

ALTAIR NANOTECHNOLOGIES INC  
Form S-3  
October 29, 2012

As Filed with the Securities and Exchange Commission on October 29, 2012

Registration No. 333-\_\_\_\_\_

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

FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

Altair Nanotechnologies Inc.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

33-1084375  
(I.R.S. employer  
identification number)

Alex Lee  
Chief Executive Officer  
Altair Nanotechnologies Inc.  
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Reno, Nevada 89502  
(775) 858-3770  
(Name, address, including zip code, and  
telephone number, including area code, of  
agent for service)

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Approximate date of commencement of the proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

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

Large Accelerated Filer "                      Accelerated Filer "

Non-Accelerated Filer "                      Smaller Reporting  
Company x

## CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered(1)	Proposed maximum aggregate offering price(2)	Amount of registration fee(3)
Common Stock, \$.001 par value(4)		
Rights associated with common stock (4)		
Warrants to purchase common stock (4)		
Units of common stock (4) and warrants to purchase common stock (4)		
<b>Total</b>	<b>\$50,000,000</b>	<b>\$6,820 (5)</b>

- (1) There are being registered hereunder such indeterminate number of shares of common stock, associated rights and warrants to purchase shares of common stock, and such indeterminate number of units of warrants and shares of common stock, as shall have an aggregate initial offering price not to exceed \$50,000,000. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. In addition, the securities being registered hereunder include such indeterminate number of shares of common stock and associated rights as may be issuable with respect to the securities being registered hereunder as a result of stock splits, stock dividends or similar transactions, in each case determined in accordance with to Rule 416 under the Securities Act.
- (2) The proposed maximum aggregate offering price per class of security will be determined from time to time by the Registrant in connection with the issuance by the Registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act.
- (3) Calculated pursuant to Rule 457(o) under the Securities Act.
- (4) Each share of common stock includes an associated right arising under, and subject to the terms described in, the Revised Amended and Restated Shareholder Rights Plan dated May 31, 2012 with Registrar and Transfer Company. Until the occurrence of events described in such agreement, the rights are not exercisable, are evidenced by the Registrant's shares of common stock and transfer automatically with, and only with, the shares of common stock.
- (5) In accordance with Rule 457(p), the registrant is applying a portion of the previously paid registration fee of \$7,704, relating to the \$38,064,512 unsold securities that have not been sold and are not subject to outstanding warrants under its registration statement on Form S-3 (File No. 333-162009) that was declared effective on October 26, 2009, to offset the registration fee of \$5,730 due for this registration statement.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)

Dated October 29, 2012

ALTAIR NANOTECHNOLOGIES INC.

\$50,000,000

SHARES OF COMMON STOCK  
WARRANTS  
UNITS

We may from time to time offer in one or more series, together or separately:

- shares of common stock,
- warrants to purchase shares of common stock and
- units of warrants and shares of common stock.

We will set forth the amounts, prices and terms of these securities in supplements to this prospectus. Each share of common stock includes an associated right arising under a Revised Amended and Restated Shareholder Rights Plan dated May 31, 2012 with Registrar and Transfer Company. Until the occurrence of events described in such agreement, the rights are not exercisable, are evidenced by our shares of common stock and transfer automatically with, and only with, the shares of common stock.

This prospectus describes the general terms that may apply to these securities. The specific terms of any such securities to be offered and the plan of distribution for that offering will be described in supplements to this prospectus. The prospectus supplements also may add, update or change information in this prospectus. You should read this prospectus and any applicable prospectus supplement before you make your investment decision.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

We may offer and sell these securities through one or more underwriters, dealers and agents, securities through underwriting syndicates managed or co-managed by one or more underwriters, or directly to purchasers, on a continuous basis or a delayed basis. If any underwriters, dealers or agents are involved, their names and information about any commissions and discounts will be set forth in a prospectus supplement.

Our shares of common stock are listed on the NASDAQ Capital Market under the symbol "ALTI." On October 26, 2012, the last reported sale price of our shares of common stock was \$0.55 per share.

Investing in the securities offered by this prospectus and the accompanying prospectus supplement involves risks. See "Risk Factors" beginning on page 2.

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

This prospectus is dated October 29, 2012

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## OVERVIEW

Our primary focus is marketing advanced energy storage solutions for the electric grid, transportation, and industrial markets. In 2010, we expanded our sales focus to include original equipment manufacturers in the commercial vehicle and industrial markets targeting applications that leveraged the key attributes of our technology. These markets include medium and heavy-duty trucks, rail, stationary industrial applications and micro-grid systems. We believe that in the aggregate, our target markets are multi-billion dollar emerging markets with room for a number of successful suppliers. We believe the markets for advanced energy storage are maturing and as a result of our differentiated product attributes and the growing recognition we are receiving in the marketplace, that we will be successful in expanding orders. Customers are now telling us that unique attributes of our nano lithium titanate chemistry create real value for their businesses by allowing them to use energy storage in ways previously unachievable. Customers are most interested in the safety of our batteries, the long calendar and cycle life and the very fast charging capabilities over the widest temperature operating range in the industry.

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a “shelf” registration, or continuous offering process.

Each time that we sell any securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering and certain other offering-specific information. The prospectus supplement also may add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement.

The registration statement we filed with the SEC includes exhibits that provide more detail on descriptions of the matters discussed in this prospectus. You should carefully read this prospectus, the related exhibits filed with the SEC and the applicable prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” on page 23 of this prospectus. You should not assume that the information in this prospectus, the prospectus supplements or any documents incorporated by reference is accurate as of any date other than the date of the applicable document.

You should rely only on the information incorporated by reference or provided in this prospectus and any prospectus supplement. We have authorized no one to provide you with different information.

Unless we indicate otherwise, the terms “Altair,” “we,” “our” and “us” as used in this prospectus refers to Altair Nanotechnologies Inc. and its direct and indirect subsidiaries as a combined entity, except where it is made clear that the term only means the parent company or an identified subsidiary. Our principal executive offices are located at 204 Edison Way, Reno, NV, and our phone number is (775) 856-2500. Our website is [www.altairnano.com](http://www.altairnano.com). Information contained on our website is not a part of this prospectus or any prospectus supplement.



## RISK FACTORS

You should carefully consider the risks described in this prospectus and the accompanying prospectus supplement, in addition to the other information contained or incorporated by reference in this prospectus and the accompanying prospectus supplement before making an investment decision. Any of these risks could materially and adversely affect our business, financial condition or results of operations. In such case, you may lose all or part of your investment. Some factors in this section are forward-looking statements.

We may continue to experience significant losses from operations.

We have experienced a net loss in every fiscal year since our inception. Our loss from operations was \$19.9 million for the twelve months ended December 31, 2011. We may never be profitable in the future. Even if we are profitable in one or more future years, subsequent developments in the economy, our industry, customer base, business or cost structure, or an event such as significant litigation or a significant transaction, may cause us to again experience losses.

We may not be able to raise sufficient capital to finance our operations due to our operating results, market conditions and similar factors.

As of June 30, 2012, we had approximately \$35.3 million in cash and cash equivalents; however, \$32 million of this amount was transferred to our China operations to fund expansion of operations into China. Although it may be possible for the Company to repatriate capital for various intercompany transactions, these transactions will be governed by Chinese law. From time to time, administrative and legal issues may delay the timing of such transfers.

We expect that in the future we will again need to raise capital. With respect to any such capital raise, we may be unable to raise the amount of capital needed and may be forced to pay an extremely high price for capital. Factors affecting the availability and price of capital may include the following:

- market factors affecting the availability and cost of capital generally, including increases or decreases in major stock market indexes, the stability of the banking and investment banking systems and general economic stability or instability;
  - the price, volatility and trading volume of our shares of common stock;
- our financial results, particularly the amount of revenue we are generating from product sales;
- the market's perception of our ability to execute our business plan and any specific projects identified as uses of proceeds;
  - our ownership structure and recent or anticipated dilution;
  - the amount of our capital needs;
- the market's perception of our company and companies in our line of business; and
  - the economics of projects being pursued.

If we are unable to raise required capital or generate sufficient revenue to fund our operations, we may be forced to discontinue our operations.

We have entered into contractual provisions that may significantly limit our ability to raise capital in the near term.

In conjunction with the March 2011 “registered direct” offering, we entered a Securities Purchase Agreement pursuant to which we agreed that we would not sell securities at a price below \$2.23 per share for a two-year period ending March 2013, unless the March 2011 transaction is approved by our shareholders. Such approval will eliminate the floor on an exercise price adjustment in the warrants issued as part of the March 2011 offering. If we do not either obtain shareholder approval or cause the parties to the Securities Purchase Agreement to waive or amend this restriction, our ability to raise capital prior to March 2013 will be significantly impaired. This may affect our ability to obtain cash necessary to continue operations.

