

SMARTHEAT INC.
Form 10-K
June 11, 2013

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2012

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
(State or other jurisdiction of
incorporation or organization)

98 -0514768
(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

Edgar Filing: SMARTHEAT INC. - Form 10-K

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

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

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934, 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 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

Table of Contents

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 Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes No

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, 2012, was \$4.04/per share. Accordingly, effective as of June 30, 2012, 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 June 7, 2013, there were 5,733,399 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

None.

Table of Contents

SMARTHEAT INC.

Table of Contents

	Page
PART I	
Item 1.	1
Item 1A.	13
Item 1B.	29
Item 2.	29
Item 3.	29
Item 4.	30
PART II	
Item 5.	31
Item 6.	31
Item 7.	32
Item 7A.	42
Item 8.	42
Item 9.	42
Item 9A.	42
Item 9B.	44
PART III	
Item 10.	45
Item 11.	48
Item 12.	50
Item 13.	52
Item 14.	53
PART IV	
Item 15.	54
	F-1
	55

Table of Contents

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.

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.

Table of Contents

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.

Table of Contents

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%.

Our corporate structure as of the date of this report is set forth in the following diagram. Taiyu, SanDeKe, SmartHeat Siping and SmartHeat Investment are our WFOEs authorized by their respective business licenses to operate our businesses in China. SmartHeat Germany wholly owned by SmartHeat Pump (Shenyang). We own 52% and 51%, 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.

Table of Contents

- (1) Taiyu holds 95% of the equity interest in SmartHeat Pump, with the remaining 5% 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 51% 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.

Table of Contents

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 subsidiaries' products. These conditions continued into 2012. Accordingly, the continued deflationary policy of the PRC government affected the number of new 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 2013, 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 Sipta, 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, 2012, 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, 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 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 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.

Table of Contents

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, Dharanendra 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.

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.

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.

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 47% and 48% of our sales in 2012 and 2011, respectively.

Table of Contents

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 39% and 36% of our sales in 2012 and 2011, 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 7% and 10% of our sales in 2012 and 2011, respectively.

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

Heat Pump

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 8% and 4% of our sales in 2012 and 2011, respectively.

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.

Table of Contents

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 led to new infrastructure development and existing infrastructure improvements that require ongoing investment in heating solutions.

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 2011 were \$1.53 million and \$1.80 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.

Table of Contents

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 10% of sales in 2012 or 2011. 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 manager 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, used to be the sales director of Haier China, a large manufacturer of air conditioners.

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.

Table of Contents

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. Our subsidiaries anticipate expanding sales of our heat pumps manufactured in China under EU design standards to the European market.

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 650 PHEs, 240 PHE Units, 9,000 heat meters and 350 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 30% of our raw material purchases in 2012 and 2011. 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 6% of our total annual raw material purchases in 2012 and 2011.

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 no individual customer accounting for greater than 10% of our sales in 2012 or 2011.

Table of Contents

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 17 registered patents in China related to our products, of which 5 expire in 2014, 1 in 2016, 2 in 2017 and 9 in 2021. 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 2012 and 2011 were \$1.53 million and \$1.80 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.

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.

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.

Table of Contents

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.

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.

Table of Contents

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, 2012, our subsidiaries had 690 full time employees and 65 seasonal employees in China and Germany. 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.

Table of Contents

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 officers 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. 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. 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.

Table of Contents

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 2012, we had accounts receivable turnover of 1.21, with days sales outstanding of 303 and inventory turnover of 0.58. In 2011, we had accounts receivable turnover of 1.38, with days sales outstanding of 264 and inventory turnover of 1.11. The low accounts receivable turnover and high days outstanding in 2012 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 2012 was due to increased raw materials inventory on hand for the

readiness of the high production season during the second half of 2012 and increased finished goods inventory resulting from orders that have been delayed or canceled. 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.

Table of Contents

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.

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. Our subsidiaries intend to base the selling prices of their products upon the associated raw materials, which normally account for approximately 80% of their cost of 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.

Table of Contents

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, 2012, 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.

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' relationship with Sondex has substantially contributed to our business and its growth, and if this relationship were to terminate, our business and operations could be adversely impacted.

Our subsidiaries are an authorized dealer of Sondex PHE plates in China. Sondex is one of the world's leading PHE and PHE plate manufacturers. Our subsidiaries sell PHEs in China under their brands or on demand under the Sondex brand, while their PHE Units are sold only under their own brands. We believe our subsidiaries' ability to provide Sondex-branded PHEs has contributed to their reputation for high quality products. Prior to our acquisition of Siping Beifang in 2009, our subsidiaries sourced all of their PHE plates, important raw elements used in both PHEs and PHE Units, from Sondex. However, our acquisition of Siping Beifang, along with our subsidiaries internal research and development efforts, enable our subsidiaries to produce their own plates for their heat exchangers, which has reduced their reliance on Sondex-supplied plates. We cannot assure you that our subsidiaries' products will be as well received in the marketplace as products sold under the Sondex brand, or that they will be able to produce sufficient quantities to meet demand. If our subsidiaries' relationship with Sondex were to terminate, our subsidiaries would be required to manufacture plates themselves and procure plates from other third party sources. Currently, our subsidiaries cannot guarantee their ability to manufacture sufficient plates or that they will be able to secure a supply of plates from third party sources on acceptable terms and in a timely fashion. Accordingly, termination of our subsidiaries' Sondex relationship may present risks to our business, revenues and operations until our subsidiaries secure alternate and comparable sources of supply.

Table of Contents

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.

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.

Table of Contents

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.

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.

Table of Contents

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:

- 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.

Table of Contents

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, 2012, 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, 2012 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.

Table of Contents

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. We implemented an internal audit department and retained an outside internal control consultant for risk assessment, documentation of process-level and entity-level controls, internal control testing and evaluation of deficiencies. 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.

Table of Contents

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.

Table of Contents

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.

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.

Table of Contents

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.

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.

Table of Contents

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.

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.

Table of Contents

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.

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 will increase to 25% in 2013. We plan to apply for renewal of these preferential tax benefits for Taiyu after 2013. 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.

Table of Contents

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.

Table of Contents

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.

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 June 7, 2013, there were 69,266,601 authorized and unissued shares of our common stock available for future issuance, based on 5,733,399 shares of our common stock outstanding and our reservation of 6,000 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.

Table of Contents

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.

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.

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.

Table of Contents

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 officers 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. 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.

Table of Contents

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, 2012 and 2011.

	2012		2011	
	High	Low	High	Low
First Quarter (through March 31)	\$5.50	\$3.20	\$5.49	\$2.75
Second Quarter (through June 30)	7.68	4.00	3.66	1.08
Third Quarter (through September 30)	4.00	4.00	1.99	.65
Fourth Quarter (through December 31)	1.30	.25	.75	.29

Holders of Record

On June 7, 2013, there were approximately 46 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.

31

Table of Contents

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”) 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.

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 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 had 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.

Table of Contents

As an expansion of our business following our acquisition of Taiyu, we acquired and established 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 JV 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 Energy (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. 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. 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 on January 7, 2011. On March 1, 2011, we entered into a purchase agreement to acquire 95% of the equity 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. In late 2011, we increase our ownership percentage of SmartHeat Pump 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. In April 2012, we invested RMB 4,600,000 (\$0.72 million) to establish a new JV named Urumchi XinRui Technology Limited Liability Company (“XinRui”). We own 46% of XinRui. Xinrui primarily conducts research and development, but also produces and sells heat meters and automatic controls or heat supply networks.

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 during the year ended December 31, 2012, according to the National Bureau of Statistics of China. 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 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 2012. 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 and 2012. 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 and into 2012, a portion of the canceled PHE and PHE Unit orders were reinstated in 2012, and we expect that additional orders and contracts that were canceled or partially delayed will be performed in early 2013, 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 clean technology heat transfer products.

Table of Contents

Our revenues also may fluctuate significantly due to material costs, which normally account for approximately 80% 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 2011 and 2012 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 will be consumed throughout 2013 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 approximately 80% 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.

The economic conditions our subsidiaries faced in 2011 and 2012, 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 further detailed in Note 17 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 elected to repay \$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.

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.

Principle 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, Ruicheng, 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.

Table of Contents

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 \$28.20 million and \$10.58 million at December 31, 2012 and 2011, respectively.

Impairment of Long-Lived Assets

We assess the impairment of long-lived assets, which include tangible assets, such as property, plant and equipment, goodwill and other intangible assets, whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. If such circumstances are determined to exist, an estimate of undiscounted future cash flows expected to be generated by the long-lived assets, or the appropriate grouping of assets, is compared to the carrying value to determine whether an impairment exists. If an asset is determined to be impaired, the loss is measured based on fair value ("FV"), generally determined using the asset's expected future discounted cash flows or market value, if readily determinable. The following are indicators management considers in determining whether it is necessary to test assets for impairment in accordance with ASC 360-10-35-21:

- Significant decrease in the market price of a long-lived asset or asset group;
- Significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition;
- Significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset or asset group, including an adverse action or assessment by a regulator;
- Accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset or asset group;
- Current-period operating or cash flow loss combined with a history of operating or cash flow losses, or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset or asset group; and
- Current expectation that, more likely than not, a long-lived asset or asset group will be sold or otherwise disposed of significantly before the end of its previously estimated useful life.

We evaluate goodwill and intangible assets with indefinite lives for impairment annually using a two-step approach. Based on this valuation approach, we concluded the goodwill balance of \$2.08 million for SmartHeat Germany was impaired as of December 31, 2012, and \$6.06 million for SmartHeat Pump and \$2.90 million for SmartHeat Germany were impaired as of December 31, 2011. Based on our review, we believe that, as of December 31, 2012, there were no significant impairments of our other long-lived assets.

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 heat pumps 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 adjusted their contract and payment terms 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 product 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.

Table of Contents

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 2011 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.

Recent Accounting Pronouncements

On July 27, 2012, the FASB issued ASU 2012-02, Intangibles-Goodwill and Other (Topic 350) - Testing Indefinite-Lived Intangible Assets for Impairment. The ASU provides entities with an option to first assess qualitative factors to determine whether events or circumstances indicate it is more likely than not the indefinite-lived intangible asset is impaired. If an entity concludes it is more than 50% likely that an indefinite-lived intangible asset is not impaired, no further analysis is required. However, if an entity concludes otherwise, it would be required to determine the fair value of the indefinite-lived intangible asset to measure the amount of actual impairment, if any, as currently required under US GAAP. The ASU is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. Early adoption is permitted. The adoption of this pronouncement did not have a material impact on our financial statements.

Results of Operations

Years ended December 31, 2012, Compared to the Years ended December 31, 2011

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

	2012		2011	
	\$	% of Sales	\$	% of Sales
Sales	\$ 47,850,292		\$ 65,221,104	
Cost of sales	32,481,271	68%	44,559,093	68%
Gross profit	15,369,021	32%	20,662,011	32%
Operating expenses	45,358,344	95%	43,638,150	67%
Loss from operations	(29,989,323)	(63)%	(22,976,139)	(35)%
Non-operating income (expenses), net	1,236,968	3%	(1,265,921)	(2)%
Income tax expense	493,624	1%	186,373	-%
Noncontrolling interest	(28,897)	(0)%	(468,247)	(1)%

Net Loss to SmartHeat Inc.	\$ (29,217,082)	(61)%	\$ (23,960,186)	(37)%
----------------------------	-----------------	-------	-----------------	-------

Sales. Net sales in the year ended December 31, 2012, were \$47.85 million, consisting of \$22.29 million for PHEs, \$18.55 million for PHE Units, \$3.28 million for heat meters and \$3.73 million for heat pumps, while net sales in the year ended December 31, 2011, were \$65.22 million, consisting of \$32.59 million for PHEs, \$23.42 million for PHE Units, \$6.54 million for heat meters and \$2.67 million for heat pumps, an overall decrease of \$17.37 million or 27%. The 27% decrease in total revenue was due primarily to the decrease in sales volume in the year ended December 31, 2012, compared to 2011. Sales volume of PHEs, PHE Units, heat meters and heat pumps decreased 24.3%, 11.8%, 45.3% and 34.4%, respectively, in 2012 compared to 2011. The decrease in sales volume in 2012 compared to 2011 resulted from the continued effects of a tightened fiscal policy in China, which has contributed to a slowdown in many sectors of China's economy, restricted bank lending practices and negatively impacted certain projects of our customers. The PRC government remains committed to the construction of affordable housing projects and emission-reduction and energy-saving policies, however, which we believe will continue to drive demand for our clean technology heat transfer products. A smaller than expected portion of the PHE and PHE Unit orders canceled or delayed in 2011 were reinstated in 2012, although we anticipate that additional orders and contracts that were canceled or partially delayed will be performed in 2013, reducing the impact of our decreased sales over the long term.

