SMARTHEAT INC. Form 424B3 April 25, 2011 Filed Pursuant to Rule 424(b)(3) Registration No. 333-154415

PROSPECTUS

SMARTHEAT INC.

134,675 Shares of Common Stock

The selling shareholders identified in this prospectus may offer and sell up to 134,675 shares of our common stock consisting of (i) 37,900 shares of our common stock and (ii) up to 96,775 shares of our common stock issuable upon exercise of warrants. The warrants are immediately exercisable, expire on the third anniversary of their issuance and entitle their holders to purchase 1 share of our common stock at \$6.00 per share. All of the shares and warrants were issued to the selling shareholders in a private placement transaction exempt from registration under the Securities Act of 1933, as amended, which was completed prior to the filing of the registration statement of which this prospectus is a part.

We are not selling any shares of our common stock in this offering and will not receive any proceeds from the sale of shares of our common stock by the selling shareholders pursuant to this offering. We will receive the proceeds from any exercise of the warrants to purchase shares of our common stock covered by this prospectus.

The selling shareholders may offer the shares of our common stock covered by this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or negotiated prices, in negotiated transactions or in trading markets for our common stock. We will bear all costs associated with this registration.

Our common stock trades on the Nasdaq Global Market under the symbol "HEAT." The closing price of our common stock on the Nasdaq Global Market on April 13, 2011, was \$3.08 per share.

You should consider carefully the risk factors beginning on page 7 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 25, 2011.

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This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission ("SEC") using a "shelf" registration process. Under this shelf registration process, the selling shareholders may, from time to time, offer and sell up to 134,675 shares of our common stock, as described in this prospectus, in one or more offerings. This prospectus provides you with a general description of the securities the selling shareholders may offer. You should read carefully this prospectus together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference" before making an investment decision.

You may only rely on the information contained in this prospectus or that we have referred you to. We have not authorized anyone to provide you with additional or different information. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the shares of our common stock offered by this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any common stock in any circumstances or any jurisdiction in which such offer or solicitation is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

In this prospectus, the terms "SmartHeat," the "Company," "we," "us" and "our" refer to SmartHeat Inc. and its subsidiaries. Verefer to the People's Republic of China as "China" and the "PRC."

FORWARD-LOOKING STATEMENTS

Certain statements contained in or incorporated by reference into this prospectus, our filings with the SEC and our public releases, including but not limited to, information 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, product qualification requirements of our customers and any financial guidance therein are forward-looking statements within the meaning of Section 27A(i) of the Securities Act of 1933, as amended, and Section 21E(i) of the Securities Exchange Act of 1934, as amended. 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," "believes," "seeks," "estimates," "may," "should" or other similar expressions and variations 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 and heat meters 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 effectively protect our intellectual property rights 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 prospectus 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 market for the PHEs, PHE Units and heat meters may not grow at the rate

projected by market data, or at all. The failure of this market to grow at the projected rate may have a material adverse effect on our business and the market price of our common stock. In addition, the rapidly changing nature of our customers' industries results in significant 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. You should not place undue reliance on these forward-looking statements.

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 independent industry publication market data cited in this report was prepared on our or our affiliates' behalf.

You are cautioned that, while forward-looking statements reflect our good faith beliefs, they are not guarantees of future performance and they involve known and unknown risks and uncertainties. Actual results may differ materially from those in the forward-looking statements as a result of various factors. The information contained or incorporated by reference in this prospectus, including, without limitation, the information set forth in the "Risk Factors" incorporated by reference in this prospectus, identifies important factors that could cause such differences. We undertake no obligation to release publicly the results of any revisions to these forward-looking statements that may reflect any future events or circumstances, except as required by applicable law, rules or regulations.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in this prospectus and the documents incorporated herein by reference. This summary does not contain all of the information you should consider before investing in our securities. Before deciding to invest in our securities, you should read this entire prospectus and the documents incorporated herein and therein, including the discussion of "Risk Factors" and our consolidated financial statements and the related notes.

