Accordingly, we increased our inventory and advances to suppliers during the first three quarters of each year in anticipation of our historical high season for production. Management believes our current levels of increased inventory resulting from the unexpected abandonment of projects and cancelation of orders by certain customers in 2011 and 2012 was consumed gradually in 2013 and the following years as we fulfill new orders and delayed and reinstated contracts. Although we currently are able to obtain adequate supplies of raw materials, it is impossible to predict future availability or cost. Unfavorable fluctuations in the price, quality or availability of required raw materials could negatively affect our cash flows and ability to meet the demands of our customers, which could result in the loss of future sales.

Our profitability depends upon the margin between the cost to us of goods used in the manufacturing process, such as plates, pumps, water tanks, sensors, control systems and other raw materials, as well as our fabrication costs associated with converting such goods and raw materials compared to the selling price of our products, and the overall supply of raw materials. We intend to base the selling prices of our products upon the associated raw materials costs to us, which typically make up 69-72% of total cost. We may not be able to pass all increases in raw material costs and ancillary acquisition costs associated with taking possession of raw materials through to our customers, however, and there may be a time lag as we bid on new projects and renegotiate pricing with our existing customers. Furthermore, to ease inflationary pressure on our costs, we implemented new controls over our purchasing process and raw material pricing by adopting a new budgetary control system to monitor our fixed costs and continued improvements to our manufacturing process to decrease labor cost and improve manufacturing efficiency.

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The economic conditions our subsidiaries faced in 2011, 2012, and 2013, made it impossible for our subsidiaries to pay dividends to our U.S. parent company, which is dependent upon such dividends to meet its financial obligations. Relevant PRC statutory laws and regulations permit payments of dividends by the Company's PRC subsidiaries only out of the subsidiary's retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Further, the Company's PRC subsidiaries are required to take certain reserves as detailed in Note 18 to our financial statements. As a result, we sought alternative sources of capital for our U.S. parent company. On July 27, 2012, we entered into a secured, revolving credit facility with Northtech Holdings Inc., a British Virgin Islands business corporation owned by certain members of our former management, James Wang, Rhett Wang and Wen Sha. Jane Ai, our Corporate Secretary, is also a part owner of Northtech. As amended on December 21, 2012, the Credit Agreement provides for borrowings of up to $2,500,000 with any amounts borrowed maturing on April 30, 2014. Borrowings under the Credit Agreement are secured by 55% of the equity interest in each of our wholly, directly-owned subsidiaries and are repayable, at our option, in shares of our common stock. On December 21, 2012, we repaid $1,300,000 of the $1,384,455 outstanding under the Credit Agreement with 1,300,000 restricted shares of our common stock, approximately 22.67% of our total issued and outstanding shares of Common Stock, as authorized by the Credit Agreement and approved by our shareholders. On June 25, 2013, the Board approved second amendment to the credit and security agreement and on August 23, 2013, we entered into second amendment to the credit and security agreement with Northtech, which redefined the "base rate", and adjusted the base rate to 10% annually, compounded quarterly, effective January 1, 2013. On March 26, 2014, we gave notice to Northtech pursuant to the terms of the Credit and Security Agreement between the Company and Northtech, dated July 27, 2012, as amended, extending the maturity date on the Credit Agreement from April 30, 2014 to January 3, 2015 (see Note 15).

On December 30, 2013, we closed the transaction contemplated by the Equity Interest Purchase Agreement dated October 10, 2013, whereby the buyers purchased 40% of the Company's equity interests in the following PHE segment subsidiaries: SmartHeat Taiyu (Shenyang) Energy; SmartHeat Siping Beifang Energy Technology Co., Ltd.; SmartHeat (Shenyang Energy Equipment) Co. Ltd.; Hohot Ruicheng Technology Co., Ltd.; and Urumchi XinRui Technology Limited Liability Company (collectively, the "Target Companies"). The purchase price was RMB 5,000,000. Urumchi XinRui was 46% owned by SmartHeat US parent company.