Table of Contents

We have a review process for approving each sales contract, especially with respect to sales price. Sales price is determined under each contract in proportion to our estimated cost in order to ensure our gross profit. Our sales price varies according to each sale depending primarily on each customer's specific requirements and our negotiation of the contract amount and term. We believe our marketing policy remains successful and have maintained a review process comparable to previous years, but adjusted our pricing policy in 2011 to obtain more contracts. The approximately 10% decrease in average selling price for PHE Units during 2012, combined with fewer units sold, resulted in reduced revenue from 2011.

Cost of Sales. Cost of sales ("COS") was \$32.48 million in the year ended December 31, 2012, compared to \$44.56 million in 2011, a decrease of \$12.08 million or 27%. The decrease in our COS is attributable to the decrease in sales. COS mainly consisted of the cost of materials, factory overhead and labor. Materials cost was 65% of total cost, while factory overhead cost was 31% and labor was 4% during 2012. In response to current activity levels and to improve overall profitability, we implemented new systems and controls over our purchasing process and raw materials pricing. Our materials cost as a percentage of total costs decreased to 65% from the typical 82%. However, with the decrease in production volume in 2012, the proportion of factory overhead and manufacturing expense as a percentage of total cost increased significantly, which resulted in COS as a percentage of sales being 68% in both 2012 and 2011.

We performed an inventory impairment assessment as of December 31, 2012, for the write-down of raw materials and finished goods in inventory. We stock inventory, consisting of raw materials and finished goods, according to projected sales and customer orders, with steel, plates and components for our products generally ordered two to three months in advance of anticipated production needs. As part of our impairment analysis, we performed an evaluation of raw materials stored over one year and not anticipated to be consumed, and an evaluation of potential impairment to the quality of these raw materials. If management anticipates that obsolete raw materials in inventory can be utilized and will be consumed within the next six months through new customer orders or substitute orders, no impairment is recorded. We collected information about delayed and canceled contracts and met with affected customers to discuss their financing situation and their projections of future orders. Finished goods manufactured for delayed and canceled contracts that we do not expect to be reinstated and contracts for which we have been unable to find substitute customers become impaired. We performed an evaluation of these finished goods stored over one year and recorded an impairment accordingly. A portion of the canceled orders from 2011 for PHEs and PHE Units were reinstated, and we believe that additional orders and contracts that were canceled or partially delayed to be performed in late 2012 and beginning of 2013 will result in our gradual consumption our increased levels of finished goods in inventory otherwise requiring impairment as we fulfill these delayed and reinstated contracts along with new orders. We also analyzed whether to take a reserve for conversion costs of finished goods in inventory for resale to substitute customers. Following the completion of our impairment analysis, we recorded provision of inventory impairment of \$1.59 million and \$3.73 million for 2012 and 2011 respectively.

Gross Profit. Gross profit was \$15.37 million in 2012, compared to \$20.66 million in 2011. Profit margins remained consistent at 32% for both 2012 and 2011. The consistent gross profit margin was primarily due to our decreased sales and production volume, which absorb our overhead costs, offset by our lower material cost as a percentage of total cost in 2012.

Operating Expenses. Operating expenses consisting of selling, general and administrative expenses totaled \$45.36 million in 2012, compared to \$43.64 million in year 2011, an increase of \$1.72 million or 4%. Operating expenses as a percentage of sales were 95% in 2012, compared to 67% in 2011. The increase in operating expenses mainly resulted from: bad debt allowance for accounts and other receivables and advances to suppliers of \$21.00 million for 2012, compared with \$7.64 million for 2011; and goodwill impairment of \$2.08 million for 2012, compared with \$8.96 million for 2011.

We recorded a bad debt allowance of \$21.00 million for accounts and other receivables and advances to suppliers for 2012, compared with \$7.64 million for the 2011. The increased bad debt allowance was primarily attributable to payment delays caused by the working capital difficulties of many of our state-owned customers. Due to the deflationary fiscal policy of the PRC government in 2011 that continued into 2012, some of our state-owned customers encountered difficulties in obtaining grants from the government and loans from state-owned banks, both of which typically are used to finance the purchase of our products, which resulted in unexpected delays in the payment of our accounts receivable in a timely manner. Generally, we reserve for 50% of accounts receivable with aging over 180 days and 100% of accounts receivable with aging over 360 days as bad debt allowance. We do not expect a significant risk with respect to the overdue accounts receivable for which we took the bad debt allowance and continue to work to collect all amounts due. We believe the stringent fiscal policy impacting our customers in China will be temporary and the expansion and training of our marketing team and other employees will increase sales and improve the efficiency of our operations.

Table of Contents

We performed annual goodwill impairment assessment for SmartHeat Germany and SmartHeat Pump as of December 31, 2012 and 2011. We completed the step one analysis using discounted cash flow. The discounted cash flow method uses revenue and expense projections and risk-adjusted discount rates. The process of determining FV is subjective and requires management to exercise a significant amount of judgment in determining future growth rates, discount and tax rates and other factors. The current economic environment has impacted our ability to forecast future demand and has in turn resulted in the use of higher discount rates, reflecting the risk and uncertainty in current markets. The results of the step one analysis indicated potential impairment in the SmartHeat Germany and SmartHeat Pump reporting units, corroborated by the deteriorating macro environment, which resulted in a decline in expected future demand. We therefore performed the second step of the goodwill impairment assessment to quantify the amount of impairment. This process involved calculating the implied FV of goodwill, determined in a manner similar to a purchase price allocation, and comparing the residual amount to the carrying amount of goodwill. Our analysis incorporated the significant end market deterioration and economic uncertainties impacting expected future demand, including the continued tightened fiscal policy in China and difficulties in obtaining bank leasing loans that have contributed to a general slowdown in many sectors of China's economy and caused the abandonment of certain projects by our customers, which in turn resulted in an unexpected cancelation of orders and delays in the performance of PHE and PHE Unit contracts. We concluded that the goodwill balance of \$2.08 million for SmartHeat Germany was impaired as of December 31, 2012; and \$6.06 million for SmartHeat Pump and \$2.90 million for SmartHeat Germany were impaired as of December 31, 2011. The goodwill impairment charge is non-cash in nature and not deductible for income tax purposes. Although we wrote off goodwill in 2012 and 2011 based on the current economic environments in China and Europe and our near-term assessment of the cash flows of these acquisitions, we anticipate growth in the heat pump markets in the future and are continuing their operations, viewing these acquisitions as providing value and increased sales over the long term.

Non-operating income (expenses), net. Our net non-operating income for 2012 was \$1.24 million compared to net non-operating expense of \$1.27 million for 2011, an increase of \$2.50 million or 198%. The increase was due mainly to 1) the increase of net other income by \$2.67 million, with net other income for 2012 mainly consisting of \$0.64 million after-sales service revenue and technology service revenue, \$0.26 government enterprise tax refund for welfare, \$0.58 million from the sale of raw materials, and \$0.81 million gain from stock issuance to repay debt; 2) increased investment income of \$142,400; and 3) foreign exchange transaction gain of \$5,400 in 2012 compared with foreign exchange transaction loss of \$407,800 in 2011. These increases were partially offset by decreased interest income by \$79,000 and increased interest expense by \$623,700 for 2012 resulting from an increase in loans from \$10.63 million at December 31, 2011 to \$26.15 million at December 31, 2012.

Income tax expense (benefit). We had income tax expense of \$0.49 million for 2012, compared to \$0.19 million for the year 2011. The effective income tax rate to taxable loss for 2012 was 1.68% compared to 0.77% for the year 2011, with the difference mainly due to increased valuation allowance for deferred tax asset for bad debt allowance and inventory allowance resulting from our continued losses in 2012.

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 appropriated tax adjustments. Taiyu has been classified as a high-tech enterprise since 2009 and is eligible for an income tax rate of 15% through 2013. The local PRC government reviews the high-tech status of such enterprises annually. The income tax rate for SanDeKe is 13% and 12% for 2012 and 2011, respectively, because of its foreign-invested enterprise status.

SmartHeat Siping, Jinhui, SmartHeat Investment, SmartHeat Energy, SmartHeat Pump, Ruicheng and SmartHeat Trading are subject to the regular 25% PRC income tax rate. SmartHeat Germany is subject to a 15% corporate income tax in Germany.

Net Loss. Our net loss for 2012 was \$29.22 million compared to net loss of \$23.96 million for the year 2011, an increase of \$5.26 million or 22%. Net loss as a percentage of sales was 61% in 2012, and net loss as a percentage of sales was 37% in 2011. This increase in net loss was attributable to decreased net sales, and increased operating expenses as a percentage of sales, including increased provision for bad debts and inventory reserves.

Liquidity and Capital Resources

As of December 31, 2012, we had cash and equivalents of \$18.34 million. Working capital was \$79.43 million at December 31, 2012. The ratio of current assets to current liabilities was 2.70:1 at December 31, 2012.

Presently, the Company's U.S. parent company is experiencing difficulty up streaming cash. As a consequence, the Company obtained a revolving line of credit providing for borrowings of up to \$2.5 million, to address the cash needs of the Company's U.S. parent. As of December 31, 2012, the Company issued 1,300,000 Restricted Shares of Common Stock in cancellation of \$1,301,300 of indebtedness under the Credit Facility. The remaining balance under the Credit Agreement as of December 31, 2012 was \$83,537. We recorded \$768,300 gain on settlement of the debt for the difference between the stock price at settlement date and \$0.41 per share.

Table of Contents

The following is a summary of cash provided by or used in each of the indicated types of activities during the years ended December 31, 2012 and 2011:

	2012	2011
Cash provided by (used in):		
Operating activities	\$ (4,158,951)	\$ (32,264,320)
Investing activities	\$ (2,030,407)	\$ (17,491,608)
Financing activities	\$ 12,152,936	\$ 4,013,342

Net cash flow used in operating activities was \$4.16 million in the year ended December 31, 2012, compared to net cash flow used in operating activities of \$32.26 million in the year ended December 31, 2011. The decrease in net cash outflow in operating activities was due mainly to a cash inflow of \$12.15 million in advance to suppliers in the year ended December 31, 2012, whereas we had cash outflow of \$9.21 million in advance to suppliers in the comparable year 2011. In addition, we had less cash outflow of \$2.61 million for accounts receivable in year 2012 comparing with \$4.05 million cash outflow in 2011, and less cash outflow of \$6.07 million for inventory in year 2012, compared with a \$26.97 million cash outflow in inventory in year 2011.

Net cash flow used in investing activities was \$2.03 million in the year ended December 31, 2012, compared to net cash used in investing activities of \$17.49 million in the year 2011. In 2012, we had \$1.86 million cash inflow from changes in restricted cash, offset with \$0.72 million investment into a new subsidiary, \$0.83 million for purchase of fixed assets, \$1.39 million for construction in progress and advance for construction and \$0.8 million from increase in notes receivable; while in the comparable year 2011, we had \$0.31 million cash outflow from changes in restricted cash, acquisition of SmartHeat Pump and SmartHeat Germany for \$13.52 million, purchase of property and equipment of \$2.61 million, \$1.00 million for construction in progress and advance for construction, and \$0.38 million from increase in notes receivable, despite we had \$0.43 million cash acquired from acquisition of subsidiaries.

Net cash flow provided by financing activities was \$12.15 million in the year ended December 31, 2012, compared to net cash provided by financing activities of \$4.01 million in year 2011. The cash inflow in 2012 consisted primarily of proceeds from a short-term loan of \$23.7 million, partially offset by repayment on short-term loans of \$9.03 million and repayment of notes payable of \$2.54 million. In the year ended December 31, 2011, we had \$8.83 million in proceeds from short-term loans and \$2.01 million from a long-term bank loan, but offset with \$8.52 million repayment of bank short term loans; in addition, we had \$0.76 million from cash contribution from non-controlling interest, and \$0.93 million cash inflow from increase in notes payable.

Our agreements with our 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, or up to 2 heating seasons. Our receipts from sales of our products depend on the complexity of the equipment ordered, which impacts manufacturing, delivery, installation, testing times and warranty periods. For example, PHEs are less complex than PHE Units and therefore have a shorter manufacturing, acceptance, warranty and payment schedule. We experience payment delays from time to time, which historically have been from 1 to 3 months from the due date, but given the temporary financial difficulties in 2011 and 2012 of some of our state-owned customers resulting from tightened fiscal policies in China, we have experienced longer payment delays from these customers. Our accounts receivable and inventory turnover are relatively low and days sales outstanding ratio relatively high. Consequently, collection on our sales is slow and capital is tied up in inventories, which may result in pressure on cash flows. The low accounts receivable turnover and high days outstanding in the year ended December 31, 2012 was due primarily to the temporary financial difficulties of some of our state-owned customers that resulted in delays in payment. The low inventory turnover rate in the year ended December 31, 2012, was due to decreased

sales volume from our state-owned customers in China having temporary financial difficulties, which resulted in an unexpected cancelation of orders and delays in the performance of PHE and PHE Unit contracts.