In addition, in conjunction with the closing of purchase by an affiliate of Canon of shares representing over 50% of our outstanding shares in 2011, we granted certain rights to Canon, including the right to proportional representation on our Board of Directors, certain registration rights, and an option to purchase a sufficient number of our equity securities at market price to maintain their percentage of ownership should we offer, sell or issue new securities. These rights may dissuade potential investors from purchasing our capital or may require us to accept less than favorable terms in future financings.

Laws governing repatriation of investments in a China WFOE may contribute to a need to obtain capital to finance our non-China operations in the near future.

Any business that we conduct in China will likely be through Altair China, or its manufacturing subsidiary. We have designated registered capital of the equivalent of \$32 million for Altair China and have transferred that much to its accounts. Although Chinese law permits intercompany transactions and certain intercompany transfers, it will strictly limit the ability of Altair China to repatriate money to its non-Chinese parent. In addition, distributions to the non-Chinese parent must derive from profits, as determined in accordance with Chinese accounting standards and regulations. Altair China will also be required to set aside at least 10% of its after-tax profit based on Chinese 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 dividends.

In addition, Altair China may be required to allocate a portion of its after-tax profit to a staff welfare and bonus fund. Moreover, if Altair China incurs debt on its own behalf in the future, the instruments governing the debt may restrict Altair China's ability to pay dividends or make other distributions to us. Any limitation on the ability of Altair China to distribute dividends and other distributions to us could materially and adversely limit our ability to make investments or enter into joint ventures that could be beneficial to our business, pay dividends, or otherwise fund and conduct our business.

We may become subject to international economic and political risks over which we have little or no control and may be unable to alter our business practice in time to avoid the possibility of reduced revenues.

We conduct a portion of our business outside the United States and plan to significantly increase our presence in China. Doing business outside the United States subjects us to various risks, including changing economic and political conditions, major work stoppages, exchange controls, currency fluctuations, armed conflicts and unexpected changes in United States and foreign laws relating to tariffs, trade restrictions, transportation regulations, foreign investments and taxation. We have no control over most of these risks and may be unable to anticipate or adapt to changes in international economic and political conditions. This may lead to sudden and unexpected revenue reductions or expense increases.

China's economic policies, laws and regulations could affect our business.

Our business plan currently anticipates that a substantial portion of our assets will be located in China and a portion of our revenue will be derived from Chinese operations. Accordingly, our results of operations and prospects will become subject, to a significant extent, 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 benefit the overall economy of China, but they may also have a negative effect on us. For example, our operating results and financial condition may be adversely affected by the government control over capital investments or changes in tax regulations. The economy of China has been transitioning from a planned economy to a more market-oriented

economy. 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 and the provision of preferential treatment to particular industries or companies. Any adverse change in the economic conditions or government policies in China could directly harm our business or harm overall economic growth in China, which in either case could increase our expenses and decrease expected revenues.

We may have difficulty establishing adequate management, legal and financial controls internationally.

As a result of difference in management, accounting, legal, language and cultural norms, 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 standard business practices for our international projects as well as in our China-based operations. Moreover, our international efforts may divert management attention and consume a significant amount of capital without anticipated results.

If relations between the United States and China worsen, investors may be unwilling to hold or buy our stock and our stock price may decrease.

At various times during recent years, the United States 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 United States and China, whether or not directly related to our business, could harm our results of operations and the price of our common stock.

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

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. The promulgation of new laws, changes of existing laws and the abrogation of local regulations by national laws could cause a decline in the price of our common stock. In addition, as these laws, regulations and legal requirements are relatively recent, their interpretation and enforcement involve significant uncertainty.

Furthermore, the political, governmental and judicial systems in China are sometimes impacted by corruption. There is no assurance that we will be able to obtain recourse in any legal disputes with suppliers, customers or other parties with whom we conduct business.

Following the acquisition of a majority interest in the company by an affiliate of Canon, we face risks associated with having a majority shareholder.

In July 2011, an affiliate of Canon acquired a majority of our outstanding shares of common stock which presents certain risks to us, including the following:

- The majority shareholder controls the appointments on the Board of Directors and may appoint persons less qualified, or more loyal to the majority shareholder, than would be appointed absent a controlling shareholder;
- The majority shareholder may be able to influence our Board of Directors to enter into transactions with related or third parties that are more favorable to such parties than would be negotiated by an independent Board of Directors;
- The majority shareholder controls all matters requiring approval by the shareholders, including any determination with respect to the acquisition or disposition of assets, future issuances of a material number of securities and other major transactions; and
- This concentration of ownership may also delay, defer or prevent a change in control and otherwise prevent shareholders other than our affiliates from influencing our direction and future.

If one or more of these risks, or other risks, materializes, our business will be harmed, and it may be harmed materially.

Our majority shareholder is based in China.

Because of the physical distance, cultural differences and language difference between the United States and China, we may experience conflicts or inefficiencies in Board-management communication, management-employee communication, strategy formation and other parts of our business; this risk may be exacerbated by the fact that some of the directors nominated by Canon do not speak English as a first language, or at all.

We may not realize anticipated benefits from our agreement with Inversiones Energeticas.

In February 2011, we entered into a purchase contract with Inversiones Energeticas, S.A. de C.V., or INE, related to the purchase of a turn-key 10 Megawatt ALTI-ESS advanced battery system for \$18 million. On April 15, 2011, as a result of unexpected regulatory issues, INE notified us that they needed to cancel the contract in accordance with its terms. INE subsequently stated that such letter was not intended to effect a termination of the contract, but merely to provide notice of its initial failure to obtain regulatory approval, which would automatically effect a termination of the contract if the issue was not resolved within 120 days, subject to extension by the parties. We have entered into several extensions in order to allow the various parties additional time to resolve these regulatory issues. However, we may be unable to resolve the regulatory issues with the existing agreement or may otherwise be unable to enter into a new agreement with INE. If not, we will lose anticipated revenue and lose the expected marketing benefits we expected following the completion of the installation of the ALTI-ESS system. This will harm our short-term revenue projections and possibly our long-term revenue potential.

Our nano lithium titanate battery materials and battery business is currently dependent upon a few customers and potential customers, which presents various risks.

Our nano lithium titanate battery materials and battery business is dependent upon a few current or potential customers, including a small number of power producers, smaller companies developing electric or hybrid electric buses and Chinese government agencies. In addition, many of these customers are, or are expected to be, development partners who are subsidizing the research and development of products for which they may be the sole, or one of a few, potential purchasers. As a result of the small number of potential customers and partners, our existing or potential customers and partners may have significant leverage on pricing terms, exclusivity terms and other economic and noneconomic terms. This may harm our attempts to sell products at prices that reflect desired gross margins. In addition, the decision by a single or potential customer to chose not to purchase or abandon the use or development of a product may significantly harm both our financial results and the development track of one or more products.

We depend upon several sole-source and limited-source third-party suppliers.

We rely on certain suppliers as the sole-source, or as a primary source, of certain services, raw materials and other components of our products. We do not yet have long-term supply or service agreements engaged with any such suppliers. As a result, the providers of such services and components could terminate or alter the terms of service or supply with little or no advance notice. If our arrangements with any sole-source supplier were terminated, or if such a supplier failed to provide essential services or deliver essential components on a timely basis, failed to meet our product specifications and/or quality standards, or introduced unacceptable price increases, our production schedule would be delayed, possibly by as long as six months. Any such delay in our production schedule would result in delayed product delivery and may also result in additional production costs, customer losses and litigation.

An area in which our dependence upon a limited number of sources creates significant vulnerability is the manufacturing of our nano lithium titanate cells. As of the date hereof, we have two contract manufacturing sources for our nano lithium titanate cells. We have had quality issues with both contract manufacturers. Our nano lithium titanate battery cells are the building blocks of all of our products (other than our nano lithium titanate powder). If we continue to experience quality issues with our suppliers, we may be unable to meet our deadlines, or quality specifications, with respect to existing or future orders. This would harm our reputation and our ability to grow our business.

Our operating results have fluctuated significantly in the past and will continue to fluctuate in the future, which could cause our stock price to decline.

Our operating results have fluctuated significantly in the past, and we believe that they will continue to fluctuate in the future, due to a number of factors, many of which are beyond our control. If in future periods our operating results do not meet the expectations of investors or analysts who choose to follow our company, the price of our shares of common stock may fall. Factors that may affect our operating results include the following:

- fluctuations in the size, quantity and timing of customer orders;
- timing of delivery of our services and products;
- additions of new customers or losses of existing customers;



- positive or negative business or financial developments announced by us or our key customers;
- our ability to commercialize and obtain orders for products we are developing;
  - costs associated with developing our manufacturing capabilities;
  - the retention of our key employees;
- new product announcements by our competitors or potential competitors;
- the effect of variations in the market price of our shares of common stock on our equity-based compensation expenses;
  - disruptions in the supply of raw materials or components used in the manufacture of our products;
  - the pace of adoption of regulation facilitating our ability to sell our products in our target markets;
  - technology and intellectual property issues associated with our products; and
  - general political, social, geopolitical and economic trends and events.