We retain an option to repurchase the equity interests of the Target Companies from the buyers at a purchase price of RMB 5,600,000 which terminated on February 28, 2014. In the event we do not exercise the option to repurchase the equity interest, the buyers shall have the option to purchase an additional 40% equity interest in the Target Companies for an additional purchase price of RMB 6,000,000. On March 27, 2014, the buyers gave notice of their intent to exercise their option to purchase the additional 40% equity interest upon satisfaction of the terms and conditions set forth in the Equity Interest Purchase Agreement, including, without limitation the approval of our shareholders prior to completion of the sale. In the event such approval is not obtained, the buyers may terminate the Equity Interest Purchase Agreement. Should the buyers exercise their option to purchase the additional 40% equity interest, and the Company's shareholders approve the sale, we have the option to require the Buyers to purchase the remaining 20% equity interest for a purchase price of RMB 2,500,000.We did not exercise the option to repurchase the equity interest of the Target Companies.

Significant Accounting Policies

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

Basis of Presentation

Our financial statements are prepared in accordance with generally accepted accounting principles in the U.S., or U.S. GAAP.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of SmartHeat's U.S. parent and its subsidiaries, Taiyu, SanDeKe, SmartHeat Siping, Jinhui, SmartHeat Investment, SmartHeat Energy, SmartHeat Trading, SmartHeat Germany and SmartHeat Pump. All significant inter-company accounts and transactions were eliminated in consolidation.

In preparing the financial statements in conformity with U.S. GAAP, management makes estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the dates of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Significant estimates, required by management, include the recoverability of long-lived assets, allowance for doubtful accounts, and the reserve for obsolete and slow-moving inventories. Actual results could differ from those estimates.

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Accounts Receivable

We maintain reserves for potential credit losses on accounts receivable. Management reviews the composition of accounts receivable 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. Accounts receivable are net of unearned interest. Unearned interest represents imputed interest on accounts receivable with due dates over one year from the invoice date discounted at our borrowing rate for the year. Based on historical collection activity, we had bad debt allowances of $48.2 million and $28.2 million at December 31, 2013 and 2012, respectively.

Revenue Recognition

Our revenue recognition policies are in compliance with SEC Staff Accounting Bulletin (“SAB”) 104 (codified in Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 605). Sales revenue is recognized when PHEs, heat meters and HPs are delivered, and for PHE Units when customer acceptance occurs, the price is fixed or determinable, no other significant obligations of ours exist and collectability is reasonably assured. Payments received before all of the relevant criteria for revenue recognition are recorded as unearned revenue under “Advance from customers.”

Our agreements with our customers generally provide that 30% of the purchase price is due upon placement of an order, 30% upon delivery and 30% upon installation and acceptance of the equipment after customer testing. As a common practice in the heating manufacturing business in China, payment of the final 10% of the purchase price is due no later than the termination date of the standard warranty period, which ranges from 3 to 24 months from the acceptance date. Due to the slowdown of the Chinese economy and tightened monetary policy, and in order to attract and retain customers, the Company’s subsidiaries have adjusted their contract and payment terms on a case-by-case basis to permit for more flexible and longer payment terms.

Our standard warranty is provided to all customers and is not considered an additional service; rather, it is an integral part of the product sale. We believe the existence of the standard warranty in a sales contract does not constitute a deliverable in the arrangement and thus there is no need to apply the EITF 00-21 (codified in FASB ASC Topic 605-25) separation and allocation model for a multiple deliverable arrangement. SFAS 5 (codified in FASB ASC Topic 450) specifically addresses the accounting for standard warranties and neither SAB 104 nor EITF 00-21 supersedes SFAS 5. We believe accounting for our standard warranty pursuant to SFAS 5 does not impact revenue recognition because the cost of honoring the warranty can be reliably estimated.