As of December 31, 2012, we had gross accounts receivable of \$64,701,359, of which \$15,302,538 was with aging within 30 days, \$7,739,413 was with aging between 31 and 90 days, \$5,149,280 was with aging between 91 and 180 days, \$8,213,019 was with aging between 181 and 360 days, and \$28,297,110 was with aging over 360 days. At December 31, 2012, net accounts receivable was \$32,250,817, or gross accounts receivable of \$64,701,359 less bad debt allowance of \$28,203,903, unearned interest of \$12,532 and total retention receivables of \$4,234,107.

Our accounts receivable typically remain outstanding for a significant period of time based on the standard payment terms with our customers described above. The increase in amount of accounts receivable outstanding for more than 180 days in 2012 was due mainly to payment delays from certain state-owned customers that experienced working capital difficulties in 2011 because of the current deflationary fiscal policy of the PRC government. Bad debt allowance was reserved in accordance with the Company's accounting policy, though the Company continues to work to collect all funds due.

Table of Contents

We recognize the final 5-10% of the purchase price as retention receivable, which is due no later than the termination of our warranty period. The deferral of the final payment is a common practice in the heating manufacturing business in China. Sometimes our customers are required to deposit 5-10% of the sales price on high value products, like an assembled heat exchanger unit or the main part of a PHE, into designated bank accounts as restricted cash for securing the payment after such period expires. Based on our historical experience, there have been no defaults on such deferrals. Therefore, we believe the potential risks and uncertainty associated with defaults on such receivables are not material. As of December 31, 2012, the Company collected 62% of the accounts receivable that were outstanding as of December 31, 2011.

Dividend Distribution

We are a U.S. holding company that conducts substantially all of our business through our wholly owned and other consolidated operating entities in China and Germany. We rely in part on dividends paid by our subsidiaries in China 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. The payment of dividends by entities organized in China is subject to limitations. In particular, 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 their after-tax profit based on PRC accounting standards each year to a statutory surplus reserve fund until the accumulative amount of such reserve reaches 50% of registered capital. These reserves are not distributable as cash dividends. In addition, our PRC subsidiaries, at their discretion, may allocate a portion of their after-tax profit to their staff welfare and bonus fund, which may not be distributed to equity owners except in the event of liquidation. Moreover, if any of our subsidiaries incur debt on its own behalf in the future, the instruments governing the debt may restrict such subsidiary's ability to pay dividends or make other distributions to us. Any limitation on the ability of one of our subsidiaries to distribute dividends and other distributions to us could materially and adversely limit our ability to make investments or acquisitions that could be beneficial to our businesses, pay dividends or otherwise fund and conduct our business.

Off-Balance Sheet Arrangements

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

Table of Contents

Contractual Obligations

The Company was obligated for the following short-term loans as of December 31, 2012 and 2011:

	2012	2011
From a commercial bank in the PRC for RMB 25,000,000 entered into on October 18, 2010. The loan bore interest at 7.22% with maturity on October 17, 2011, and was renewed until September 13, 2012. The loan was pledged by bank deposit.	\$ -	\$ 3,967,687
From a commercial bank in the PRC for RMB 10,000,000 entered into on June 27, 2011. The loan bore interest at 7.57% with maturity on June 27, 2012. The loan was pledged by bank deposit. The loan was repaid in second quarter of 2012.	-	1,587,075
From a commercial bank in the PRC for RMB 3,000,000 entered into on June 30, 2011. The loan bore interest at 6.63% with maturity on June 29, 2012. The loan was guaranteed by a third party. The loan was repaid in second quarter of 2012.	-	476,122
From a commercial bank in the PRC for RMB 5,000,000 entered into on July 6, 2011. The loan bore interest at 6.63% with maturity on July 5, 2012. The loan was guaranteed by a third party. The loan was repaid in July 2012.	-	793,537
From a commercial bank in the PRC for RMB 3,000,000 entered into on July 15, 2011. The loan bore interest at 6.89% with maturity on July 14, 2012. The loan was guaranteed by a third party. The loan was repaid in July 2012.	-	476,122
From a commercial bank in the PRC for RMB 1,600,000 entered into on August 1, 2011. The loan bore interest at 6.89% with maturity on July 31, 2012. The loan was guaranteed by a third party. The loan was repaid in July 2012.	-	253,932
From a commercial bank in the PRC for RMB 3,300,000 entered into August 16, 2011. The loan bore interest at 6.89% with maturity on August 15, 2012. The loan was guaranteed by a third party. The loan was repaid in August 2012.	-	523,737
From a commercial bank in the PRC for RMB 1,100,000 entered into on August 23, 2011. The loan bore interest at 6.89% with maturity on August 22, 2012. The loan was guaranteed by a third party.	-	174,578
From a commercial bank in the PRC for RMB 5,000,000 entered into on September 21, 2011. The loan bore interest at 7.22% with maturity on September 20, 2012. The loan was pledged by bank deposit.	-	793,537
From a commercial bank in the PRC for RMB 10,000,000 entered into on November 8, 2011. The loan bore interest at 7.872% with maturity on November 2, 2012. The loan was repaid at maturity.	-	1,587,075
From a commercial bank in the PRC for RMB 50,000,000 entered into on February 17, 2012. The loan bore interest at 7.872% with maturity on January 16, 2013. The loan was repaid at maturity.	7,954,817	-
From a commercial bank in the PRC for RMB 10,000,000 entered into on July 12, 2012. The loan currently bears interest at 7.87% with maturity on July 11, 2013.	1,590,963	-
From a commercial bank in the PRC for RMB 10,000,000 entered into on August 23, 2012. The loan currently bears interest at 6.30% with maturity on August 22, 2013. The loan was guaranteed by a third party.	1,590,963	-
From a commercial bank in the PRC for RMB 9,000,000 entered into on September 7, 2012. The loan currently bears interest at 6.3% with maturity on September 6, 2013. The loan was guaranteed by a third party.	1,431,867	-
From a commercial bank in the PRC for RMB 8,000,000 entered into on September 13, 2012. The loan currently bears interest at 6.3% with maturity on September 12, 2013. The loan was guaranteed by a third party.	1,272,771	-

Edgar Filing: SMARTHEAT INC. - Form 10-K

From a commercial bank in the PRC for RMB 30,000,000 entered into on August 21, 2012. The loan currently bears interest at 6.6% with maturity on August 20, 2013. No guarantee was required for this loan.	4,772,890	-
From a commercial bank in the PRC for RMB 9,600,000 entered into on September 13, 2012. The loan currently bears interest at 6.6% with maturity on March 3, 2013. This loan was guaranteed by accounts receivable. The loan was repaid at maturity.	1,527,325	-
From a commercial bank in the PRC for RMB 14,800,000 entered into on October 24, 2012. The loan currently bears interest at 6.6% with maturity on May 21, 2013. This loan was repaid at maturity	2,354,626	
From a commercial bank in the PRC for RMB 10,000,000 entered into on, November 30, 2012. The loan currently bears interest at 7.57% with maturity on November 29, 2013.	1,590,963	
From a commercial bank in the PRC for RMB 13,000,000 entered into on December 12, 2011. The loan currently bears interest at 6.65% with maturity on October 26, 2013. This loan was pledged with Taiyu's building and land.	2,068,252	
	\$ 26,155,437	\$ 10,633,402

Table of Contents

Of the loans listed above that are guaranteed by a third party, the guarantees were provided by Liaoning Wugang Metal Trading Co., Ltd. (“Liaoning Wugang”), with a maximum guarantee amount of RMB 46 million (\$7.32 million). The guarantee is for loans entered, or that will be entered into, from February 20, 2012 to August 16, 2013 with the guarantee length equal to the loan term. The Company was not required to pay any guarantee fees. However, the Company has contracted to provide similar guarantees for up to RMB 20 million (\$3.18 million) to Lianoning Guorui Commercial Trading Co., Ltd. (“Guorui”). The guarantee is for loans entered into from January 12, 2012 to January 11, 2013, with the guarantee length equal to the loan term. The Company does not require Guorui to pay any guarantee fees. These arrangements are common to the banking industry in China, and there are no other relationships between the Company and Liaoning Wugang or Guorui, both of whom were referred to the Company by the lending bank.

Contingencies

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 officers 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. 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 7A. Quantitative and Qualitative Disclosures about Market Risk

Not required.

Item 8. Financial Statements and Supplementary Data

Our financial statements, together with the report thereon, appear in a separate section of this Annual Report beginning on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our President and Acting Chief Accountant, our principal executive officer and acting principal financial officer, respectively, evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of the end of the period covered by this report. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is

recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our President and Acting Chief Accountant, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our President and Acting Chief Accountant concluded that, as of December 31, 2012, our disclosure controls and procedures were not effective as of such date because of a material weakness identified in our internal control over financial reporting related to our internal level of U.S. GAAP expertise. We lack sufficient personnel with the appropriate level of knowledge, experience and training in U.S. GAAP for the preparation of financial statements in accordance with U.S. GAAP. None of our internal accounting staff, including our Acting Chief Accountant, that are primarily responsible for the preparation of our books and records and financial statements in compliance with U.S. GAAP holds a license such as Certified Public Accountant in the U.S., nor have any attended U.S. institutions or extended educational programs that would provide enough of the relevant education relating to U.S. GAAP.

Table of Contents

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) of the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Therefore, internal control over financial reporting determined to be effective provides only reasonable assurance regarding the reliability of financial reporting and the preparations of financial statements for external purposes in accordance with generally accepted accounting principles.

Our management carried out an evaluation of the effectiveness of our internal control over financial reporting based on the framework in "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon this evaluation, our management concluded that our internal control over financial reporting was not effective as of December 31, 2012, because of a material weakness related to our internal level of U.S. GAAP expertise. We lack sufficient personnel with the appropriate level of knowledge, experience and training in U.S. GAAP for the preparation of financial statements in accordance with U.S. GAAP. None of our internal accounting staff, including our Chief Financial Officer, that are primarily responsible for the preparation of our books and records and financial statements in compliance with U.S. GAAP holds a license such as Certified Public Accountant in the U.S., nor have any attended U.S. institutions or extended educational programs that would provide enough of the relevant education relating to U.S. GAAP.

In order to mitigate the foregoing material weakness, we engaged an outside accounting consultant to assist us in the preparation of our financial statements to ensure that these financial statements are prepared in conformity to U.S. GAAP. Our outside accounting consultant is a Certified Public Accountant in the U.S. and has significant experience in the preparation of financial statements in conformity with U.S. GAAP. Our Chief Financial Officer and internal accounting personnel consult with our outside accounting consultant on an ongoing basis with regards to our treatment and conversion of financials from PRC GAAP to U.S. GAAP. We believe that the engagement of this outside accounting consultant lessens the possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis, and we will continue to monitor the effectiveness of this action and make any changes that our management deems appropriate. We expect to continue to rely on this outside consulting arrangement to supplement our current internal accounting staff for the foreseeable future.

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. We expect that this plan will include but not be limited to (a) appointing a principal accounting officer with extensive U.S. GAAP training and experience, (b) hiring accounting personnel with appropriate knowledge and experience in U.S.

GAAP and (c) providing more training on U.S. GAAP to accounting and other relevant personnel responsible for the preparation of books, records and financial statements. In the interim, our Acting Chief Accountant has attended U.S. GAAP training courses conducted by our outside Sarbanes-Oxley consultant and intends to continue attending training courses in U.S. GAAP. Until such time as we hire qualified accounting staff and 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.

We believe that the foregoing steps will remediate the material weakness identified above, and we will continue to monitor the effectiveness of these steps and make any changes that our management deems appropriate.

Table of Contents

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the quarter ended December 31, 2012, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

44

Table of Contents

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following table sets forth the names of our directors, executive officers and their ages, positions and biographical information as of the date of this report. Our executive officers are appointed by, and serve at the discretion of, our Board of Directors. Our directors hold office for one-year terms or until their successors have been elected and qualified. There are no family relationships between any of our directors, executive officers or other key personnel and any other of our directors, executive officers or key personnel. There are no arrangements or understandings between any of our directors or executive officers and any other persons pursuant to which such director or executive officer was selected in that capacity.