Our Company

We are a designer, manufacturer and seller of clean technology plate heat exchangers and related systems in the PRC. Our products are used by our customers in the industrial, residential and commercial markets in China to improve energy utilization and efficiencies and reduce pollution by reducing the need for coal fired boilers. We design, manufacture, sell and service plate heat exchangers ("PHEs"), PHE Units, which combine PHEs with various pumps, temperature sensors, valves and automated control systems, and heat meters for use in commercial and residential buildings. We also design, manufacture and sell spiral heat exchangers and tube heat exchangers. Our 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 ("HVAC") and industrial use in petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing. Our PHE Units are custom designed by our own in-house engineers and sold under our Taiyu brand name, while our PHEs are sold under both our Taiyu brand as well as the Sondex brand name. We are an authorized dealer of Sondex PHEs in China.

A PHE is a device that transfers energy from one fluid to another across a solid surface. PHEs consist of a set of plates made of stainless steel, titanium or 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 high thermal conductivity. The quantity and size of the plates and size of the PHEs and PHE Units vary according to particular application requirements.

Among the primary advantages of plate heat exchangers as compared to traditional shell-and-tube heat exchangers are their efficiency, compact design and ease of customization. PHEs have larger heat transfer surface areas and therefore greater thermal conductivity. As a result, a PHE can transfer the same amount of heat as a traditional shell-and-tube heat exchanger despite its smaller size. In China, coal is the predominant source of heat energy, and coal burning is a significant contributor to carbon dioxide ("CO2") emissions. According to International Energy Statistics provided by the Energy Information Administration, a subdivision of the United States Department of Energy, in 2007, the consumption of coal accounted for 27% of the total primary energy consumption in the world. China was the largest producer of CO2 emissions from the consumption of coal in 2009, accounting for 48.4% of the world total.

The PRC government's 12th Five-Year Plan announced in 2011 targets up to a 17% reduction in energy consumption and CO2 emissions per unit of GDP from 2010 levels by 2015. Furthermore, the PRC Ministry of Environmental Protection has issued CO2 emissions quotas through 2015 to provincial governments, providing clear energy and emissions targets to help ensure energy policies are implemented with defined carbon goals. As the PRC government continues to require the use of machines that produce more efficient heat transfer and utilize waste heat energy, PHEs will be an increasingly important element in reducing overall coal consumption in China, which will translate into lower heating costs, lower CO2 emissions for users and less pollution to the environment. According to the PRC government, China has cut energy use per unit of GDP by 14.4% between 2006 and 2009 and it aims to cut CO2 output per unit of GDP by at least 40% by 2020 compared with 2005 levels.

We currently focus predominantly on the domestic Chinese market. All designs of our PHEs and PHE Units are done in-house by our engineers utilizing advanced software and our proprietary in-house CAD software. Through our acquisition of Siping Beifang Heat Exchanger Manufacture Co., Ltd. ("Siping Beifang") in 2009, one of the major plate heat exchanger manufacturers in China, we can manufacture our own plates, tubes and gaskets and can design and manufacture PHEs and PHE Units using component plates sourced from our own vertically integrated supply chain or from our main supplier of component plates, Sondex. Our plates 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.

In early 2006, we launched a third product line, heat meters, which utilize the same sales channels and allows us to provide heat consumption information to users. Heat meters precisely measure the volume of heat usage, which is an important revenue stream for utility companies. While home owners commonly use heat meters in Western countries, widespread incorporation of heat meters has only recently taken hold in China. In July 2003, in response to rising energy costs and increased sensitivity to environmental issues, the PRC government made the use of heat meters required nationally for new construction installed with central heating; the requirement was extended in April 2008 by the Energy Conservation Law, Article 38, to cover existing buildings being retrofitted. We believe there are significant opportunities for strong incremental growth as the PRC government continues to focus on ways to cost effectively monitor and conserve energy.

PHE PHE Unit Heat Meter

In 2011, we anticipate launching a new product line, heat pumps, in the domestic Chinese market. Heat pump systems provide heating, cooling and hot water for residential and commercial buildings and process heat for industrial applications using small amounts of electricity. Heat pumps are replacing conventional energy sources such as oil, gas and coal by using the solar energy stored in water, soil and air or recovering heat from wastewater or exhaust air. The various 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. We plan to begin designing, manufacturing and selling heat pumps for the rapidly growing heat pump market in China in 2011.

In 2010, we generated net sales of \$125.4 million and net income of \$22.7 million, representing year-over-year growth rates of 52% and 47%, respectively. We experienced similar growth rates from 2006 to 2010, during which period our total revenue increased from \$8.2 million to \$125.4 million (a compound annual growth rate ("CAGR") of 98%), and our net income grew at a 129% CAGR from \$0.8 million in 2006 to \$22.7 million in 2010.