We charge for after-sales services provided after the expiration of the warranty period, with after-sales services mainly consisting of cleaning PHEs and repairing and exchanging parts. We recognize such revenue when service is provided. The revenue earned from these services was not material during the years ended December 31, 2013 and 2012.

Foreign Currency Translation and Comprehensive Income (Loss)

The functional currency of our subsidiaries in China is RMB. The functional currency of SmartHeat Germany, our German subsidiary, is EUR. For financial reporting purposes, RMB and EUR were translated into USD 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 exchange rate for the conversion of RMB to USD after the balance sheet date.

We use Statement of Financial Accounting Standards ("SFAS") No. 130, "Reporting Comprehensive Income" (codified in FASB ASC Topic 220). Comprehensive income is comprised of net income and all changes to the statements of stockholders' equity, except those due to investments by shareholders, changes in paid-in capital and distributions to shareholders.

Impairment of Long-Lived Assets

Long-lived assets, which include tangible assets, such as property, plant and equipment, goodwill and other intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable.

Recoverability of long-lived assets to be held and used is measured by comparing the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized based on the excess of the carrying amount over the fair value ("FV") of the assets. FV generally is determined using the asset's expected future discounted cash flows or market value, if readily determinable. We evaluate goodwill and intangible assets with indefinite lives for impairment annually using a two-step approach (codified in FASB ASC Topic 350). Based on this valuation approach, we concluded that the goodwill balance of $2.08 million for SmartHeat Germany was impaired as of December 31, 2012.

On December 30, 2013, we closed the transaction contemplated by the Equity Interest Purchase Agreement dated October 10, 2013, whereby the buyers purchased 40% of our equity interests in the following PHE segment subsidiaries ("Target Companies"): Taiyu, Siping, SmartHeat Energy, Ruicheng and XinRui for the purchase price of RMB 5,000,000 ($0.82 million).

The buyers had the option to purchase an additional 40% equity interest in the Target Companies for an additional purchase price of RMB 6,000,000 which was exercised on March 27, 2014 subject to the approval of the Company's shareholders prior to completing the sale. Should the Company's shareholders approve the sale, we have the option to require the Buyers to purchase the remaining 20% equity interest for a purchase price of RMB 2,500,000.

According to ASC 360-10-35, long-lived assets (asset group) shall be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. We believed the following events or changes in circumstances indicated the carrying amount of its long-lived assets (asset group) may not be recoverable: 1) a current expectation that, more likely than not, a long-lived assets (asset group) will be sold or otherwise disposed of significantly before the end of its previously estimated useful life, and 2) A significant decrease in the market price of a long-lived asset (asset group). Since we have the option to sell 100% ownership in Target Companies for RMB 13.5 million ($2.21 million), a significant decrease in the market price, before the end of its previously estimated useful life for their long-lived assets, we therefore performed assets recoverability testing by comparing the assets estimated future undiscounted cash flows with their carrying values, and concluded the long-lived assets were not recoverable as a result of future cash flows are less than the carrying amount. We further calculated the impairment loss amount of Target Companies by determining the fair value for the long-lived assets group and recorded a write-down (loss) for the difference between their carrying value and their fair value. Fair value is an asset's purchase or sale price in a current transaction between willing parties. The best evidence of fair value is prices quoted in active markets, although we have the option to sell 100% ownership in Target Companies for RMB 13.5 million ($2.21 million), the market prices are not available for many long-lived assets such as equipment, we used discounted cash flow methods for estimating fair value of long-lived assets which are acceptable under ASC 360-10.