Name	Age	Position
Oliver Bialowons	44	President and Director
Yingkai Wang	40	Acting Chief Accountant
Huajun Ai	41	Corporate Secretary
Kenneth Scripta	71	Director
Weiguo Wang	47	Director
Xin Li	39	Director
Qingtai Kong	66	Director

Oliver Bialowons, President and Director

Oliver Bialowons was appointed as a Director and as President of the Company on May 25, 2012, to fill the roles formerly held by Jun Wang. Mr. Bialowons brings more than 20 years of experience as a turnaround executive to the Board of Directors and management of the Company. In 2009, Mr. Bialowons recently served as Chairman of Bowe Bell Howell Inc., a financially stressed U.S. based manufacturer of industrial logistics equipment with worldwide operations and distribution. Mr. Bialowons directed the restructuring of Boewe Bell Howell's business and eventual sale of the Bell Howell business to Bell and Howell, LLC, a portfolio company of Versa Capital Management, LLC. Mr. Bialowons continued to serve as Chairman of Bowe Bell Howell in the United States until March of 2012. Since March of 2012, Mr. Bialowons has also served as the Chief Executive Officer of IHR Platz in Germany. From 2008 to 2010, Mr. Bialowons was Chief Executive Officer of Boewe Systec AG and Wanderer Werke AG, and from 2007-2008 he was Chief Operating Officer of neckermann.de GmbH. Prior to 2007, Mr. Bialowons held various management positions at Mitsubishi Motors Corp. and DaimlerChrysler AG.

Yingkai Wang, Acting Chief Accountant

Yingkai Wang was appointed as our Acting Chief Accountant on June 7, 2013. Mr. Wang has served as our subsidiaries financial manager since 2007, and has been responsible for our internal financial reporting, establishing a budget and for analyzing our subsidiaries' overall financial position. Mr. Wang was previously the financial manager of Shengyang Zhong Zhijie Electric Equipment Co., Ltd. from 2004-2007, and Shenyang Materials Group from August 1996 – April 2004. Mr. Wang is acquainted with our subsidiaries' operations and was appointed to serve our Acting Chief Accountant by our Board of Directors as we continue to search for a new Chief Financial Officer.

Huajun Ai, Corporate Secretary

Ms. Ai was appointed our Corporate Secretary on April 14, 2008. Ms. Ai joined Taiyu in 2002 as its Corporate Secretary. From December 2000 to October 2002, she served as an accountant at Shenyang Dongyu International Trade Co., Ltd. From July 1994 to November 2000, Ms. Ai served as an accountant at Northeast Jin Cheng Industrial

Corp. Ms. Ai obtained her bachelor's degree in Foreign Trade Accounting from Shenyang North Eastern University in 1994.

45

Table of Contents

Kenneth Scipta, Director

Kenneth Scipta was appointed to our Board of Directors and as Chairman of our Audit Committee on July 10, 2012. Mr. Scipta, a certified public accountant, has over 35 years of relevant accounting experience, and has served on several boards of directors. From 1993 to 1996, Mr. Scipta was the president and a board member of Mid-West Springs Manufacturing Company, a NASDAQ traded company, where he was responsible for day to day operations, planning, administration and financial reporting. Upon Mr. Scipta's resignation he assumed the duties of president of the special products division, which included catalog sales, die springs and the development of international sales. Previously, from 1979-1993, Mr. Scipta served in various positions such as president, vice president of finance and vice president of sales and marketing for Mid-West's primary subsidiary. From 1998 to 2006, Mr. Scipta was the chief executive officer and a board member of First National Entertainment Company, a multi-million dollar company traded on NASDAQ.

Weiguo Wang, Director

Mr. Wang was appointed to our Board of Directors on June 19, 2008, and serves currently as the Chairman of our Compensation Committee and member of our Audit Committee and Nominating and Corporate Governance Committee. Mr. Wang brings over eight years of relevant industry oversight and extensive engineering experience to the Board. Mr. Wang has served as a Director of the China Special Equipment Inspection and Research Agency since 2006. Prior positions include serving as a supervisor of the Lanzhou Heat Transfer & Save Energy Engineering Center in 2006, Assistant Secretary General of the China Standardization Committee on Boilers and Pressure Vessels in 2005 and Deputy General Manager of Boilers Standard (Beijing) Technology Services Center Co., Ltd. in 2004. From July 2001 to December 2003, Mr. Wang was a teacher at Tianjin University, China. Mr. Wang holds a bachelor's degree in Mechanics, a master's degree in Fluid Mechanics and a PhD in Fluid Mechanics, all from Beijing University. His skills include business analysis, industry analysis, and long-range planning, especially as applied to manufacturing and standards implementation.

Xin Li, Director

Mr. Li was appointed to our Board of Directors on July 29, 2009, and serves as the Chairman of our Nominating and Corporate Governance Committee and member of our Audit Committee and Compensation Committee. Mr. Li brings more than a decade of corporate governance and industrial operations management experience to the Board. He is a renowned management consultant in China and currently serves as the general manager of Beijing ShengGao Consulting Co., Ltd., a strategic advisory firm founded by him more than 10 years ago that focuses on providing strategic guidance and management training to global companies, including the Sangoal Metal Manufacturing Company in China. He also serves as an independent director and chairs the audit and various governance committees at several large Chinese domestic companies not listed in the United States. Mr. Li is a prolific writer in strategies and management issues. He has authored several books in the areas of management science and strategic planning. Mr. Li is proficient in Mandarin Chinese and English. He has an MBA and is a Research Fellow at the Management Science Center of Beijing University.

Qingtai Kong, Director

Mr. Kong was appointed to our Board of Directors on September 22, 2011, and serves as a member of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee. Mr. Kong is a senior engineer bringing over 20 years of management experience in the gas supply and heating industry in China to the Board, and he currently serves as commissioner of China's Industrial Gas Committee. From 1995 to 2001, Mr. Kong served as Deputy Director overseeing district heating projects for the Qinhuangdao District Bureau of Municipal & Rural Construction in Hebei Province. From 1991 to 1995, Mr. Kong served as general manager of the state-owned

utility Gas Supply Corporation of Qinhuangdao in Hebei Province. Mr. Kong's career in the gas industry began in 1988 with his position as chief engineer of a gas network project in the city of Qinhuangdao.

Legal Proceedings

Oliver Bialowons, our President, was an executive officer of Bowe Bell & Howell Company, a U.S. based manufacturer of industrial logistics equipment with worldwide operations and distribution, which filed for bankruptcy in April of 2011. Bowe Bell & Howell Company acted as debtor in possession and no external receiver was appointed in the bankruptcy proceeding. The bankruptcy proceeding was subsequently dismissed in March of 2012.

Mr. Bialowons also served as chief executive officer of Wanderer-Werke AG from December 2008 to March 2010, and Boewe Systec AG from December 2008 to November 2010. Wanderer-Werke AG and Boewe Systec AG filed for insolvency in Germany in May of 2010.

Table of Contents

Other than as disclosed above during the past ten years, none of our directors or executive officers has been:

- the subject of any bankruptcy petition filed by or against any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;
- convicted in a criminal proceeding or is subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- subject to any order, judgment or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining, barring, suspending or otherwise limiting his involvement in any type of business, securities or banking activities;
- found by a court of competent jurisdiction (in a civil action), the SEC or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law, that has not been reversed, suspended, or vacated;
- subject of, or a party to, any order, judgment, decree or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of a federal or state securities or commodities law or regulation, law or regulation respecting financial institutions or insurance companies, law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization, any registered entity or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

None of our directors, officers or affiliates, or any beneficial owner of 5% or more of our common stock, or any associate of such persons, is an adverse party in any material proceeding to, or has a material interest adverse to, us or any of our subsidiaries.

Audit Committee and Audit Committee Financial Expert

We have established a separately-designated standing audit committee in accordance with Section 3(a)(58)(A) of the Exchange Act. Our Audit Committee consists of Messrs. Scripta, Wang, Li and Kong, each of whom is an independent director. Mr. Scripta, Chairman of the Audit Committee, is an “audit committee financial expert” as defined under Item 407(d) of Regulation S-K. The purpose of the Audit Committee is to represent and assist our Board of Directors in its general oversight of our accounting and financial reporting processes, audits of the financial statements and internal control and audit functions. As more fully described in its charter, a copy of which is available on our website at www.smartheatinc.com, the functions of the Audit Committee include the following:

- appointment of independent auditors, determination of their compensation and oversight of their work;
 - review the arrangements for and scope of the audit by independent auditors;
 - review the independence of the independent auditors;
 - consider the adequacy and effectiveness of the internal controls over financial reporting;
 - pre-approve audit and non-audit services;
- establish procedures regarding complaints relating to accounting, internal accounting controls, or auditing matters;
 - review and approve any related party transactions;
- discuss with management our major financial risk exposures and our risk assessment and risk management policies; and
- discuss with management and the independent auditors our draft quarterly interim and annual financial statements and key accounting and reporting matters.

Procedures for Shareholder Recommendations of Nominees to the Board of Directors

During 2012, there were no material changes to the procedures described in our Proxy Statement relating to the 2012 Annual Meeting of Shareholders by which shareholders may recommend nominees to our Board of Directors.

Code of Ethics

Our Board of Directors has adopted a Code of Conduct, which applies to all of our directors, officers and employees, that constitutes our “code of ethics” within the meaning of Section 406 of the Sarbanes-Oxley Act. The purpose of the Code of Conduct is to promote honest and ethical conduct. The Code of Conduct is posted on our website located at www.smartheatinc.com and is available in print, without charge, upon written request to SmartHeat Inc. at A-1, 10, Street 7, Shenyang Economic and Technological Development Zone, Shenyang, China 110141, Attn: Corporate Secretary. We intend to disclose any future amendments to our Code of Conduct, and any waivers of provisions of the Code of Conduct required to be disclosed under the rules of the SEC, on our website.

Table of Contents

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our executive officers and directors, and persons who own more than 10% of our common stock, to file reports regarding ownership of, and transactions in, our securities with the Commission and to provide us with copies of those filings. Based solely on our review of the copies received by us and on the written representations of certain reporting persons, we believe that all such Section 16(a) filing requirements were timely met during 2012.

Item 11. Executive Compensation

As a “smaller reporting company,” we have elected to follow the scaled disclosure requirements for smaller reporting companies with respect to the disclosures required by Item 402 of Regulation S-K. Under such scaled disclosure, we are not required to provide a Compensation Discussion and Analysis, Compensation Committee Report and certain other tabular and narrative disclosures relating to executive compensation.

Executive Compensation

The following table sets forth information concerning the compensation for the years ended December 31, 2012 and 2011, of each of our named executive officers.

Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Nonequity Nonqualified			All Other Compensation (\$)	Total (\$)
					Option Awards (\$)(1)	Incentive Plan Compensation (\$)	Deferred Earnings (\$)		
Oliver Bialowons President	2012	48,800	0	0	0	0	0	0	48,800
	2011	-	-	-	-	-	-	-	-
Michael Wilhelm Former Chief Financial Officer	2012	30,000	0	0	0	0	0	0	30,000
	2011	-	-	-	-	-	-	-	-
Jun Wang Former President and Chief Executive Officer	2012	150,000	0	0	0	0	0	0	15,000
	2011	150,000	0	137,750	0	0	0	0	287,750
Zhijuan Guo Former Chief Financial Officer	2012	12,000	0	0	0	0	0	0	12,000
	2011	22,000	0	0	0	0	0	0	22,000
Xudong Wang Former Vice President of	2012	107,397	0	0	0	0	0	0	107,397
	2011	120,000	0	290,250	0	0	0	0	410,250

Strategy and Development

(1) Amounts shown reflect aggregate grant date fair value of awards and do not reflect whether the recipient actually has realized a financial benefit from such grant, such as by selling the stock or exercising the options.

The following table sets forth information concerning the outstanding equity awards held by each of our named executive officers at December 31, 2012.

Outstanding Equity Awards at Fiscal Year-End for 2012

Name	Number of Securities Underlying Unexercised Options		Option Exercise Price	Option Expiration Date
	(#) Exercisable	(#) Unexercisable	(\$)	
Jun Wang	-	-	-	-
Zhijuan Guo	-	-	-	-
Xudong Wang	2,500	(1)	118.50	06/30/2016

(1) Options granted on February 1, 2010, with a life of five years that vested on June 30, 2011 and June 29, 2012.

Table of Contents

Agreements with Personnel

On January 1, 2008, Taiyu entered into a 3-year employment agreement with Jun Wang, which agreement was renewed on the same terms through December 31, 2013, upon mutual agreement between Mr. Wang and Taiyu. Pursuant to the terms of his employment agreement, Mr. Wang shall receive a salary in an amount that is not less than the lowest minimum wage per month paid in Shenyang and shall be based on the uniform wage and incentive system in Shenyang. Effective on February 1, 2010, the Compensation Committee approved an increase in the annual compensation of Mr. Wang to a base salary of \$150,000 per year from \$18,000 per year. The Compensation Committee believed it in the best interests of the company to approve the increase in salary for Mr. Wang because of his continued importance to our long-term strategy and success and increased responsibilities since 2008 when his prior base salary was established under his employment agreement.