Our headquarters and principal manufacturing facilities are located in Shenyang, China, where we have a 210,137 square foot state-of-the-art production facility. We operate two other production and assembly facilities in China, and anticipate expanding our facilities and production capacity in Shenyang in 2011. As of December 30, 2010, we had 776 full time employees and 180 seasonal employees.

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) 2536-3366. Our website is www.smartheatinc.com.

Our Industry

We serve the utility and industrial sectors throughout China. Participants in these industries are large users of PHEs, PHE Units and related accessories. We also serve the HVAC sector. Participants in this industry are large users of heat meters. We also provide after-sales services on our PHEs, PHE Units and heat meters to these industries. These services include maintenance, repair and supplying spare parts.

According to the "China Heat Exchanger Industry Report" (hereinafter referred to as the "Industry Report") issued by Zero Power Intelligence Co., Ltd., an independent market research firm in China, the world heat exchanger market has grown significantly in the past several years. Global sales of heat exchangers grew from \$29.7 billion in 2005 to \$38.6 billion in 2008, or 30%, according to the Industry Report, and reached an estimated \$50 billion in 2010, according to our research. The Industry Report expects the market to grow to \$55.3 billion in 2012.

China has become the largest and one of the fastest growing markets for heat exchangers. The sales of heat exchangers in China grew from \$3.2 billion in 2005 to \$5.4 billion in 2008, or 70%, and are projected to grow to \$11.0 billion in 2012, or 106% in the 4-year period from 2009 to 2012.

Currently, there are social, economic, environmental and regulatory factors driving demand for environmentally friendly solutions, which reduce pollution and advance energy efficiency, many of which utilize PHEs. 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, especially in large Chinese 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 CO2 emissions come from burning coal.

Growing Demand for Heating Water. China currently provides households throughout 17 of its 34 northern provinces with heating water. As new cities grow 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 which pump emitted hot water from the power plant through a closed loop system to a water heating company and then through a network of pipes up to a distance of 50 kilometers. These systems of heating stations and sub-stations utilize numerous PHEs and PHE Units, which provide a dual purpose: a cooling system for the power plants and a heat source for residents and factories.

Heightened Environmental Awareness. Management expects the PRC government's upcoming 12th Five-Year Plan to target cuts of CO2 output per unit of GDP by at least 40% from 2005 levels. Furthermore, the Plan is expected to have 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 their increased energy efficiency.

Urbanization. According to the CIA World Factbook, 47% of China's population lived in urban settings in 2010. 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 Chinese cities are among the world's fastest growing, increasing at an annual rate of 2.3% or more. 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 is now demanding 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

We believe we have the following competitive strengths:

Provider of Key Elements Used to Improve Energy Efficiencies and Reduce Coal Pollution. We offer a full line of PHEs, PHE Units and heat meters, and will introduce heat pumps in 2011. 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.

Established Leader and Brand Name in the Growing China Heating Industry. We have established a leading brand name in the fragmented Chinese heating industry and seek to utilize this awareness to become the leading Chinese supplier of PHEs, PHE Units and related products in the rapidly growing Chinese market. We are one of the leading domestic producers of PHE Units under the Taiyu brand and management estimates that we have approximately a

12% share of the PHE Unit market in China based on our internal market research, which tracks PHE projects in China valued over \$1.5 million. We believe the Taiyu brand name is recognized for its quality and efficiency, which we believe we can leverage to improve our reputation as a leading seller of high quality PHE Units in China.

Quality Engineering, Research and Development. We emphasize efficiency, durability and quality engineering in all of our products. All of our products utilize the latest technologies, and our designs are created using advanced software systems. We have eight registered patents in China for PHE products and heat meters. To maintain our competitive edge in the marketplace and keep pace with new technologies, we fund research and development on an on-going basis to find improved efficiencies in design, cost and energy capture. Research and development costs for 2010, 2009 and 2008, were \$1.89 million, \$1.36 million and \$1.02 million, respectively. We plan to continue to invest in research and development to identify new industry applications for PHEs, improve and expand our product lines, including the introduction of heat pumps in 2011, 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 as well as the pressure loss within the system. Our unique design software enables us to provide high quality and timely technical support to ensure our customers receive the right equipment for each project. We also provide a streamlined and error free installation process to minimize project complications.