Based on our review, we believed that, as of December 31, 2013, our long-lived assets of Target Companies including construction in progress, property and equipment, and intangible assets were impaired for $13.73 million. In addition, our remaining 30.6% and 27.6% interest in Ruicheng and XinRui (after the 40% sale), respectively, at December 31, 2013, which was accounted for under the equity method of accounting, we recorded the long-term investment in Ruicheng and XinRui at fair value as provided in ASC 323-10-30-2. The fair value of the long-term investment was the prorated selling price for the remaining 60% equity interest that are allocated to Ruicheng and XinRui for

approximately $26,720; accordingly, we recorded $0.91 million impairment loss of long-term investment in Ruicheng and XinRui for the excess of the carrying amount over the fair value.

Recent Accounting Pronouncements

In February 2013, the FASB issued ASU 2013-2, Comprehensive Income (ASC Topic 220): Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income, the new ASU requires entities to disclose in a single location (either on the face of the financial statement that reports net income or in the notes) the effects of reclassifications out of accumulated other comprehensive income (AOCI). For items reclassified out of AOCI and into net income in their entirety, entities must disclose the effect of the reclassification on each affected net income item. For AOCI reclassification items that are not reclassified in their entirety into net income, entities must provide a cross-reference to other required U.S. GAAP disclosures. There is no change in the requirement to present the components of net income and other comprehensive income in either a single continuous statement or two separate consecutive statements. The ASU does not change the items currently reported in other comprehensive income.

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For public entities, the new disclosure requirements are effective for annual reporting periods beginning after December 15, 2012, and interim periods within those years (i.e., the first quarter of 2013 for entities with calendar year-ends). The ASU applies prospectively, and early adoption is permitted. The adoption of this ASU did not have a material impact on the Company's consolidated financial statements.

As of December 31, 2013, there is no recently issued accounting standards not yet adopted that would have a material effect on the Company's consolidated financial statements.

Results of Operations

Year ended December 31, 2013 Compared to the Year ended December 31, 2012

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

	2013		2012	
	$	% of Sales	$	% of Sales
Sales	$ 44,709,526		$ 47,850,292	
Cost of sales	40,401,380	90%	32,481,271	68%
Gross profit	4,308,146	10%	15,369,021	32%
Operating expenses	58,550,416	131%	45,358,344	95%
Loss from operations	(54,242,270)	(121)%	(29,989,323)	(63)%
Non-operating income (expenses), net	(1,289,971)	(3)%	1,236,968	3%
Income tax expense (benefit)	(50,657)	(0.1)%	493,624	1%
Noncontrolling interest	(5,812,244)	(13)%	(28,897)	(0)%
Net Loss to SmartHeat Inc.	$ (49,669,341)	(111)%	$ (29,217,082)	(61)%

The following table sets forth the results of our operations for our PHE and heat meter segment (include inter-segment sales of $131,806) for the periods indicated as a percentage of net sales, certain columns may not add due to rounding.

	2013		2012	
	$	% of Sales	$	% of Sales
Sales	$ 38,882,321		$ 42,074,895	
Cost of sales	36,076,054	93%	27,412,639	65%
Gross profit	2,806,266	7%	14,662,255	35%
Operating expenses	51,723,608	133%	36,142,111	86%
Loss from operations	(48,917,342)	(126)%	(21,479,856)	(51)%
Non-operating expenses, net	(1,154,267)	(3)%	(339,647)	(1)%
Income tax expense	9,456	0.02%	561,218	1%
Noncontrolling interest	(5,798,050)	(15)%	(737)	(0)%
Net Loss to SmartHeat Inc.	$ (44,283,015)	(114)%	$ (22,379,983)	(53)%

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

	2013		2012	
	$	% of Sales	$	% of Sales
Sales (including intercompany)	$ 5,959,011		$ 5,797,898	
Cost of sales	4,457,132	75%	5,091,132	88%
Gross profit	1,501,879	25%	706,766	12%
Operating expenses	4,388,694	74%	7,142,687	123%
Loss from operations	(2,886,815)	(48)%	(6,435,921)	(111)%
Non-operating income, net	717,301	12%	624,958	11%
Income tax benefit	(60,113)	(1)%	(67,594)	(1)%
Noncontrolling interest				