On January 1, 2008, Taiyu entered into a 3-year employment agreement with Zhijuan Guo, which agreement was renewed on the same terms through December 31, 2013, upon mutual agreement between Ms. Guo and Taiyu. Pursuant to the terms of her employment agreement, Ms. Guo received a salary in an amount that is not less than the lowest minimum wage per month paid. Ms. Guo's employment agreement was terminated concurrently with her resignation.

On February 1, 2010, SmartHeat entered into an executive agreement with Xudong Wang for a term ending on June 30, 2013. Mr. Wang was compensated at \$120,000 per year and eligible for annual cash bonuses at the sole discretion of the Board of Directors. The Company terminated this executive agreement and issued a promissory note in the amount of \$77,625 in satisfaction of the Company's remaining commitment under the executive Agreement. The promissory note was subsequently paid in full with 77,625 shares of the Company's common stock.

On July 10, 2012, SmartHeat entered into an agreement with Mr. Oliver Bialowons, the Company's President, effective as of May 25, 2012 for a one-year term. Mr. Bialowons is compensated at \$80,000 per year.

Each of the above agreements contains provisions prohibiting competition by such officers following their services to us.

We currently do not have any defined pension plan for our named executive officers. Pursuant to their executive agreements, we shall provide to such officers all the necessary insurances and social welfares, including but not limited to medical, work injury, maternity, retirement and unemployment insurance and housing fund, according to our policies and the relevant laws and regulations of local governmental authorities and the PRC.

We currently do not have nonqualified defined contribution or other plans that provides for the deferral of compensation for our named executive officers nor do we currently intend to establish any such plan.

Grants of Plan-Based Awards

On May 25, 2010, our shareholders approved the 2010 Equity Incentive Plan authorizing the issuance of up to 100,000 shares of our common stock. The Compensation Committee administers the Plan and may grant awards, including restricted shares, incentive stock options and nonqualified stock options, under the Plan to our officers, directors and employees pursuant to the guidelines set forth in the Plan.

On November 28, 2011, Jun Wang and Xudong Wang each received a grant of 32,500 restricted shares of our common stock under the 2010 Equity Incentive Plan in recognition of their service and contributions to us. The restricted shares were fully vested on the grant date and issued pursuant to exemptions from registration under the Securities Act.

On April 14, 2011, Xudong Wang received a grant of 5,000 restricted shares of our common stock under the 2010 Equity Incentive Plan with the intent of reflecting his expected future performance and to further align Mr. Wang's interests with those of our shareholders. The restricted shares were fully vested on the grant date and issued pursuant to exemptions from registration under the Securities Act.

On February 1, 2010, pursuant to his employment agreement, Xudong Wang received a grant of options to purchase 5,000 shares of our common stock at an exercise price per share of \$118.50. The options have a life of 5 years and options to purchase 2,500 shares of our common stock vested on June 30, 2011, with the remaining options to purchase 2,500 shares of our common stock to vest on June 29, 2012, subject to Mr. Wang's continued employment.

Table of Contents

Change-In-Control and Separation Agreements

Our employment agreements with Jun Wang and Zhijuan Guo specified the conditions under which the agreements may be terminated and set forth minimum severance payments according to the relevant laws and regulations of local governmental authorities and the PRC.

Our employment agreement with Xudong Wang specifies the conditions under which the agreement may be terminated and stipulated that Mr. Wang shall not be entitled to severance payments upon termination.

We do not have any other existing arrangements providing for payments or benefits in connection with the resignation, severance, retirement or other termination of any of our named executive officers, or a change in control of the company or a change in the named executive officer's responsibilities following a change in control.

Compensation of Directors

The following table sets forth information concerning the compensation of our directors for the year ended December 31, 2012.

Director Compensation Table for 2012				
Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Kenneth Scripta	12,500	-	-	12,500
Weiguo Wang	12,000	-	-	12,000
Xin Li	19,000	-	-	19,000
Qingtai Kong	15,000	-	-	15,000

Our independent directors receive base cash compensation of \$12,000 per year, paid in equal quarterly installments, for their service. In addition, at the discretion of the non-interested members of the Compensation Committee, independent directors are eligible to receive bonuses for service to our company outside the normal duties as a director and grants of options to purchase our common stock under the 2010 Equity Incentive Plan. Messrs. Li and Kong receive compensation of \$19,000 and \$15,000 per year, respectively, paid in equal quarterly installments. Mr. Scripta receives \$25,000 per year, paid in equal quarterly installments. We do not compensate our non-independent directors for serving as our directors. All directors are eligible to receive reimbursement of expenses incurred with respect to attendance at board meetings and meetings of committees thereof, which is not included in the above table. We do not maintain a medical, dental or retirement benefits plan for the directors.

The directors may determine remuneration to be paid to the directors with interested members refraining from voting. The Compensation Committee will assist the directors in reviewing and approving the compensation structure for the directors.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following sets forth information as of June 7, 2013, regarding the number of shares of our common stock beneficially owned by (i) each person that we know beneficially owns more than 5% of our outstanding common stock, (ii) each of our named executive officers, (iii) each of our directors and (iv) all of our named executive officers and directors as a group.

The amounts and percentages of our common stock beneficially owned are reported on the basis of SEC rules governing the determination of beneficial ownership of securities. Under the SEC rules, a person is deemed to be a “beneficial owner” of a security if that person has or shares “voting power,” which includes the power to vote or to direct the voting of such security, or “investment power,” which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which that person has the right to acquire beneficial ownership within 60 days through the exercise of any stock option, warrant or other right. Under these rules, more than one person may be deemed a beneficial owner of the same securities and a person may be deemed to be a beneficial owner of securities as to which such person has no economic interest.

Unless otherwise indicated, each of the shareholders named in the table below, or his or her family members, has sole voting and investment power with respect to such shares of our common stock. Except as otherwise indicated, the address of each of the shareholders listed below is: c/o SmartHeat Inc., A-1, 10, Street 7, Shenyang Economic and Technological Development Zone, Shenyang, China 110141.

Table of Contents

As of June 7, 2013, there were 5,733,399 shares of our common stock issued and outstanding.

Name of beneficial owner	Number of shares	Percent of class		
5% Shareholders				
Northtech Holdings Inc. Mill Mall 5, Wickhams Cay 1 P.O. Box 3085 Road Town, Tortola British Virgin Islands	1,300,000	(5)	22.67	%
Beijing YSKN Machinery & Electronic Equipment Co., Ltd. Rm 1106, Huapu International Plaza No.19, Chaowai Street, Chaoyang District Beijing, China	680,800	(1)	11.87	%
Yang In Cheol #630-5, Namchon-Dong Namdong-Yu Incheon, South Korea 302-405	384,800	(2)	6.71	%
William J & Mary Ann P McGrath Foundation 943 Edgemere Court Evanston, IL 60202	300,000	(3)	5.23	
ShenYang ZhiCe Investment Co., Ltd No. 1 Yuebin Street Shenhe District Shenyang, China 110027	296,000	(4)	5.1	%
Directors and Named Executive Officers				
Oliver Bialowons	100,000		1.7	%
All Directors and Named Executive Officers as a Group (7 Persons)	100,000		1.7	%

* Represents less than 1% of shares outstanding.

- (1) Disclosed on Amendment No. 1 to the Schedule 13D for Beijing YSKN Machinery & Electronic Equipment Co., Ltd (“Beijing YSKN”) filed on June 30, 2008, for beneficial ownership as of May 7, 2008. Beijing YSKN has sole power to vote and dispose of the shares owned by it. Jun Wang and Fang Li each hold 50% of the equitable and legal rights, title and interests in and to the share capital of Beijing YSKN and, as a result of such ownership, each of Messrs. Wang and Li has the shared power to vote and dispose of the shares held by Beijing YSKN.
- (2) Disclosed on the Schedule 13G for Yang In Cheol filed on April 25, 2008, for beneficial ownership as of April 14, 2008.
- (3) Disclosed on the Schedule 13D for William J & Mary Ann P McGrath Foundation filed on November 7, 2013.
- (4) Disclosed on the Schedule 13G for ShenYang ZhiCe Investment Co., Ltd (“ShenYang ZhiCe”) filed on April 25, 2008, for beneficial ownership as of April 14, 2008. ShenYang ZhiCe has sole power to vote and dispose of the shares owned by it.
- (5) Disclosed on the Schedule 13D for Northtech Holdings filed on March 7, 2013.

Table of Contents

Securities Authorized for Issuance under Equity Compensation Plans

The following table sets forth information regarding all equity compensation plans, including individual compensation arrangements, under which our common stock is authorized for issuance as of December 31, 2012.

Equity Compensation Plan Information

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options	(b) Weighted- Average Exercise Price of Outstanding Options	(c)
			Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders			
2010 Equity Incentive Plan	-	-	0
Equity compensation plans not approved by security holders	1,000(1)	\$ 46.00	-
	5,000(2)	118.50	-
Total	6,000	\$ 106.40	0

(1) Consists of options granted to Arnold Staloff on July 17, 2008, to purchase 1,000 shares of our common stock at an exercise price per share of \$46.00. The options vested in full over a three-year period and expire after five years.

(2) Consists of options granted to Xudong Wang on February 1, 2010, to purchase 5,000 shares of our common stock at an exercise price per share of \$118.50. The options have a life of 5 years and options to purchase 2,500 shares of our common stock vested on June 30, 2011, with the remaining options to purchase 2,500 shares of our common stock to vest on June 29, 2012, subject to Mr. Wang's continued employment.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Certain Relationships and Related Transactions

On July 27, 2012, we entered into a secured revolving credit facility under the terms of a Secured Credit Agreement with Northtech Holdings, Inc., an entity owned by certain members of the Company's former management, 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. Huajun Ai, our current 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 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, 22.67% of our total issued and outstanding shares of Common Stock, as authorized by the Credit Agreement and approved by our shareholders.

Except as disclosed above, there were no transactions with any related persons (as that term is defined in Item 404 in Regulation S-K) during 2012 or 2011, or any currently proposed transaction, in which we were or are to be a participant and the amount involved was in excess of \$120,000 and in which any related person had a direct or indirect material interest.

Table of Contents

Our written policy for related party transactions provides that we will enter into or ratify a transaction with a related party only when our Board of Directors, acting through the Audit Committee, determines that the transaction is in the best interests of the company and our shareholders. The policy requires the review and approval by our Audit Committee for any transaction in which (i) the aggregate amount involved will or may be expected to exceed \$120,000 in any fiscal year, (ii) we are a participant and (iii) any related person has or will have a direct or indirect interest. Related persons include our executive officers, directors, director nominees, persons known to be the beneficial owner of more than 5% of our outstanding common stock or immediate family members of any of the foregoing persons. In determining whether to approve or ratify a transaction with a related party, the Audit Committee will take into account, among other relevant factors, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances. If advance approval of a transaction is not feasible, the Audit Committee may approve and ratify the transaction in accordance with the policy. Any member of the Audit Committee who is a related party with respect to a transaction under review may not participate in the deliberations or vote on the approval of the transaction.

Director Independence

Our Board of Directors has determined that each of Kenneth Scripta, Weiguo Wang, Xin Li and Qingtai Kong is an independent director as defined by the listing standards of NASDAQ currently in effect and all applicable rules and regulations of the SEC. We have established the following standing committees of the Board of Directors: Audit, Compensation and Nominating and Corporate Governance. All members of the Audit, Compensation and Nominating and Corporate Governance Committees satisfy the independence standards applicable to members of each such committee. The Board of Directors made this affirmative determination regarding these directors' independence based on discussions with the directors and on its review of the directors' responses to a standard questionnaire regarding employment and compensation history; affiliations, family and other relationships; and transactions between us and the directors, if any. The Board of Directors considered relationships and transactions between each director, or any member of his immediate family, and our company, our subsidiaries and our affiliates. The purpose of the Board of Director's review with respect to each director was to determine whether any such relationships or transactions were inconsistent with a determination that the director is independent under NASDAQ rules.

Item 14. Principal Accounting Fees and Services

Our Audit Committee selected GKM as the independent registered certified public accounting firm to audit the books and accounts of our company and subsidiaries for the fiscal year ending December 31, 2012. GKM has served as our independent accountant since April 14, 2008. The following table presents the aggregate fees billed for professional services rendered by GKM for the years ended December 31, 2012 and 2011.

	2012	2011
Audit fees	\$ 159,500	\$ 234,750
Audit-related fees	1,300	2,500
Tax fees	-	-
All other fees	1,300	-

In the above table, "audit fees" are fees billed for services provided related to the audit of our annual financial statements, quarterly reviews of our interim financial statements and services normally provided by the independent accountant in connection with statutory and regulatory filings or engagements for those fiscal periods. "Audit-related fees" are fees not included in audit fees that are billed by the independent accountant for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements. "Tax fees" are fees billed by the independent accountant for professional services rendered for tax compliance, tax advice and tax planning. "All other fees" are fees billed by the independent accountant for products and services not included in the

foregoing categories.