Enterprise-Wide Design, Production and Control Systems for Efficient Pricing and Streamlined Manufacturing. Our technologically advanced CAD systems are integrated with our real-time enterprise resource planning and finance systems. This advanced, integrated platform allows our 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 to five days for PHEs and ten days for PHE Units. We believe these lead times are some of the best in the industry and provide an unparalleled level of customer service.

Focus on Quality. We have a National Safety Certification for our PHE products, and are an ISO 9001 certified manufacturer.

First-Rate Customer Service and Reliable Product Delivery. We believe that our employees provide first-rate customer service, technical expertise and product knowledge to streamline the selection, design and installation processes. We provide after-sales service through our local service centers and deliver products on time to meet tight project deadlines. Our focus on delivering premium service separates us from our competitors and has been critical in helping us win a number of projects for various multinational companies and local governments.

Diversified End Markets and Customers. Our PHEs and PHE Units are broadly used across a variety of industrial end markets including the energy (i.e., conventional and nuclear power plants), HVAC, petroleum refining, petrochemicals, metallurgy, food and beverage and chemical processing end markets. We also benefit from a diverse customer mix, with no individual customer accounting for greater than 10% of sales in 2010, 2009 or 2008. This end market and customer diversification helps to insulate us from sales volatility that would occur if we concentrated in specific industries. The majority of our customers are utilities, engineering and construction companies and industrial companies.

Proven Ability to Identify and Acquire Strategic Targets. We have completed multiple strategic acquisitions since 2008, including Siping Beifang, SanDeKe Co., Ltd. ("SanDeKe"), Gustrower Warmepumpen GmbH ("GWP") and Shenyang Bingchuan Refrigerating Machine Ltd. Co. ("Bingchuan"). Each acquisition has accelerated our strategic plan 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) improving our cost structure; (v) enhancing our engineering capabilities; and (vi) helping us enter new and higher growth end markets. We have proven our ability to complete successful acquisitions and believe there are additional acquisition opportunities both in the domestic Chinese market and internationally that we may potentially pursue.

Experienced Management Team. Our senior management team has extensive business and industry experience. Jun Wang, our Chairman, President and Chief Executive Officer, was the founder of Taiyu in 2002. He 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. Zhijuan Guo, our Chief Financial Officer, has over 15 years of finance and accounting experience and has been with us since inception in 2002. Xudong Wang, our Vice President of Strategy and Development, served previously as the vice president of an international financial firm. Wen Sha, our 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 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.

Our Growth Strategy

Our goal is to further penetrate the many market segments throughout China for PHEs, PHE Units and related accessories, expand our PHE and PHE Unit sales both domestically and internationally, promote the sale of heat meters, introduce heat pumps as a new product line and execute strategic acquisitions that are accretive and synergistic to our business.

Pursue High Growth Chinese End Markets. We are targeting our sales efforts on a number of high growth domestic Chinese end markets, such as the nuclear power, petrochemical and ship-building industries. We currently have a presence in these segments but we believe that there are significant opportunities to improve our market share by leveraging our premium product quality and high quality service. Our solutions are commonly used in many of these industries and customers continue to assess the cost savings and positive environmental attributes of PHEs.

Continue Organic Growth Initiatives. We believe that the current PHE market is fragmented and represents an excellent opportunity for us to gain additional market share from our competitors. We intend to continue to open new sales offices, hire additional sales personnel, expand into new distribution channels and improve the quality of our products. We also intend to continue to leverage our strong brand, quality customer service, engineering and reliable product delivery to gain incremental business with our existing clients. Finally, we believe that as we continue to grow, economies of scale and improved cost control measures will drive stronger profitability across all product lines.

Promote Heat Meters. In response to rising energy costs and an increased focus on energy efficiency, the Chinese government and local utility companies have 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; the requirement was extended in April 2008 by the Energy Conservation Law, Article 38, to cover existing buildings being retrofitted. We are currently working with the General Administration of Quality Supervision and Quarantine, an administrative organ established under the PRC's State Council, to establish a national heating standard in China. We also intend to leverage the Taiyu brand and our reputation in the PHE market to gain market share.

Introduce Heat Pumps. 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. We plan to begin designing, manufacturing and selling heat pumps in 2011 for the China domestic market.