Our patents and other protective measures may not adequately protect our proprietary intellectual property.

We regard our intellectual property, particularly our proprietary rights in our nano lithium titanate technology, as critical to our success. We have received various patents, and filed other patent applications, for various applications and aspects of our nano lithium titanate technology and other intellectual property. Such patents and agreements and various other measures we take to protect our intellectual property from use by others may not be effective for various reasons, including the following:

- Our pending patent applications may not be granted for various reasons, including the existence of conflicting patents or defects in our applications, if there was in existence relevant prior art or the invention was deemed by the examiner to be obvious to a person skilled in the art whether or not there were other existing patents. Risks associated with patent applications are enhanced because patent applications of others remain confidential for a period of approximately 18 months after filing; as a result, our belief that we are the first creator of an invention or the first to patent it may prove incorrect, as information related to conflicting patents is first published or first brought to our attention;
- The patents we have been granted may be challenged, invalidated, narrowed or circumvented because of the pre-existence of similar patented or unpatented intellectual property rights or for other reasons;
- The costs associated with enforcing patents, confidentiality and invention agreements or other intellectual property rights may make aggressive enforcement cost prohibitive;
- We have not filed for complete patent protection in many countries, including China, in which we are currently selling product or seeking to sell product; as a result, we may be unable to prevent competitors in such markets from selling infringing products;
- Even if we enforce our rights aggressively, injunctions, fines and other penalties may be insufficient to deter violations of our intellectual property rights; and

- Other persons may independently develop proprietary information and techniques that, although functionally equivalent or superior to our intellectual proprietary information and techniques, do not breach our proprietary rights.

Our inability to protect our proprietary intellectual property rights or gain a competitive advantage from such rights could harm our ability to generate revenues and, as a result, our business and operations.

We may be involved in lawsuits to protect or enforce our patents, which could be expensive, time consuming and involve adverse publicity and adverse results.

Competitors or others may infringe our patents. To counter infringement or unauthorized use, we may be required to file patent infringement claims, which can be expensive and time-consuming. Interference proceedings brought by the United States Patent and Trademark Office may be necessary to determine the priority of inventions with respect to our patent applications. Litigation or interference proceedings may result in substantial costs and be a distraction to our management.

Because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure. In addition, during the course of this litigation (even if ultimately successful), there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our shares of common stock.

In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover that technology. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

We may not prevail in any litigation or interference proceeding in which we are involved. Even if we do prevail, these proceedings can be expensive, result in adverse publicity and distract our management.

Other parties may bring intellectual property infringement claims against us, which would be time-consuming and expensive to defend, and if any of our products or processes is found to be infringing, we may not be able to procure licenses to use patents necessary to our business on reasonable terms, if at all.

Our success depends in part on avoiding the infringement of other parties' patents and proprietary rights. We may inadvertently infringe existing third-party patents or third-party patents issued on existing patent applications. Third party holders of such patents or patent applications could bring claims against us that, even if resolved in our favor, could cause us to incur substantial expenses and, if resolved against us, could cause us to pay substantial damages. Under some circumstances in the United States, these damages could be triple the actual damages the patent holder incurs.

If we have supplied infringing products to third parties for marketing or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or damages paid to the patent holder. In addition, we have, and may be required to, make representations as to our right to supply and/or license intellectual property and to our compliance with laws. Such representations are usually supported by indemnification provisions requiring us to defend our customers and otherwise make them whole if we license or supply products that infringe on third party technologies or violate government regulations. Further, if a patent infringement suit were brought against us, we and our customers, development partners and licensees could be forced to stop or delay research, development, manufacturing or sales of products based on our technologies in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. Such a license may not be available on acceptable terms, or at all, particularly if the third party is developing or marketing a product competitive with products based on our technologies. Even if we were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property.

Any successful infringement action brought against us may also adversely affect marketing of products based on our technologies in other markets not covered by the infringement action. Furthermore, we may suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. As a result, any infringement action against us would likely harm our competitive position, be costly and require significant time and attention of our key management and technical personnel.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. Trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, contractors, consultants, outside scientific collaborators and other advisors to protect our trade secrets and other proprietary information. Parties to the confidentiality agreements may have such agreements declared unenforceable or, even if the agreements are enforceable, may breach such agreements. Remedies available in connection with the breach of such agreements may not be adequate, or enforcing such agreements may be cost prohibitive. Courts outside the United States may be less willing to protect trade secrets. In addition, others may independently discover our trade secrets or independently develop processes or products that are similar or identical to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection would harm our competitive business position.

If we are sued on a product liability claim, our insurance policies may not be sufficient.

Our insurance may not cover all potential types of product liability claims to which manufacturers are exposed or may not be adequate to indemnify us for all liability that may be imposed. Any imposition of liability that is not covered by insurance or is in excess of our insurance coverage could harm our business, including our relationships with current customers and our ability to attract and retain new customers. In addition, if the liability were substantial relative to the size of our business, any uncovered liability could harm our liquidity and ability to continue our operations.

Laws regulating the manufacture or transportation of batteries may be enacted which could result in a delay in the production of our batteries or the imposition of additional costs that could harm our ability to be profitable.

At the present time, international, federal, state and local laws do not directly regulate the storage, use and disposal of the component parts of our batteries. However, laws and regulations may be enacted in the future which could impose environmental, health and safety controls on the storage, use and disposal of certain chemicals and metals used in the manufacture of lithium and lithium-ion batteries. Satisfying any future laws or regulations could require significant time and resources from our technical staff, including those related to possible redesign which may result in substantial expenditures and delays in the production of our product, all of which could harm our business and reduce our future profitability.

The transportation of lithium and lithium-ion batteries is regulated both domestically and internationally. Under United Nations recommendations adopted by the International Air Transport Association, our batteries and battery systems currently fall within the level such that they are not exempt and require a Class 9 designation for transportation. The revised United Nations recommendations and other recommendations are not U.S. law until such time as they are incorporated into the Hazardous Material Regulations of the U.S. Department of Transportation, or DOT. However, DOT has proposed new regulations harmonizing with the U.N. guidelines and is reviewing other proposed changes under consideration for inclusion. At present it is not known if or when the proposed regulations would be adopted by the United States. Although we fall under the equivalency levels for the United States and comply with all safety packaging requirements worldwide, future DOT or IATA approval processes could require significant time and resources from our technical staff and, if redesign were necessary, could delay the introduction of new products.

If our warranty expense estimates differ materially from our actual claims, or if we are unable to estimate future warranty expense for new products, our business and financial results could be harmed.

Our warranty for our products ranges from one to three years from the date of sale, depending on the type of product and its application. We expect that in the future some of our warranties may extend for longer periods. Because our supply arrangements are negotiated, the scope of our product warranties differ substantially depending upon the product, the purchaser and the intended use; however, we have granted and may grant broad warranties, addressing such issues as leakage, cycle life and decline in power. We have a limited product history on which to base our warranty estimates. Because of the limited operating history of our batteries and battery systems, our management is required to make assumptions and to apply judgment regarding a number of factors, including anticipated rate of warranty claims, the durability and reliability of our products, and service delivery costs. Our assumptions could prove to be materially different from the actual performance of our batteries and battery systems, which could cause us to incur substantial expense to repair or replace defective products in the future and may exceed expected levels against which we have reserved. If our estimates prove incorrect, we could be required to accrue additional expenses from the time we realize our estimates are incorrect and also face a significant unplanned cash burden at the time our customers make a warranty claim, which could harm our operating results.

In addition, with our new products and products that remain under development, we will be required to base our warranty estimates on historical experience of similar products, testing of our batteries under laboratory conditions and limited performance information learned during our development activities with the customer. As a result, actual warranty claims may be significantly different from our estimates and our financial results could vary significantly from period-to-period.

Product liability or other claims could cause us to incur losses or damage our reputation.

The risk of product liability claims and associated adverse publicity is inherent in the development, manufacturing and sale of batteries and battery systems. Certain materials we use in our batteries, as well as our battery systems, could, if used improperly, cause injuries to others. Improperly charging or discharging our batteries could cause fires. Any accident involving our batteries or other products could decrease or even eliminate demand for our products. Because some of our batteries are designed to be used in electric and hybrid electric buses, and because vehicle accidents can cause injury to persons and damage to property, we are subject to a risk of claims for such injuries and damages. In addition, we could be harmed by adverse publicity resulting from problems or accidents caused by third party products that incorporate our batteries. We could even be harmed by problems or accidents involving competing battery systems, if the market viewed our batteries as being vulnerable to similar problems. Any such claims, loss of customers or reputation harm would harm our financial results and ability to continue our operations.