Audit Committee's Pre-Approval Policy

The Audit Committee pre-approves all audit and permissible non-audit services provided by the independent accountants. These services may include audit services, audit-related services, tax services and other services. The Audit Committee has adopted a written policy for the pre-approval of services provided by the independent accountants, under which policy the Audit Committee generally pre-approves services for up to one year and any pre-approval is detailed as to the particular service or category of services and is subject to a specific budget. In addition, the Audit Committee may also pre-approve particular services on a case-by-case basis. For each proposed service, the independent accountant is required to provide detailed back-up documentation at the time of approval. The Audit Committee may delegate pre-approval authority to one or more of its members. Such a member must report any decisions to the Audit Committee at the next scheduled meeting.

Table of Contents

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as part of or are included in this Annual Report:

1. Financial statements listed in the Index to Financial Statements, filed as part of this Annual Report beginning on page F-1; and
2. Exhibits listed in the Exhibit Index filed as part of this Annual Report.

Table of Contents

SMARTHEAT INC.

Consolidated Financial Statements
Years Ended December 31, 2012 and 2011

Index to Financial Statements

	Page
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
Financial Statements	
<u>Consolidated Balance Sheets as of December 31, 2012 and 2011</u>	F-3
<u>Consolidated Statements of Operations and Comprehensive Loss years ended December 31, 2012 and 2011</u>	F-4
<u>Consolidated Statements of Stockholders' Equity years ended December 31, 2012 and 2011</u>	F-5
<u>Consolidated Statements of Cash Flows years ended December 31, 2012 and 2011</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders of
SmartHeat Inc.

We have audited the accompanying consolidated balance sheets of SmartHeat, Inc. (the “Company”) as of December 31, 2012 and 2011, and the related consolidated statements of operations, stockholders’ equity and comprehensive loss, and cash flows for the years ended December 31, 2012 and 2011. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statements presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2012 and 2011, and the consolidated results of their operations and their cash flows for the years ended December 31, 2012 and 2011, in conformity with U.S. generally accepted accounting principles.

/s/ Goldman Kurland and Mohidin, LLP
Goldman Kurland and Mohidin, LLP
Encino, California
June 10, 2013

Table of ContentsSMARTHEAT INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31, 2012	December 31, 2011
ASSETS		
CURRENT ASSETS		
Cash & equivalents	\$18,336,163	\$12,419,922
Restricted cash	994,455	2,688,691
Accounts receivable, net	32,250,817	47,055,517
Retentions receivable	3,812,376	3,583,898
Advances to suppliers	3,279,007	17,603,984
Other receivables (net), prepayments and deposits	6,467,280	6,663,330
Inventories, net	58,297,562	53,648,549
Notes receivable - bank acceptances	2,797,551	1,916,320
Total current assets	126,235,211	145,580,211
NONCURRENT ASSETS		
Long term investment	865,773	-
Restricted cash	36,592	204,991
Retentions receivable	421,731	670,291
Advance to supplier for equipment	1,744,056	1,122,914
Construction in progress	1,298,841	522,876
Property and equipment, net	10,947,480	11,348,601
Intangible assets, net	14,920,603	15,419,805
Goodwill	-	2,098,332
Other noncurrent asset	-	10,044
Total noncurrent assets	30,235,076	31,397,854
TOTAL ASSETS	\$156,470,287	\$176,978,065
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	\$8,574,981	\$12,660,100
Advance from customers	5,481,960	4,585,218
Taxes payable	769,167	1,178,712
Accrued liabilities and other payables	5,089,664	4,136,298
Notes payable - bank acceptances	736,698	3,278,232
Loans payable	26,155,437	10,633,402
Total current liabilities	46,807,907	36,471,962
DEFERRED TAX LIABILITY	93,054	189,516

LONG-TERM PAYABLE	-	2,281,023
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY		
Common stock, \$0.001 par value; 75,000,000 shares authorized, 5,733,399 and 3,955,774 shares issued and outstanding at December 31, 2012 and 2011, respectively	5,733	3,956
Paid-in capital	103,607,559	102,985,737
Statutory reserve	5,396,014	5,396,014
Accumulated other comprehensive income	11,273,497	11,119,887
Retained earnings (accumulated deficit)	(11,771,349)	17,445,733
Total Company stockholders' equity	108,511,454	136,951,327
NONCONTROLLING INTEREST	1,057,872	1,084,237
TOTAL EQUITY	109,569,326	138,035,564
TOTAL LIABILITIES AND EQUITY	\$156,470,287	\$176,978,065

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

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

	YEARS ENDED DECEMBER 31,	
	2012	2011
Net sales	\$47,850,292	\$65,221,104
Cost of goods sold	32,481,271	44,559,093
Gross profit	15,369,021	20,662,011
Operating expenses		
Selling	9,922,607	9,514,588
General and administrative	12,345,739	17,532,209
Goodwill impairment	2,083,586	8,956,313
Provision for bad debts	21,006,412	7,635,040
Total operating expenses	45,358,344	43,638,150
Loss from operations	(29,989,323)	(22,976,139)
Non-operating income (expenses)		
Investment income	142,411	-
Interest income	164,454	243,810
Interest expense	(1,548,937)	(925,250)
Financial expense	(170,220)	(150,371)
Foreign exchange transaction gain (loss)	5,474	(407,880)
Other income (loss), net	2,643,786	(26,230)
Total non-operating income (expenses), net	1,236,968	(1,265,921)
Loss before income tax	(28,752,355)	(24,242,060)
Income tax expense	493,624	186,373
Net loss before noncontrolling interest	(29,245,979)	(24,428,433)
Less: loss attributable to noncontrolling interest	(28,897)	(468,247)
Net loss to SmartHeat Inc.	(29,217,082)	(23,960,186)
Other comprehensive item		
Foreign currency translation gain attributable to SmartHeat Inc.	153,610	6,867,626
Foreign currency translation loss attributable to noncontrolling interest	2,532	81,103
Comprehensive loss attributable to SmartHeat Inc.	\$(29,063,472)	\$(17,092,560)

Edgar Filing: SMARTHEAT INC. - Form 10-K

Comprehensive loss attributable to noncontrolling interest	\$ (26,365)	\$ (387,144)
Basic & diluted weighted average shares outstanding	4,129,400	3,867,578
Basic & diluted loss per share	\$ (7.08)	\$ (6.20)

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

F-4

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2012 AND 2011

	Common stock		Paid in capital	Statutory reserves	Accumulated other comprehensive income	Retained earnings (accumulated deficit)	Total	Noncontrol interest
	Shares	Amount						
Balance at January 1, 2011	3,855,194	\$3,855	\$102,285,724	\$5,301,918	\$4,252,261	\$41,500,015	\$153,343,773	\$626,069
Capital contribution from minority	-	-	-	-	-	-	-	845,312
Shares issued in connection with employees compensation	100,000	100	558,900	-	-	-	559,000	-
Compensation expense of stock options	-	-	141,114	-	-	-	141,114	-
Fraction shares - split effect	580	1	(1)	-	-	-	-	-
Net loss for year	-	-	-	-	-	(23,960,186)	(23,960,186)	(468,24)
Transfer to statutory reserves	-	-	-	94,096	-	(94,096)	-	-
Foreign currency translation gain	-	-	-	-	6,867,626	-	6,867,626	81,103
Balance at December 31, 2011	3,955,774	3,956	102,985,737	5,396,014	11,119,887	17,445,733	136,951,327	1,084,2
Shares issued for debt repayment	1,300,000	1,300	531,700	-	-	-	533,000	-
Shares issued in connection with executives compensation	177,625	178	37,503	-	-	-	37,680	-

Edgar Filing: SMARTHEAT INC. - Form 10-K

Compensation expense of stock options	-	-	37,919	-	-	-	37,919	-
Shares issued in connection with consulting service	300,000	300	14,700	-	-	-	15,000	-
Net loss for year	-	-	-	-	-	(29,217,082)	(29,217,082)	(28,897)
Foreign currency translation gain	-	-	-	-	153,610	-	153,610	2,532
Balance at December 31, 2012	5,733,399	\$5,733	\$103,607,559	\$5,396,014	\$11,273,497	\$(11,771,349)	\$108,511,454	\$1,057,8

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

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEARS ENDED DECEMBER 31,	
	2012	2011
CASH FLOWS FROM OPERATING ACTIVITIES:		
Loss including noncontrolling interest	\$(29,245,979)	\$(24,428,433)
Adjustments to reconcile loss including noncontrolling interest to net cash used in operating activities:		
Investment income	(142,411)	-
Depreciation and amortization	1,892,084	1,678,653
Provision for bad debts	18,790,256	7,635,040
Provision for inventory impairment	1,590,721	3,733,390
Provision for advance to supplier	2,216,156	-
Unearned interest on accounts receivable	(45,244)	(26,683)
Stock option expense	37,919	141,114
Stock compensation expense of shares issued in connection with consulting service	-	559,000
Stock compensation expense in connection with shares issued to executives	75,000	-
Gain on settlement of debts	(813,245)	-
Loss on disposal of fixed assets	-	9,605
Goodwill impairment	2,083,586	8,956,313
Changes in deferred tax	(96,512)	(82,676)
(Increase) decrease in assets and liabilities:		
Accounts receivable	(2,607,336)	(4,052,545)
Retentions receivable	30,374	(448,424)
Advances to suppliers	12,153,058	(9,213,499)
Other receivables, prepayments and deposits	951,546	(1,506,485)
Inventories	(6,070,050)	(26,969,530)
Others	-	240,427
Accounts payable	(4,099,812)	6,759,686
Advance from customers	602,864	3,388,328
Taxes payable	(408,863)	(500,373)
Accrued liabilities and other payables	(1,053,063)	1,862,772
Net cash used in operating activities	(4,158,951)	(32,264,320)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Change in restricted cash	1,861,726	(308,291)
Equity method investment	(722,750)	-
Acquisition of property & equipment	(827,626)	(2,612,263)
Advance for construction and equipment	(615,746)	(570,287)
Cash received from disposal of fixed assets	-	39,655
Acquisition of intangible asset	(81,854)	(151,551)
Notes receivable	(872,787)	(375,029)
Cash acquired from acquisition of subsidiaries	-	429,124

Edgar Filing: SMARTHEAT INC. - Form 10-K

Cash paid for acquisition of subsidiaries	-	(13,516,138)
Construction in progress	(771,370)	(426,828)
Net cash used in investing activities	(2,030,407)	(17,491,608)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from short-term loans	23,701,300	8,825,169
Repayment to short-term loans	(9,029,703)	(8,518,232)
Long term payable	-	2,012,758
Cash contribution from noncontrolling interest	-	758,851
Note payable	-	934,796
Payment on notes payable	(2,538,661)	-
Stock issued relating to executive compensation	5,000	-
Stock issued relating to consulting services	15,000	-
Net cash provided by financing activities	12,152,936	4,013,342
EFFECT OF EXCHANGE RATE CHANGE ON CASH & EQUIVALENTS	(47,337)	1,356,037
NET INCREASE (DECREASE) IN CASH & EQUIVALENTS	5,916,241	(44,386,549)
CASH & EQUIVALENTS, BEGINNING OF YEAR	12,419,922	56,806,471
CASH & EQUIVALENTS, END OF YEAR	\$18,336,163	\$12,419,922
Supplemental cash flow data:		
Income tax paid	\$392,346	\$1,944,173
Interest paid	\$1,644,001	\$898,706
Supplemental disclosure of non-cash financing activities:		
Shares issued for debts repayment	\$1,378,925	\$-

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

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

SmartHeat Inc., formerly known as Pacific Goldrim Resources, Inc. (the “Company” or “SmartHeat”), was incorporated on August 4, 2006, in the State of Nevada. The Company, through its operating subsidiaries in China and Germany, designs, manufactures, sells and services plate heat exchangers (“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.

On April 14, 2008, the Company entered into a Share Exchange Agreement (the “Share Exchange Agreement”) to acquire Shenyang Taiyu Machinery and 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 People’s Republic of China (“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. Pursuant to the Share Exchange Agreement, all of the equitable and legal rights, title and interests in and to Taiyu’s share capital of RMB 25,000,000 (\$3.95 million) were exchanged for 1,850,000 shares of SmartHeat’s common stock (the “Share Exchange”). SmartHeat received PRC government approval on May 28, 2008, of its 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 SmartHeat common stock in the Share Exchange. Concurrent with the Share Exchange, one of SmartHeat’s shareholders cancelled 250,000 issued and outstanding shares of SmartHeat common stock pursuant to a split-off agreement dated April 14, 2008. As a result of the Share Exchange, Taiyu became a wholly foreign-owned enterprise of SmartHeat.