Expand Internationally. We continue to seek additional opportunities to expand our business internationally. We plan to cooperate with a number of international energy contractors to help promote our products outside of China and will review international acquisition opportunities and joint venture opportunities for international growth.

Execute Strategic Acquisitions. We intend to continue to acquire select domestic or international targets that would enable us to enter new markets or gain entry into new industries. For example, the asset acquisition of Siping Beifang in 2009 provided us with an entrance into the petrochemical and high pressure chemical end markets, which were previously immaterial industries for us. We also acquired SanDeKe in 2008, which increased our PHE and PHE Unit production capacity. Due to the high pressure and heat tolerance demands of the petrochemical industry, we have also acquired valuable engineering expertise that may help us serve the nuclear energy industry in a meaningful way. In 2011, we completed the acquisitions of GWP and Bingchuan, which will extend our clean technology solutions into the rapidly growing heat pump markets in Europe and China. Management believes it has a strong track record of acquiring companies that fit our strategic goals of reducing pollution and saving energy, and of successfully integrating their operations so they are accretive to earnings and contribute to our rapid growth. We will continue to identify and review targets that are accretive to our earnings, easily integrated into our existing infrastructure and synergistic to our operations.

Risk Factors

Please see "Risk Factors" starting on page 7 to read about factors you should consider carefully before deciding to invest in shares of our common stock.

The Offering

Common stock offered by selling shareholders Up to 134,675 shares

The maximum number of shares to be sold by the selling shareholders, 134,675 shares, assumes full exercise of the warrants.

Common stock to be outstanding after the Up to 38,686,614 shares, assuming exercise of all warrants

offering

Use of proceeds We will not receive any proceeds from the sale of the common

stock. However, we may receive proceeds from the exercise of the

warrants. See "Use of Proceeds" for a complete description.

NASDAQ Global Market Listing Our common stock trades on the NASDAQ Global Market under

the symbol "HEAT."

The above information regarding our common stock to be outstanding after the offering is based on 38,551,939 shares of our common stock outstanding as of April 13, 2011, which excludes stock options outstanding as of December 31, 2010, to purchase 63,333 shares of our common stock at a weighted-average exercise price of \$10.32 per share; 500 shares of our common stock to be issued pursuant to a one-year consulting service agreement with a consultant; and 1,000,000 shares of our common stock reserved for issuance under our 2010 Equity Incentive Plan.

RISK FACTORS

An investment in our securities involves a high degree of risk and many uncertainties discussed in the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K, or any updates to our risk factors in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in or incorporated by reference into this prospectus. You should carefully consider the risk factors before making an investment in our securities. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock covered by this prospectus by the selling shareholders. We will, however, receive proceeds from any exercise of the outstanding warrants to purchase shares of our common stock covered by this prospectus. The warrants may expire without having been exercised. Even if some or all of these warrants are exercised, we cannot predict when they will be exercised and when we would receive the proceeds. We intend to use any proceeds we receive upon exercise of the warrants for general working capital and other corporate purposes.

SELLING SHAREHOLDERS

The 134,675 shares of our common stock covered by this prospectus, including shares issuable pursuant to the terms of outstanding warrants, were issued in a private placement transaction completed in two closings on July 7, 2008, and August 22, 2008. We sold 1,630,000 units at \$3.50 per unit in the private placement transaction, each unit consisting of 1 share of our common stock and 1 warrant to purchase 15% of 1 share of our common stock at \$6.00 per share. We issued 1,630,000 shares of our common stock and warrants to purchase 244,500 shares of our common stock to the investors in the private placement. In addition, we issued warrants to purchase 148,500 shares of our common stock to the placement agents in the private placement transaction. The warrants issued in the private placement transaction are immediately exercisable and expire on the third anniversary of their issuance. The original issuance of the shares of our common stock and warrants was exempt from the registration requirements of the Securities Act.

The selling shareholders may sell all, some or none of their shares of our common stock in this offering. See "Plan of Distribution."

The following table sets forth as to each of the selling shareholders: the number of shares beneficially owned, based upon our best knowledge and on each selling shareholder's ownership of shares of our common stock and warrants received in the private placement transaction, as of April 13, 2011, assuming exercise of all of the warrants held by each such selling shareholder on that date without regard to any limitations on exercise; the number of shares being offered pursuant to this prospectus by the selling shareholders; and the number of shares beneficially owned by and the percentage of beneficial ownership of the selling shareholders upon completion of the offering.