Continuing adverse economic conditions could reduce, or delay demand for our products.

Although improving compared to recent years, the financial markets and general economic conditions are still relatively weak in certain geographic markets worldwide. Our products are targeted primarily at large power producers, worldwide bus manufacturers and other industrial parties. Due to economic factors, companies and government agencies in some of our target markets have reduced, delayed or eliminated many research and development initiatives, including those related to energy storage. This reduction or delay in development spending by targeted key customers is hindering our development and production efforts and will continue to do so until development spending increases from current depressed levels.

The commercialization of many of our products is dependent upon the efforts of commercial partners and other third parties over which we have no or little control.

The commercialization of our principal products requires the cooperation and efforts of commercial partners and customers. For example, because completion and testing of our large-scale stationary batteries for power suppliers requires input from utilities and connection to a power network, commercialization of such batteries can only be done in conjunction with a power or utility company. The commercialization of transportation and other applications of our technology are also dependent, in part, upon the expertise, resources and efforts of our commercial partners. This presents certain risks, including the following:

- we may not be able to enter into development, licensing, supply and other agreements with commercial partners with appropriate resources, technology and expertise on reasonable terms or at all;
- our commercial partners may not place the same priority on a project as we do, may fail to honor contractual commitments, may not have the level of resources, expertise, market strength or other characteristics necessary for the success of the project, may dedicate only limited resources to, and/or may abandon, a development project for reasons, including reasons such as a shift in corporate focus, unrelated to its merits;
- our commercial partners may be in the early stages of development and may not have sufficient liquidity to invest in joint development projects, expand their businesses and purchase our products as expected or honor contractual commitments;
- our commercial partners may terminate joint testing, development or marketing projects on the merits of the projects for various reasons, including determinations that a project is not feasible, cost-effective or likely to lead to a marketable end product;

- our commercial partners may not protect our intellectual property adequately or they may infringe our intellectual property rights;
- at various stages in the testing, development, marketing or production process, we may have disputes with our commercial partners, which may inhibit development, lead to an abandonment of the project or have other negative consequences; and
- even if the commercialization and marketing of jointly developed products is successful, our revenue share may be limited and may not exceed our associated development and operating costs.

As a result of the actions or omissions of our commercial partners, or our inability to identify and enter into suitable arrangements with qualified commercial partners, we may be unable to commercialize apparently viable products on a timely and cost-effective basis, or at all.



Interest in our nano lithium titanate batteries is affected by energy supply and pricing, political events, popular consciousness and other factors over which we have no control.

Currently, our marketing and development efforts for our batteries and battery materials are focused primarily on the electric grid, industrial and transportation applications. In the transportation and industrial markets, batteries containing our nano lithium titanate materials are designed to replace or supplement gasoline and diesel engines. In the stationary power applications, our batteries are designed to conserve and regulate the stable supply of electricity, including from renewable sources. The interest of our potential customers and business partners in our products and services is affected by a number of factors beyond our control, including:

- economic conditions and capital financing and liquidity constraints;
- short-term and long-term trends in the supply and price of natural gas, gasoline, diesel, coal and other fuels;
- the anticipated or actual granting or elimination by governments of tax and other financial incentives favoring electric or hybrid electric vehicles and renewable energy production;
- the ability of the various regulatory bodies to define the rules and procedures under which this new technology can be deployed into the electric grid;
  - the anticipated or actual funding, or elimination of funding, for programs that support renewable energy programs and electric grid improvements;
- changes in public and investor interest for financial and/or environmental reasons, in supporting or adopting alternatives to gasoline and diesel for transportation and other purposes;
- the overall economic environment and the availability of credit to assist customers in purchasing our large battery systems;
- the expansion or contraction of private and public research and development budgets as a result of global and U.S. economic trends; and
  - the speed of incorporation of renewable energy generating sources into the electric grid.

Adverse trends in one or more of these factors may inhibit our ability to commercialize our products and expand revenues from our battery materials and batteries.

If we combine with other companies, we may be unable to successfully integrate our business, technology, management or other aspects of our business with the other party to the transaction.

As evidenced by our signing the Share Subscription Agreement with Canon and related agreements with YTE, we may occasionally consider entering into acquisition, strategic or combination transactions with other companies for strategic and/or financial reasons. We do not have extensive experience in conducting diligence on, evaluating, purchasing, merging with, selling to or integrating new businesses or technologies with other entities. If we do succeed in closing a combination with another company, we will be exposed to a number of risks, including:

- we may have difficulty integrating our assets, technologies, operations and personnel in connection with a business combination;

- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing, or being a part of, a geographically or culturally diverse enterprises;
- we may find that the transaction does not further our business strategy or that the economic and strategic assumptions underlying the transaction have proved inaccurate;
  - we may encounter difficulty entering and competing in new product or geographic markets;
- we may face business, product, structural or other limitations or prohibitions as our business becomes subject to the laws or customs of other jurisdictions; and
- we may experience significant problems or liabilities associated with product quality, technology and legal contingencies relating to the integrated business or technology, such as intellectual property or employment matters.

In addition, from time to time we may enter into negotiations for acquisitions, dispositions, mergers or other transactions that are not ultimately consummated. These negotiations could result in significant diversion of management time, substantial out-of-pocket costs and, while such transactions are pending, limitations on the operation of our business (including negotiation of alternative business combinations and capital raising transactions). To the extent we issue shares of capital stock or other rights to purchase capital stock in any such transactions, including options and warrants, existing stockholders would be diluted. Any of these issues will harm our business and financial condition.

Our competitors have more resources than we do, and may be supported by more prominent partners, which may give them a competitive advantage.

We have limited financial, personnel and other resources and, because of our early stage of development, have limited access to capital. We compete or may compete against entities that are much larger than we are, have more extensive resources than we do and have an established reputation and operating history. In addition, certain of our early stage competitors are partnered with, associated with or supported by larger business or financial partners. This may increase their ability to raise capital, attract media attention, develop products and attract customers. Because of their size, resources, reputation and history (or that of their business and financial partners), certain of our competitors may be able to exploit acquisition, development and joint venture opportunities more rapidly, easily or thoroughly than we can. In addition, potential customers may choose to do business with our more established competitors, without regard to the comparative quality of our products, because of their perception that our competitors are more stable, are more likely to complete various projects, are more likely to continue as a going concern and lend greater credibility to any joint venture.

As manufacturing becomes a larger part of our operations, we will become exposed to accompanying risks and liabilities.

In-house and outsourced manufacturing is becoming an increasingly significant part of our business. As a result, we expect to become increasingly subject to various risks associated with the manufacturing and supply of products, including the following:

- If we fail to supply products in accordance with contractual terms, including terms related to time of delivery and performance specifications, we may be required to repair or replace defective products and may become liable for direct, special, consequential and other damages, even if manufacturing or delivery was outsourced;
- Raw materials used in the manufacturing process, labor and other key inputs may become scarce and expensive, causing our actual costs to exceed cost projections and associated revenues;
- Manufacturing processes typically involve large machinery, fuels and chemicals, any or all of which may lead to accidents involving bodily harm, destruction of facilities and environmental contamination and associated liabilities;
- As our manufacturing operations expand, we expect that a significant portion of our manufacturing will be done overseas, either by third-party contractors or in a plant owned by the company. Any manufacturing done overseas presents risks associated with quality control, currency exchange rates, foreign laws and customs, timing and loss risks associated with overseas transportation and potential adverse changes in the political, legal and social environment in the host country; and
- We have made, and may be required to make, representations as to our right to supply and/or license intellectual property and to our compliance with laws. Such representations are usually supported by indemnification provisions requiring us to defend our customers and otherwise make them whole if we license or supply products that infringe

on third-party technologies or violate government regulations.

Any failure to adequately manage risks associated with the manufacture and supply of materials and products could lead to losses (or smaller than anticipated gross profits) from that segment of our business and/or significant liabilities, which would harm our business, operations and financial condition.

Our past and future operations may lead to substantial environmental liability.

Virtually any prior or future production of our nanomaterials and titanium dioxide pigment technology is subject to federal, state and local environmental laws. Under such laws, we may be jointly and severally liable with prior property owners for the treatment, cleanup, remediation and/or removal of any hazardous substances discovered at any property we use. In addition, courts or government agencies may impose liability for, among other things, the improper release, discharge, storage, use, disposal or transportation of hazardous substances. If we incur any significant environmental liabilities, our ability to execute our business plan and our financial condition would be harmed.