Prior to the acquisition of Taiyu, the Company was a non-operating public shell. Pursuant to Securities and Exchange Commission (“SEC”) rules, the merger or acquisition of a private operating company into or by a non-operating public shell with nominal net assets was considered a capital transaction rather than a business combination. Accordingly, for accounting purposes the transaction was treated as a reverse acquisition and recapitalization and pro-forma information was not presented. Transaction costs incurred in the reverse acquisition were expensed.

On September 25, 2008, the Company entered into a Share Exchange Agreement with Asialink (Far East) Limited to acquire all of the outstanding capital stock of SanDeKe Co., Ltd., a Shanghai-based manufacturer of PHEs (“SanDeKe”) for \$741,500.

On June 12, 2009, the Company incorporated a new subsidiary, SmartHeat Siping Beifang Energy Technology Co., Ltd. (“SmartHeat Siping”), to manufacture PHEs.

On June 16, 2009, Taiyu closed an asset purchase transaction with Siping Beifang Heat Exchanger Manufacture Co., Ltd. (“Siping Beifang”), a company organized under the laws of the PRC, to purchase certain assets consisting of the plant, equipment and certain land use rights for RMB 54,000,000 (\$7.91 million). Taiyu then transferred all the acquired assets to SmartHeat Siping, the newly incorporated subsidiary. The Company paid RMB 7,250,000 (\$1.06 million) on completion of inventory inspection, with the remaining consideration paid as of June 30, 2011.

On August 14, 2009, the Company formed Beijing SmartHeat Jinhui Energy Technology Co., Ltd. (“Jinhui”), a joint venture in Beijing with registered capital of RMB 10 million (\$1.46 million), to provide consulting services and expand the Company’s sales of PHEs into new industries and regions of China. SmartHeat owns 52% of Jinhui and

invested \$765,000.

On April 7, 2010, the Company formed SmartHeat (China) Investment Co., Ltd. (“SmartHeat Investment”), an investment holding company and wholly owned subsidiary in Shenyang with registered capital of \$70 million.

On April 12, 2010, SmartHeat Investment formed SmartHeat (Shenyang) Energy Equipment Co., Ltd. (“SmartHeat Energy”), a wholly owned subsidiary in Shenyang with registered capital of \$30 million, for the research, development, manufacturing and sales of energy products.

On May 6, 2010, the Company formed SmartHeat (Shanghai) Trading Co., Ltd. (“SmartHeat Trading”) through a nominee to market and to expand sales of the Company’s Taiyu-branded products. The Company made a capital contribution of \$1.5 million and, from inception until November 9, 2011, controlled and was entitled to 100% of the profit or loss of SmartHeat Trading pursuant to an investment agreement dated February 1, 2010.

Effective November 9, 2011, the Company terminated the nominee-owner relationship and acquired direct control over SmartHeat Trading.

F-7

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

On January 7, 2011, the Company invested \$771,600 for 51% of the equity in Hohhot Ruicheng Technology Co., Ltd. (“Ruicheng”), a joint venture (“JV”) formed on December 2, 2010, in Hohhot City, China, for the design and manufacture of heat meters.

On March 1, 2011, the Company entered into a purchase agreement with Shenyang Bingchuan Refrigerating Machine Limited Company, a Shenyang-based state-owned heat pump manufacturer and designer, which was renamed SmartHeat (Shenyang) Heat Pump Technology Co., Ltd. (“SmartHeat Pump”). The Company paid RMB 50 million (\$7.6 million) to acquire 95% of the equity in SmartHeat Pump, with a local government entity retaining the remaining 5%. The Company increased its ownership in SmartHeat Pump to 98.8% in late 2011.

On March 3, 2011, the Company completed the acquisition of Gustrower Warmepumpen GmbH, a designer and manufacturer of high efficiency heat pumps in Germany subsequently renamed SmartHeat Deutschland GmbH (“SmartHeat Germany”), from Conergy AG for EUR 4.25 million (\$5.90 million) paid at closing. This acquisition extended the Company’s clean technology heating solutions into the rapidly growing heat pump markets in Europe and China, enabling its customers to purchase technologically advanced heat pumps at competitive prices.

In April 2012, the Company invested RMB 4,600,000 (\$0.72 million) to establish a new JV named Urumchi XinRui Technology Limited Liability Company (“XinRui”). The Company owns 46% of XinRui. During 2012, XinRui commenced operations. Xinrui mainly conducts research and development, production and selling of heat meters and automatic control of heat supply network, Urumchi Annai energy Conservation Company Ltd. (“Annai”) owns 30% of Xinrui’s registered capital and Beijing Taiyu Huineng Company Ltd. (“Huineng”) owns 24% of Xinrui’s registered capital.

Effective February 7, 2012, the Company implemented a one-for-ten reverse stock split of its common stock as approved by the Board of Directors on January 19, 2012. All share amounts and per share prices were retroactively adjusted to reflect the effect of this reverse stock split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The consolidated financial statements were prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”).

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of SmartHeat’s U.S. parent, Taiyu, SanDeKe, SmartHeat Siping, Jinhui, SmartHeat Investment, SmartHeat Energy, SmartHeat Trading, Ruicheng, SmartHeat Germany and SmartHeat Pump, which are collectively referred to as the “Company.” All significant intercompany accounts and transactions were eliminated in consolidation.

Equity Method Investee

In April 2012, the Company invested \$722,700 to establish XinRui. The Company owns 46% of XinRui and accounts for this investment under the equity method of accounting (ASC 323-30). The Company recorded its investment at

original cost. This investment will increase with income and decrease for dividends and losses that accrue to the Company.

Noncontrolling Interest

The Company follows Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC") Topic 810, "Consolidation," which established new standards governing the accounting for and reporting of noncontrolling interests ("NCIs") in partially owned consolidated subsidiaries and the loss of control of subsidiaries. Certain provisions of this standard indicate, among other things, that NCIs, previously referred to as minority interests, be treated as a separate component of equity, not as a liability, as was previously the case, that increases and decreases in the parent's ownership interest that leave control intact be treated as equity transactions rather than as step acquisitions or dilution gains or losses and that losses of a partially owned consolidated subsidiary be allocated to the NCI even when such allocation might result in a deficit balance. This standard also required changes to certain presentation and disclosure requirements. Losses attributable to the NCI in a subsidiary may exceed the NCI's interests in the subsidiary's equity. The excess attributable to the NCI is attributed to those interests. The NCI shall continue to be attributed its share of losses even if that attribution results in a deficit NCI balance.

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 DECEMBER 31, 2012 AND 2011

Use of Estimates

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.

Cash and Equivalents

For purposes of the statement of cash flows, the Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. As of December 31, 2012 and 2011, the Company maintained restricted cash deposit in several bank accounts for the purpose described below.

	2012		2011
	In millions		
Support of performance guarantee	\$ 0.62		\$ 1.18
Support of bank acceptance	0.37		1.48
Support of letter of credit	-		0.03
Total restricted cash - current	0.99		2.69
Performance guarantee -- noncurrent	\$ 0.04		\$ 0.20

The following table presents in U.S. dollars ("USD") the amount of cash and equivalents held by the Company as of December 31, 2012 and 2011, based on the jurisdiction of deposit. The Company's U.S. parent holds cash and equivalents in U.S. bank accounts denominated in USD.

	United States		China		Germany		Total
December 31, 2012	\$ 82,479		\$ 15,311,830		\$ 2,941,854		\$ 18,336,163
December 31, 2011	\$ 282,359		\$ 10,566,931		\$ 1,570,632		\$ 12,419,922

Accounts and Retentions Receivable

The Company maintains 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. Based on historical collection activity, the Company had allowances of \$28.20 million and \$10.58 million at December 31, 2012, and 2011, respectively.

At December 31, 2012, and 2011, the Company had retentions receivable from customers for product quality assurance of \$4.23 million and \$4.30 million, respectively. The retention rate varies from 5% to 20% of the sales price with variable terms from 3 to 24 months depending on the shipping date, and for PHE Units, the customer acceptance date, of the products and the number of heating seasons that the warranty period covers.

Accounts receivable is net of unearned interest of \$12,532 and \$57,800 at December 31, 2012, and 2011, respectively. Unearned interest is imputed interest on accounts receivable with due dates over 1 year from the invoice date discounted at the Company's borrowing rate of 6.15% at December 31, 2012, and 6.56% at December 31, 2011.

Bad Debt Allowance

The Company provides approximately 50% of accounts receivable aged over 180 days from the payment due date and 100% accounts receivable aged over 360 days from the payment due date as bad debt allowance. Management of the Company's subsidiaries further analyzes each individual customer for which it was taken a bad debt allowance to further assess the likelihood of collectability. Customers which are either state-owned or have a history of support from the state, or larger companies with long operating histories, that management of the Company's subsidiaries believe the chance of non-payment will be remote, are excluded for the purpose of calculating bad debt allowance.

F-9

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 DECEMBER 31, 2012 AND 2011

Advance to Suppliers

The Company makes advances to certain vendors to purchase raw material and equipment for production. The advances are interest-free and unsecured.

Inventories

Inventories are valued at the lower of cost or market, with cost determined on a moving weighted-average basis. The difference is recorded as a cost of sales, if the current market value is lower than their historical cost. In addition, the Company makes an inventory impairment provision at each period end for inventory held over 360 days. Cost of work in progress and finished goods comprises direct material, direct labor and an allocated portion of production overheads.

Certain raw materials, such as stainless steel products, plates, shims, gaskets, and pump valves, require longer than normal procurement periods, or “lead times,” with some procurement periods running longer than six months. In order to guarantee availability of raw materials for production and sales, the Company’s subsidiaries, based on historical sale patterns, estimate and purchase material for the upcoming period.

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Expenditures for maintenance and repairs are expensed as incurred; additions, renewals and betterments are capitalized. When property and equipment are retired or otherwise disposed of, the related cost and accumulated depreciation are removed from the respective accounts and any gain or loss is included in operations. Depreciation of property and equipment is provided using the straight-line method with a 10% salvage value and estimated lives as follows:

Buildings	20 years
Vehicles	5 years
Office equipment	5 years
Production equipment	5-10 years

Land Use Rights

Right to use land is stated at cost less accumulated amortization. Amortization is provided using the straight-line method over 50 years.

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. The Company evaluates 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, the Company concluded that the goodwill balance of \$2.08 million for SmartHeat Germany was impaired as of December 31, 2012 and \$6.06 million for SmartHeat Pump and \$2.90 million for SmartHeat Germany was impaired as of December 31, 2011, as discussed under Goodwill below. Based on its review, the Company believes that, as of December 31, 2012, and 2011, there were no significant impairments of its other long-lived assets.

Warranties

The Company offers to all customers standard warranties on its products for one or two heating seasons depending on the terms negotiated. The Company accrues for warranty costs based on estimates of the costs that may be incurred under its warranty obligations. The warranty expense and related accrual is included in the Company’s selling expenses and other payables respectively, and is recorded when revenue is recognized. Factors that affect the Company’s warranty liability include the number of units sold, its estimates of anticipated rates of warranty claims, costs per claim and estimated support labor costs and the associated overhead. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

Activity in the Company's warranty reserve from January 1, 2011 to December 31, 2012, is as follows:

	2012	2011
Beginning balance	\$ 515,812	\$ 398,292
Provisions	377,583	620,722
Actual costs incurred	(377,583)	(503,202)
Due to exchange rate	1,264	-
Ending balance in current liabilities (Note 12)	\$ 517,076	\$ 515,812

Research and Development Costs

Research and development ("R&D") costs are expensed as incurred and included in general and administrative expenses. These costs primarily consist of cost of materials used, salaries paid for the Company's development department and fees paid to third parties. R&D costs for the years ended December 31, 2012 and 2011, were \$1,530,000 and \$1,799,000, respectively.

Income Taxes

The Company utilizes Statement of Financial Accounting Standards ("SFAS") No. 109, "Accounting for Income Taxes" (codified in FASB ASC Topic 740), which requires recognition of deferred tax assets and liabilities for expected future tax consequences of events included in the financial statements or tax returns. Under this method, deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each period end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

The Company follows FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes" (codified in FASB ASC Topic 740). When tax returns are filed, it is likely that some positions taken would be sustained upon examination by the taxing authorities, while others are subject to uncertainty about the merits of the position taken or the amount of the position that would be ultimately sustained. The benefit of a tax position is recognized in the financial statements in the period during which, based on all available evidence, management believes it is more likely than not that the position will be sustained upon examination, including the resolution of appeals or litigation processes, if any. Tax positions taken are not offset or aggregated with other positions. Tax positions that meet the more-likely-than-not recognition threshold are measured as the largest amount of tax benefit that is more than 50% likely of being realized upon settlement with the applicable taxing authority. The portion of the benefits associated with tax positions taken that exceeds the amount measured as described above is reflected as a liability for unrecognized tax benefits in the accompanying balance sheets along with any associated interest and penalties that would be payable to the taxing authorities upon examination.