			Beneficial Ownership	
		ip Shares of Common		Offering
Shareholder	Before Offering	Stock Being Offered	Number	Percentage**
Allied Diesel Service Inc. Employee Profit				
Sharing Plan #2 (i)	1,500	1,500	0	
Barson, Kalman A. Roth IRA	1,500	1,500	0	
Berkowitz, Daniel IRA, Pershing LLC as				
Custodian	1,500	1,500	0	
Berlinger, Michael A.	1,500	1,500	0	
Chasanoff, Teddy	1,500	1,500	0	
Clemente, Ann V.	1,500	1,500	0	
Domaco Venture Capital Fund Partnership (ii)	1,500	1,500	0	
Elias Sayour Foundation Inc. (iii)	1,500	1,500	0	
Engelbert, Marc	1,500	1,500	0	
Eximius bvba (iv)	11,500	11,500	0	
Falda, Evie and David	1,500	1,500	0	
Funcorp Associates Ltd. (v)	8,000	8,000	0	
Geri Investments N.V. (vi)	9,900	9,900	0	
Gross, John	1,500	1,500	0	
Grossman, Andrew Profit Sharing Plan, Pershing				
LLC as Custodian	1,500	1,500	0	
Harmon Corporation A.V.V. (vii)	6,500	6,500	0	
Hight, Norton and Joan	1,500	1,500	0	
Hight, Randall W.	1,500	1,500	0	
Kelly, Maura	1,500	1,500	0	
La legetaz Private Foundation (viii)	4,500	4,500	0	
Model, Wolfe F.	1,500	1,500	0	
Pirasteh, Ross	1,500	1,500	0	
Polak, Anthony G. (ix)	1,500	1,500	0	
Polak, Anthony G. IRA, Pershing LLC as	,	,		
Custodian (ix)	1,500	1,500	0	
Polak, Jack IRA, Pershing LLC as Custodian (x)	1,500	1,500	0	
Quinn, David L. and Tracy	1,500	1,500	0	
Roman, Steve	1,500	1,500	0	
Rothschild, Jonathan	1,500	1,500	0	
Shapiro, Sandra G. and Robert S.	1,500	1,500	0	
Stadtmauer, Gary	1,500	1,500	0	
Stadtmauer, Murray and Clare	1,500	1,500	0	
Stadtmauer, Rhea D. and Maiman, Janice	1,500	1,500	0	
Staloff, Arnold	11,500	11,500	0	
Sun Fun Investing Inc. (xi)	4,000	4,000	0	
Swerdloff, David IRA, Pershing LLC as Custodia		1,500	0	
The USX China Fund (xii)	3,000	3,000	0	
Tornay, Suellyn P.	1,500	1,500	0	
White Sand Investor Group, L.P. (xiii)	2,100	2,100	0	
Maxim Group LLC (xiv)	3,750	3,750	0	
Rodman & Renshaw LLC (xv)	25,425	25,425	0	
Seaboard Securities Inc. (xvi)	1,000	1,000	0	
Scappard Securities file. (XVI)	· ·	·	U	
	134,675	134,675		

- ** Less than 1%, unless otherwise specified
- (i) Ralph A. Darienzo, Sr. and Ralph A. Darienzo, Jr., trustees of the Allied Diesel Service Inc. Employee Profit Sharing Plan #2, and Ronald Lazar, a registered representative of Maxim Group, LLC, a registered broker-dealer and FINRA member firm, investment advisor to the Plan, have voting and dispositive control over the shares held by the Allied Diesel Service Inc. Employee Profit Sharing Plan #2.
- (ii) Jack Polak, father of Anthony Polak, a registered representative of Maxim Group, LLC, a registered broker-dealer and FINRA member firm, and general partner of Domaco Company, parent of the Domaco Venture Capital Fund, has voting and dispositive control over the shares held by Domaco Venture Capital Fund.
- (iii) Paul Sayour and Mary Jane Josen, trustees of the Elias Sayour Foundation, Inc., have shared voting and dispositive control over the shares held by the Elias Sayour Foundation, Inc.
- (iv) Jos Moons, manager and owner of Eximius byba, has sole voting and dispositive power with respect to the shares of our common stock that are beneficially owned by Eximius byba.
- (v) Herman J. Behr (Managing Director), Gisele M. Sjak Shie (Managing Director), Raoul A. Behr (Managing Director), Randolph K. Arends (Attorney-in-fact A), Reginald D. Schotborgh (Attorney-in-fact A), Godefridus H.J. Konings (Attorney-in-fact B), Gustaaf J. Barhorst (Attorney-in-fact B), and Remir F. Sinlae (Attorney-in-fact B) have joint voting and investment power with respect to the shares held by Funcorp Associates Ltd. under the following two restrictions: Any Managing Director or any Attorney-in-fact A can act jointly with any other Managing Director, Attorney-in-fact A or Attorney-in-fact B. Any Attorney-in-fact B must act jointly with any Managing Director or any Attorney-in-fact A, but may not act jointly with any other Attorney-in-fact B.
- (vi) Marimus J. Dekver, director of Geri Investments N.V., has voting and dispositive control over the shares held by Geri Investments N.V.