Certain of our experts and directors reside in Canada or China and may be able to avoid civil liability.

A majority of our directors reside outside the United States in Canada or China. As a result, investors may be unable to effect service of process upon such persons within the United States and may be unable to enforce court judgments against such persons predicated upon civil liability provisions of the U.S. securities laws. It is uncertain whether Canadian or Chinese courts would enforce judgments of U.S. courts obtained against us or such directors, officers or experts predicated upon the civil liability provisions of U.S. securities laws or impose liability in original actions against us or our directors, officers or experts predicated upon U.S. securities laws.

We are dependent on key personnel.

We have experienced, and may continue to experience, turnover in key positions, which could result in the loss of company-specific knowledge, experience and expertise. Our continued success will depend, to a significant extent, on the services of our executive management team and certain key scientists and engineers. We do not have key man insurance on any of these individuals. Nor do we have agreements requiring any of our key personnel to remain with our company. The loss or unavailability of any or all of these individuals could harm our ability to execute our business plan, maintain important business relationships and complete certain product development initiatives, which would harm our business.

We may issue substantial amounts of additional shares without stockholder approval.

Our Certificate of Incorporation authorizes the issuance of 200 million shares of common stock that may be issued without any action or approval by our stockholders. In addition, we have various stock option plans that have potential for diluting the ownership interests of our stockholders. The issuance of any additional shares of common stock would further dilute the percentage ownership of our company held by existing stockholders.

The market price of our shares of common stock is highly volatile and may increase or decrease dramatically at any time.

The market price of our shares of common stock is highly volatile. Our stock price may change dramatically as the result of announcements of product developments, new products or innovations by us or our competitors, uncertainty regarding the viability of our technology or our product initiatives, significant customer contracts, significant litigation, our liquidity situation, revenues or losses, or other factors or events that would be expected to affect our business, financial condition, results of operations and future prospects.

The market price for our shares of common stock may be affected by various factors not directly related to our business or future prospects, including the following:

- intentional manipulation of our stock price by existing or future shareholders or a reaction by investors to trends in our stock rather than the fundamentals of our business;
- a single acquisition or disposition, or several related acquisitions or dispositions, of a large number of our shares, including by short sellers covering their position;
- the interest of the market in our business sector, without regard to our financial condition, results of operations or business prospects;
- positive or negative statements or projections about our company or our industry, by analysts, stock gurus and other persons;

- the adoption of governmental regulations or government grant programs and similar developments in the United States or abroad that may enhance or detract from our ability to offer our products and services or affect our cost structure; and
- economic and other external market factors, such as a general decline in market prices due to poor economic conditions, investor distrust or a financial crisis.

We have never declared a cash dividend and do not intend to declare a cash dividend in the foreseeable future.

We have never declared or paid cash dividends on our common stock. We currently intend to retain any future earnings, if any, for use in our business and, therefore, do not anticipate paying dividends on our common stock in the foreseeable future.

We are subject to various regulatory regimes, and may be adversely affected by inquiries, investigations and allegations that we have not complied with governing rules and laws.

In light of our status as a public company and our lines of business, we are subject to a variety of laws and regulatory regimes in addition to those applicable to all businesses generally. For example, we are subject to the reporting requirements applicable to reporting issuers, such as the Sarbanes-Oxley Act of 2002, the rules of the NASDAQ Capital Market and certain state and provincial securities laws. We are also subject to state and federal environmental, health and safety laws. Such laws and rules change frequently and are often complex. In connection with such laws, we are subject to periodic audits, inquiries and investigations. Any such audits, inquiries and investigations may divert considerable financial and human resources and adversely affect the execution of our business plan.

Through such audits, inquiries and investigations, we or a regulator may determine that we are out of compliance with one or more governing rules or laws. Remedying such non-compliance diverts additional financial and human resources. In addition, in the future, we may be subject to a formal charge or determination that we have materially violated a governing law, rule or regulation. We may also be subject to lawsuits as a result of alleged violation of the securities laws or governing corporate laws. Any charge or allegation, and particularly any determination, that we had materially violated a governing law would harm our ability to enter into business relationships, recruit qualified officers and employees and raise capital.

#### FORWARD-LOOKING STATEMENTS

This prospectus contains and incorporates by reference certain forward-looking statements regarding our anticipated financial condition, results of operations and businesses in the future, including management's beliefs, projections and assumptions concerning future results and events. These forward-looking statements generally are in the future tense and may, but do not necessarily, include words such as "believes," "expects," "anticipates," "intends," "plans," "estimates," "will," "should," "could," "predicts," "potential," "continue" or similar expressions. Forward-looking statements are not guarantees. They involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Our future results may differ materially from those expressed in these forward-looking statements. Some of the factors that may cause actual results to differ materially from those contemplated by such forward-looking statements include, but are not limited to, those identified under "Risk Factors" above and in the annual and quarterly reports we file with the SEC.

Given these risks and uncertainties, you are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of the document in which they are contained. We do not undertake any obligation to update any forward-looking statement or to publicly announce any revision of any forward-looking statement to reflect the occurrence of any future developments or events.

#### USE OF PROCEEDS

Unless the applicable prospectus supplement states otherwise, the net proceeds from the securities sold by us will be added to our general corporate funds and be used for working capital and general corporate purposes. Until the net

proceeds have been used, they will be invested in demand accounts and short-term marketable securities. If we elect at the time of the issuance of the securities to make different or more specific use of proceeds other than as described in this prospectus, the change in use of proceeds will be described in the applicable prospectus supplement.

When we issue a particular series of securities, we will describe in the applicable prospectus supplement the intended use of proceeds from the sale of those securities.



## THE SECURITIES WE MAY OFFER

We may use this prospectus to offer shares of common stock, including associated rights, warrants to purchase shares of common stock and units of shares of common stock and warrants in any combination.

The following briefly summarizes the general terms and provisions of the securities that we may offer. A prospectus supplement will describe the specific types, amounts, prices and detailed terms of any of these offered securities. You should read the particular terms of the securities as described in any prospectus supplement, together with the provisions of our certificate of incorporation, bylaws and any relevant instrument and agreement relating to such securities. The specific terms of the securities offered may differ from the terms discussed below and you should always read the entire instruments and agreements defining the terms of the securities before you make an investment decision with respect to such securities.

### General

Our authorized capital stock consists of 200,000,000 shares of common stock, par value \$.001 per share. In addition, associated with each share of common stock is a right granted under, and subject to, that certain Revised Amended and Restated Shareholder Rights Plan dated May 31, 2012, or the "Rights Agreement", with Registrar and Transfer Company, who is the "Rights Agent". For a description of these rights, see "Change of Control Provisions Applicable to Our Common Stock" below.

As of October 29, 2012, there were outstanding 69,537,911 shares of our common stock, options to acquire 1,680,796 shares of common stock issued pursuant to our stock incentive plans, and warrants to purchase 2,476,654 shares of common stock. In addition, there were 5,520,092 shares of common stock reserved for future grants under our stock incentive plans (only 520,092 of which are registered on a Form S-8 Registration Statement).

### Our Common Stock

Holder of common stock are entitled to one vote for each share held of record on all matters on which stockholders are permitted to vote. Except as otherwise provided by law, a matter submitted to the stockholders for approval at a meeting at which a quorum is present is approved if approved by the affirmative vote of a majority of the shares present at the meeting and entitled to vote on the respective matter, in person or by proxy. Under our bylaws, a quorum is present if at least two shareholders holding at least one-third of our total outstanding shares of common stock are present in person or by proxy. There is no cumulative voting for the election of directors, and holders of common stock do not have preemptive rights. In the event of liquidation, holders of common stock are entitled to share ratably in the distribution of assets remaining after payment of liabilities, if any. The holders of common stock are entitled to receive such dividends, if any, as may be declared from time to time by the Board of Directors. There are no conversion rights, redemption rights, sinking fund provisions or fixed dividend rights with respect to the common stock. All outstanding shares of the common stock are fully paid and nonassessable.

### Change of Control Provisions Applicable to Our Common Stock

Our Shareholder Rights Agreement. We have adopted the Rights Agreement, which may have the effect of delaying or preventing a change in control.

Pursuant to the Rights Agreement, on November 27, 1998, which is the record date, our Board of Directors authorized and declared a distribution of one right with respect to each share of common stock issued and outstanding as of the record date and each share of common stock issued thereafter prior to the expiration time (as defined below). The rights are subject to the terms and conditions of the Rights Agreement. A copy of the Rights Agreement is attached

to our Current Report on Form 8-K filed with the SEC on July 9, 2012, File No. 001-12497. A copy of the Rights Agreement is also available upon written request to us. Because it is a summary, the following description of the rights and the Rights Agreement necessarily omits certain terms, exceptions, or qualifications to the affirmative statements made therein. The reader is advised to review the entire Rights Agreement prior to making any investment decision.