Interest associated with unrecognized tax benefits is classified as interest expense and penalties are classified as selling, general and administrative expense in the statements of income. At December 31, 2012, the Company had not taken any significant uncertain tax position on its tax returns for 2011 or prior years, or in computing its tax provision for 2012.

Revenue Recognition

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

The Company's sales generally provide for 30% of the purchase price on placement of an order, 30% on delivery, 30% upon installation and acceptance of the equipment after customer testing and 10% no later than the termination 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 to attract and retain customers, the Company's subsidiaries adjusted their contract and payment terms to permit more flexible and longer payment terms.

F-11

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

Sales revenue is the invoiced value of goods, net of value-added tax (“VAT”). All of the Company’s products sold in the PRC are subject to a VAT of 17% of the gross sales price. This VAT may be offset by the VAT paid by the Company on raw materials and other materials purchased in China and included in the cost of producing the Company’s finished product. The Company recorded VAT payable and VAT receivable net of payments in the financial statements. The VAT tax return is filed offsetting the payables against the receivables. SmartHeat Germany, the Company’s German subsidiary, is subject to 19% VAT.

Sales and purchases are recorded net of VAT collected and paid as the Company acts as an agent for the government. VAT taxes are not affected by the income tax holiday.

Sales returns and allowances were \$0 for 2012 and 2011. The Company does not provide a right of return, price protection or any other concessions to its customers.

The Company provides a standard warranty to all customers, which is not considered an additional service; rather, an integral part of the product’s sale. The Company believes the existence of its standard product 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. The Company believes that accounting for its standard warranty pursuant to SFAS 5 does not impact revenue recognition because the cost of honoring the warranty can be reliably estimated.

The Company charges 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. The Company recognizes such revenue when the service is provided. For 2012 and 2011, revenue from after-sales services after the expiration of the warranty period was \$346,600 and \$447,260, respectively, which was recorded in other income.

Cost of Goods Sold

Cost of goods sold (“COGS”) consists primarily of material costs and direct labor and manufacturing overhead that are directly attributable to the products. Write-down of inventories to the lower of cost or market is also recorded in COGS. Company also records inventory reserve for inventories aging over 360 days to COGS.

Advance from Customers

The Company records payments received from customers in advance of their orders to advance account. These orders normally are delivered within a reasonable period of time based upon contract terms with the customers.

Concentration of Credit Risk

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

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

collection risk on accounts receivable.

The operations of the Company are located primarily in China. Accordingly, the Company's business, financial condition and results of operations may be influenced by the political, economic and legal environments in China, as well as by the general state of the PRC economy.

Goodwill

Goodwill is the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. In accordance with SFAS No. 142, "Goodwill and Other Intangible Assets" ("Statement No. 142"), codified in ASC Topic 350, goodwill is not amortized but is tested for impairment, annually or when circumstances indicate a possible impairment may exist. Impairment testing is performed at a reporting unit level. An impairment loss generally would be recognized when the carrying amount of the reporting unit exceeds its FV, with the FV of the reporting unit determined using discounted cash flow ("DCF") analysis. A number of significant assumptions and estimates are involved in the application of the DCF analysis to forecast operating cash flows, including the discount rate, the internal rate of return and projections of realizations and costs to produce. Management considers historical experience and all available information at the time the FVs of its reporting units are estimated.

F-12

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

The excess of the purchase price for SmartHeat Germany over the FV of the net assets acquired of \$5.1 million (EUR 3.69 million at acquisition date) was recorded as goodwill. The excess of the purchase price for SmartHeat Pump over the FV of the net assets acquired of \$5.63 million (RMB 37,018,052) was recorded as goodwill.

The Company performed an annual goodwill impairment assessment for SmartHeat Germany and SmartHeat Pump as of December 31, 2012 and 2011. The goodwill balance prior to the impairment charge was \$10.97 million, and was established primarily as a result of the acquisitions of SmartHeat Germany and SmartHeat Pump in 2011. The Company completed the step one analysis using DCF, which involved comparing the FV of the reporting unit with the unit's book value. The DCF method uses revenue and expense projections and risk-adjusted discount rates. The process of determining FV is subjective and requires management to exercise judgment in determining future growth rates, discount and tax rates and other factors. The current economic environment has impacted the Company's ability to forecast future demand and has in turn resulted in the use of higher discount rates, reflecting the risk and uncertainty in current markets. The results of the step one analysis indicated potential impairment in the SmartHeat Germany and SmartHeat Pump reporting units corroborated by the deteriorating macro environment, which has resulted in a decline in expected future demand. The Company therefore performed the second step of the goodwill impairment assessment to quantify the amount of impairment. This process involved calculating the implied FV of goodwill, determined in a manner similar to a purchase price allocation, and comparing the residual amount to the carrying amount of goodwill. Based on this analysis, the Company concluded that the goodwill balance of \$2.08 million for SmartHeat Germany was impaired as of December 31, 2012, and \$6.06 million for SmartHeat Pump and \$2.90 million for SmartHeat Germany was impaired as of December 31, 2011. The goodwill impairment charge is non-cash. The goodwill impairment charge is not deductible for income tax purposes and, therefore, the Company has not recorded a corresponding tax benefit in 2012 or 2011, respectively.

Statement of Cash Flows

In accordance with SFAS No. 95, "Statement of Cash Flows," codified in FASB ASC Topic 230, cash flows from the Company's operations are calculated based upon the local currencies. As a result, amounts shown on the statement of cash flows may not necessarily agree with changes in the corresponding asset and liability on the balance sheet.

Basic and Diluted Earnings (Loss) per Share (EPS)

Basic EPS is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted EPS is computed similarly, except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potential common shares had been issued and if the additional common shares were dilutive. Diluted EPS are based on the assumption that all dilutive convertible shares and stock options were converted or exercised. Dilution is computed by applying the treasury stock method. Under this method, options and warrants are assumed to have been exercised at the beginning of the period (or at the time of issuance, if later), and as if funds obtained thereby were used to purchase common stock at the average market price during the period.

Basic and diluted loss per share are the same for 2012 and 2011, because the common stock equivalent of the convertible securities outstanding, consisting of unexercised warrants issued to investors and options issued to the Company's directors and an officer, are anti-dilutive and, accordingly, were excluded from the computation of diluted earnings (loss) per share. At December 31, 2012 and 2011, options to purchase 3,500 and 6,000 shares of common stock were outstanding respectively; 3,500 shares of common stock were exercisable.

Fair Value of Financial Instruments

For certain of the Company's financial instruments, including cash and equivalents, restricted cash, accounts receivable, accounts payable, accrued liabilities and short-term debt, the carrying amounts approximate their fair values due to their short maturities. ASC Topic 820, "Fair Value Measurements and Disclosures," requires disclosure of the FV of financial instruments held by the Company. ASC Topic 825, "Financial Instruments," defines FV, and establishes a three-level valuation hierarchy for disclosures of FV measurement that enhances disclosure requirements for FV measures. The carrying amounts reported in the consolidated balance sheets for receivables and current liabilities each qualify as financial instruments and are a reasonable estimate of their fair values because of the short period of time between the origination of such instruments and their expected realization and their current market rate of interest. The three levels of valuation hierarchy are defined as follows:

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

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 DECEMBER 31, 2012 AND 2011

- Level 2 inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 inputs to the valuation methodology are unobservable and significant to the FV measurement.

The Company analyzes all financial instruments with features of both liabilities and equity under ASC 480, “Distinguishing Liabilities from Equity,” and ASC 815.

As of December 31, 2012 and 2011, the Company did not identify any assets and liabilities that are required to be presented on the balance sheet at FV.

Foreign Currency Translation and Comprehensive Income (Loss)

The accounts of the U.S. parent company are maintained in USD. The functional currency of the Company’s China subsidiaries is the Chinese Yuan Renminbi (“RMB”) and the functional currency of SmartHeat Germany, the Company’s subsidiary in Germany, is the Euro (“EUR”). The accounts of the China subsidiaries and German subsidiary were translated into USD in accordance with SFAS No. 52, “Foreign Currency Translation” (codified in FASB ASC Topic 830). According to SFAS No. 52, all assets and liabilities were translated at the exchange rate on the balance sheet date, stockholders’ equity was translated at the historical rates and statement of operations items were translated at the average exchange rate for the period. The resulting translation adjustments are reported under other comprehensive income in accordance with SFAS No. 130, “Reporting Comprehensive Income” (codified in FASB ASC Topic 220).

The RMB to USD exchange rates and EUR to USD exchange rates in effect as of December 31, 2012 and 2011, and the average exchange rates for the years ended December 31, 2012 and 2011 are as following. The exchange rates used in translation from RMB to USD were published by State Administration of Foreign Exchange of the People’s Republic of China (“SAFE”). The exchange rates used in translation from EUR to USD were published by OANDA Rates.

	Average Exchange Rate For the Years Ended		Balance Sheet Date Exchange Rate	
	12/31/12	12/31/11	12/31/12	12/31/11
RMB - USD	6.3125	6.4588	6.2855	6.3009
EUR - USD	0.7777	0.7577	0.7777	0.7722

Stock-Based Compensation

The Company accounts for its stock-based compensation in accordance with SFAS No. 123R, “Share-Based Payment, an Amendment of FASB Statement No. 123” (codified in FASB ASC Topics 718 and 505). The Company recognizes in the income statement the grant date FV of stock options and other equity-based compensation issued to employees and non-employees.

Segment Reporting

SFAS No. 131, “Disclosures about Segments of an Enterprise and Related Information” (codified in FASB ASC Topic 280), requires use of the “management approach” model for segment reporting. The management approach model is based on the way a company’s management organizes segments within the company for making operating decisions and assessing performance. Reportable segments are based on products and services, geography, legal structure, management structure, or any other manner in which management disaggregates a company.

SFAS No. 131 has no effect on the Company’s financial statements as management determined that substantially all of the Company’s operations are conducted in one industry segment.

F-14

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2012 AND 2011

The following table sets forth a summary of sales by product line for 2012 and 2011:

	2012	2011
	(in millions)	
PHEs	\$ 22.29	\$ 32.59
PHE Units	18.55	23.42
Heat meters	3.28	6.54
Heat pumps	3.73	2.67
	\$ 47.85	\$ 65.22

New Accounting Pronouncements

On July 27, 2012, the FASB issued ASU 2012-02, Intangibles-Goodwill and Other (Topic 350) - Testing Indefinite-Lived Intangible Assets for Impairment. The ASU provides entities with an option to first assess qualitative factors to determine whether events or circumstances indicate that it is more likely than not that the indefinite-lived intangible asset is impaired. If an entity concludes it is more than 50% likely that an indefinite-lived intangible asset is not impaired, no further analysis is required. However, if an entity concludes otherwise, it would be required to determine the FV of the indefinite-lived intangible asset to measure the amount of actual impairment, if any, as currently required under US GAAP. The ASU is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. Early adoption is permitted. The adoption of this pronouncement did not have a material impact on our financial statements.

As of December 31, 2012, there is no other recently issued accounting standards not yet adopted that would have a material effect on the Company's consolidated financial statements.

3. INVENTORIES

Inventories at December 31, 2012 and 2011, were as follows:

	2012	2011
Raw materials	\$ 38,829,405	\$ 39,280,141
Work in process	9,831,235	6,496,349
Finished goods	15,070,801	11,699,008
Total	63,731,441	57,475,498
Inventory allowance	(5,433,879)	(3,826,949)
Inventories, net	\$ 58,297,562	\$ 53,648,549

4. NOTES RECEIVABLE – BANK ACCEPTANCES

The Company sold goods to its customers and received commercial notes (bank acceptance) from them in lieu of payments for accounts receivable. The Company discounted the commercial notes with the bank or endorsed the commercial notes to vendors for payment of their own obligations or to get cash from third parties. Most of the commercial notes have a maturity of less than six months.

Table of Contents

SMARTHEAT INC. AND SUBSIDIARIES
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 DECEMBER 31, 2012 AND 2011

5. PROPERTY AND EQUIPMENT, NET

Property and equipment consisted of the following at December 31, 2012 and 2011:

	2012	2011
Buildings	\$ 4,830,751	\$ 4,789,152
Production equipment	8,160,111	7,372,253
Office equipment	1,120,799	978,291
Vehicles	937,364	1,038,058
Total	15,049,025	14,177,754
Less: accumulated depreciation	(4,101,545)	(2,829,153)
Property & equipment, net	\$ 10,947,480	\$ 11,348,601

Depreciation expense for 2012 and 2011, was \$1,275,000 and \$1,092,000, respectively.

6. OTHER RECEIVABLES, PREPAYMENTS AND DEPOSITS