- (vii) Herman J. Behr (Managing Director), Gisele M. Sjak Shie (Managing Director), Raoul A. Behr (Managing Director), Randolph K. Arends (Attorney-in-fact A), Reginald D. Schotborgh (Attorney-in-fact A), Godefridus H.J. Konings (Attorney-in-fact B), Gustaaf J. Barhorst (Attorney-in-fact B), and Remir F. Sinlae (Attorney-in-fact B) have joint voting and investment power with respect to the shares held by Harmon Corporation A.V.V. under the following two restrictions: Any Managing Director or any Attorney-in-fact A can act jointly with any other Managing Director, Attorney-in-fact A or Attorney-in-fact B. Any Attorney-in-fact B must act jointly with any Managing Director or any Attorney-in-fact A, but may not act jointly with any other Attorney-in-fact B.
- (viii) Herman J. Behr (Managing Director), Gisele M. Sjak Shie (Managing Director), Raoul A. Behr (Managing Director), Randolph K. Arends (Attorney-in-fact A), Reginald D. Schotborgh (Attorney-in-fact A), Godefridus H.J. Konings (Attorney-in-fact B), Gustaaf J. Barhorst (Attorney-in-fact B), and Remir F. Sinlae (Attorney-in-fact B) have joint voting and investment power with respect to the shares held by La legetaz Private Foundation under the following two restrictions: Any Managing Director or any Attorney-in-fact A can act jointly with any other Managing Director, Attorney-in-fact A or Attorney-in-fact B. Any Attorney-in-fact B must act jointly with any Managing Director or any Attorney-in-fact A, but may not act jointly with any other Attorney-in-fact B.
- (ix) Anthony G. Polak is a registered representative of Maxim Group, LLC, a registered broker-dealer and FINRA member firm. Mr. Polak purchased his shares in the ordinary course of business and, at the time of purchase, had no agreements or understandings, directly or indirectly, with any person to distribute the shares.
- (x) Jack Polak is father of Anthony Polak, a registered representative of Maxim Group, LLC, a registered broker-dealer and FINRA member firm.
- (xi) Wim C. Odems, managing director of Trufima International Corporation Ltd., owner of Sun Fun Investing Inc., has voting and dispositive power with respect to the shares of our common stock that are beneficially owned by Sun Fun Investing Inc.
- (xii) Stephen L. Parr, Managing Member of Parr Financial Group, LLC, investment adviser to the USX China Fund, has voting and dispositive power with respect to the shares of our common stock that are beneficially owned by the USX China Fund.
- (xiii) Elliott Donnelley II has sole voting and dispositive power with respect to the shares of our common stock that are beneficially owned by White Sand Investor Group, LP.
- (xiv) Michael Rabinowitz has sole voting and dispositive power with respect to the shares of common stock that are beneficially owned by Maxim Group, LLC. Maxim Group, LLC is a broker-dealer that received its warrants as compensation for placement agent services from Rodman & Renshaw LLC.
- (xv)Thomas G. Pinou has sole voting and dispositive power with respect to the shares of common stock that are beneficially owned by Rodman & Renshaw LLC. Rodman & Renshaw is a broker-dealer that received its warrants as compensation for placement agent services.
- (xvi) Anthony DiGiovanni Sr. has voting and dispositive power with respect to the shares of common stock that are beneficially owned by Seaboard Securities Inc. Seaboard Securities Inc. is a broker-dealer that received its warrants as compensation for placement agent services.