#### Certain Key Terms of the Rights Prior to Flip-In Date

Prior to the date a transaction or event occurs by which a person, called an acquiring person, becomes the non-exempt owner of 15% or more of the outstanding shares of common stock and other shares entitled to vote for the election of directors, which event is a Flip-in Event, each right entitles the holder thereof to purchase one-half share of common stock for the price of \$20 (which exercise price and number are subject to adjustment as set forth in the Rights Agreement). Notwithstanding the foregoing, no Right shall be exercisable prior to the commencement date. The commencement date is the close of business on the eighth business day after the earlier of (a) the date of a public announcement or disclosure by the company or an acquiring person of facts indicating that a person has become an acquiring person, or (b) the date of commencement of, or first public announcement of, the intent of any person to commence a bid for a number of voting shares that would give the bidder beneficial ownership of 15% or more of the issued and outstanding voting shares, referred to as a Take-over Bid.

### Certain Key Terms of the Rights Following Flip-In Date

Section 3.1 of the Rights Agreement includes a provision, referred to as a conversion provision, which provides that, subject to certain exceptions, upon the occurrence of a Flip-in Event, each right shall be adjusted so as to constitute a right to purchase from us for \$20, as adjusted, a number of shares of common stock having an aggregate market price of four times \$20 (as adjusted). The market price is determined by averaging the closing price of the shares of common stock on the primary exchange for the shares of common stock for the 20 trading days preceding the date of determination. In addition, upon the occurrence of any Flip-in Event (if not subsequently deemed not to have occurred under the Rights Agreement), any rights owned by the acquiring person, its affiliates, or certain assignees become null and void. Any rights certificate subsequently issued upon transfer, exchange, replacement, adjustment, or otherwise with respect to shares of common stock owned by any of the foregoing persons shall bear a legend indicating the extent to which such rights are void. Rights held by us or our subsidiaries are also void.

### Exceptions, Redemption and Waiver

The definitions of Flip-in Event and certain related terms are subject to exceptions, certain of which are summarized below. Nevertheless, to understand each such exception and how they may interrelate, the reader is advised to review the Rights Agreement. Despite a person's acquisition of 15% or more of our voting shares, a Flip-in Event shall be deemed not to have occurred or shall have no effect if:

- (1) the acquiring person is the Company or an entity controlled by the Company;
- (2) the acquiring person is an underwriter who becomes the beneficial owner of 15% or more voting shares in connection with a distribution of securities pursuant to an underwriting agreement with us;
- (3) the transaction by which the person becomes an acquiring person is a voting share reduction, which is an acquisition or redemption of voting shares by us which, by reducing the number of outstanding shares of common stock, has the incidental effect of increasing the acquiring person's ownership percentage;
- (4) the transaction by which the person becomes an acquiring person is an acquisition with respect to which our Board has waived the conversion provision because:
  - (a) our Board has determined prior to the commencement date that a person became an acquiring person by inadvertence and, within 10 days of such determination, such person has reduced its beneficial ownership of shares of common stock so as not to be an acquiring person;
  - (b) our Board acting in good faith has determined, prior to the occurrence of a Flip-in Event, to waive application of the conversion provision, referred to as a discretionary waiver;
  - (c) our Board determines within a specified time period to waive application of the conversion provision to a Flip-in Event, provided that the acquiring person has reduced, or agreed to reduce, its beneficial ownership of voting shares to less than 15% of the outstanding issue of voting shares, referred to as a waiver following withdrawal;
- (5) the acquisition by which the person becomes an acquiring person is an acquisition pursuant to (a) a dividend reinvestment plan or share purchase plan made available to all holders of voting shares; (b) a stock dividend, stock split or similar event pursuant to which the acquiring person receives shares of common stock on pro rata basis with all members of the same class or series; (c) the acquisition or exercise of rights to purchase voting shares distributed to all holders of voting shares; (d) a distribution of voting shares or securities convertible into voting shares offered pursuant to a prospectus or by way of a private placement, provided the acquiring person does not thereby acquire a

greater percentage of the voting shares or convertible securities offered than the person's percentage of voting shares beneficially owned immediately prior to such acquisition;

(6) the acquiring person is Al Yousuf, LLC, a United Arab Emirates limited liability company (“Al Yousuf”); provided, however, such exception is not applicable to Al Yousuf in the event that Al Yousuf shall, after its execution of that certain Stock Purchase and Settlement Agreement (the “Purchase and Settlement Agreement”), dated October 6, 2008, by and between the Company and Al Yousuf (a) increases its beneficial ownership percentage of voting shares by more than 1% above its beneficial ownership percentage of voting shares as a result of its execution of the Purchase and Settlement Agreement, other than through the issuance of shares pursuant to the Purchase and Settlement Agreement, a voting share reduction, an exempt acquisition or a pro rata acquisition, or (b) commences a Take-over Bid that would, if consummated, increase its beneficial ownership percentage of voting shares by more than 1% above its beneficial ownership percentage of voting shares as a result of its execution of the Purchase and Settlement Agreement; or

(7) the acquiring person is Canon Investment Holdings Limited, a company organized under the laws of Hong Kong, Energy Storage Technology (China) Group Limited, a company organized under the laws of Hong Kong or an affiliate of either of the foregoing.

In addition, (i) when a Take-over Bid is withdrawn or otherwise terminated after the commencement date has occurred, but prior to the occurrence of a Flip-in Date, or (ii) if the Board of Directors grants a waiver following withdrawal, our Board may elect to redeem all outstanding rights at the price of \$.0000001 per right (as adjusted). Upon the rights being redeemed pursuant to the foregoing provision, all provisions of the Rights Agreement shall continue to apply as if the commencement date had not occurred, and we shall be deemed to have issued replacement rights to the holders of its then outstanding shares of common stock.

In addition, our Board may, at any time prior to the first date of public announcement or disclosure by us or an acquiring person of facts indicating that a person has become an acquiring person, or announcement date, elect to redeem all, but not less than all, of the then outstanding rights at the \$.0000001 per share (as adjusted), with Board being authorized to waive the Company’s obligation to pay the purchase price to any holder if the amount due to such holder would be less than \$10.00. Moreover, in the event a person acquires voting shares pursuant to a discretionary waiver, our Board shall be deemed to have elected to redeem the rights at \$.0000002 per share (as adjusted). Within 10 days after our Board elects, or is deemed to have elected, to redeem the rights, our Board shall give notice of redemption to the holders of the then outstanding rights and, in such notice, described the method of payment by which the redemption price will be paid. The rights of any person under the Rights Agreement or any right, except rights to receive cash or other property that have already accrued, shall terminate at the expiration time, which is the date of a discretionary redemption or a deemed redemption described in this paragraph.

#### Exercise of the Rights

The rights shall not be exercisable prior to the commencement date. Until the commencement date, each right shall be evidenced by the certificate for the associated share of common stock and will be transferable only together with, and will be transferred by the transfer of, its associated share of common stock. New share certificates issued after the effective date of the Rights Agreement will contain a legend incorporating the Rights Agreement by reference. Certificates issued and outstanding at the effective date of the Rights Agreement shall evidence one right for each share of common stock evidenced thereby, notwithstanding the absence of a legend incorporating the Rights Agreement, until the earlier of the commencement date or the expiration time. Each share of common stock issued for new value after the effective date of the Rights Agreement, but prior to the expiration time, shall automatically have one new right associated with it and shall bear the appropriate legend.

From and after the commencement date, the rights may be exercised, and the registration and transfer of the rights shall be separate from and independent of the shares of common stock. Following the commencement date, we shall mail to each holder of shares of common stock as of the commencement date, or such holder’s nominee, a rights

certificate representing the number of rights held by such holder at the commencement date and a disclosure statement describing the rights. Any right to exercise or transfer the rights may be delayed or conditioned by the Company as necessary in order to permit it to comply with the registration requirements of the Securities Act of 1933, as amended, with respect to the exercise or transfer of the rights.

Rights may be exercised in whole or in part on any business day after the commencement date and prior to the expiration time by submitting to the rights certificate, an election to exercise, and payment of the sum equal to \$.0000001 per share (as adjusted) multiplied by the number of rights being exercised. Upon receipt of such materials, the Rights Agent will promptly deliver certificates representing the appropriate number of shares of common stock to the registered holder of the relevant rights certificate and, if not all rights were exercised, issue a new rights certificate evidencing the remaining unexercised rights. Any right to exercise or transfer the rights may be delayed or conditioned by the Company as necessary in order to permit it to comply with the registration requirements of the Securities Act of 1933, as amended, with respect to the exercise or transfer of the rights.