PLAN OF DISTRIBUTION

The selling shareholders identified in this prospectus may offer and sell up to 134,675 shares of our common stock that we have issued to them or that we may issue to them upon the exercise of certain warrants issued to them. The selling shareholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices.

All of the shares of our common stock and warrants were issued previously in a private placement transaction completed prior to the filing of the registration statement of which this prospectus is a part.

The selling shareholders may sell all or a portion of the shares of our common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of our common stock are sold through underwriters or broker-dealers, the selling shareholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions,

• on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing of options, whether such options are listed on an options exchange or otherwise;
 - ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
 - purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
 - an exchange distribution in accordance with the rules of the applicable exchange;
 - privately negotiated transactions;
 - short sales;
 - sales pursuant to Rule 144;
- broker-dealers may agree with the selling shareholders to sell a specified number of such shares at a stipulated price per share;
 - a combination of any such methods of sale; and
 - any other method permitted pursuant to applicable law.

If the selling shareholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling shareholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock or otherwise, the selling shareholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling shareholders may also sell shares of common stock short and deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling shareholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling shareholders may pledge or grant a security interest in some or all of the warrants or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b) or other applicable provision of the Securities Act amending, if necessary, the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus. The selling shareholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling shareholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be "underwriters" within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling shareholders and any discounts, commissions or concessions allowed or reallowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling shareholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus is a part.

The selling shareholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the selling shareholders and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We have agreed to pay all expenses of the registration of the shares of common stock including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that a selling shareholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling shareholders against liabilities, including some liabilities under the Securities Act, in accordance with our agreement to register the shares, or the selling shareholders will be entitled to contribution. We may be indemnified by the selling shareholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling shareholder specifically for use in this prospectus, in accordance with the related registration rights agreements, or we may be entitled to contribution.

Once sold under the registration statement of which this prospectus is a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of our common stock offered hereby will be passed upon for us by Holland & Hart LLP of Reno, Nevada.

EXPERTS

The consolidated financial statements incorporated in this registration statement by reference from our Annual Report on Form 10-K for the year ended December 31, 2010, have been audited by Goldman Kurland & Mohidin LLP, independent registered public accountants, as stated in their report, and have been incorporated by reference in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC for the securities we are offering by this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. We will provide to each person, including any beneficial owner, to whom a prospectus is delivered a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. We will provide this information upon oral or written request, free of charge. Any requests for this information should be made by calling or sending a letter to: Corporate Secretary, c/o SmartHeat Inc., A-1, 10, Street 7, Shenyang Economic and Technological Development Zone, Shenyang, China 110141. Our telephone number is +86 (24) 2536-3366.

We are subject to the informational requirements of the Exchange Act, which requires us to file annual, quarterly and current reports, proxy statements and other information with the SEC. You can inspect and copy reports, proxy statements and other information filed by us at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. You can obtain copies of this material by mail from the Public Reference Room of the SEC at 1580, 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. You can also obtain such reports, proxy statements and other information from the web site that the SEC maintains at www.sec.gov.

Reports, proxy statements and other information concerning us may also be obtained electronically at our website, www.smartheatinc.com, and through a variety of databases, including, among others, the SEC's Electronic Data Gathering and Retrieval (EDGAR) program, Knight-Ridder Information Inc., Federal Filing/Dow Jones and Lexis/Nexis. None of the information on those websites that is not otherwise expressly set forth in or incorporated by reference in this prospectus is a part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. The following documents filed by us with the SEC are incorporated herein by reference:

- Annual Report on Form 10-K for the year ended December 31, 2010, filed on March 15, 2011;
 - Current Report on Form 8-K filed on March 15, 2011; and
- The description of our common stock contained in the Form SB-2 filed on December 22, 2006, and any amendments or reports filed for the purpose of updating such description.

Notwithstanding the foregoing, information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K, including the related exhibits, is not incorporated by reference in this prospectus.

All documents filed by us with the SEC subsequent to those listed above pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus and to be a part hereof from the respective date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof to the extent that a statement in any other subsequently filed document which is also incorporated or deemed to be incorporated herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

SMARTHEAT INC.

134,675 SHARES OF COMMON STOCK

PROSPECTUS

April 25, 2011