The foregoing description does not purport to be complete and is qualified by reference to the definitive Rights Agreement.

#### Potential Anti-takeover Effect of Delaware law, Our Certificate of Incorporation and Bylaws

##### Meeting and Voting Provisions

Provisions of the certificate of incorporation and bylaws of the Company providing that only the Chairman of the Board (or if none exists, by the President), the Chief Executive Officer or any two directors may call special meetings of stockholders and providing that stockholders are prohibited from taking action by written consent, may have the effect of making it more difficult for a third party to acquire control of the Company, and of discouraging a third party from attempting to acquire control of the Company. In addition, the bylaws of the Company include provisions requiring that shareholders wishing to nominate a director or submit a proposal at a meeting provide advanced written notice or the nominee or proposal to the Company.

##### Combinations with Interested Stockholders

Section 203 of the Delaware General Corporations Law provides, with some exceptions, that a Delaware corporation may not engage in any business combination with a person, or an affiliate or associate of such person, who is an interested stockholder for three years from the time that person became an interested stockholder unless:

- the board of directors approved the transaction before the "interested stockholder" obtained such status;
- upon consummation of the transaction that resulted in the stockholder becoming an "interested stockholder," the "interested stockholder" owned at least 85% of a Delaware corporation's outstanding voting stock at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (i) by persons who are directors and are also officers and (ii) employee stock plans in which the participants do not have the right to determine confidentially whether shares held subject to the plans will be tendered in the tender or exchange offer; or
- on or subsequent to such date, the business combination or merger is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by two-thirds of the holders of the outstanding common stock not owned by the "interested stockholder."

A "business combination" is defined to include mergers, asset sales and other transactions resulting in financial benefit to a stockholder. In general, an "interested stockholder" is a person who, together with affiliates and associates, owns 15% or more of a corporation's voting stock or within three years did own 15% or more of a corporation's voting stock.

The above-described provisions of the Delaware General Corporations Law may limit certain transactions with interested stockholders.

##### Description of Warrants

We may issue warrants to purchase shares of common stock. We may issue warrants independently or together with the shares of common stock offered, and the warrants may be attached to or separate from these securities. We may

issue warrants in such amounts or in as many distinct series as we wish. The warrants will be issued under warrant agreements to be entered into between us and a warrant agent as detailed in the prospectus supplement relating to the warrants being offered.



### Specific Terms of the Warrants

The applicable prospectus supplement will describe the following terms, where applicable, of the warrants in respect of which this prospectus is being delivered:

- the title of the warrants;
- the aggregate number of the warrants;
- the price or prices at which the warrants will be issued;
- the designation, amount, and terms of the shares of common stock purchasable upon exercise of the warrants;
- if applicable, the date on and after which the warrants and the shares of common stock purchasable upon exercise of the warrants will be separately transferable;
- the price or prices at which the shares of common stock purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;
  - the minimum or maximum amount of the warrants which may be exercised at any one time;
  - information with respect to book-entry procedures, if any;
- in the case of warrants to purchase our shares of common stock, any provisions for adjustment of the number or amount of shares of our shares of common stock receivable upon exercise of the warrants or the exercise price of the warrants; and
- any other material terms of the warrants, including terms, procedures, and limitations relating to the redemption, exchange and exercise of the warrants.

### Exercise of Warrants

Each warrant will entitle the holder of the warrant to purchase the shares of common stock at the exercise price as shall be set forth in or be determinable as set forth in, the prospectus supplement relating to the warrants. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Upon receipt of payment and the warrant certificate properly completed and duly executed at the office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchased upon such exercise. If less than all of the warrants represented by a warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

Prior to the exercise of any warrants, holders of the warrants will not have any of the rights of holders of the securities purchasable upon exercise, including the right to vote or to receive any payments of dividends on the preferred or shares of common stock purchasable upon exercise.

Certificates for warrants to purchase securities will be exchangeable for new warrant certificates of different denominations.

#### Description of Units

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

## General

We may issue units comprised of one or more shares of common stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit, and the components of the units may separate upon issuance. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued, if any, may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Shares of common stock” and “Description of Warrants” will apply to each unit and to any shares of common stock or warrants included in each unit, respectively.

## Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

## Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

## Title

We, the unit agent and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.



## PLAN OF DISTRIBUTION

We may sell the securities offered under this prospectus:

- through underwriters;
- through dealers;
- through agents; or
- directly to purchasers.

Each prospectus supplement relating to an offering of securities will state the terms of the offering, including:

- the names of any underwriters, dealers, or agents;
- the public offering or purchase price of the offered securities and the net proceeds that we will receive from the sale;
- any underwriting discounts and commissions or other items constituting underwriters' compensation;
  - any discounts, commissions, or fees allowed or paid to dealers or agents; and
  - any securities exchange or market on which the offered securities may be listed.

With respect to any offering under this prospectus, the aggregate of all underwriting discounts, commissions and other compensation and any discounts, commissions or fees allowed or paid to dealers or agent shall not exceed 15% of the gross proceeds of such offering.

### Distribution Through Underwriters

We may offer and sell securities from time to time to one or more underwriters who would purchase the securities as principal for resale to the public, either on a firm commitment or best efforts basis. If we sell securities to underwriters, we will execute an underwriting agreement with the underwriters at the time of the sale and will name them in the applicable prospectus supplement. In connection with these sales, the underwriters may be deemed to have received compensation from us in the form of underwriting discounts and commissions. The underwriters also may receive commissions from purchasers of securities for whom they may act as agent. Unless we specify otherwise in the applicable prospectus supplement, the underwriters will not be obligated to purchase the securities unless the conditions set forth in the underwriting agreement are satisfied, and if the underwriters purchase any of the securities, they will be required to purchase all of the offered securities. The underwriters may acquire the securities for their own account and may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or varying prices determined at the time of sale. The underwriters may sell the offered securities to or through dealers, and those dealers may receive discounts, concessions, or commissions from the underwriters as well as from the purchasers for whom they may act as agent. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

### Distribution Through Dealers

We may offer and sell securities from time to time to one or more dealers who would purchase the securities as principal. The dealers then may resell the offered securities to the public at fixed or varying prices to be determined

by those dealers at the time of resale. We will set forth the names of the dealers and the terms of the transaction in the applicable prospectus supplement.

### Distribution Through Agents

We may offer and sell securities on a continuous basis or otherwise through agents that become parties to an underwriting or distribution agreement. We will name any agent involved in the offer and sale and describe any commissions payable by us in the applicable prospectus supplement. Unless we specify otherwise in the applicable prospectus supplement, the agent will be acting on a best efforts basis during the appointment period.

### Direct Sales

We may sell directly to, and solicit offers from, institutional investors or others who may be deemed to be underwriters, as defined in the Securities Act of 1933 for any resale of the securities. We will describe the terms of any sales of this kind in the applicable prospectus supplement.

### General Information

Underwriters, dealers, or agents participating in an offering of securities may be deemed to be underwriters, and any discounts and commissions received by them and any profit realized by them on resale of the offered securities for whom they act as agent, may be deemed to be underwriting discounts and commissions under the Securities Act of 1933.

We may sell securities at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices relating to the prevailing market prices or at negotiated prices. The distribution of the securities may be effected from time to time in one or more transactions, by means of one or more of the following transactions, which may include:

- block trades;
- at-the-market offerings;
- negotiated transactions;
- put or call option transactions relating to the securities;
- under delayed delivery contracts or other contractual commitments;
- a combination of such methods of sale; and
- any other method permitted pursuant to applicable law.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

In connection with an underwritten offering of securities, the underwriters may engage in over-allotment, stabilizing transactions, and syndicate covering transactions in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which creates a short position for the underwriters. The underwriters may enter bids for, and purchase, securities in the open market in order to stabilize the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover short positions. In addition, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate

repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions, or otherwise. These activities may cause the price of the securities to be higher than it would otherwise be. Those activities, if commenced, may be discontinued at any time.

Ordinarily, each issue of securities will be a new issue, and there will be no established trading market for any security other than our shares of common stock prior to its original issue date. We may choose not to list any particular series of securities on a securities exchange or quotation system. Any underwriters to whom or agents through whom the offered securities are sold for offering and sale may make a market in the offered securities. However, any underwriters or agents that make a market will not be obligated to do so and may stop doing so at any time without notice. We cannot assure you that there will be a liquid trading market for the offered securities.



Under agreements entered into with us, underwriters and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution for payments the underwriters or agents may be required to make.

Although we expect that delivery of securities generally will be made against payment on or about the third business day following the date of any contract for sale, we may specify a longer settlement cycle in the applicable prospectus supplement. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to a trade expressly agree otherwise. Accordingly, if we have specified a longer settlement cycle in the applicable prospectus supplement for an offering of securities, purchasers who wish to trade those securities on the date of the contract for sale, or on one or more of the next succeeding business days as we will specify in the applicable prospectus supplement, will be required, by virtue of the fact that those securities will settle in more than T+3, to specify an alternative settlement cycle at the time of the trade to prevent a failed settlement and should consult their own advisors in connection with that election.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

As permitted by SEC rules, this prospectus does not contain all of the information that prospective investors can find in the registration statement of which it is a part or the exhibits to the registration statement. The SEC permits us to incorporate by reference, into this prospectus, information filed separately with the SEC.

This prospectus incorporates by reference the documents set forth below that we previously have filed with the SEC pursuant to the Securities Exchange Act of 1934 (File no. 001-12497). These documents contain important information about us and our financial condition.

- (1) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on March 30, 2012, as amended by Amendment No. 1 on April 30, 2012;\*
- (2) The Registrant's Quarterly Reports on Form 10-Q filed with the SEC on May 11, 2012 and August 10, 2012;\*
- (3) The Registrant's Current Reports on Form 8-K filed with the SEC on January 11, 2012, January 19, 2012, February 23, 2012, April 5, 2012, April 24, 2012, May 7, 2012, May 14, 2012, June 21, 2012, July 10, 2012, August 13, 2012, August 22, 2012 and September 13, 2012 (excluding any information that is furnished pursuant to Item 2.02 or 7.01 and related Exhibits);\* and
- (4) The description of the Common Shares of the Registrant contained in its Amendment No. 4 on Form 10/A filed with the SEC on July 9, 2012.\*

\* File No. 001-12497.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this registration statement, and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which de-registers all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

Upon written or oral request, we will provide without charge to each person to whom a copy of this prospectus is delivered, including any beneficial owner, a copy of the information that has been or may be incorporated by reference in this prospectus. Direct any request for copies to Stephen Huang, Chief Financial Officer, at our corporate headquarters, located at 204 Edison Way, Reno, NV 89502, telephone number (775) 858-3750.

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, information statements and other information with the SEC. You may read and copy any reports, statements or other information that we file at the SEC's public reference rooms at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of this information by mail from the Public Reference Section of the SEC, 100 F Street, N.E., Washington, DC 20549 at prescribed rates. Please call the SEC at 1 (800) SEC-0330 for further information on the public reference rooms. The SEC also maintains a web site at <http://www.sec.gov>, at which reports, proxy and information statements and other information regarding our company are available.

LEGAL MATTERS

Certain legal matters are being passed upon for us by Parr Brown Gee & Loveless, PC, of Salt Lake City, Utah. Additional legal matters may be passed on for us, or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

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## EXPERTS

The consolidated financial statements as of December 31, 2011, and for the year then ended incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated in reliance on the report of Crowe Horwath LLP, independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements as of December 31, 2010 and for each of the two years in the period ended December 31, 2010 incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2011 have been audited by Perry-Smith, LLP, an independent registered public accounting firm, as stated in their report incorporated herein by reference and have been so incorporated in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

## DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable.

## PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

## Item 14. Other Expenses of Issuance and Distribution.

The registrant will bear all expenses of this offering. The estimated expenses, other than underwriting or broker-dealer fees, discounts, and commissions, in connection with the offering are as follows:

	Amount
SEC registration fee	\$5,730
Accounting fees and expenses*	10,000
Legal fees and expenses*	20,000
Printing expenses*	5,000
Blue sky fees and expenses*	5,000
Transfer agent fees and expenses*	1,000
Miscellaneous expenses*	3,320
<b>Total</b>	<b>\$50,000</b>

\*Estimated

## Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees)), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

Section 145 further provides that a corporation similarly may indemnify any such person serving in any such capacity who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees) actually and reasonably incurred in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation. Notwithstanding the foregoing, no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or such other court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Delaware Court of Chancery or such other court shall deem proper.

Our bylaws authorize the indemnification of officers and directors of the corporation consistent with Section 145 of the Delaware General Corporation Law. In addition, we have entered into, or will enter into, indemnification agreements with its directors in connection with the domestication providing the directors contractual rights to indemnification, and expense advance and reimbursement, to the fullest extent permitted under the Delaware General Corporation Law.

#### Other Indemnification Information

Indemnification may be granted pursuant to any other agreement, bylaw, or vote of shareholders or directors. In addition to the foregoing, the Registrant maintains insurance through a commercial carrier against certain liabilities which may be incurred by its directors and officers. The foregoing description is necessarily general and does not describe all details regarding the indemnification of officers, directors or controlling persons of the Registrant.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions or otherwise, the Registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The rights of indemnification described above are not exclusive of any other rights of indemnification to which the persons indemnified may be entitled under any bylaw, agreement, vote of stockholders or directors or otherwise.

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Item 16. List of Exhibits.

- 1.1 Form of underwriting agreement\*
- 3.1 Certificate of incorporation (1)
- 3.3 Bylaws (1)
- 4.1 Instruments defining the rights of securities\*
- 4.2 Form of Warrant\*
- 4.3 Specimen Stock Certificate (1)
- 4.4 Revised Amended and Restated Shareholder Rights Plan dated May 31, 2012 with Registrar and Transfer Company (2)
- 4.5 Form of Unit Agreement\*
- 5.1 Opinion of Parr Brown Gee & Loveless, PC
- 23.1 Consent of Parr Brown Gee & Loveless, PC (including in Exhibit 5)
- 23.2 Consent of Crowe Horwath LLP
- 23.3 Consent of Perry-Smith LLP
- 24.1 Power of attorney (including on signature page of this registration statement)

- \* To be filed by amendment or incorporated by reference prior to the offering of securities if applicable.
- (1) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on May 15, 2012, File No. 001-12497.
  - (2) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 9, 2012, File No. 001-12497.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission (the "Commission") pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by a Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Securities Exchange Act"), that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.





(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(a) each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of this registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(b) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of this registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of a Registrant under the Securities Act to any purchaser in the initial distribution of the securities, in a primary offering of securities of an undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(a) any preliminary prospectus or prospectus of an undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(b) any free writing prospectus relating to the offering prepared by or on behalf of a Registrant or used or referred to by an undersigned Registrant;

(c) the portion of any other free writing prospectus relating to the offering containing material information about an undersigned Registrant or its securities provided by or on behalf of an undersigned Registrant; and

(d) any other communication that is an offer in the offering made by an undersigned Registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.



(7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of a Registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by a Registrant for expenses the incurred or paid by a director, officer, or controlling person in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Reno, State of Nevada on October 29, 2012.

ALTAIR NANOTECHNOLOGIES INC.

By:                    /s/ Alex Lee  
                             Alex Lee,  
                             Chief Executive Officer

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## ADDITIONAL SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated. Each person whose signature to this Registration Statement appears below hereby constitutes and appoints Alex Lee and Stephen Huang, and each of them, as his true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments and post-effective amendments to this Registration Statement, and any and all instruments or documents filed as part of or in connection with this Registration Statement or the amendments thereto and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof.

Signature	Title	Date
/s/ Alexander Lee Alexander Lee	Chief Executive Officer and Director (Principal Executive Officer and authorized representative of the Registrant in the United States)	October 29, 2012
/s/ Stephen B. Huang Stephen B. Huang	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	October 29, 2012
/s/ Yincang Wei Yincang Wei	Chairman of the Board	October 29, 2012
/s/ Guohua Sun Guohua Sun	Director	October 29, 2012
/s/ Liming Zou Liming Zou	Director and President	October 29, 2012
/s/ Jun Liu Jun Liu	Director	October 29, 2012
/s/ Frank Zhao Frank Zhao	Director	October 29, 2012
/s/ Hong Guo Hong Guo	Director	October 29, 2012

EXHIBIT INDEX

- 1.2 Form of underwriting agreement\*
- 3.2 Certificate of incorporation (1)
- 3.4 Bylaws (1)
- 4.1 Instruments defining the rights of securities\*
- 4.2 Form of Warrant\*
- 4.3 Specimen Stock Certificate (1)
- 4.4 Revised Amended and Restated Shareholder Rights Plan dated May 31, 2012 with Registrar and Transfer Company (2)
- 4.5 Form of Unit Agreement\*
- 5.1 Opinion of Parr Brown Gee & Loveless, PC
- 23.1 Consent of Parr Brown Gee & Loveless, PC (including in Exhibit 5)
- 23.2 Consent of Crowe Horwath LLP
- 23.3 Consent of Perry-Smith LLP
- 24.1 Power of attorney (including on signature page of this registration statement)

- \* To be filed by amendment or incorporated by reference prior to the offering of securities if applicable.
- (1) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on May 15, 2012, File No. 001-12497.
- (2) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 9, 2012, File No. 001-12497.